## Dedicated to building a model of sustainable chemistry

A PRIME



2014 Annual Report



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Financial and non-financial information

Photo: Solvay Research & Innovation Center, Singapore.

## Solvay, asking more from chemistry

Solvay is an international chemical Group that assists its industrial clients in finding and implementing ever more responsible and value-creating solutions. Solvay generates 90% of its net sales in activities where it is among the world's top three players. It serves many markets, including energy and the environment, automotive and aeronautics, electrical and electronics. Solvay's chemists seek to bring sustainable responses to the challenges facing our planet.

The Group is headquartered in Brussels and employs about 26,000 people in 52 countries. In 2014, it generated 10.2 billion euros of net sales. Solvay SA is listed on Euronext in Brussels and Paris.

In 2014, Solvay continued and accelerated its in-depth transformation. This annual report presents an update of this process and recalls the major issues.

Further reading
Discover additional explanations and deciphering
on solvay.com/2014onnualreport

€10,213 million of net sales



**119** industrial sites and a presence in 52 countries

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#### Group profile

## OUR PRESENCE





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EUROPE of net sales 13,500 employees 52 industrial sites 8 major R&I centers

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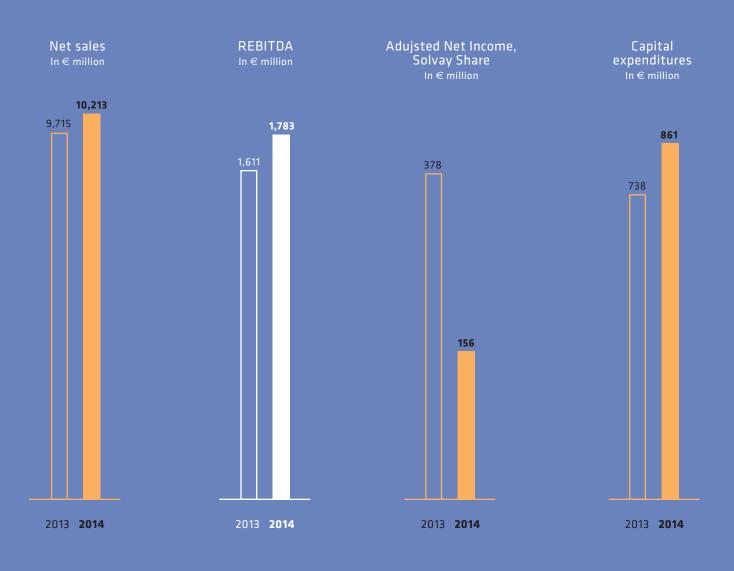
of net sales 6,000 employees 29 industrial sites 4 major R&I centers



of net sales 3,050 employees **10** industrial sites **1** major R&I center Group profile

## OUR RESULTS AND INVESTMENTS

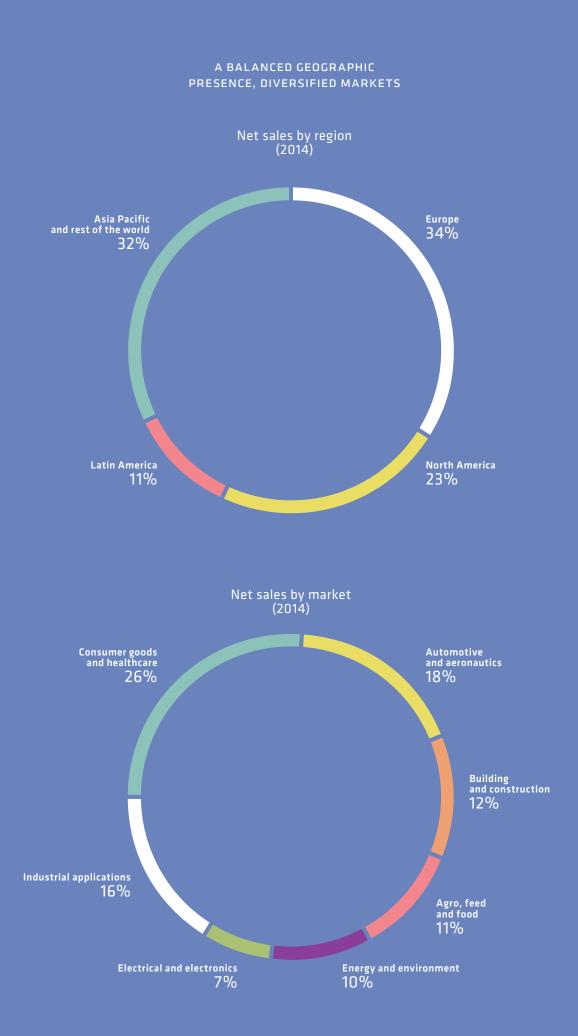
FINANCIAL INDICATORS (Continuing operations)

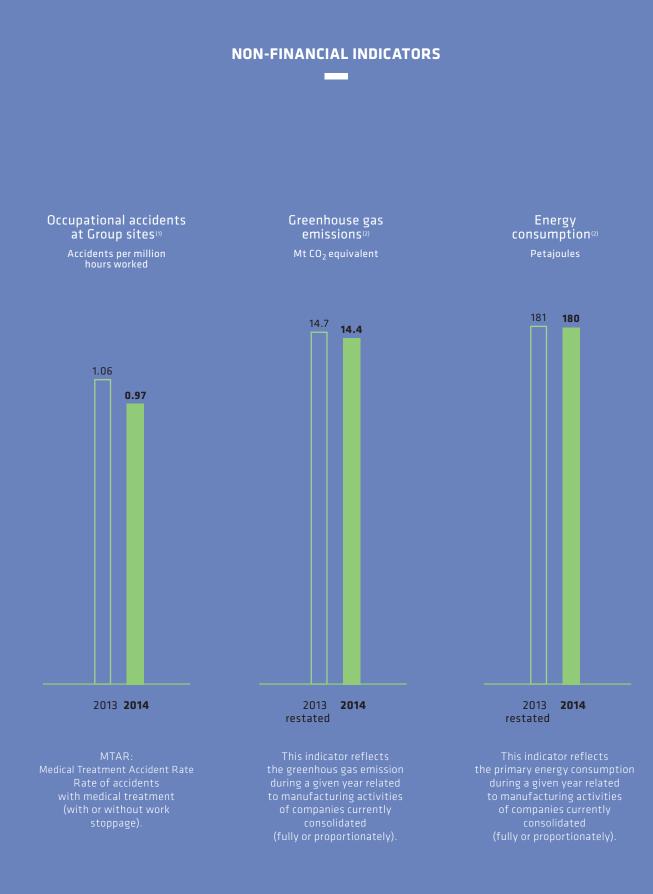


The U.S.-based Eco Services business has been disposed as of December 1<sup>st</sup>, 2014 and has been reported under Assets Held for Sale and Discontinued Operations as from the third quarter of 2014. For comparative purposes, 2013 and 2014 Income and Cash Flow Statements data have been restated for Eco Services' business discontinuation as well as for the updated reallocation of shared functions costs from the Corporate & Business Services segment into the Global Business Units.

2013 and 2014 Financial Statements reflect the Group's application of IFRS 11.

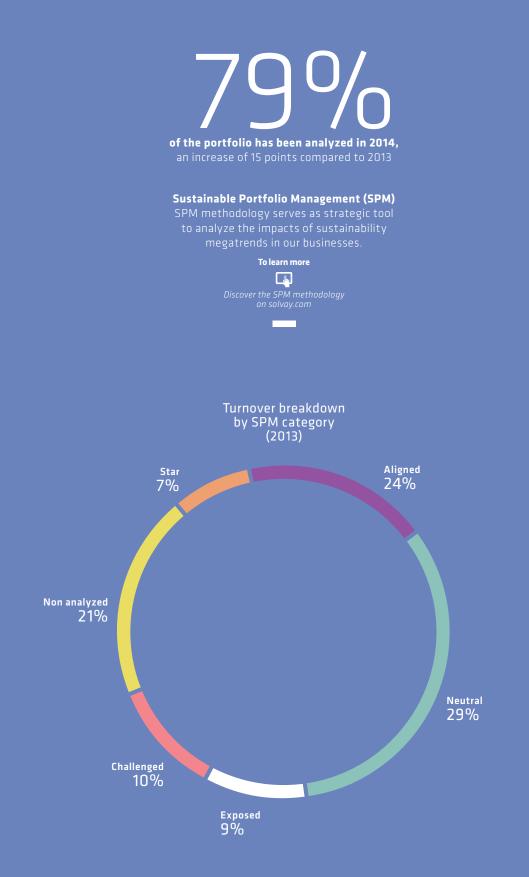
Furthermore, Solvay presents Adjusted Income Statement performance indicators that exclude non-cash Purchase Price Allocation (PPA) accounting impacts related to the Rhodia acquisition.





(1) Solvay financial perimeter and all additional sites under Solvay's operational control for which the Group manages and monitors safety performance Solvay employees and contractors working on sites.

(2) Solvay financial perimeter. In order to enable comparison over time, the figures of previous years have been restated to take into account the change in the consolidation rules.



#### SPM assessments are appreciated at the Product-Application Combination (PAC) level

**SPM "Star" category** PAC for which there is a positive signal in line with sustainability trends in the marketplace, with anticipated double-digit growth (energy efficiency, e.g.).

**SPM "Aligned" category** PAC for which there is a positive signal resulting from sustainability trends in the marketplace (medical care, e.g.).

SPM "Neutral" category PAC for which there are neither positive nor negative signal resulting from sustainability trends in the marketplace

**SPM "Exposed" category** PAC for which there is a weak negative signal resulting from sustainability trends in the marketplace (restriction in use in one OECD country, e.g.).

SPM "Challenged" category PAC for which there is a strong negative signal resulting from sustainability trends in the marketplace (ecotoxicity, e.g.).

#### Group profile

## OUR MARKETS

**Present in diverse markets,** we support industries right along their value chains with a clear ambition and objective: to be a source of progress and competitiveness for our customers and consumers by providing them with innovative, efficient and sustainable solutions, adjusting their expectations of today and tomorrow. For Solvay, chemistry provides many solutions to meet the challenges facing our planet today.

Demographic changes are upsetting lifestyles and balances. With the urbanization of high-growth areas, optimizing space and non-renewable resources presents an increasing challenge, as does the growing consumption of an expanding middle class. At the same time, we have to respond to the growing health and comfort needs of an aging global population.

Innovation cycles are accelerating, driven by the ultra-rapid dissemination of new technologies. Widespread digitalization, increased connectivity, and expanding mobility are creating new uses and new user needs. Constantly anticipating and adapting to these movements is forcing industries to mobilize new resources.

Growing resource scarcity and increasing demand for sustainability are assuming an important place in our society. The access to fossil fuels and water, and increased food needs are key global challenges. Solvay's chemistry provides solutions for sustainable management of existing resources and meets the challenges of energy transition, based on energy efficiency policies and the use of sustainable alternatives.



Evolving demography and consumer behavior



Innovation acceleration



Resource contraints and demand for sustainability

## CONSUMER GOODS AND HEALTHCARE

Demographic change, the rise of a middle class in emerging countries, and the globalization of expectations are strongly impacting consumption patterns. Offering comfort, health and well-being, with responses that are safe, natural and environmentally friendly represents a major challenge for consumer goods producers and healthcare market players.

How do we reconcile the dynamics of innovation with regulatory pressure? How do we offer consumers increased convenience while promoting sustainable solutions? How do we customize without increasing costs? Solvay supports its customers in developing competitive and differentiating products and services that offer everyday comfort and convenience to the user and are better for the environment.

## Sustainably improved quality of life

#### CONSUMER GOODS

Our intelligent textiles EMANA® and personal care solutions improve consumer well-being. Examples are the launch in 2014 of JAGUAR® OPTIMA for hair care and TIXOSIL® MICROPEARL for body exfoliation, enabling our customers to develop innovative and competitive formulations. We also offer specially adapted solutions for cleaning products, including AUGEO® CLEAN PLUS and AUGEO® CLEAN MULTI solvents to significantly reduce environmental footprints.

#### HEALTH

We develop a unique range of thermoplastics for implantable and non-implantable medical devices. Our ZENIVA® PEEK biomaterial is used in spinal implants, while RADEL® PPSU improves the thermal performance of sterilization equipment. We also manufacture BICAR® sodium bicarbonate for effervescent tablets.

## AGRO, FEED AND FOOD

The evolving world population, with strong growth in developing countries, is calling for increased crop yields. In developed countries, consumers are looking for food that meets their health aspirations. In this context, optimizing global resources is becoming a major political issue.

How do we respond to growing demand while potential arable areas are limited? How do we reconcile yield and quality in order to better feed the world? Solvay offers a unique portfolio of innovative and sustainable solutions right along the value chain, helping crop and livestock farmers and food processors to produce high quality products, responsibly and sustainably.

## Needs met, resources optimized

#### AGRI-FOOD

The intensity of the GOVANIL® vanilla aroma helps reduce sugar and fat in foods. With their excellent sealing properties, IXAN® and DIOFAN® HBP high-barrier polymers improve food packaging quality and product life.

#### ANIMAL FEED

Our silica or sodium bicarbonate-based solutions meet the quality, food safety and productivity requirements of this market. As a dietary supplement for livestock, BICAR® Z sodium bicarbonate helps combat acidosis.

#### AGRICULTURE

Our eco-efficient bio-polymers and solvents RHODIASOLV® POLARCLEAN improve crop yields. Our AGRHO® solutions promote water and nutrient retention in plants. ProCrop offers an effective alternative to conventional pesticides in grain silos.

## AUTOMOTIVE AND AERONAUTICS

With globalization, urbanization and rising living standards, transportation use is growing exponentially. Climate change and energy efficiency are becoming increasingly topical. All this is placing manufacturers under the double pressure of severe regulatory constraints and consumer demands for safe travel with low carbon footprints.

How do we reconcile transport and environment? Solvay's sustainable mobility solutions are contributing in particular to the creation of cleaner, more energy-efficient vehicles.

## Sustainable mobility, reduced emissions

#### LIGHTER VEHICLES

Our TECHNYL® high performance plastics replace metal to reduce vehicle weight by up to 20%. Light and extreme temperature-resistant, KETASPIRE® PEEK is used in airplane wings.

#### PROPULSION EFFICIENCY

Fluorinated elastomers, specialty polymers, and heat-resistant technical plastics: many Solvay products contribute to motor longevity. Our NOCOLOK® Flux brazing product is a standard for aluminum heat exchangers.

#### VEHICLE ELECTRIFICATION

Our flame-retardant materials and heatresistant engineering plastics, among them SOLEF® PVDF for cables and binders, and LiTFSI salts for lithium-ion batteries, are contributing to the emergence of hybrid and electric vehicles.

#### GREEN TECHNOLOGIES

Our catalytic materials based on rare earth limit polluting emissions. Used in energy saving tires, our highly dispersible silica ZEOSIL® PREMIUM reduces rolling resistance by 25%, contributing to a 20% reduction in fuel consumption.

## ENERGY AND ENVIRONMENT

Subject to the converging requirements of citizen demand and regulations, the industry is keen to meet the needs of a growing population and reduce its environmental footprint. At a time when public policies encourage the use of alternative energy sources, technological development is leading to the emergence of new and more efficient methods of energy production and storage.

In a context of growing demand, how do we implement energy transition? Solvay offers proven expertise in the field of energy performance and is also contributing to the development of renewable energy.

## Natural environment protected, resources preserved

#### OIL AND GAS

Our expertise in petroleum additives makes it possible to extract any type of unconventional oil and gas competitively and sustainably, even in the most extreme conditions. Our solutions based on guar, a raw material of vegetal origin, and on surfactants increase yields and limit the environmental impact of drilling.

#### ALTERNATIVE ENERGIES

We are developing products and technologies for the production and storage of renewable energy. Our HALAR® ECTFE high performance, UV-resistant polymer, is mainly used as a film to protect photovoltaic panels. Solvay has also started in 2014 producing torrefied biomass.

#### ENERGY AND CO<sub>2</sub> MANAGEMENT SERVICES

We support industry in controlling its air emissions, in soil remediation, and in water treatment and purification. Our SOLVAIR® solutions, for example, neutralize the acids in the flue gases from municipal incinerators and power plants.

## BUILDING AND CONSTRUCTION

Population growth and rapid urbanization are dramatically changing our living and dwelling patterns. Aspiration to well-being is another strong trend. On top of this come economic and environmental concerns, with buildings accounting for 40% of the world's energy consumption and CO<sub>2</sub> emissions.

How can we increase the life of our buildings? Can we reduce its environmental footprint? How do we ever better reconcile competitiveness and safety? Solvay develops high-performance solutions and materials that meet the most stringent requirements for energy efficiency, safety, and water management, and contribute to the development of safe, healthy and sustainable housing.

## Sustainable, energy-efficient housing

#### HIGH ENERGY PERFORMANCE

Our solutions help increase the energy independence and self-sufficiency of dwelling units. They are used in insulation and air conditioning. Acting as a fluxing agent for glass, SODA SOLVAY® soda ash improves its energy efficiency and is used for the manufacture of highperformance glass windows.

#### PROTECTION AND SAFETY

Our corrosion-resistant, UV-resistant and flame-retardant materials contribute to the safety and longevity of buildings. IXOL®, used in polyurethane insulation foams, improves the protection of buildings against fire. Our non-toxic emulsifiers and additives are used to formulate paints that improve air quality in buildings.

#### EFFICIENT USE OF RESOURCES

Our high-performance water piping plastics ensure the robustness of water supply systems and drinking water quality. The resistance qualities of our STABAMID® PA 6.6 bio-based resins have made them references for the fittings of drinking water systems.

## ELECTRICITY AND ELECTRONICS

Communication technologies are powerful consumption vectors everywhere in the world. End users are looking for new experiences created by intelligent, ergonomic, safe, and efficient products. To stay ahead in highly competitive markets, manufacturers are constantly seeking to improve their performance, reliability and design.

How does one reconcile connectivity, safety, and energy efficiency? Combine strength and aesthetics? Working closely with manufacturers, Solvay contributes to the progress of mobile electronics by developing miniaturization technologies and advanced materials. Energy efficiency is another major component of the Solvay offering.

## Increased connectivity, enhanced energy efficiency

#### DESIGN AND CONNECTIVITY

Our KALIX® HPPA polyamides make it possible to combine design and strength in smartphones. For the lighting and display market, we are developing materials for organic light emitting diodes (OLED).

#### SAFETY

We offer a full range of TECHNYL® flame-retardant products, meeting the latest international electrical safety regulations.

#### SUSTAINABLE SOLUTIONS

Our luminophores based on rare earths are carrying display technologies into new areas. Energy-saving light bulbs using LUMINOSTAR® last 12 times longer than incandescent bulbs and consume up to seven times less energy.

#### PROCESS EFFICIENCY

Electronics calls for high-purity, high technicity components. Our INTEROX® PICO hydrogen peroxide has become the reference for semiconductor manufacturers, particularly for cleaning and etching.

## INDUSTRIAL APPLICATIONS

Competitiveness: this is the great challenge of leading industries caught between the need to control costs and the desire to invest to meet their markets' demands for innovation, safety and efficiency, while also facing increasingly stringent regulations.

How do we combine competitiveness and energy efficiency? Solvay accompanies manufacturers in their thrust for innovation by developing intermediaries, materials, and processes that extend the life of industrial equipment. With one constant: promoting responsible practices.

## More value, reduced environmental impact

#### INDUSTRIAL COATINGS AND PROTECTION

EPICEROL® bio-based epichlorohydrin enables epoxy resin producers to increase the portion of sustainable solutions in their products. With our RHODIASOLV® range of biodegradable solvents, manufacturers can formulate paint and paint strippers in conditions that respect the environment and health.

#### 3D PRINTING, INKS AND ADHESIVES

Our additives and components for water-based inks help manufacturers meet regulatory requirements. We also offer 3D printing polymers for prototyping and other designs.

#### METAL AND SURFACE TREATMENT

Our solutions improve the performance of finished products. The RHODOCLEAN® formulation (industrial cleaning) and the bio-based solvent AUGEO® SL191 (leather processing) stand out with their exemplary environmental profiles.

#### PROTECTING INDUSTRIAL EQUIPMENT

Our SOLEF® fluoropolymers and TECHNYL® high-performance polyamide exhibit superior resistance to corrosion, high temperatures, and chemical aggression. The quality of life of future generations depends in part on the strategic choices made by the chemical industry today. Aware of this responsibility and animated by the desire to be a reference player, Solvay transforms its portfolio in the direction of high-added-value products that are less cyclical and less energy and capital intensive. Refocused on its growth platforms, determined to remain fast-reacting and close to its markets, with a strong shareholder base and governance, the Group has the means to contribute significantly to the responsible development of the sector, while maintaining the ambitious goals set in 2012.



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Discover the issues with which Solvay is engaged on solvay.com/2014annualreport

Message from Nicolas Boël, Chairman of the Board of Directors

## "SOLVAY'S AMBITION IS TO CREATE VALUE RESPONSIBLY AND LONG-TERM."

#### An ambitious strategy in a changing world

Our industry is a committed player in a world that is now evolving at great speed, driven by fundamental trends that will lastingly influence our lifestyles and consumption patterns. At the same time, the geopolitical environment is undergoing sudden and abrupt changes that call for a high degree of reactivity from economic and industrial players.

In this uncertain environment, Solvay presents solid results that demonstrate the effectiveness of the Group's strategy, and on the ability to implement this strategy quickly and effectively. A considerable body of work has been done at all levels: the transformation has been conducted with determination over the past two years, and the Group's cohesion has been strengthened

"We attach value to the regular evolution of the composition of the Board, so as to reflect ever better the Group's diversity of population, nationalities and activities."

by a new organization that promotes responsibility, initiative, and a common culture based on exchange and excellence. At the same time, the Group's fundamentals and its long-term vision remain strong anchor points. The commitment of our teams on all fronts has once again made possible these outstanding performance in line with our growth objectives. I thank all employee for their efforts, which have enabled Solvay to stay on course while successfully carrying out its transformation. The solidity of the Group is our strength. The pertinence of our project for Solvay's future, the quality of our governance and the stability of our shareholders are the pillars.

#### Values that bind us

Solvay sets out to create value responsibly and in the long term. More than an economic project, it is also a scientific and social ambition, inscribed in a long-term vision and carried by the same humanistic values that have driven our company for the past 150 years. Our founders were convinced that the mission of science is to contribute to human progress and to improving living conditions. From the Solvay Councils to the Chemistry for the Future Solvay Prize, the Group perpetuates this spirit by continuing to encourage scientific research. The founders of Solvay were also convinced that the business enterprise is the best vehicle for achieving this. By combining its industrial experience, expertise, talents, and its product portfolio, Solvay is resolutely pursuing these goals. The integrity and the pursuit of excellence and sustainability that have framed the developments of the Group remain at the service of this vision.

Our partnership right from the start with the solar airplane Solar Impulse also reflects how we intend

to contribute, through scientific innovation, to the sustainable development of the planet.

## A cohesive shareholder group and consistent governance

The specificity of Solvay is to have, alongside its financial investors and since many generations, a solid group of family shareholders, confident in the future of the Group and associated with its management. This is a strength that gives it the resources to seize opportunities that are consistent with the company's mission and to bring new business into being.

The strength of a Group depends also on its governance. The Board of Directors of Solvay sets the Group's longterm course of action and acts as guarantor of the ethical rules under which it operates and of the continuous improvement of practices and results. The Board brings together complementary skills and profiles that ensure that the Group's long-term project is never lost from sight. We attach value to the regular evolution of the composition of the Board, so as to reflect ever better the Group's diversity of population, nationalities and activities.

The economic outlook for 2015 again presents is with a lack of visibility. But, as we have often shown, Solvay fights best in challenging situations. The 2014 results give us reason to believe this and we approach this new year with continuing confidence in the now enhanced quality of our fundamentals, in the relevance of the strategy introduced by Executive Committee, and in the motivation of the 26,000 employees who are working daily for the success of Solvay.

#### Interview with Jean-Pierre Clamadieu,

Chairman of the Executive Committee and Chief Executive Officer

## "SOLVAY IS SPEEDING UP ITS TRANSFORMATION TOWARDS HIGHER ADDED-VALUE."

#### What is your assessment of 2014?

Jean-Pierre Clamadieu: We are reaping the benefits of our transformation strategy, and this is cause for great satisfaction. Our business portfolio is growing and with it our ability to deliver advanced solutions that meet the needs of our customers. Our drive for excellence is bearing fruit and our operational performance is where we want it: Group REBITDA grew 11%, driven by growth in all of our Operating Segments and in particular those identified as growth engines. The fact that this performance was achieved in a sluggish economic environment demonstrates the relevance of our management model: a highly decentralized organization that allows everyone to take action and contribute to the Group's value creation process.

## Where is Solvay in its portfolio transformation process?

Jean-Pierre Clamadieu: In 2014, we made significant changes in the structure of our portfolio by disengaging from certain activities and redeploying our resources to others, in line with our strategy. The projects undertaken to reduce our exposure to Chlorovinyls in Europe and in Latin America are continuing. In the United States, we have also sold Eco Services (regeneration of sulphuric acid), under excellent conditions. In terms of acquisitions, we have very rapidly integrated the US company Chemlogics, which contributed much more than expected to our 2014 results. We also completed an acquisition in the United States which complements our outstanding portfolio of specialty polymers. Finally, in Brazil, the acquisition of Erca Química and Dhaymers strengthens our positions in surfactants in the highly dynamic home and personal markets.

#### Is Solvay's transformation complete?

Jean-Pierre Clamadieu: We will continue and will even accelerate the process, in a context in which opportunities are emerging in the global chemical landscape. We have a clear strategy that we implement with determination. We are positioned on sustainable growth markets that meet the major challenges of the planet, with almost half our net sales generated in high growth geographic areas. In each of our businesses, innovation and operational excellence are contributing significantly to the value creation. We also continue to invest: 2015 should see nine new production units come onstream across the world. With a strong organizational model, we pursue a culture based on performance and on values that unite us. The involvement and the quality of our employees are the key to this: once again they have confirmed that the strength of a company is above all the women and men of which it is composed. Thanks to them, Solvay is on track to achieve its ambitious goals for 2016.

## How do you explain the increase in sales with new products this year?

Jean-Pierre Clamadieu: One highlight of 2014 was indeed the success of innovation in some of our businesses. The decision to increase the role of our Global Business Units, hence bringing innovation closer to our customers results in a more rapid maturation and industrialization of our innovations. This is particularly critical in highly dynamic markets like electronics, on which Specialty Polymers has achieved a remarkable breakthrough.

At the same time, to increase our strike force in strategic areas like batteries or displays, we are pooling our research and innovation resources to serve several GBUs together.

#### How will you keep teams focused and creative over time?

Jean-Pierre Clamadieu: The Group has constantly reinvented itself over its 150-year history. The new transformation stage which we entered in 2012 was accompanied by a new culture that prioritizes autonomy and responsibility. The "people model" and the "management model" now deployed across the Group have contributed to the development of this shared culture. Our compensation system is designed to recognize managers' performance. Moreover, our performance sharing plan rewards all Group employees worldwide for the achievement of our goals for 2014. Our demanding Solvay Way responsibility process is being successfully introduced in the field, enabling us to develop a common language and objectives that contribute to uniting and mobilizing our teams.••• "One highlight of 2014 was the success of innovation."



#### ••• As a player and privileged observer in a changing world, how do you plan to address the new challenges?

Jean-Pierre Clamadieu: Given its impact in many value chains, chemistry is uniquely positioned to grasp the major society trends - demographic change, resource scarcity, hastening innovation cycles - that are transforming the world in which we live. At Solvay we believe that chemistry is able to provide some of the answers to the challenges of the planet. We have initiated a process to question how we can be even more successful in building a new model of sustainable chemistry, both through the solutions we provide and by our processes to maximize control of the environmental and social impacts of our activities. We can therefore win the preference of our customers with solutions resolutely adapted to their sustainability needs. This is the challenge of the Solvay Way, already well deployed at our Group sites, and the impact of which will be strengthened by clarifying our goals of responsibility and better translating them into our strategy.

#### How do you take part in very current topics like energy transition and combating climate change?

Jean-Pierre Clamadieu: Energy transition is a necessity to meet the challenges posed by climate change and the finiteness of fossil fuels. An ensemble of solutions exists that we need to combine in order to preserve our planet for future generations. In my concern to contribute to this debate, I am personally involved in the WBCSD<sup>(1)</sup> and in preparing the COP 2015<sup>(2)</sup> on climate change to be held in Paris this December. Within Solvay, we are keen to provide solutions to the issue of energy transition: this is notably the objective of the SOLWATT® energy efficiency program, of our investments in alternative energies (torrefied biomass, photovoltaics), and of our energy storage and vehicle electrification solutions, along with the competitive and sustainable extraction of oil and unconventional gas.

#### Solvay has been a partner of the Solar Impulse from the very beginning. What does it symbolize for the Group?

Jean-Pierre Clamadieu: Solvay has supported the Solar Impulse project right from the very beginning as it fully embodies our conviction that chemistry can make the impossible possible. More than an airplane, Solar Impulse is a solar messenger that questions mankind and calls for boldness and a pioneering spirit.

(1) World Business Council for Sustainable Development. (2) Conference of the Parties: United Nations Climate Change Conference.

#### Further reading

Find Jean-Pierre Clamadieu's perspective on the Group's strategic choices on solvay.com/2014annualreport

## THE EXECUTIVE COMMITTEE

The Executive Committee (Comex) is responsible for Group strategy, ensures that objectives are realized, and optimizes the allocation of resources among the different Global Business Units. Acting as a collegial body, it is collectively responsible for overall performance and for protecting the Group's interests. On December 31, 2014, the Comex consisted of five members, each with oversight of a number of GBUs, Functions or Zones.

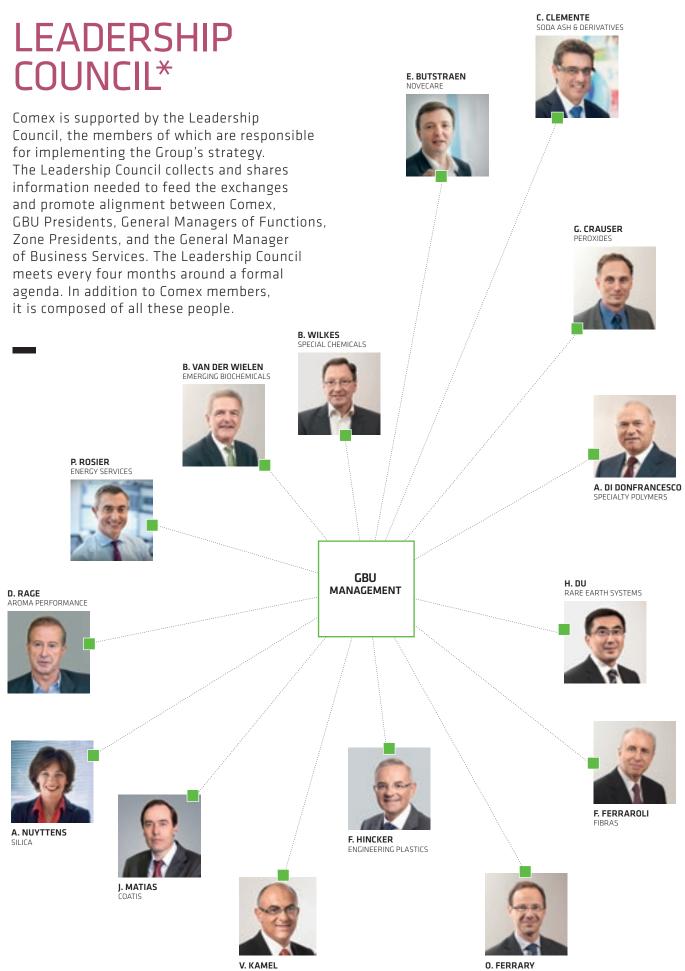


JEAN-PIERRE CLAMADIEU CHAIRMAN OF THE EXECUTIVE COMMITTEE AND CEO

> KARIM HAJJAR CHIEF FINANCIAL OFFICER

VINCENT DE CUYPER

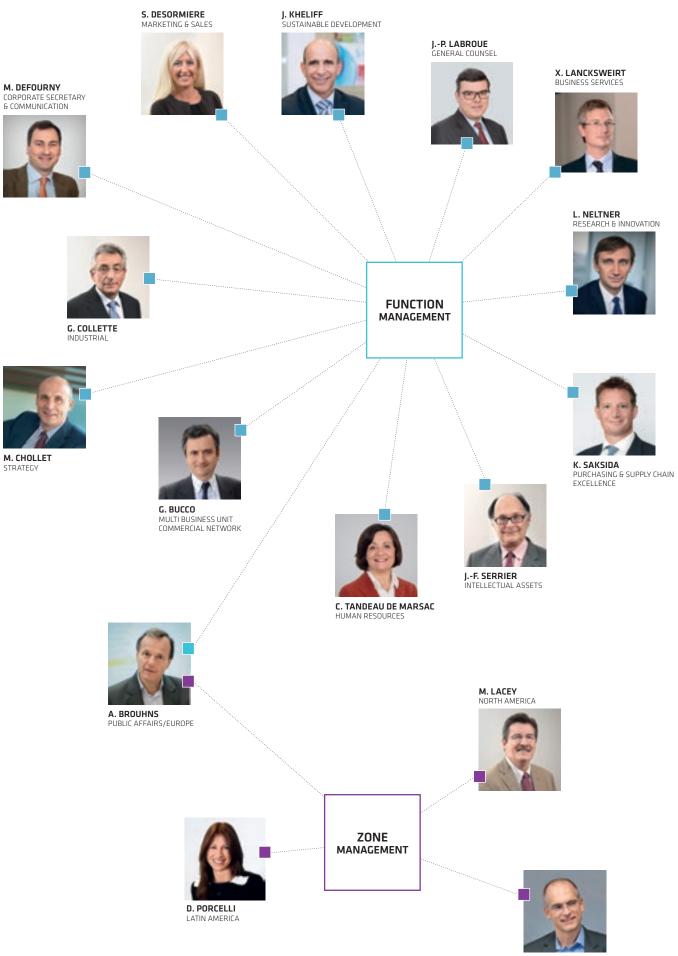
PASCAL JUÉRY



\* December 31, 2014

V. KAMEL POLYAMIDE & INTERMEDIATES

ACETOW

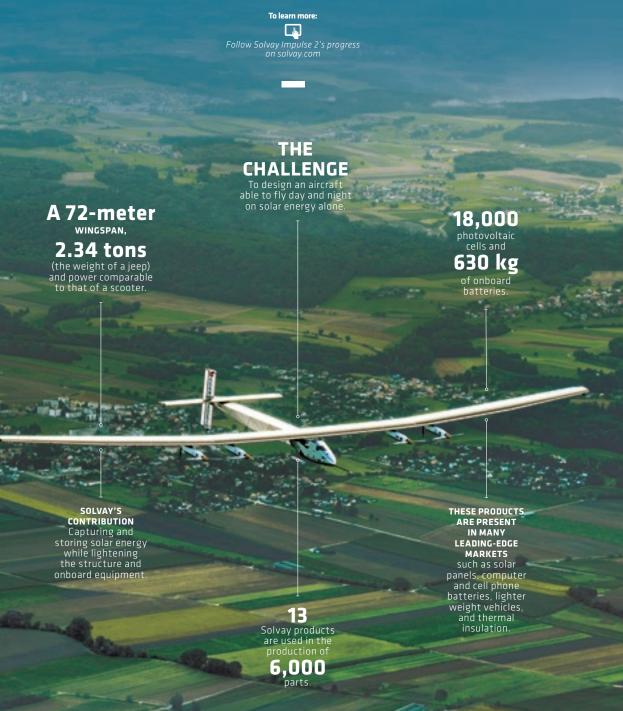


M. LAUDENBACH ASIA PACIFIC

## SOLAR IMPULSE

For over 10 years, Solvay has been the first technological partner of the Solar Impulse project. A genuine flying laboratory, the solar airplane enables the Group to contribute its expertise and innovation to advancing sustainable mobility.

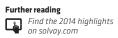
In 2015, Solar Impulse 2 embarks on an extraordinary challenge: to fly around the world, starting from the United Arab Emirates, without using the slightest drop of fuel. In 2013, Solar Impulse 1 safely crossed America, driven by solar energy alone.



2014 brought us significantly closer to reaching our ambitions for 2016. Our growth levers – dynamic portfolio management, organic growth, innovation for more sustainable chemistry, and a strong culture of excellence – have once again created value, in line with the objectives set for them. The Group's performance has demonstrated the pertinence of these levers and its ability to manage them. Responsiveness to opportunities and challenges, a culture of excellence, and commitment to progress are now part of our DNA.

# Successes

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#### Growth

## STRENGTHENED POSITIONS SERVING OUR CLIENTS

Solvay is transforming its business profile, consolidating its positions on markets identified as high potential for sustainable growth and is investing selectively to strengthen the capacities available to its customers.

In 2014, we accelerated this transformation to successfully implement the strategic plan set in 2012, following the analysis of our positioning and value-creation potential.

#### A PORTFOLIO DIRECTED TOWARDS GROWTH

The Group asserts itself as a high-end solutions provider, carried along by the dynamism of activities identified as growth engines. Distributed between two operating segments, Advanced Materials and Advanced Formulations, they are characterized by their high degree of innovation. Solvay manages its portfolio of activities in accordance with distinct dynamics of growth and competitiveness. Growth platforms like Novecare and Specialty Polymers offer a range of products and solutions that meet the challenges of sustainable development and respond to major trends in society at large. These platforms are active in diversified and very dynamic global markets. They hold leadership positions in terms of market share, technological mastery and innovation. The Performance Chemicals activities emphasize competitiveness, mostly economies of scale. They operate on mature and resilient markets, and they are engaged in programs of excellence to create additional sustainable value.

#### SELECTIVE INVESTMENTS

In 2014, the Group continued to invest in the development of its growth engines with four targeted acquisitions as well as with selective increases in production capacity. Thus, Specialty Polymers expanded its high performance polymers range by acquiring the U.S. RYTON® PPS businesses, gaining access to new business segments of the automotive industry. The acquisitions of Erca and of Dhaymers in Brazil strengthen the Novecare foothold in specialty surfactants to meet growing markets Latin American demand for Home and Personal care. With the takeover of Flux Schweiß- and Lötstoffe GmbH in Germany, Special Chemicals complemented its aluminium brazing offerings for the automotive sector.

Nine new units will be commissioned in 2015, principally in high growth regions: in Asia, in North America, in Eastern Europe and in the Middle East. They meet the growing needs for consumer goods and equipment manufacturing, which translate into strong demand for surfactants, vanillin, hydrogen peroxide, special polymers, silica and sodium bicarbonate.

Furthermore, we are developing our research facilities in Asia. In 2014, we inaugurated two new R&I centers, on the campus of Ewha, a prestigious university in Seoul, South Korea, and in Singapore. We have deployed new marketing and sales facilities in Indonesia and in the province of Sichuan, China. We are stepping up our recruitment there and are training our managers to deal with the local challenges, because the development of multinational talents is a key element of success in Solvay.

At the same time, the Group is reducing its exposure to activities which no longer meet its criteria on growth and profitability, such as its Chlorovinyls activities in Europe and Eco Services in North America.

"Our strategy is based on a portfolio of innovative activities with high added value, a competitive industrial base able to support growing demand, and on the mobilization of our teams."



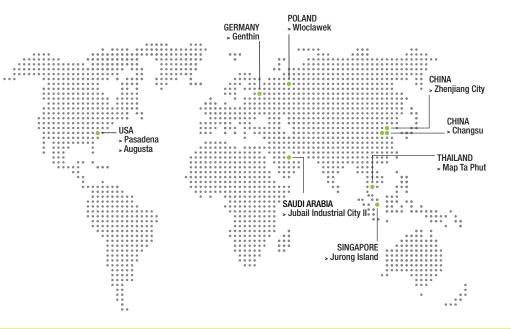
## RYTON® PPS

The acquisition of RYTON® PPS (polyphenylene sulfide) activities from Chevron Phillips Chemical Company has accelerated the repositioning of the Group in accelerating the repositioning of the Group in high-growth, high-margin businesses. It enables Specialty Polymers to offer the broadest range of resins in the sector. This acquisition also strengthens our ability to attract new customers, in dynamic and innovative segments such as automotive and electronics. RYTON<sup>®</sup> resins are particularly used to replace metal parts in motor vehicles, making them lighter and more energy efficient. They improve the fire resistance of electronic components. They also are a key component in the filters used to reduce pollution generated by coal-burning power plants.

> 58% Share of REBITDA achieved by the Group's two growth engines (Advanced Materials and Advanced Formulations).

#### SOLVAY'S NINE MAIN INDUSTRIAL INVESTMENTS

Asia, North America, Eastern Europe, and Russia all face strong demand for consumer and capital goods. Solvay is accompanying this growth by increasing its capacity and building new industrial sites. Nine new production units will be commissioned in 2015.



#### Innovation

## INVENTIVENESS AND PASSION CLOSE TO OUR MARKETS

Innovation plays a key role in our strategy of leadership and value creation. Innovation is based on detailed knowledge of our customers and our markets and focuses on responses to the challenges of sustainable development.

Our Global Business Units and our teams have demonstrated their ability to deliver innovative solutions. The achievements of Specialty Polymers in particular are emblematic of the potential of our Research and Innovation (R&I). In 2014, the business launched more than 50 new products, enabling it to expand its positions in highly dynamic markets like smartphones, aeronautics, and energy.

#### **RESPONSIBLE INNOVATION**

Facilitating more sustainable development is the major focus of our RGI. New projects are evaluated at a very early stage against the criteria of the Sustainable Portfolio Management (SPM) methodology. All projects need to seek to address the problems posed by major social trends: development of products or substitute materials with improved environmental footprints (lightweight materials, "green" solvents), development of new energy-efficient processes (batteries, bioenergy), designing formulations and technologies that extend the life of products and enhance their performance.

#### FOCUS ON OPEN INNOVATION

We are convinced that open innovation, involving players from every horizon, is the best way to progress faster and better. We have four laboratories where Solvay researchers work alongside those from the academic world (mixed Solvay-CNRS units at the ENS in Lyon, the Universities of Bordeaux, Lyon I and Lille I in France, of Pennsylvania in the USA, and of Fudan and with the East China University in China). We participate in investment funds (venturing) and invest directly in start-ups such as, in 2014, Aonix, a specialist developer of advanced composite materials, in particular for the aircraft industry. Finally, our decentralized organization, geographically close to markets, promotes "field-based," reactive innovation, deriving from direct interaction with our customers.

#### THE STRIKING FORCE OF A GROUP

Supporting operational R&I in our Global Business Units, our innovation structure includes 15 major Research and Innovation centers across four continents, including nine multi-activity centers, all interconnected and conducive to cross-fertilization. These resources and the expertise of our 1,950 R&I staff give us the capacity for both incremental innovation and breakthrough projects over the very long term.

"Our capacity for innovation allows us to provide our customers with the right answers to their sustainability challenges."

## CROP PROTECTION

Feeding more than seven billion people from a shrinking agricultural surface makes the use of chemical fertilizers unavoidable. Urea, the most widely consumed fertilizer worldwide, partly evaporates on contact with the ground, emitting greenhouse gases and bringing the risk of groundwater pollution. Our new eco-friendly solventbased formulations avoid these losses. By optimizing nitrogen input, they reduce the use of fertilizers by up to 20%. These solutions are already marketed in Europe, the United States and Canada under the AGRHO® NH4 PROTECT, AGRHO<sup>®</sup> N PROTECT<sup>®</sup> B, AGRHO® N50 names; registration in other countries including China is under way.



210/0 Share of net sales generated by products less than five years old

#### EFFICIUM<sup>®</sup>, A NEW TECHNOLOGY ADVANCE FOR THE ENTIRE TIRE INDUSTRY

In 2015, Solvay has brought to the pneumatics market EFFICIUM<sup>®</sup> a new high dispersion silica (HDS), which is simpler to use without compromising rolling resistance,

wear or adhesion. EFFICIUM® facilitates the transition from carbon black to an HDS-based composite. Three plans are producing EFFICIUM® to ensure worldwide availability.

#### Excellence

## A THRUST FOR IMPROVED PERFORMANCE

Founded from the outset on an entrepreneurial and manufacturing model, our organization promotes the deployment of a culture of excellence. The continuous improvement of our operations at all levels contributed to  $\notin$  300 million to Group REBITDA in 2014.

The culture of excellence, already well-established at Solvay, has been transformed over the past two years into a structured movement, carried methodically by many of our employees, who are supported by a dedicated team of 70 people and generalized across all entities and activities. More than 120 continuous improvement programs were implemented this year. The key to this process is the full commitment of employees that make the difference and ensure the permanence and robustness of our approach.

#### **DEPTH AND GENERALIZATION**

The search for manufacturing excellence has taken concrete form in all activities in efforts to reduce variable costs (fuel consumption, reduction of losses, etc.) and fixed costs (improved maintenance). The SOLWATT® energy excellence program in turn aims to improve the competitiveness of our production. The Group's manufacturing excellence program has widely mobilized its sales and marketing teams to develop approaches and offerings that generate value for both customers and for Solvay. This performance will continue in 2015 with the deployment of specific marketing, purchasing, logistics, and human resources programs.

#### LEVER OF COMPETITIVENESS

Through operational excellence, Solvay is successfully strengthening the competitiveness of activities in highly competitive markets, such as Soda Ash and the Polyamide cluster. The industrial excellence programs implemented by Soda Ash in Europe in 2014 generated recurring gains of € 20 million through cost optimization

measures at all levels: energy, maintenance, control, purchasing, environmental protection, and laboratories. The improved productivity of the Polyamide and Intermediates business, and the commercial excellence initiatives undertaken by Engineering Plastics have contributed to the resilience of the cluster.

That everyone in the Group can create value at their own level by improving their practices and behaviors is a wellestablished reality at Solvay. Supporting this, the establishment of "Academies" providing training on given themes serves to create positive emulation between teams and production sites.

"Excellence is a value creation driver based on employee dynamism and creativity. It is they who make the difference and ensure the permanence of the Group."

2014 Annual Report

#### A RELIABILITY ACADEMY

The "Solmax (Solvay Maintenance Excellence) Reliability" Academy is a collaboration developed by the Group's Manufacturing Excellence teams and deployed on seven sites of GBU Soda Ash, with the objective of securing the activity's production volumes in 2015 and 2016. The Academy designs and implements action programs to make permanent the maintenance cost reductions achieved since 2013, to avoid chain breaks, and to reduce output variability.

> 120 continuous improvement programs were carried out in 2014.

More than

## TECH DAYS: COMMERCIAL EXCELLENCE IN THE FIELD

The commercial excellence programs encourage cross-fertilization and, in particular, the sharing of practices and clients. This is the purpose of Tech Days, at which a number of GBUs jointly present their offering to a common or potential client. This approach is systematized in activities related to the automotive world: a Tech Day was organized at a Korean manufacturer and, in May 2014, Specialty Polymers and Engineering Plastics partnered to introduce the wide range of Solvay plastics and elastomers to global automotive systems supplier. These events present the Solvay offering in a particularly attractive light and participate in the growth of turnover.



## ENERGY EFFICIENCY

The SOLWATT® energy efficiency program reduced the Group's energy costs by almost 10% in 2014. Among the 57 sites involved in the program, that of Belle Étoile (France) has set itself the target of reducing its energy costs by 11%. Of the 68 actions identified by the teams, 18 were implemented in 2014, achieving already 76% of the targeted savings.

#### Overview of our activities

## A DIVERSIFIED AND EVER BETTER PERFORMING PORTFOLIO

Our activities are divided into five Operating Segments, with business models that respond to specific growth dynamics and competitiveness challenges. This configuration permits fine-tuned management of the portfolio and investment.



## ADVANCED FORMULATIONS

#### 2014 net sales: € 2,854 million REBITDA: € 426 million

Among Solvay's growth engines, Advanced Formulations' activities are characterized by their high innovation capacity and low capital intensity. In line with major societal trends, their offering contributes primarily to promoting the consumer, environmental, and energy markets.

#### NOVECARE

Novecare designs formulations with specific properties (cleaning, softening, gelling, texturing, etc.). These are found in shampoos, detergents, stimulation fluids, lubricants, paints, in crop protection, and in mining.

- World number-1 producer of specialty surfactants; a major player in polymers, amines, guar, and phosphorus derivatives
- *2014 net sales: € 2,033 million*
- b 28 industrial sites\*

#### COATIS

Coatis designs oxygenated solvents for the world market, and manufactures phenol-based products and derivatives specifically for the Latin American market. This range is used for producing synthetic resins used in foundries, construction, and abrasives.

- Leader in oxygenated solvents; number-1 Latin American producer of phenol derivatives
- 🥝 2014 net sales: € 484 million
- ៉ 1 industrial site\*

#### NOVECARE: CONSOLIDATION OF SPECIALTY CHEMICALS PORTFOLIO

In 2014, Solvay completed its integration of Chemlogics, a major acquisition, and strengthened its leadership in oil and gas markets. The Group has continued to invest in Latin America with the acquisition of Dhaymers. It also strengthened its positions in emerging country well-being and agrochemicals markets, with the construction of four new plants that will be operational by 2016.

#### **AROMA PERFORMANCE**

Aroma Performance designs vanilla flavors for the food industry, and synthetic intermediates used in perfumery, pharmaceuticals, agrochemicals, and electronics.

- World number-1 producer of vanilla aromas for food industries; world number-1 producer of diphenol intermediates for monomers with petrochemicals applications; world number-1 producer of diphenols and fluoro-aliphatic derivatives: world number-1 producer of triflic acid and lithium salt for agro-pharma, electronics, and battery markets
- ≤ 2014 net sales: € 337 million ↓ 5 industrial sites\*
- 5 industrial site



Solvay offers a broad portfolio of responsible technologies for the extraction of oil and gas resources.

### ADVANCED MATERIALS

#### 2014 net sales: € 2,762 million REBITDA: € 709 million

With their innovative capacity, their global presence, and their long-term partnerships with customers, the Advanced Materials Segment's activities provide a competitive advantage to manufacturers searching for ever less energy-intensive and less polluting functionalities.

The Segment's activities are growth drivers that contribute to the Group's performance through their leadership in markets with high entry barriers and their high return on investment.



Solvay's specialty products promote advances in electronics and support the digital revolution.

\* Number of sites where the GBU operates. A single site may be shared by several GBUs.

#### SPECIALTY POLYMERS

Specialty Polymers offers the widest range of specialty polymers anywhere in the world. The GBU has unparalleled expertise in four technologies: aromatic polymers, high moisture barrier polymers, fluorinated polymers, and cross-linked high-performance compounds.

- World number-1 producer of specialty polymers and high performance polymers
- Ø 2014 net sales: € 1,490 million 19 industrial sites\*

#### SILICA

Silica develops innovative solutions for global tire manufacturers, as well as silica ranges for many other market segments like toothpaste, food, industrial products, and rubber articles.

- $\mathbb Y$  Inventor and world leader in high dispersion silica
- $\bigcirc$  2014 net sales: € 451 million
- ៉ 9 industrial sites\*

#### **RARE EARTH SYSTEMS**

Rare Earth Systems possesses unique expertise in rare earth separation and formulation technologies. Rare earths contribute to reducing vehicle emissions, and are used in the production of semiconductors, flat screens, energy saving light bulbs, and precision optics.

- World number-1 supplier of specialty rare-earth-based formulations, with a global market share of over 25%
- 🥝 2014 net sales: € 266 million
- b industrial sites\*

#### ... ADVANCED MATERIALS

#### SPECIAL CHEMICALS

Special Chemicals manufactures fluorine, strontium and barium-based specialties, along with ultrapure chemical solutions for the automotive, construction, semiconductor, agrochemicals, and pharmaceuticals industries.

- World leader in fluorine, strontium and barium-based specialties
- *e* 2014 net sales: € 554 million
- b 22 industrial sites\*

#### ACQUISITION OF FLUX SCHWEIß-UND LÖTSTOFFE GMBH

On September 30, 2014, Solvay finalized the acquisition of German company Flux Schweißund Lötstoffe GmbH, complementing its aluminum brazing capabilities and expanding its range of formulations for heat exchangers for the automotive and HVAC markets. The combination of Solvay's fluorine chemistry knowhow and Flux's formulation expertise creates a new growth platform, providing customized solutions for industry.

#### PERFORMANCE CHEMICALS

#### 2014 net sales: € 2,944 million REBITDA: € 724 million

The success of this business Segment, which operates in mature, robust markets, is based on economies of scale, competitiveness, and quality of service. Strong cash generators, the activities of the Performance Chemicals Segment have launched new excellence programs to create sustainable value.

#### **SODA ASH & DERIVATIVES**

Soda Ash & Derivatives produces soda ash for the glass, detergents, and chemicals markets. The GBU also supplies sodium bicarbonate and trona to the healthcare, feed and food, and flue gas treatment markets.

- World number-1 producer of soda ash and sodium bicarbonate
- 2014 net sales: € 1,377 million
- ៉ 11 industrial sites\*

#### A GLOBAL COMPETITIVENESS PROGRAM IN SODA ASH

To increase its European leadership, GBU Soda Ash has launched the World Class Factory Project (WCF), with the ambition of producing synthetic soda ash at a competitive cost within three years. At all sites, manufacturing processes and associated fixed and variable cost elements have been subjected to technical review and performance assessments. Cross-fertilization and best practices sharing have been generalized. WCF is operational in six factories with a savings target of € 100 million by 2016.



Solvay is contributing to the development of new energy-efficient glazing.

\* Number of sites where the GBU operates. A single site may be shared by several GBUs



Personal well-being and safety are the ultimate goal of the solutions developed for the housing market.

# PEROXIDES

Peroxides produces hydrogen peroxide that serves the pulp, household and hygienic applications, and high quality cardboard markets. The GBU also offers solutions for aquaculture markets, packaging disinfection, food production facilities, and water treatment.

- Y World number-1 supplier of hydrogen peroxide
- *2*014 net sales: € 512 million
- b 18 industrial sites\*

# ACETOW

Acetow produces cellulose acetate tow for cigarette filter manufacturers and cellulose acetate flakes for textiles and plastics production. Acetow produces and markets the ACCOYA® acetylation technology, which increases the resistance of wood in outdoor applications. Its new OCALIO® bioplastic will serve the cosmetics and food packaging markets with bio-based products.

- Leading global producer of cellulose acetate tow for cigarette filters; number-1 in CIS and South America; number-2 in Western Europe; reference supplier of cellulose acetate flakes
- *2*014 net sales: € 641 million
- b industrial sites\*

# **EMERGING BIOCHEMICALS**

Created to develop environmental-friendly chlor-alkali chemistry, Emerging Biochemicals operates via the Thai subsidiary Vinythai Public Company Ltd., which is responsible for the chlorovinyls and epichlorohydrin activities in Asia.

Inventor of and world leader in EPICEROL® technology; among the main chlorovinyl producers in Southeast Asia

- $\bigcirc$  2014 net sales: € 413 million
- ៉ 1 industrial site\*

# PROPYLENE OXIDE: GROWTH LEVER FOR PEROXIDES

To meet the growing needs of the propylene oxide (PO) industry, GBU Peroxides has acquired unique-in-the-world capabilities by building mega plants producing  $H_2O_2$  as an input for PO, used among other things in producing insulation polyurethanes. In 2015, the GBU will complete the construction of one of these plants at the Sadara Chemical Complex (Saudi Arabia). Operated in partnership with Sadara Chemical Company [a joint venture between The Dow Chemical Company (DOW) and Saudi Aramco], the unit will produce more than 300,000 tons of  $H_2O_2$  per year. Solvay also operates the world's largest  $H_2O_2$  plant at Map Ta Phut in Thailand in partnership with DOW.

\* Number of sites where the GBU operates. A single site may be shared by several GBUs.

# FUNCTIONAL POLYMERS

### 2014 net sales: € 1,654 million REBITDA: € 111 million

The key success factors in this Segment that groups the various Polyamides activities are its optimization strategies and industrial innovation. Solvay is one of the only players to master the entire polyamide 6.6 chain.

# **POLYAMIDE & INTERMEDIATES**

Polyamide & Intermediates supplies a wide variety of markets, including engineering plastics, textile, industrial fibers and yarns, varnishes and adhesives, and leather processing.

One of the world's leading producers of polyamide 6.6 and adipic acid

៉ 7 industrial sites\*

# **FIBRAS**

Fibras produces polyamide fibers used in lingerie, leisure clothing and swim and sportswear. The GBU has developed specific expertise in designing long-lasting yarns for smart textiles, marketed under the AMNI<sup>®</sup> and EMANA<sup>®</sup> brands.

### ENGINEERING PLASTICS: ACCELERATING THE REPLACEMENT OF METAL BY PLASTICS

Engineering Plastics partners with e-Xstream Engineering, a subsidiary of MSC Software, to offer automakers access to the MMI TECHNYL® DESIGN database<sup>(1)</sup>. This advanced simulation solution enables accurate predicting of the performance of TECHNYL® plastics parts. By replacing metal, items produced in this way contribute to reducing the weight of applications and production costs.

(1) MMI (Multi-scale modelling, Mechanical calculation, Injection molding simulation).

Y Leading manufacturer of polyamide (nylon) in Latin America
1 industrial sites\*

# **ENGINEERING PLASTICS**

Engineering Plastics develops high-performance engineering plastics for the automotive, transportation, electrical, electronics, construction, industrial goods, and consumer sectors.

Y Global specialist in polyamide 6.6-based solutions

Both Solvay's chlorovinyl activities in Europe, which are contributed to INOVYN®, the planned joint venture which Ineos, and Indupa are placed in "Discontinued activities". For this reason they do not feature in the above presentation.

# CORPORATE & BUSINESS SERVICES

### REBITDA: € -188 million

This Segment covers the GBU Energy Services, which provides energy optimization programs for the Group and for third parties. It also includes the corporate functions of the Group.

# **ENERGY SERVICES**

Energy Services develops innovative and sustainable solutions for improving the energy performance and carbon footprint of the Solvay group and other major industrial groups. These services cover energy supply, energy efficiency, price risk management, and operating cogeneration plants.

Y Energy management specialist

# **BUSINESS SERVICES**

Business Services covers, in a global shared services organization, all the Group's IT services and its main administrative departments (accounting, credit, customer service, customs, payroll and personnel administration and procurement).



Solvay offers energy cost reduction services to the manufacturing sector.

The way we live and consume is upsetting global balances. All players, political, economic, and social, need to take the full measure of these changes. For Solvay, the knowledge and tools that Chemistry possesses assign the Group a fundamental role in this process: that of accompanying and influencing trends, while respecting the environment and living beings.



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### **Our culture**

# SOLVAY WAY, TRACING THE PATH TO SUSTAINABLE PROGRESS

Solvay was created more than 150 years ago in the belief that chemistry is a source of solutions and progress for humanity. This vision still guides the directions we take and the way we conduct our business.

Deployed in 2013, Solvay Way, our Corporate Social Responsibility (CSR) tool, gives concrete shape to our commitment to build a model of sustainable chemistry. We are convinced that sustainable development is a source of opportunities and value creation. Rooted in the everyday reality of our various businesses, Solvay Way capitalizes on our historical culture of social responsibility, safety at work, social dialogue, management of our production facilities, and reducing our environmental footprint. Its reference framework, which complies with the international ISO 26000 standard on the social responsibility of organizations, contains 49 continuous improvement practices structured by stakeholders.

### **PROGRESS THROUGH CONTINUOUS ACTION**

From manager to operator, Solvay Way involves all Group players, pushing each entity to evaluate itself against the reference framework and to introduce concrete, measurable progress. Solvay Way's priorities are to attain excellence in safety, occupational health and hygiene, and to achieve an increasing share of sales with products that meet the challenges of sustainable development. Additional priorities include the need to improve technology and process performance, to reduce the Group's environmental footprint, to pursue a rich and balanced social dialogue, and more generally to create value in a responsible manner.

### **CONCRETE INITIATIVES**

Solvay Way and the paths for improvement that it sets out are deployed in all Group entities. All have now done their second self-assessment and introduced progress plans. One of the Solvay Way tools, Sustainable Portfolio Management (SPM) measures the pertinence of investments and product offerings against sustainable development criteria. By the end of 2014, SPM had been applied to 80% of our products and innovations portfolio. Finally, in the context of a global CSR agreement signed with trade union federation IndustriALL Global Union, the first annual multi-production site evaluation mission took place in India.

of Group entities have deployed the Solvay Way initiative.

# "Assessment by external observers helps us progress."

# PRATISH KOPARKAR, HEAD OF HUMAN RESOURCES, ROHA SITE (MUMBAI), INDIA

In 2013, Solvay signed a CSR agreement with Industri-ALL Global Union. In November 2014, representatives of IndustriALL and Solvay traveled to India to conduct the first annual evaluation mission under this agreement. Pratish Koparkar accompanied them at the Panoli, Roha and Rasai sites. Everywhere the mission verified compliance with CSR standards. The Industri-ALL representatives also dialogued freely with employees about their working conditions and their professional development. Constructive exchange took place on the management of human resources and safety.

### To learn more

Find Pratish Koparkar's testimony on solvay.com/2014annualreport

# Enhancing

# our employees' well-being.

We are committed to offering our employees a safe working environment and promoting their professional development. We are particularly vigilant on respecting fundamental social rights and the fair treatment of everyone, everywhere. We also strive to maintain a regular dialogue with our employees, in an atmosphere of trust. These exchanges are particularly important, employees being the primary players of our responsible performance.

# "Solvay and customer L'Oréal are keen to innovate in sustainable procurement."

MECHELLE ENGEMANN, SUSTAINABLE DEVELOPMENT MANAGER, GBU NOVECARE

Mechelle Engemann leads our "Sustainable Guar" project launched by GBU Novecare in partnership with L'Oréal. Our client uses the properties of this legume in its cosmetics. "Sustainable Guar" aims to guarantee the responsible farming of this plant by supporting the communities that grow it.

To learn more Find Mechelle Engemann's testimony on solvay.com/2014annualreport

# CSR in our approach and our offerings.

Consumers expect our manufacturing customers to provide them with products that are more and more safe, healthy, and environmentally neutral. To help the manufacturers to integrate societal changes and meet increasingly stringent regulations, we take care to ensure that our products are safe throughout their life cycles, constantly working to reduce their environmental footprints out of respect for human beings and the planet. Solvay Way is an integral part of our culture. This responsible approach animates our innovation, conditions the marketing of our products, and frames our entire social and environmental responsibility policy.

# "We want to transform the way management and operators perceive and manage energy."

# ALAIN MICHEL,

ENERGY EFFICIENCY PROJECT MANAGER, GBU ENERGY SERVICES

In 2011, Solvay launched SOLWATT®, a Group-wide energy efficiency program. The goal: to reduce energy costs by at least 10% in four years by mobilizing all employees and developing a sustainable culture of energy efficiency.

Alain Michel is piloting this global project, now identified as a benchmark for the industry.

To learn more Find Alain Michel's testimony on solvay.com/2014annualreport



# our planet's resources and limiting our impact.

Solvay is committed to preserving natural resources and biodiversity, to reducing the environmental impact of its activities, and to exercising a responsible influence on its stakeholders. Our goals, set in 2012 for 2020, are: 10% reduction in our greenhouse gas emissions and our groundwater consumption; 25% reduction in our air emissions of potentially acidic substances, 20% reduction of emissions with a potential for eutrophication; and equipping all sites facing water stress with sustainable water management systems.

# "Integrating the social and natural capital in our decision processes."

# TEDDY ROCHE, cfo asia, gbu novecare

Teddy Roche participated in the one-year Future Leader program offered by the World Business Council for Sustainable Development (WBCSD). This experience has profoundly changed his perception of the relationship between Finance and Sustainable Development. His training in the concept of materiality and of companies' non-financial capital has convinced him of the value of integrating social and natural capital in our decision making. Today, Teddy Roche is a driving force in Solvay's putting together an integrated approach to non-financial data.

### To learn more Find Teddy Roche's testimony on solvay.com/2014annualreport

# Creating

# value in a responsible way.

We are committed to our shareholders to comply with the highest standards of governance and management. We communicate on our activities in an ethical and transparent manner. We are working towards ever more precise mastery of our risks and are on constant watch to ensure that the rules of ethics are respected across the Group.

# "Transparency and dialogue forge trust."

### CATERINA DI CARLO, HSE MANAGER, SPINETTA, ITALY, GBU SPECIALTY POLYMERS

In September 2014, the Spinetta Marengo site in Italy created an advisory committee, named the LAB (Local Advisory Board), to promote exchanges with the people who live and work nearby. The idea is to create a forum with a broad representation of people living and working in proximity to the site: opinion leaders from the social and economics worlds, suppliers, business, cultural organizations and others. This dialogue will take place four times a year, bringing together more than 30 local community and Solvay representatives.

### To learn more

Find Caterina Di Carlo testimony on solvay.com/2014annualreport



# constructive, sustainable dialogue with communities.

Out of respect for our host regions, we make every effort to ensure that our sites are well integrated into the surrounding communities. We are continuously improving our industrial risk management processes, and more generally, our supply chain process. We share our accident and nuisance prevention efforts with local residents and other local stakeholders. Our first commitment: to disseminate transparent, explicit information in a proactive manner.

# *"Together for Sustainability,* a sustainable platform for our suppliers."

MARC MOEHLIG, SUSTAINABILITY AND INNOVATION DIRECTOR, PURCHASING FUNCTION

Marc Moehlig manages Solvay's involvement in the *Together for Sustainability* project. This initiative, launched in 2012 by major chemical players, aims to promote among their suppliers a CSR approach adapted to the challenges facing them. The principle is to reference, in an online platform, partners whose CSR approaches meet the high standards required by the sector, following audit by EcoVadis. *Together for Sustainability* organized in October 2014 a first conference in Asia on shared practices. Solvay attended with its Chinese suppliers.

To learn more Find Marc Moehlig's testimony on solvay.com/2014annualreport

# Sharng

# our CSR requirements with our suppliers.

We want to create sustainable value, with and for them. We wish to establish constructive and lasting relationships based on trust and shared ethics. This desire is reflected in our selection procedures. In particular, we manage and evaluate our buyers' CSR performances on a regular basis.

# Governance and financial and non-financial information



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# 1. Corporate governance

This chapter is an annex to the management report

### **CORPORATE GOVERNANCE** STATEMENT

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# **CORPORATE GOVERNANCE STATEMENT**

# **Reference code and introduction**

The Solvay group has adopted the 2009 Belgian Corporate Governance Code as its reference code in governance matters. This report<sup>(1)</sup> presents the application of the recommendations of that Code in accordance with the "comply or explain" principle. The 2009 Belgian Corporate Governance Code is available on the internet site of the Belgian Corporate Governance Committee (www.corporategovernancecommittee.be).

# 1 Legal and shareholding structure of Solvay SA

**1.1** Solvay SA is a société anonyme (public limited liability company) created under the Belgian law. The address of its registered office is 310, rue de Ransbeek, 1120 Brussels, Belgium.

The Company's by-laws can be found on the Solvay internet site: www.solvay.com.

**1.2** Its shares are registered or dematerialized. Since January 1, 2008, it has no longer been possible to receive paper (bearer) shares. Bearer shares already in a securities account have automatically been converted into dematerialized shares. Additionally, following a resolution adopted by the General Shareholders' Meeting of May 8, 2007, all bearer shares issued by the Company and not recorded in dematerialized securities accounts or converted into registered shares by July 1, 2011, have been converted automatically into dematerialized shares.

At December 31, 2014, the capital of Solvay SA was represented by 84,701,133 shares. Each share entitles its holder to one vote whenever voting takes place (except for any shares held by Solvay SA or its subsidiaries, the voting rights for which are suspended). All shares are equal and common.

The stock is listed on Euronext Brussels. It has also been admitted to trading on Euronext Paris since January 23, 2012. The Solvay share is included in several indexes:

- Euronext 100, consisting of the leading 100 European companies listed on Euronext, where Solvay ranked in 56<sup>th</sup> place (0.5% of the index) at December 31, 2014;
- the BEL 20 index, based on the 20 most significant shares listed on Euronext Brussels. At December 31, 2014, Solvay represented around 7% of the value of this index (5<sup>th</sup> place in this index). Solvay shares are included in the "Chemicals – Specialties" category of the Euronext Brussels sector index;
- the CAC 40 index, based on the 40 most significant shares listed on Euronext Paris where Solvay ranked in 33<sup>th</sup> place (0.8% of the index) at December 31, 2014;
- the DJ Stoxx, DJ Euro Stoxx, FTSE 300, MSCI and other indexes.

On February 15, 2007, Solvay Stock Option Management SPRL appointed the bank Rothschild & Cie., under a liquidity contract, to improve the liquidity of the share on Euronext Brussels. In May 2014, the liquidity contract has been transferred to Kepler Cheuvreux.

**1.3** Solvay SA's main shareholder is Solvac SA, which at December 31, 2014 held a little over 30% of the capital (25,578,267 shares) and voting rights in Solvay. Solvac SA has filed the required transparency declarations every time it has passed a legal or statutory declaration threshold. It has also made the notifications required by law with regard to public takeover bids.

Solvac SA is a *société anonyme* established under Belgian law, the shares of which are admitted to trading on Euronext Brussels. Its shares, all of which are registered, may be held by physical persons only. The very large majority (around 80%) of its capital is held by members of the Solvay SA founding families.

JPMorgan Asset Management Holdings Inc. notified Solvay that on November 21, 2012 the total participation of its various affiliates reached 3.03% or 2,562,505 shares.

Prudential Plc. notified Solvay that on August 7, 2014 the total participation of its various affiliates reached 3.02% or 2,556,028 shares.

On January 7, 2015, Prudential Plc. has notified Solvay that the total participation of its various affiliates has fallen below the threshold of 3% to 2.95% or 2.507,152 shares.

In addition, at December 31, 2014, Solvay Stock Option Management SPRL held 2.03% of the shares issued by Solvay SA (1,719,208 shares), in particular to cover the Solvay stock options program (see under 2.1 "Policy in respect of capital").

The latest transparency declarations are available on the internet site www.solvay.com.

The remaining shares are held by:

- individual shareholders who hold shares directly in Solvay SA. None of these persons, either individually or in concert with others, reaches the initial 3% transparency declaration threshold;
- European and international institutional shareholders, whose number and interest can be measured by the intensity of contacts at the many roadshows, by the regular publication of analysts' reports and by the level of trading volumes over recent years (an average daily trading volume on Euronext of 193,011 shares in 2014 vs. 213,237 shares in 2013).

<sup>(1)</sup> For reason of readability, the present document also contains the information requested by the 2009 Belgian Corporate Governance Code for the Corporate Governance Charter.



The Company has been informed that certain individual shareholders who hold shares directly in Solvay SA have decided to arrange to consult together when questions of particular strategic importance are submitted by the Board of Directors to the Shareholders' Meeting. Each of these shareholders, however, remains free to vote as he or she chooses. None of these persons, either individually or in concert with others, reaches the initial 3% transparency declaration threshold; **1.4** At the May 2014 Ordinary Shareholders' Meeting, shares were deposited and votes cast in respect of 62.48% of Solvay SA's capital.

**1.5** At December 31, 2014, Solvay SA did not hold any shareholding requiring a legal or statutory transparency declaration.

# 2 Capital and dividend policy

# 2.1 Policy in respect of capital

**2.1.1** Since being converted into a *société anonyme* and listed on the Stock Exchange in 1967, the Company has not made public calls for capital from its shareholders, instead self-financing out of its profits, only a portion of which are distributed (see "Dividend policy" below).

**2.1.2** In December 1999, the Company introduced a new annual stock option program for Group executives worldwide. These programs are covered in part or totally by own shares purchased by the Solvay group on the stock exchange. Since January 2007, the covering program has been handled by Solvay Stock Option Management SPRL.

In February 2014 the Board of Directors, on the proposal of the Compensation Committee, allotted stock options to some Group senior executives. This stock options plan includes Mr. Jean-Pierre Clamadieu (also director). Mr. JP. Clamadieu abstained, for ethical reasons, from the deliberations of the Board of Directors that concerned him with respect to stock options.

Mr. Jean-Pierre Clamadieu has accepted 32,990 options.

At December 31, 2014, Solvay Stock Option Management SPRL's holdings of Solvay SA shares represented 2.03% (1,719,208 shares) of the Company capital.

In 2014, stock options representing a total of 732,600 shares were exercised (it should be noted that options are in principle exercisable over a period of five years after being frozen for three years).

The stock options exercised break down as follows:

- 2005 stock option plan: 31,900 shares;
- 2006 stock option plan: 284,500 shares;
- 2007 stock option plan: 92,450 shares;
- 2008 stock option plan: 48,150 shares;
- 2009 stock option plan: 67,400 shares;
- 2010 stock option plan: 208,200 shares.

Voting and dividend rights attached to these shares are suspended as long as they are held by the Company.

Finally it should be mentioned that, under the tender offer by Solvay SA for the shares of Rhodia, liquidity agreements were concluded with employees receiving free shares or options on Rhodia shares to enable these beneficiaries to retain their rights and to sell their Rhodia shares during a specified period after the close of the tender offer. The free shares exposure is fully covered.

### **STOCK OPTIONS PLANS**

Issue date	<b>Exercise price</b> (In €)	Exercise date <sup>(1)</sup>	Acceptance rate	
2001	62.25	02/2005-12/2009	98.6%	
2002	63.76	02/2006-12/2010	98.4%	
2003	65.83	02/2007-12/2011	97.3%	
2004	82.88	02/2008-12/2012	96.4%	
2005	97.30	02/2009-12/2013	98.8%	
2006	109.09	02/2010-12/2014	97.2%	
2007	96.79	01/2011-12/2015	97.6%	
2008	58.81	01/2012-12/2016	96.9%	
2009	72.34	01/2013-12/2017	98.2%	
2010	76.49	01/2014-12/2018	98.1%	
2011	65.71	01/2015-12/2019	93.8%	
2012	88.71	01/2016-03/2020	97.2%	
2013	111.01	01/2017-03/2021	100%	
2014	107.61	01/2018-02/2022	100%	

 Increased to eight years in the case of the 1999 to 2002 Stock Options Plans for beneficiaries in Belgium. Increased to ten years in the case of the 2005 to 2007 Stock Options Plans for beneficiaries in Belgium.



# 2.2 Dividend policy

**2.2.1** Board policy is to propose a dividend increase to the Shareholders' Meeting whenever possible, and as far as possible, never to reduce it. This policy has been followed for many years. The graph below illustrates the application of this policy over the past 20 years.

**2.2.2** The annual dividend is paid in two instalments, in the form of an advance payment (interim dividend) and a payment of the balance. The method to set the advance payment includes a guidance of 40% (rounded) of the total previous year's dividend, and takes into account the results for the first nine months of the current year.

In this way, for 2014, an interim dividend of  $\in$  1.3\* gross per share (€ 1.00 net after Belgian withholding tax of 25%) was approved by the Board of Directors on December 12, 2014.

This interim dividend, which was paid on January 22, 2015, is to be offset against the total dividend for 2014.

As to the balance, once the annual financial statements have been completed, the Board of Directors proposes a dividend, in accordance with the policy described above, which it submits to the Ordinary Shareholders' Meeting for approval.

The second dividend instalment, *i.e.* the balance after deducting the advance payment, is payable in May.

The dividend for 2014, proposed to the General Shareholders' Meeting of May 12, 2015 is 3.40 gross per share (2.55 net per share), ie an increase of 6.3%, compared with the dividend for 2013. Given the interim dividend payment made on January 22, 2015, the balance of  $\notin$  2.06\* gross per share ( $\notin$  1.55 net per share) will be payable from May 19, 2015.



# Solvay dividend (gross) from 1995 to 2014 (in €)

**2.2.3** Shareholders who have opted to hold registered shares receive the interim dividend and the balance of the dividend automatically and free of charge by transfer to the bank account they have indicated, on the dividend payment date. Shareholders owning dematerialized shares receive their dividends via their banks or as they elect and arrange.

Coupons representing the interim dividend and dividend balance are payable at KBC Bank SA and CBC Banque SA:

- KBC Bank SA, Havenlaan 2, 1080 Brussels (Belgium);
- CBC Banque SA, Grand-Place 5, 1000 Brussels (Belgium).

**2.2.4** The Company has not, up to this point, proposed optional dividends to its shareholders, *i.e.* stock instead of cash dividends. This option does not offer any tax or financial benefit in Belgium to make it attractive to investors.

<sup>\*</sup> Repeating last decimal. Dividend payments rounded to the nearest euro cent.



# 3 Shareholders' Meetings

It should be noted that the law of December 20, 2010 concerning the exercise of certain rights of shareholders in listed companies has modified the provisions of the Companies' Code concerning the holding of General Meetings. The by-laws of Solvay SA have been adapted accordingly.

# 3.1 Place and date

The Company's annual Ordinary Shareholders' Meeting is held every year on the second Tuesday of May at 10.30 a.m. at the registered office or any other place indicated in the notice of meeting.

The Board tries to organize any necessary Extraordinary Shareholders' Meeting immediately before or after the annual Ordinary Shareholders' Meeting.

# 3.2 Agenda

The Shareholders' Meeting is convened by the Board of Directors, which also sets its agenda. Shareholders may, however, request the calling of a Shareholders' Meeting and set its agenda where those shareholders together represent 20% of the capital, as required by the Companies' Code.

One or more shareholders owning together at least 3% of capital may also, under the conditions provided for by the Companies' Code, call for items to be included on the agenda of any Shareholders' Meeting and submit proposals for decisions concerning the items to be included or already included on the agenda of an already convened meeting.

The agenda of the Ordinary Shareholders' Meeting as a rule includes the following items:

- the Board of Directors' report on the financial year, including the corporate governance report and the compensation report;
- the auditor's report for the year;
- the consolidated financial statements for the year;
- approval of the annual financial statements;
- setting the dividend for the year;
- discharge of the directors and the statutory auditor in respect of the financial year;
- setting the number of directors and of independent directors, the length of their terms of office and the rotation of renewals;
- election of directors and of the external auditor (renewals or new appointments);
- the Company's compensation report (included in Chapter 6 below), which is communicated to the Works' Council as provided by law;
- setting the auditor's annual fee for the external audit for the duration of the auditor's appointment; and approval of change of control clauses in significant contracts (*e.g.* joint ventures).

Extraordinary Shareholders' Meetings are required in particular for all matters affecting the content of the Company's by-laws. Every time the Board of Directors prepares a special report in advance of an Extraordinary Shareholders' Meeting, this special report is enclosed with the notice of the meeting and is published on the Company's internet site.

# 3.3 Procedure for calling meetings

The notices convening Shareholders' Meetings set forth the place, date and time of the meeting, the agenda, the reports, proposed decisions on each item to be voted on, and the procedure for taking part in the meeting or for appointing proxies.

Holders of registered shares receive notice of the meeting by postoffice mail at the address they have given, including notification of participation and proxy forms, except where recipients have agreed, individually, expressly and in writing, to receive notice of meetings and attached documents by another means of communication. Persons owning dematerialized shares are notified of meetings by announcements in the press. These notices of meetings are published in the official Belgian gazette (Moniteur Belge/Belgisch Staatsblad) and in the financial press, in particular the Belgian French and Dutch-language newspapers. The major banks established in Belgium also receive the necessary documentation to pass on to Solvay shareholders among their clients.

# 3.4 Participation in Shareholders' Meetings and appointment of proxies

**3.4.1** Since January 1, 2012, the registration procedure has been obligatory for participating in and voting at the Shareholders' Meeting.

Shareholders must complete the registration of their securities by 24.00 hours (Belgian time) on the  $14^{\rm th}$  calendar day prior to the relevant Shareholders' Meeting.

For holders of registered shares, shares are registered automatically by virtue of being in the Company's register of registered shares on the registration date.

Dematerialized shares are registered by virtue of their being recorded in the accounts of a recognized account holder or a clearing organization.

Shareholders are admitted to the Shareholders' Meetings and may exercise their voting rights with the shares that have gone through the legal registration procedure, regardless of the number of shares they hold on the date of the particular Shareholders' Meeting.

**3.4.2** Shareholders should also indicate to the Company and, where applicable, to the person they have designated to that effect, their desire to take part in the Shareholders' Meeting, no later than the sixth calendar day preceding the date of the Shareholders' Meeting.



Holders of registered shares must send to the Company the signed original notice of participation, using the form attached to their notice of meeting.

Holders of dematerialized shares should send the Company a certificate from the recognized account holder or the clearing organization certifying the number of shares that are registered in their name in their accounts at the registration date and for which they wish to participate in the Shareholders' Meeting.

More detailed information on arrangements for taking part in the Shareholders' Meeting will be made available to shareholders on the Company website (http://www.solvay.com/en/investors/shareholders-meeting/index.html).

**3.4.3** The exercise of voting rights attached to shares that are jointly owned or the usufruct and bare property rights of which have been separated, or shares belonging to a minor or a legally incapacitated person, follows special legal and statutory rules, a common feature of which is the appointment of a single representative to exercise the voting right. Failing this, the voting right is suspended pending such appointment.

**3.4.4** Shareholders vote at Shareholders' Meetings in person or by proxy. The form of proxy is determined by the Board and will be available on the Company website once the Shareholders' Meeting in question has been called. Proxies must be received at the location indicated or, where applicable, at the email address mentioned in the notice no later than the sixth calendar day preceding the date of the Shareholders' Meeting.

The appointed agent does not have to be a shareholder of the Company.

In the event that certain shareholders exercise their right to add items or proposals for decisions to the agenda of a Shareholders' Meeting, the proxies already notified to the Company remain valid for the subjects they cover. Regarding the new items, the reader is referred to the provisions of the Companies Code.

The appointed agent may not deviate from the specific voting instructions given to him by a shareholder, except for the exceptions provided by the Companies Code.

In the absence of specific instructions on each agenda item, the agent who finds himself in a situation of potential conflict of interest with his principal, within the meaning of Article 547 *bis*,  $\S$  4 of the Companies Code, may not vote.

Invalid proxy forms will be excluded from the count. Abstentions formally expressed as such during a vote or on proxy forms are counted as such.

**3.4.5** Each shareholder who complies with the formalities for admission to the Shareholders' Meeting is entitled to ask questions in writing concerning the items on the agenda. These questions can be submitted by mail to the registered office or electronically to the email address specified in the notice. Written questions must reach the Company no later than the sixth calendar day before the date of the Shareholders' Meeting.

# 3.5 Procedure

**3.5.1** The Shareholders' Meeting is chaired by the Chairman of the Board or, in his absence, by a Director delegated to this task by his colleagues.

The Chairman will preside over the discussions following Belgian practice for deliberative meetings. He will take care to ensure that questions from the meeting are answered, whilst respecting the agenda and confidentiality commitments. He will appoint the secretary of the meeting, who as a rule is the Corporate Secretary, and will appoint two shareholders as tellers.

**3.5.2** Resolutions in Ordinary Shareholders' Meetings are passed by a simple majority of votes of shareholders present and represented on a "one share, one vote" basis.

**3.5.3** In the case of Extraordinary Shareholders' Meetings, the Company respects the legal rules governing quorums and majorities.

**3.5.4** Voting is, as a general rule, public, by show of hands or by electronic voting. Votes are counted and the results announced immediately.

Provision is made for secret balloting in exceptional cases when a particular person is involved.

This procedure has never been requested to date. This by-law was amended at the Extraordinary Shareholders' Meeting of May 9, 2006 so as to set a threshold of 1% of capital to be reached by one or more shareholders acting in concert, and only when there is more than one candidate for a given office.

The minutes of the Shareholders' Meeting are drawn up and signed by the Chairman, secretary, tellers and those shareholders who wish to do so. Minutes of Extraordinary Shareholders' Meetings are notarized.

**3.5.5** The minutes containing the voting results are published on the Company's internet site (www.solvay.com) no later than the 15<sup>th</sup> calendar day after the date of the Shareholders' Meeting. Copies or official extracts may be obtained on request by shareholders, in particular under the signature of the Chairman of the Board.

# 3.6 Documentation

Documentation relating to Shareholders' Meetings (notice of meeting, agenda, proxy and notification of participation forms, annual report, special report of the Board of Directors if any, etc.) is available every year on the Internet site www.solvay.com from the time of giving notice of the meeting and at least until the holding of the meeting in question.

This documentation is available in French and Dutch (official versions) and in English (unofficial translation).

# 4 Board of Directors

# 4.1 Role and mission

The Board of Directors is the highest management body of the Company.

The law accords to it all powers that are not reserved, by law or by the by-laws, to the Shareholders' Meeting.

In the case of Solvay SA, the Board of Directors has reserved certain key areas for itself and has delegated the remainder of its powers to an Executive Committee (see below).

It has not opted to set up a Management Committee (*Comité de Direction/Directiecomité*) as defined by Belgian law.

The main key areas which the Board of Directors has reserved for itself are:

- 1 matters for which it has exclusive responsibility, either by law or under the by-laws, for example:
- the preparation and approval of the consolidated periodic financial statements and those of Solvay SA (quarterly – consolidated only, semiannual and annual) and the related communications;
- adoption of accounting standards (in this case the IFRS standards for the consolidated accounts and Belgian standards for the Solvay SA unconsolidated accounts);
- convening Shareholders' Meetings and drawing up the agenda and proposals for resolutions to be submitted to them (concerning, for example, Company financial statements, dividends, amendments to the by-laws, etc.);
- 2 setting the general strategies and general policies of the Group;
- 3 approving the reference frameworks for internal control and for risk management;
- 4 adopting the budget and long-term plan, including investments, R&I and financial objectives;
- 5 appointing the Chairman, members of the Executive Committee, General Managers and the Corporate Secretary, and setting their missions and the extent of the delegation of powers to the Executive Committee;
- 6 supervision of the Executive Committee and ratification of its decisions, where required by law;
- 7 appointing from among its members a Chairman and creating from among its members an Audit Committee, a Compensation Committee, a Nomination Committee and a Finance Committee, defining each Committee's mission and determining its composition and its duration;
- 8 major decisions concerning acquisitions, divestitures, the creation of joint ventures and investments. Major decisions are considered to be those involving amounts of € 50 million or more;

- 9 setting the compensation of the Chairman of the Executive Committee and of Executive Committee members;
- **10** establishing internal Corporate Governance and Compliance rules.

In all matters for which it has exclusive responsibility, the Board of Directors works in close cooperation with the Executive Committee, which in particular is responsible for preparing most of the proposals for decisions by the Board of Directors.

# 4.2 Modus operandi and representation

**4.2.1** Board members have available to them the information needed to carry out their functions in the form of dossiers drawn up under instructions from the Chairman and sent out to them by the Corporate Secretary several days before each session.

They may also receive additional information of any kind that may be of use to them from the Chairman of the Board, the Chairman of the Executive Committee or the Corporate Secretary, depending on the nature of the question. Decisions to obtain outside expertise, when necessary, are taken by the Board of Directors, for those subjects falling within its authority.

**4.2.2** The Company is validly represented with regard to third parties by the joint signature of persons with the following capacities: the Chairman of the Board of Directors and/or directors belonging to the Executive Committee.

In its meeting of October 24, 2014, the Executive Committee adapted the powers of representation for matters delegated to it as follows:

- 1 For daily management of Solvay SA, to each member of the Executive Committee acting alone;
- 2 For other powers delegated by the Board of Directors to the Executive Committee: to each member of the Executive Committee acting together with the Chairman of the Board of Directors or the Chairman of the Executive Committee;
- 3 To each General Manager acting alone for any decision up to a maximum amount of € 10 million within the area assigned to him/her.

This delegation of powers of representation is without prejudice to the existence of special powers conferred by the Board of Directors or the Executive Committee.

**4.2.3** The Directors of the Company were not confronted in 2014 with conflict of interest situations requiring the implementation of the legal procedures provided for by the Companies' Code.

On the other hand, and in a very limited number of cases, one or the other member has preferred, for ethical reasons, to abstain from participating in debates and in voting.

# 4.3 Composition

# 4.3.1 Size & Composition

At December 31, 2014, the Board of Directors consisted of 15 members, as listed on pages 55 and 56.

# 4.3.2 At the Ordinary Shareholders' Meeting on May 13, 2014

- The directorships of Mr. Denis Solvay and Dr. Bernhard Scheuble were renewed for a four-year term.
- Mrs. Rosemary Thorne was appointed as a new independent Director for a four-year term.
- Mr. Gilles Michel was appointed as new independent Director for a four-year term.

At the Ordinary Shareholders' Meeting of May 12, 2015, the Board of Directors will:

- propose renewing the directorship of Mr. Charles Casimir-Lambert and Mr. Yves-Thibault de Silguy for a four-year term;
- acknowledge the Resignation of Chevalier Guy de Selliers de Moranville;
- propose not to reassign the directorship of Chevalier Guy de Selliers de Moranville;
- propose appointing Mrs. Marjan Oudeman as an independent Director for a four year term to replace Chevalier Guy de Selliers de Moranville.

### Terms of office and age limit

Directors are appointed by the Shareholders' Meeting for four years. They may be reappointed.

The age limit for membership on the Board is the Annual Shareholders' Meeting following the member's 70<sup>th</sup> birthday.

### 4.3.3 Criteria for appointment

The Board of Directors applies the following primary criteria when proposing candidates for election to directorships by the Ordinary Shareholders' Meeting:

- ensuring that a substantial majority of directors on the Board are non-executive. On December 31, 2014, 14 out of 15 directors were non-executive, and only Mr. Jean-Pierre Clamadieu belonged to the Executive Committee;
- ensuring that a large majority of non-executive directors are independent according to the criteria defined by law and further tightened by the Board of Directors (see "criteria of independence" below),

In this respect, on December 31, 2014, the independent status of 9 out of 14 non-executive directors has been recognized by the Ordinary Shareholders' Meeting;

- ensuring that the members of the Board of Directors together reflect the shareholder structure and possess the wide range of competences and experience required by the Group's activities;
- ensuring that the Board of Directors' international composition appropriately reflects the geographic extent of its activities. At December 31, 2014, the Board included members of seven different nationalities;
- ensuring that the candidates it presents commit to devoting sufficient time to the task entrusted to them. In this respect, attendance at Board meetings was very high in 2014 (98%);
- ensuring, finally, that it does not select any candidate holding an executive position in a competing company or who is or was involved in the external audit of the Group.

Belgian law and the by-laws of the Company permit spontaneous candidacies for the post of director, providing that these are addressed to the Company in writing at least 40 days before the Ordinary Shareholders' Meeting.

As required by law, the Board of Directors, consisting of 11 men and 4 women at December 31, 2014, will take care, when mandates are next renewed, to comply, within the relevant deadlines, with the requirement that at least one-third of the Board be women.

The Chairman of the Board, working together with the Chairman of the Nomination Committee, gathers the information allowing the Board of Directors to verify that the selected criteria have been met at the time of appointment, renewal and during the term of office.

# 4.3.4 Criteria for independence

Based on Belgian law, the Board of Directors sets the criteria for determining directors' independence. Each director fulfilling these criteria is presented to the Ordinary Shareholders' Meeting for confirmation.

The legal criteria of independence as contained in Article 526 *ter* of the Companies' Code (introduced by the law of December 17, 2008, art. 16) are as follows:

1 during a period of five years before appointment, not having acted as an executive member of the management body or a member of the Executive Committee or managing director in the Company or in a company or person affiliated with the same within the meaning of Article 11 of the Companies' Code. The Board of Directors has added to this criterion a minimum one-year waiting period for the Shareholders' Meeting to recognize the independence of a nonexecutive director of Solvac leaving its Board of Directors to join the Solvay Board of Directors;



- 2 not having sat on the Board of Directors in the capacity of a nonexecutive director for more than three successive terms of office or more than twelve years;
- 3 during three years prior to appointment, not having been part of the senior management, within the meaning of Article 19.2 of the law of September 20, 1948 on the organization of the economy, of the Company or of a company or an affiliated person within the meaning of Article 11 of the Companies' Code;
- 4 not having received compensation or any other significant benefit of a patrimonial nature from the Company or an affiliated company or person within the meaning of Article 11 of the Companies' Code, with the exception of any profit percentages (*tantièmes*) or fees received in the capacity of non-executive member of the management body or a member of the supervisory body;
- a) not holding any ownership rights in the Company representing a tenth or more of the capital, or the Company equity, or a category of shares of the Company;
  - b) where the person in question holds ownership rights of under 10%:
  - when these ownership rights are added to those held in the same company by companies over which the independent director has control, these ownership rights may not reach one tenth of the capital, of the Company equity, or a category of shares of the Company,

or

- the use of these shares or the exercise of the rights attached to the same may not be subject to contract stipulations or to unilateral commitments to which the independent member of the management body has subscribed,
- c) not representing in any way a Shareholder meeting the conditions of this item;
- 6 not maintaining, or having maintained during the past financial year, a significant business relationship with the Company or with an affiliated company or person within the meaning of Article 11 of the Companies' Code, either directly or in the capacity of partner,

shareholder, member of the management body or of member of senior management, within the meaning of Article 19.2 of the law of September 20, 1948 on the organization of the economy, of a company or a person maintaining such relationship;

- 7 not having been, during the past three years, a partner or salaried employee of the current or previous external auditor of the Company or of an affiliated company or person within the meaning of Article 11 of the Companies' Code;
- 8 not being an executive member of the management body of another company in which an executive director of the Company acts as a non-executive member of the management body or member of the supervisory body, nor maintaining other major connections with the executive directors of the Company as a result of functions exercised in other companies or bodies;
- 9 not having, either within the Company or within an affiliated company or person within the meaning of Article 11 of the Companies' Code, a spouse or legally cohabiting partner, or parents or relations up to the second degree of kinship holding the position of member of the management body, of member of the Executive Committee, of a day-to-day executive manager or of member of senior management, within the meaning of Article 19.2 of the law of September 20, 1948 on the organization of the economy, or falling under one of the other cases defined in items 1 to 8.

In this respect, on December 31, 2014, the independent status of 9 out of 14 non-executive directors has been recognized by the Ordinary Shareholders' Meeting.

Mr. Jean-Pierre Clamadieu, Chairman of the Executive Committee and CEO, was not recognized as independent at the time of the renewal of his directorship in 2013 (criterion no. 1).

Mr. Bernard de Laguiche, Member of the Executive Committee till September 30, 2013, was not recognized as independent at the time of the renewal of his directorship in 2013 (criterion no. 1).

Mr. Nicolas Boël, Mr. Denis Solvay, Mr. Jean-Marie Solvay and Chevalier Guy de Selliers de Moranville, having been Directors of the Company for over 12 years, are not independent for this reason (criterion no. 2).

Presence at

	Year of birth		Solvay SA mandates, and expiry date of directorship	Diplomas and activities outside Solvay	Board meetings in 2014 as a function of date of appointment
Mr. Nicolas Boël (B)	1962	1998	2017 Chairman of the Board of Directors, Chairman of the Finance Committee and Chairman of the Compensation Committee. Member of the Nomination Committee	MA in Economics (Catholic University of Louvain), Master of Business Administration (College of William and Mary – USA). Director of Sofina.	6/6
Mr. Jean-Pierre Clamadieu (F)*	1958	2012	2017 Chairman of the Executive Committee and CEO, Director and Member of the Finance Committee	Engineering degree from the École des Mines (Paris). Director of Axa, Faurecia.	6/6
Mr. Bernard de Laguiche (F/BR)	1959	2006	2017 Member of the Executive Committee until September 30, 2013, Director, Member of the Finance Committee and Member of the Audit Committee since May 13, 2014	Member of the Executive Committee (University of St. Gallen, Switzerland). ntil September 30, 2013, Director, Member of the Finance Committee Peroxidos do Brasil Ltda, Curitiba.	
Mr. Jean-Marie Solvay (B)	ie 1956 1991 2016 Director Member of the Innovation Board Member of the Board of the International Solvay Institutes.		6/6		
Chevalier Guy de Selliers de Moranville (B)	r Guy de 1952 1993 2017 le Moranville Director MA in Economics (Catholic University of Louvain). Member of the Finance and Audit Committees Committees Vice-Chairman of the Board and Chairman of the Risk and Capital Committee of Ageas SA, Chairman of the Board of Nanhoe Board of Ageas UK, Member of the Supervisory Board and Chairman of the Supervisory Board and Chairman of the Supervisory Board and Chairman of the Risk Committee of Advanced Mines Ltd. (Canada), Member of the Supervisory Board and Chairman of the Risk Committee of Advanced Metallurgical Group (Netherlands) and, various other mandates in unlisted companies.		6/6		
Mr. Denis Solvay (B)	1957	1997	2018 Director Member of the Compensation and Nomination Committees Business engineering – Solvay Business School (Université Libre de Bruxelles). Director of Eurogentec SA, Abelag Holding, SA, Luxaviation Holding Company. Voluntary Director of the healthcare Institute A.N.B.C.T. and Queen Elisabeth Musical Chapel.		6/6
Mr. Jean-Martin Folz (F)			2/2		
Prof. Dr. Bernhard Scheuble (D)	1953	2006	2018 Independent Director Chairman of the Audit Committee	MSc, Nuclear Physics & PhD, Display Physics (Freiburg University – Germany). Former Chairman of the Executive Committee of Merck KGaA, (Darmstadt) and former Member of the E. Merck OHG Board of Directors.	6/6
Mr. Anton van Rossum (NL)	1945	2006	2014 Independent Director Member of the Audit Committee	MA in Economics and Business Administration (Erasmus University Rotterdam). Member of the Board of Credit Suisse Group (Zurich) and of Munich Re (Munich), Chairman of the Board of Royal Vopak, Erasmus University and the Netherlands Economics Institute (Rotterdam).	2/2
Mr. Charles Casimir- Lambert (B)	1967	2007	2015 Independent Director Member of the Audit Committee	MBA Columbia Business School (New York)/London Business School (London), Master's degree (lic.oec.HSG) in economics, management and finance (University of St. Gallen – Switzerland). Management of family's global interests.	6/6

\* Full-time activity in the Solvay group.



	Year of birth		Solvay SA mandates, and expiry date of directorship	Diplomas and activities outside Solvay	Presence at Board meetings in 2014 as a function of date of appointment
Mr. Hervé Coppens d'Eeckenbrugge (B)	1957	2009	2017 Independent Director Member of the Finance Committee Member of the Audit Committee	MA in Law from the University of Louvain-la-Neuve (Belgium), Diploma in Economics and Business, ICHEC (Belgium). Until June 30, 2013, Group Director Petercam sa, Director of Vital Renewable Energy Company LLC (Delaware).	6/6
Mr. Yves-Thibault de Silguy (F)	1948	2010	2015 Independent director Member of the Compensation Committee and Chairman of the Nomination Committee Member of the Finance Committee	MA in Law from the University of Rennes, DES in public law from the Université de Paris I, graduate of the Institut d'Études Politiques de Paris and the École Nationale d'Administration. Vice-Chairman and Lead Director of the VINCI group, Director of LVMH, Chairman of the Supervisory Board of Sofisport (France), Director of VTB bank (Moscow), and Chairman of YTSeuropaconsultants.	6/6
Mrs. Evelyn du Monceau (B)	1950	2010	2017 Independent director Member of the Compensation and Nomination Committees MA in Applied Economics from the Catholic University of Louvain. Vice Chair of the Board and Chair of the Remuneration and Nomination Committee of UCB SA, Member of the Board of Directors of La Financière de Tubize SA, Direct of FBNet Belgium, Member of the Commission Corpora Governance.		6/6
Mrs. Françoise de Viron (B)	1955	2013	2017 Independent Director Member of the Compensation and Nomination Committees	Doctorate of Science (UCL, Louvain-la-Neuve). Master in Sociology (UCL, Louvain-la-Neuve). Professor in the Faculty of Psychology and Education Sciences and Louvain School of Management (UCL), Academic Member of the Center of Research Entrepreneurial Change and Innovative Strategies, of Interdisciplinary Group of Research in Socialization, Education and Training, of the Interdisciplinary Research Group in Adult Education at UCL.	6/6
Mrs. Amparo Moraleda Martinez (ES)	1964	2013	2017 Independent Director Member of the Compensation and Nomination Committees	Degree in Industrial Engineering, ICAI (Spain) MBA, IESE Business School (Spain). Former General Manager for IBM Spain, Portugal, Greece, Israel and Turkey. Former Chief Operating Officer, International Division (Spain) and Acting CEO, Scottish Power (UK) of Iberdrola. Member of the Boards of the following listed companies: Alstom (France), Faurecia (France), Caixabank (Spain) and Melía Hotels International (Spain). Member of the Consejo rector of Consejo Superior of Investigaciones Cientificas.	6/6
Mrs. Rosemary Thorne (UK)	1952	2014	2018 Independent Director Member of the Audit Committee since May 13, 2014	Honours Degree in Mathematics and Economics from the University of Warwick. Fellow of Chartered Institute of Management Accountants FCMA and CGMA. Fellow Association of Corporate Treasurers FCT. Former Chief Financial Officer for J. Sainsbury, Bradford & Bingley and Ladbrokes. Member of the Board and Chair of Audit Committee of Santander UK and Smurfit Kappa Group (Ireland).	4/4
Mr. Gilles Michel (F)	1956	2014	2018 Independent Director Member of the Finance Committee since May 13, 2014	École Polytechnique. École National des la statistique et de l'administration Économique (ENSAE). Institut d'Études Politiques (IEP). Former CEO "Ceramics & Plastics", Saint-Gobain, France. Former Member of the Management Board, PSA, France. Former CEO, Fonds stratégique d'Investissement (FSI), France. Chairman & CEO, Imerys, France (listed).	2/4



# 4.3.5 Appointment, renewal, resignation and dismissal of Directors

The Board of Directors submits directors' appointments, renewals, resignations or dismissals to the Ordinary Shareholders' Meeting for approval. It also submits to it the vote on the independence of the Directors fulfilling the related criteria, after informing the Works' Council of the same. It also first seeks the opinion of the Nomination Committee, which is tasked with defining and assessing the profile of any new candidate using the criteria of appointment and of specific competences it sets.

The Ordinary Shareholders' Meeting decides on proposals made by the Board of Directors in this area by a simple majority. When a directorship becomes vacant during a term of office, the Board of Directors may appoint a new member, subject to ratification by the next following Ordinary Shareholders' Meeting.

# 4.3.6 Frequency, preparation and holding of Board meetings

The Board of Directors met six times in 2014. Six ordinary meetings are planned in 2015.

The dates of ordinary meetings are set by the Board of Directors itself, more than one year before the start of the financial year. Additional meetings can, if needed, be called by the Chairman of the Board of Directors, after consulting with the Chairman of the Executive Committee.

The agenda for each meeting is set by the Chairman of the Board of Directors after consulting with the Chairman of the Executive Committee.

The Corporate Secretary is charged, under the supervision of the Chairman of the Board of Directors, with organizing meetings, and sending notices of meetings, agendas and the dossier containing the item-by-item information required for decision-making.

To the extent possible, he ensures that directors receive notices of meetings and complete files at least six days before the meeting. The Corporate Secretary prepares the minutes of the Board meetings, presenting the draft to the Chairman and then to all members.

Finalized minutes that have been approved at the following Board meeting are signed by all Directors having taken part in the deliberations.

The Board of Directors takes its decisions in a collegial fashion by a simple majority of votes. Certain decisions that are considered particularly important by the Company's by-laws require a three-quarters majority of its members. The Board may not validly transact its business unless half of its members are present or represented. Given the very high level of attendance, the Board of Directors has never been unable to transact business.

# 4.4 Evaluation and training

# 4.4.1 Evaluation

In 2013, the Board of Directors undertook an evaluation, focused primarily on its own composition, modus operandi, information and interactions with executive management, and the composition and modus operandi of the Committees created by it. Board members were invited to express their views on these various points during interviewes based on a questionnaire and performed by an external consultant. The improvements identified at the end of this evaluation process are related to optimization of the meeting time, interactions, contacts and exchanges with management and Board Committees as well as minor changes to the organization of the meetings. The next evaluation of the Board will take place in 2015.

## 4.4.2 Training

Information sessions are organized for new Directors, aimed at acquainting them with the Solvay group as quickly as possible. The program includes a review of the Group's strategy and activities and of the main challenges in terms of growth, competitiveness and innovation, as well as finance, research & development, human resources management, the legal context, compliance and the general organization of operations. This program is open to every Director who wishes to participate.

It also includes visiting industrial or research sites.

# 4.5 Committees

### 4.5.1 **Rules common to the various Committees**

- The Board of Directors has set up on a permanent basis the following specialized Committees: the Audit Committee, the Finance Committee, the Compensation Committee and the Nomination Committee.
- These Committees do not have decision-making powers. They are advisory in nature and report to the Board of Directors, which takes the decisions. They are also called on to give opinions at the request of the Board of Directors or Executive Committee. After presentation to the Board of Directors, the Committees' reports are attached to the minutes of the Board meeting.
- Terms of office on the four Committees are for two years and are renewable. The composition of these Committees is communicated on the Company's internet site.
- Members of the permanent Committees (except for Executive Committee members) receive separate compensation for this task.
- The Board of Directors may set up a temporary *ad hoc* Committee to liaise with the Executive Committee on an important issue. One such Committee was set up at the end of 2009 to examine the reinvestment of the proceeds of the sale of the Group's pharmaceuticals activities.

All the terms of members of various Committees, expired on May 13, 2014 at the date of the Ordinary Shareholder's Meeting. The new composition of Committees reflects departures/appointments within the Board on that date. It took effect on May 14, 2014, for a period of two years ending on the date of the Ordinary Shareholder's Meeting to be held in 2016.

### 4.5.2 The Audit Committee

In 2014, until the Ordinary Shareholders'Meeting on May 13, 2014, the Audit Committee was composed of Prof. Dr. Bernhard Scheuble (Chairman), Chevalier Guy de Selliers de Moranville, Mr. Anton van Rossum, Mr. Charles Casimir-Lambert and Mr. Hervé Coppens d'Eeckenbrugge). These are independent non-executive directors, with the exception of Chevalier Guy de Selliers de Moranville. After the Ordinary Shareholders'Meeting on May 13, 2014, Mr. de Laguiche was appointed Member of the Audit Committee as well as Mrs. Rosemary Thorne, replacing Mr. Anton van Rossum. The Secretariat of this Committee is provided by a member of the Group's internal legal staff.

This Committee met five times in 2014 including four times before the Board meeting scheduled to consider the publication of periodic results (quarterly, semiannual and annual).

Participation in Audit Committee meetings was very high (96%).

The mission of the Audit Committee is set out in a "Terms of Reference" document (see Annex 1, section 14). It integrates the requirements of Article 526 *bis* of the Corporate law.



The main tasks of the Audit Committee include:

- ensuring the conformity of financial statements and communications of the Company and the Group to generally accepted accounting principles (IFRS for the Group, Belgian accounting law for the parent company);
- monitoring the effectiveness of the Group's internal control systems and risk management;
- examining the areas of risk that can potentially have a material effect on the Group's financial situation;
- verifying the scope/programs and results of internal audit;
- making a proposal to the Board of Directors on the appointment of the external auditor;
- examining the scope of the external audit and the way it is implemented;
- monitoring the scope and the nature of the additional services provided by the external auditor.

At each meeting, the Audit Committee hears reports from the Chief Financial Officer, the head of the Group Service Internal Audit and the auditor in charge of the external audit (Deloitte, represented by Mr. Eric Nys). It also examines the quarterly report by the Group General Counsel on significant ongoing legal disputes and reports on tax and intellectual property disputes. It meets alone with the auditor in charge of the external audit whenever it deems such meetings useful. The Chairman of the Executive Committee and CEO (Mr. Jean-Pierre Clamadieu) is invited, once a year, to discuss the major risks to which the Group is exposed.

The Directors belonging to this Audit Committee fulfill the criterion of competence by their training and by the experience gathered during their previous functions (see section 4.3. concerning the composition of the Board of Directors).

### 4.5.3 The Finance Committee

In 2014 until the Ordinary Shareholders' Meeting on May 13, 2014, the Finance Committee consisted of Mr. Nicolas Boël (Chairman), Mr. Jean-Pierre Clamadieu (Chairman of the Executive Committee), Mr. Bernard de Laguiche, Chevalier Guy de Selliers de Moranville, Mr. Hervé Coppens d'Eeckenbrugge and Mr. Yves-Thibault de Silguy. After the Ordinary Shareholders' Meeting on May 13, 2014, Mr. Gilles Michel was appointed Member of the Finance Committee.

Mr. Karim Hajjar (Executive Committee member and CFO) is invited to attend the Finance Committee meetings.

The Secretary of this Committee is Mr. Michel Defourny.

This Committee met four times in 2014. Participation of the members of the Finance Committee was very high (100%).

The Committee gives its opinion on financial matters such as the amounts of the interim and final dividends, the levels and currencies of indebtedness in the light of interest rate developments, the hedging of foreign-exchange and energy risks, the hedging policy of the long term incentives plans, the content of financial communication, the financing of major investments, etc. It finalizes the preparation of the press releases announcing the quarterly results. It may also be called on to give opinions on Board policies on these matters.

### 4.5.4 The Compensation Committee

In 2014, the Compensation Committee consisted of Mr. Nicolas Boël (Chairman), Mr. Denis Solvay, Mr. Jean-Martin Folz (until the Ordinary Shareholders' Meeting on May 13, 2014). Mr. Yves-Thibault de Silguy, Mrs. Evelyn du Monceau, Mrs. Françoise de Viron and Mrs. Amparo Moraleda.

A majority of the members of this Committee have independent Director status within the meaning of the law.

The Chairman of the Executive Committee is invited to meetings, except for matters that concern him personally.

The Secretary of this Committee is Mr. Michel Defourny.

The meetings are prepared by the Group General Manager Human Resources, who attends the meetings.

This Committee met two times in 2014. Participation of the members of the Compensation Committee was very high (100%).

The Compensation Committee fulfils the missions imposed on it by law.

In particular, it advises the Board of Directors on Compensation policy and compensation levels for members of the Board of Directors and the Executive Committee, and is yearly informed about the compensation of General Management. It also gives its opinion to the Board of Directors and/or Executive Committee on the Group's principal compensation policies (including long term incentive plans). It also prepares the report on compensation.

The Compensation Committee has the expertise necessary to perform its missions.

### 4.5.5 The Nomination Committee

In 2014, until the Ordinary Shareholders' Meeting on May 13.2014, the Nomination Committee consisted of Jean-Martin Folz (Chairman), Mr. Denis Solvay, Mr. Nicolas Boël, Mr. Yves-Thibault de Silguy, Mrs. Evelyn du Monceau, Mrs. Françoise de Viron and Mrs. Amparo Moraleda.

After the Ordinary Shareholders' Meeting of May 13, 2014, Mr. Yves-Thibault de Silguy became Chairman of the Nomination Committee, replacing Mr. Jean-Martin Folz in that capacity.

A majority of the members of the Nomination Committee are independent non-executive Directors.

The Chairman of the Executive Committee is invited to meetings, except for matters that concern him personally.

The Secretary of this Committee is Mr. Michel Defourny.

The Committee met three times in 2014. The participation of members of the Nomination Committee was very high (100%).

The Nomination Committee gives its opinion on appointments to the Board of Directors (Chairman, new members, renewals and Committees), to Executive Committee positions (Chairmanship and Members) and to General Management positions.

# 5 Executive Committee

# 5.1 Role and Mission

**5.1.1** The Board of Directors defines the role and mission of the Executive Committee.

The main decision on delegation of powers dates back to November 12, 2014. This decision took effect immediately.

The Board of Directors delegates to the Executive Committee the following powers:

- 1 Day-to-day management of the company;
- 2 Overseeing the proper organization and functioning of the Company and the Group companies and ensuring oversight of their activities, in particular the introduction of a process for identification, management and control of the principal risks;
- Introduction of a management process to find and retain talent and nominate senior executives for the Group (with the exception of its own members, General Managers and the Corporate Secretary, for which the Board of Directors expressly reserves exclusive power of appointment);
- 4 Compensation of the Group's senior executives (other than compensation of its own members);
- 5 Decisions regarding acquisitions and divestitures (including of intellectual property), for which the maximum amount is set at € 50 million (debt and other commitments included). The Board of Directors is to be informed of any decision involving amounts over € 10 million;
- 6 Decisions on investment expenditures, for which the maximum amount is set at € 50 million. The Board of Directors is to be informed of decisions involving amounts over € 10 million;
- 7 Decisions on substantial commercial transactions and financial operations that do not imply any change in the financial structure of the Company and/or the Group;
- 8 Proposal to the Board of Directors, for its decision, of the principal policies of the Group, setting of other policies;
- 9 Proposals to the Board of Directors for its decision:
- General strategies (including the effect of these strategies on the Budget, the Plan and resource allocation) and general policies of the Group, in particular regarding compensation, annual investment program and research;
- the Budget and the Plan including investments, R&I and financial objectives;
- appointment to General Manager positions and the position of Corporate Secretary;
- general organization of the Company and/or the Group;
- major financial transactions that modify the financial structure of the Company and/or the Group;
- consolidated periodic financial statements and financial statements of Solvay SA (quarterly consolidated only, 6-month and annual) as well as related communications;
- 10 Implementation of decisions of the Board of Directors;
- 11 Submission to the Board of Directors of all questions lying within its competence and regular reports on the exercise of its mission.

# 5.2 Delegation of powers

Execution of Executive Committee decisions and following up on its recommendations is delegated to the Executive Committee member (or another General Manager) in charge of the activity or of the function corresponding to the decision or recommendation.

The Board of Directors in its resolution dated November 12, 2014 expanded the right of the Executive Committee to delegate its powers, under its responsibility, and in compliance with procedures and authorization limits set by the Executive Committee, to one or more of its members, the General Managers of the Group and/or heads of Global Business Units and functions. In particular it has delegated to the GBU Managers the power to undertake binding MGA transactions and capital expenditures up to a ceiling of € 10 million.

# 5.3 Composition

# 5.3.1 Size and composition

At December 31, 2014, the Executive Committee had five members. Mr. Jacques van Rijckevorsel resigned as Executive Committee Member effective September 30, 2014.

### 5.3.2 Terms of office and age limits

Executive Committee members are appointed by the Board of Directors for two-year renewable terms. The Board of Directors has set an age limit of 65 for Executive Committee membership.

# 5.3.3 Criteria for appointment

The Executive Committee is a collegial body made up of executives generally coming from the Group's senior management. Since January 1, 2013, each Executive Committee member has been in charge of the supervision of a number of Global Business Units/Functions; for the CEO and the CFO, this new role has been assumed in addition to their respective specific responsibilities.

All Executive Committee members have employment contracts with the Solvay group, except for Mr. Jean-Pierre Clamadieu, who has self-employed status.

# 5.3.4 Appointment and renewal procedure

The Chairman of the Executive Committee is appointed by the Board of Directors based on a proposal by the Chairman of the Board of Directors and with recommendations by the Nomination Committee. The other Executive Committee members are also appointed by the Board of Directors, but on the proposal of the Chairman of the Executive Committee in agreement with the Chairman of the Board of Directors and with the opinion of the Nomination Committee and the Executive Committee.

Executive Committee members' performance is assessed annually by the Chairman of the Executive Committee. This assessment is undertaken together with the Chairman of the Board and with the Compensation Committee whenever proposals are made for setting variable compensation.

The performance of the Chairman of the Executive Committee is assessed annually by the Compensation Committee.



	Year of birth	Year of first appointment	Term of office ends	Diplomas and main Solvay activities	Presence at meetings (as a function of date of appointment)
Mr. Jean-Pierre Clamadieu (F)	1958	2011	2017	Engineering degree from the École des Mines (Paris). Chairman of the Executive Committee and CEO.	11/11
Mr. Jacques van Rijckevorsel (B) (until 30/09/2014)	1950	2000		Civil Engineering degree in Mechanics (Catholic University of Louvain). Advanced studies in Chemical Engineering (Free University of Brussels). AMP Harvard. Executive Committee member.	9/9
Mr. Vincent De Cuyper (B)	1961	2006	2016	Chemical engineering degree (Catholic University of Louvain), Master in Industrial Management (Catholic University of Leuven), AMP Harvard. Executive Committee member.	11/11
Mr. Roger Kearns (US)	1963	2008	2016	Bachelor of Science – Engineering Arts (Georgetown College – Georgetown), Bachelor of Science – Chemical Engineering (Georgia Institute of Technology – Atlanta), MBA (Stanford University). Executive Committee member.	11/11
Mr. Karim Hajjar (UK)	1963	2013	2017	BSC (Hons) Economics (The City University, London). Chartered Accountancy (ICAEW) Qualification. Executive Committee member and CFO.	11/11
P. Juéry (F)	1965	2014	2016	Graduate of the European Business School of Paris (ESCP – Europe). Executive Committee member.	11/11

# 5.4 Frequency, preparation and procedure of meetings

**5.4.1** The Executive Committee met 11 times in 2014. Meetings are generally held at the Company's registered office, but can also be held elsewhere at the decision of the Executive Committee Chairman. The Executive Committee sets the dates of its meetings before the start of the financial year. Additional meetings can be convened by the Chairman of the Executive Committee, who sets the agenda based, inter alia, on proposals from the Executive Committee members.

**5.4.2** The Corporate Secretary, who acts as secretary to both the Board of Directors and the Executive Committee, is responsible, under the supervision of the Chairman of the Executive Committee, for organizing meetings and sending out notices of meetings and agendas.

Documents and information relating to the agenda items are made available to the members of the Executive Committee prior to the meetings.

The Corporate Secretary drafts minutes consisting of a list of decisions taken during the meeting. These are read and approved at the end of the meeting. They are immediately distributed.

They are not signed, but the Chairman of the Executive Committee and the Corporate Secretary may deliver certified conformed copies of extracts.

It should be noted that the Executive Committee organized certain meetings in tele- or video-conference format.

**5.4.3** The Executive Committee takes its decisions by a simple majority, with its Chairman having a casting vote. If the Chairman of the Executive Committee finds himself in a minority he may, if he wishes, refer the matter to the Board of Directors which will then decide on the matter. In practice, however, almost all Executive Committee decisions are taken unanimously, so that the Chairman has never made use of his casting vote. Attendance at meetings was 100% in 2014.

The topics submitted to the Executive Committee are presented and discussed in the presence of the heads of the involved entities (GBUs, functions). For important projects, it sets up *ad hoc* working teams, led mainly by Executive Committee members chosen on the basis of the competences required.

# 6 Compensation report

# 6.1 Description of the procedure for:

# 6.1.1 Developing a Compensation policy:

### a) For Directors:

Directorships of Solvay SA are remunerated with fixed emoluments, the common basis of which is set by the Ordinary Shareholders' Meeting, and any complement thereto by the Board of Directors on the basis of Article 27 of the by-laws, which states that "Directors shall receive emoluments payable from overhead costs; the Shareholders' Meeting shall determine the amount and terms of payment."

"That decision shall stand until another decision is taken."

"The Board of Directors shall be authorized to grant directors with special duties (the Chairman, vice-Chairmen, directors charged with day-to-day management, members of the Executive Committee) fixed emoluments in addition to those provided for in the above paragraph."

"Each of the Directors responsible for day-to-day management is also entitled to variable compensation determined by the Board of Directors on the basis of their individual results and of the consolidated results of the Solvay group."

"The sums referred to in the two preceding sub-sections are also paid out of overhead costs."

**b)** For Executive Committee members:

Compensation policy is decided by the Board of Directors based on proposals by the Compensation Committee.

In 2012, the Group re-evaluated and amended its Compensation policy to better align it with market practices and reinforce the link between variable pay and business performance. The Compensation policy is set out in annex 2. As a reminder, the policy has introduced a new harmonized short term incentive plan (STI), partly linked to Group economic performances (REBITDA under cash constraint). It has also redesigned the long term incentive program (LTI), which is now partly linked to the achievement of pre-defined multi-year Group economic performance indicators (REBITDA and CFROI). It became effective in 2013.

The Board is regularly monitoring the challenging character of the performance thresholds imposed under the new Compensation policy in order to ensure a robust alignment of the performance metrics with the Solvay business ambitions. Both performance metrics are also managed dynamically to incorporate the evolving management of Solvay's portfolio and apply mechanically within the span decided by the Board.

# 6.1.2 Setting individual compensation:

a) For Directors:

- the Ordinary Shareholders' Meetings of June 2005 and May 2012 (for Board attendance fee) decided to set Directors' pay, starting from the 2005 financial year, and to grant:
  - an annual gross fixed compensation of € 35,000 per Director and, on top of this, an individual attendance fee of € 4,000 gross per Board meeting attended;
  - € 4,000 gross for members of the Audit Committee and € 6,000 gross for its Chairman for each meeting of the Committee;
  - € 2,500 gross per member of the Compensation Committee, Nomination Committee and Financial Committee and € 4,000 gross for the Chairmen of these Committees, for each meeting on the understanding that a Director belonging to both the Compensation Committee and the Nomination Committee does not receive double compensation;
  - the Chairman of the Board, the Chairman of the Executive Committee and the Executive Directors do not receive attendance fees for taking part in these Committees;
- for the Chairman of the Board of Directors, the Board of Directors has made use of the authorization conferred on it by Article 27 of the bylaws to grant an additional yearly fixed compensation of € 250,000 gross in 2014 by reason of the work load and the responsibility attached to this task;
- non-executive directors do not receive any variable compensation linked to results or other performance criteria. They are not entitled to Stock Options or Performance Share Units, nor to any supplemental pension scheme;
- the Company reimburses Directors' travel and subsistence expenses for meetings and while exercising their Board and Board Committee functions.

The Chairman of the Board of Directors is the sole non-executive Director having permanent support provided by the Group (office, secretariat, car). The other non-executive directors receive logistics support from the General Secretariat as and when needed. The Company also carries customary insurance policies covering the activities of Board members in carrying out their duties.

b) For Executive Committee members:

The compensation of the Chairman and the members of the Executive Committee is set as a global gross amount. This includes not only the gross compensation earned at Solvay SA, but also compensation received, contractually and arm's length directors' fees, from companies throughout the world in which Solvay SA holds majority or other shareholdings.

Individual compensation is set by the Board of Directors based on recommendations by the Compensation Committee.

# 6.2 Declaration concerning Compensation policy for the Chairman and members of the Executive Committee

The Compensation package of the members of the Executive Committee is governed by the group Compensation policy set out in Annex 2 (section 15).

The compensation package of the Chairman of the Executive Committee is governed by specific arrangements given his self-employed status in Belgium. The level and structure of this compensation package are aligned with market practices for a similar function in a comparable organization and do follow the general design of the Solvay group Compensation policy. It consists of a fixed compensation and an annual incentive target set at 100% of such base salary, with a maximum of 150%. Such short-term incentive is based on the achievement of predefined individual (weighted at 30% of the total short-term incentive) and collective pre-set objectives, themselves divided into economic (REBITDA under Cash constraint, weighted at 60% of the total short-term incentive) and sustainable development (weighted at 10% of the total short-term incentive) objectives. He is finally entitled to a long-term incentive composed out of a 50/50 mix of stock options and so-called Performance Share Units, with an annual economic value target set at 150% of the base salary and a maximum guidance set at 200% of such base salary, in line with the general design of the generic Solvay long-term incentive plan but subject to the final appreciation of the Board. Solvay's commitment to offer a competitive though challenging reward package to its CEO transpires from his pay mix, since his global variable pay target substantially outweights his base salary.

No major changes in the structure of the compensation package of the Chairman and the members of the Executive Committee are expected in 2015 and 2016.

# 6.3 Amount of the compensation and other benefits granted directly or indirectly to Directors (executive and non-executive) by the Company or by an affiliated company

**GROSS COMPENSATION AND OTHER BENEFITS GRANTED TO DIRECTORS** 

		2014		
Compensation In €	Gross amount	Including Board of Directors and Committees attendance fees	Gross amount	Including Board of Directors and Committees attendance fees
N. Boël				
<ul> <li>Fixed emoluments + attendance fees</li> </ul>	63,000.00	28,000.00	59,000.00	24,000.00
<ul> <li>"Article 27" supplement</li> </ul>	250,000.00		250,000.00	
D. Solvay	70,500.04	35,500.00	64,000.04	29,000.00
J-P. Clamadieu	63,000.00	28,000.00	59,000.00	24,000.00
J-M. Solvay	63,000.04	28,000.00	59,000.04	24,000.00
G. de Selliers de Moranville	99,500.04	64,500.00	85,000.04	50,000.00
J. van Zeebroeck <sup>(1)</sup>	23,389.80	10,500.00		
J-M. Folz <sup>(2)</sup>	79,500.04	44,500.00	24,889.80	12,000.00
B. de Laguiche	65,500.04	30,500.00	69,000.04	34,000.00
B. Scheuble	99,000.04	64,000.00	89,000.04	54,000.00
A. Van Rossum <sup>(2)</sup>	75,000.04	40,000.00	28,889.80	16,000.00
C. Casimir-Lambert	87,000.04	52,000.00	79,000.04	44,000.00
H. Coppens d'Eeckenbrugge	83,500.04	48,500.00	89,000.04	54,000.00
P. Mateos-Aparicio Morales <sup>(1)</sup>	27,389.80	14,500.00		
E. du Monceau	70,500.04	35,500.00	64,000.04	29,000.00
Y-T. de Silguy	65,000.04	30,000.00	75,500.04	40,500.00
A. Moraleda	40,610.24	18,500.00	64,000.04	29,000.00
F. de Viron	40,610.24	18,500.00	64,000.04	29,000.00
G. Michel <sup>(3)</sup>			32,610.24	10,500.00
R. Thorne <sup>(3)</sup>			50,110.24	28,000.00
	1,366,000.52	591,000.00	1,306,000.52	531,000.00

(1) Until May 12, 2013.

(2) Until May 12, 2014.

(3) From May 13, 2014.

# 6.4 Amount of compensation and other benefits granted directly or indirectly to the Chairman of the Executive Committee

Compensation and other benefits granted to the Chairman of the Executive Committee (J-P. Clamadieu) $\ln \in$	2014	
Base compensation	1,000,000	1,000,000
Variable compensation (Short Term Incentive)	1,100,000	1,500,000
Pension and death-in-service and disability coverage (costs paid or provided for)	626,274	622,899
Other compensation components <sup>(1)</sup>	46,927	17,674

(1) Company vehicle, correction of 2012 Base Compensation.

Based on the assessment of the achievement of his individual pre-set objectives by the Board of Directors and the achievement of the Group collective economic and sustainable development indicators, the 2014 compensation package of the Chairman of the Executive Committee was set as follows.

The base salary of the Chairman of the Executive Committee remained at € 1 million in 2014. The Annual Incentive target was set at 100% of such base salary, with a maximum of 150%. In accordance with the Group Compensation policy, Long Term Incentives are composed of a 50/50 mix of stock options and so-called Performance Share Units. The Long Term Incentive target is set at 150% of the base salary, with a maximum of 200%. In 2014, the face value of his overall LTI award added up to € 1.6 million, considering the exceptional role played by the Chairman of the Executive Committee in the transformation of the Group and its overall performance. The gain which will eventually be derived on pay-out date, will depend upon achievement of the performance thresholds imposed on his PSU's as well as of the performance of the Solvay shares on the stock market. The resulting numbers of stock options and PSU's are calculated according to the Monte Carlo model.

The compensation package of the Chairman of the Executive Committee is in full compliance with Art. 520 *ter* of the Companies' Code.

The Chairman of the Executive Committee does not receive shares as part of his compensation package.

In the area of extra-legal pension rights, given his self-employed status in Belgium, he has his own separate contractual regime, with pension, death-in-service and disability rules, which reflect the conditions he had previously at Rhodia.

# 6.5 Global amount of compensation and other benefits granted directly or indirectly to the other members of the Executive Committee by the Company or an affiliated company

Compensation and other benefits granted to the other members of the Executive Committee $\ln \varepsilon$	<b>2013</b> <sup>(1)</sup>	<b>2014</b> <sup>(2)</sup>
Base compensation	2,502,169	2,453,117
Variable compensation	1,646,328	2,135,155
Pension and death-in-service and disability coverage (costs paid or provided for)	1,164,234	862,463
Other compensation components <sup>(3)</sup>	82,172	113,107

(1) B. de Laguiche (until September 30, 2013), J. van Rijckevorsel, V. De Cuyper, R. Kearns, G. Auffret, K. Hajjar (from October 1, 2013).

(2) J. van Rijckevorsel (until September 30, 2014), V. De Cuyper, R. Kearns, K. Hajjar, P. Juery.

(3) Representation allowance, luncheon vouchers, company car,...

Variable compensation consisted of an annual incentive based on the performance achieved towards pre-set collective Group economic and sustainable development performance objectives, and towards the performance of the manager as measured against a set of predetermined individual objectives.

The law (Art. 520 *ter* of the Companies' Code) provides that from 2011 onwards, in the absence of statutory provisions to the contrary or express approval by the General Meeting of Shareholders, at least one quarter of the variable compensation of Executive Committee members must be based on predetermined criteria of performance that are objectively measurable over a period of at least two years, and another quarter at least should be based on predetermined performance criteria that are objectively measurable over a period of at least three years.

The Compensation policy has been reviewed in 2012. The new Compensation policy set out in Annex 2 came into effect in 2013 and is in full compliance with Article 520 *ter* of the Companies' Code.

Executive Committee members receive stock options and so-called Performance Share Units as explained below. They do not, however, receive shares as part of their compensation packages.

Executive Committee members' expenses, including those of its Chairman, are governed by the same rules as apply to all Group management staff, that is the justification of all business expenses, item by item. Private expenses are not reimbursed.

In the case of mixed business/private expenses (like cars), a proportional rule is applied in the same way as to all management staff in the same position.

In the area of insurance, the Company subscribes the same type of cover for Executive Committee members as it does for its senior managers.

Pensions and retirement and death-in-service coverage for Executive Committee members are based in principle on the provisions of the schemes applicable to senior executives in their base countries.



# 6.6 Stock options and Performance Share Units

Solvay's Long Term Incentives (LTI) plan is made of two separate components, a plain vanilla stock option plan set in in 1999 on the one hand and a Performance share Unit plan set up in 2013 on the other hand.

The Stock Option program ("SO") includes the following basic features:

- options are granted at the money;
- for a duration of eight years;
- options become exercisable for the first time after three full calendar years of restrictions;
- options are not transferrable inter vivos;
- the plan includes a bad leaver clause.

The plan was set up in 1999 to offer a competitive LTI vehicle aligned with Belgian practices. It is aimed at incentivizing Solvay's executive leadership team to work towards achievement of robust sustainable returns for the shareholders while offering a robust retention tool to the Company. All stock option programs set up annually since 1999 who did expire to date, did not expire without offering a payout opportunity to the beneficiaries which is a solid indication of the effectiveness of the program.

The Performance Share Unit program (PSU) was set up in 2013 to seek further alignment with the development of market practices, helping

Solvay to remain competitive in the market place in order to attract and retain talents while offering a more performance contingent vehicle to incentivize key executives to pay their tributes towards Solvay's roadmap ambitions.

The PSU includes the following basic features:

- the plan is purely cash based and does not encompass the transfer of shares to beneficiaries whatsoever;
- it contains the following two performance hurdles 50% based on REBIDTA target aligned with Solvay's roadmap and 50% based on CFROI target;
- condition of employment up to achievement of performance hurdles;
- payout in cash based on value of Solvay shares on target date.

In 2014, the Board of Directors, on the proposal of the Compensation Committee, allotted stock options to some 70 Group senior executives. The exercise price amounts to  $\notin$  107.61 per option, with a three-year vesting period. Executive Committee members together were granted 84,535 options in 2014, compared with 97,490 options in 2013.

In combination with the stock option plan, the Board of Directors granted Performance Share Units (PSU) to around 450 Group Executives, for a possible pay-out in three years time if pre-set economic performance objectives (REBITDA and CFROI) are met. Executive Committee members together were granted 18,080 PSU in 2014.

### STOCK OPTIONS AND PSU ALLOTTED IN 2014 TO EXECUTIVE COMMITTEE MEMBERS

Country Name		Name Function		
Belgium	Clamadieu, Jean-Pierre	Chairman of the Executive Committee	32,990	7,055
Belgium	van Rijckevorsel, Jacques	Member of the Executive Committee	10,309	2,205
Belgium	De Cuyper, Vincent	Member of the Executive Committee	10,309	2,205
Belgium	Kearns, Roger	Member of the Executive Committee	10,309	2,205
Belgium	Hajjar, Karim	Member of the Executive Committee	10,309	2,205
Belgium	Juery, Pascal	Member of the Executive Committee	10,309	2,205
TOTAL			84,535	18,080

### STOCK OPTIONS HELD IN 2014 BY EXECUTIVE COMMITTEE MEMBERS

					Options			31/12/2014
Country	Name	Held at 31/12/2013	Granted in 02/2014	Exercised in 2014	Expired in 2014	Held	Exercisable	Non exercisable
Belgium	Clamadieu, Jean-Pierre	96,444	32,990	0	0	129,434	0	129,434
Belgium	van Rijckevorsel, Jacques (until 30/9/2014)	90,726	10,309	42.400	0	58.635	18.600	40.035
Belgium	De Cuyper, Vincent	75,726	10,309	17.000	0	68.535	29.500	39.035
Belgium	Kearns, Roger	80,226	10,309	6.000	0	84.535	47.500	37.035
Belgium	Hajjar, Karim		10,309	0	0	10,309	0	10,309
Belgium	Juery, Pascal	26,726	10,309	0	0	37,035	0	37,035
TOTAL		369.848	84,535	65.400	0	388.483	95.600	292.883



# 6.7 Most important provisions of their contractual relationships with the Company and/or an affiliated company, including the provisions relating to compensation in the event of early departure

Executive Committee members, including the Chairman, have directorships in Group subsidiaries as a function of their responsibilities.

Where such directorships are compensated, they are included in the amounts given above, regardless of whether the position is deemed to be salaried or undertaken on a self-employed basis under local legislation.

No Executive Committee member, including the Chairman, will benefit from any departure indemnity linked to the exercise of their office. If their service ends early, only the legal system applies.

Mr. Jean-Pierre Clamadieu's contract includes a 24-month noncompetition clause, but with no more than 12 months' pay.

On September 30, 2014, Mr. Jacques van Rijckevorsel left the Executive Committee without departure indemnity.

Executive Committee members' contracts do not contain a clause providing a right of claw-back of variable compensation in case of erroneous financial information.

# 7 Chairmen's roles in achieving coordination between the Board of Directors and the Executive Committee

The Chairman of the Board of Directors and the Chairman of the Executive Committee work together, through constructive dialogue and frequent exchanges, to harmonize the work of the Board of Directors (including its Committees) with that of the Executive Committee.

The following measures have been introduced to achieve this:

- the two Chairmen meet as often as is necessary on matters of common interest to the Board of Directors and the Executive Committee;
- the Chairman of the Board of Directors and the Executive Committee meet every month to discuss financial reporting;
- the Chairman of the Board has access to all information necessary to exercise his functions;
- the Chairman of the Executive Committee is a member of the Board of Directors, where he presents the Executive Committee's proposals.



# 8 Main characteristics of risk management and internal control systems

The Solvay group has set up an internal control system designed to provide a reasonable assurance that (i) current laws and regulations are complied with, (ii) policies and objectives set by General Management are implemented, (iii) financial and non-financial information is reliable, and (iv) internal processes are efficient, particularly those contributing to the protection of its assets.

A reasonable assurance level means a high, but not absolute, level: any internal control system has limitations linked to human error, wrong decisions or to the choices made in terms of cost/benefit of control.

This system has five components: the control environment, a risk assessment process, control activities, information and communication, and the internal control monitoring.

To further improve the effectiveness of Risk Management, that includes adequate internal control implementation and monitoring by Internal Audit, the Group has decided, effective January, 1, 2014, to combine the dedicated teams under the authority of the Head of Internal Audit, Internal control and Risk management.

# 8.1 The control environment

The control environment is the foundation of the internal control system, as it promotes the awareness and the compliant behavior of all employees. It is made up of various elements that set up a clear structure of principles, rules, roles and responsibilities, while showing the commitment of General Management.

The **Management Book** explains the organization and governance of the Group: the roles and responsibilities of the Executive Committee (Comex), Global Business Units and Functions are defined, as well as their scope. It also set forth a management framework expressed in the Group's Management and People Models, including accountability and transparency. Finally, it contains 25 "red lines" that are tackling key risks of the Group. These rules are mandatory for all employees.

The **Code of Conduct** begins with a message from the CEO and highlights the principles which must guide employees in their daily activities. It is based on a strong tradition of values that are deeply rooted in the Company's culture. As to the financial reporting, the Code states that employees must ensure that it is accurate and compliant with applicable regulations. More information about the Code of Conduct and how it is promoted and implemented by the Legal and Compliance Department can be found in the Section 10 of the present report.

An **Ethics Helpline**, managed by a third party, is progressively being made available to employees to enable them to report potential violations of the Code of Conduct, in case they cannot go through their managers or through the Compliance organization, or wish to report anonymously.

The **Financial Reporting Guide** explains how the various IFRS rules should be applied in the Group.

All these documents are accessible widely through the Group intranet and regular trainings on the Code of Conduct are provided to all employees.

Standardized Human Resources processes are in place to allow development, training and appraisal of personnel.

The job descriptions for key positions are organized consistently by professional family: Finance has its own referential of job descriptions, covering the key positions that ensure the timeliness, compliance and quality of the financial reporting.

# 8.2 The risk assessment process

Taking calculated risks while remaining in compliance with laws, regulations and the Code of Conduct is an inherent aspect of the business and industrial activities of the Solvay group. The Enterprise Risk Management (ERM) policy of Solvay is explained in the Management Book: it states that the Group will identify, quantify, assess and manage all potentially significant business risks and opportunities by applying systematic risk management integrated with strategy, business decisions and operations. Enterprise Risk Management is seen as an essential management tool and aid in making the decisions needed to achieve the Company's short-, medium- and long-term objectives.

The Comex approves the risk management policies and processes used throughout the Group. The Internal Audit & Risk Management Department (IA/RM) is in charge of setting up a global and consistent system of risk management across the Group.

The process of risk management takes into account the organization's strategic objectives and is structured in following phases:

- risk analysis (identification and evaluation);
- decision on how to manage the critical risks;
- implementation of risk management actions;
- monitoring of those actions.

The enterprise risk management effort is structured around three mains pillars:

- an annual top down exercise initiated at Leadership Council level, and finalized by a review and validation of a list of Group risks by the Group risk Committee (Comex and Head of HR, Industrial, Legal and Sustainable Development Functions). The Comex receives regularly a Group Risks Dashboard following up on those Group risks and the status of mitigating actions undertaken;
- an exercise covering all GBUs and Functions, with a methodology adapted to their size and embedded in the annual strategic review process. This exercise involves all the senior managers of the GBU or Function to identify and assess the major risks for their unit. Then, the Management team and the President of the GBU (or the Head of the Function) are in a position to assign the ownership of all the critical risks to one of the GBU's Managers. A regular follow-up of the actions mitigating critical risks is required from all the GBUs;
- specific risk assessments for major projects (investments, acquisitions or major function projects).

Moreover, the approach to design internal controls on major processes includes a step of risk assessment, to define which are the key control objectives to target.

This is particularly the case for processes leading to the production of the financial reporting.

More information on risks can be found in the "Managment of risks" section of this annual report, in particular with regard to the Group's main risks and the actions taken to avoid or reduce them.



# 8.3 Control activities

Solvay uses a systematic approach to design and implement control activities in the most relevant processes. The key responsibilities in this approach are defined in Solvay's Management Book. The Corporate Process Owner (CPO) is the top management, Head of a Function, sponsor of processes (and sub processes). The Corporate Process Manager (CPM) is responsible for the definition of a standard process for the Group. He should:

- 1 identify risks and assess them;
- 2 set up procedures and control activities relevant to these risks;
- **3** roll-out these controls across the Group.

The Internal Audit and Risk Management Department assists the Corporate Process Managers to identify the most significant risks in the processes and to design control activities in proportion to the stakes inherent to each process. It also assists them to set up their annual internal control roadmap (indicating which issues and controls shall be a priority for the coming year, as well as the roll-out plan). This roadmap is validated each year by an Internal Control Steering Committee chaired by the Group CFO, and gathering all Heads of Function. At each level of the Group (Corporate, Shared services platforms and GBUs) management operating the various processes is responsible for the execution of the controls.

With regard to the controls on financial data, these controls are implemented all along the Record-to-Report process: the financial elements are consolidated monthly and analyzed at every level of responsibility of the Company (such as, for example, Solvay Business Services, the Finance Director of the entity, Group Accounting and Reporting and the Executive Committee) and in various ways such as, for example, variance analysis, plausibility and consistency checks, ratio analysis and comparison with forecasts.

The results are also validated quarterly by the Audit Committee, taking into account the work carried out by the External Auditor.

The information systems for the whole Group are managed by Solvay Business Services. A large majority of the operations of the Group are supported by a small number of integrated ERP systems. The financial consolidation is supported by a dedicated tool.

General controls on the information systems cover both the security aspects, aimed at securing the protection of data, and the quality aspects, aimed at ensuring the best suitability of solutions (management of changes and projects) and services (management of IS operations) to the needs of the users.

# 8.4 Information and communication

The communication from top Management towards all the employees is supported by a number of tools, such as the Group intranet or electronic newsletters that go along direct presentations by members of the Comex to various teams throughout the world.

Besides the monthly reporting analysis prepared by the Group Controlling, the Comex has quarterly a thorough review of the GBU situation, through the Business Forecast reviews.

As to the financial reporting disclosure, Solvay publishes quarterly results. Before each quarterly closing, the Group Accounting and Reporting Department circulates written detailed instructions to all concerned actors.

The publication of the results is subject to various checks and validations carried out in advance:

- Publication is carried out under the supervision and control of the Executive Committee;
- The Audit Committee validates it, in particular ensuring that the IFRS accounting principles are complied with and that it gives a fair and relevant picture of the business of the Group;
- The Board of Directors approves it.

The Audit Committee is in charge of monitoring the effectiveness of internal control systems. It supervises the work of the Internal Audit Group with regard to financial, operational, and compliance monitoring. In particular, it is informed of the scope, programs and results of the internal audit work and receives the assurance that the audit recommendations are properly implemented. The Mission Statement of the Audit Committee is given in Appendix 1 to this Corporate Governance Statement.

# 8.5 Internal control monitoring

The Audit Committee is in charge of monitoring the effectiveness of internal control systems. It supervises the work of the Internal Audit Group with regard to financial, operational, and compliance monitoring. In particular, it is informed of the scope, programs and results of the internal audit work and receives the assurance that the audit recommendations are properly implemented. The Mission Statement of the Audit Committee is given in Appendix 1 to this Corporate Governance Statement.

Internal Audit is an independent objective assurance and consulting activity designed to add value and improve the Group operations. It helps the Group to accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control and governance processes.

The internal audit assignments are planned and defined in terms of content on the basis of a risk analysis; the diligences focus on the areas perceived as having the highest risks. All the consolidated entities within the Group are visited by Internal Audit at least every three years.

The recommendations of Internal Audit are implemented by management.

Other entities carry out activities of the same type in very specific areas. For example:

- the Health Safety & Environment Department carries out health, safety, and environmental audits;
- the Solvay Business Services Compliance and Risk Management Department conducts IS audit assignments, in coordination with Internal Audit;
- the Ethics and Compliance Department coordinates investigations in case of potential infringement of the Code of Conduct.



# 9 External audit

The audit of the Company's financial situation, its financial statements and the conformance of the statements with respect to the Companies' Code and the by-laws, and of the entries to be recorded in the financial statements, is entrusted to one or more auditors appointed by the Shareholders' Meeting from among the members, either physical or legal persons, of the Belgian Institute of Company Auditors.

The mission and powers of the auditor(s) are those set by the law.

The Shareholders' Meeting sets the number of auditors and fixes their emoluments in accordance with the law. Auditors are also entitled to reimbursement of their travel expenses for auditing the Company's plants and administrative offices.

The Shareholders' Meeting may also appoint one or more alternate auditors. Auditors are appointed for three-year renewable terms, which may not be revoked by the Shareholders' Meeting other than for good reason.

The audit mandate of Deloitte Réviseurs d'Entreprises SC s.f.d. SCRL has been renewed at the Ordinary Shareholders' Meeting of 2013 for three years.

Deloitte Réviseurs d'Entreprises SC s.f.d. SCR is represented by Mr. Eric Nys. Mr. Frank Verhaegen has been appointed by the Ordinary Shareholder's Meeting of 2013 as alternate representative of Deloitte Réviseurs d'Entreprises SC s.f.d. SCRL for the same duration.

The yearly audit fees are  $\notin$  1,146,300. They include the audit of the statutory accounts of Solvay SA as well as the audit of the Group consolidation.

Deloitte received  $\in$  203,000 in supplementary fees in 2014.

# 10 Code of Conduct

The Solvay Code of Conduct sets out how Solvay carries out its business and interacts with its stakeholders in an ethical and compliant manner. It is based on a strong tradition of values that are historically ingrained in the Group's culture. This Code applies to every Solvay employee wherever Solvay operates or conducts its business.

The Solvay Code of Conduct provides general guidance to all employees about how to behave in the workplace, in Solvay's businesses and while representing Solvay in their communities. It is not an exhaustive document anticipating every situation employees may face in their dayto-day business. Rather, the Code highlights the guiding principles that form the basis of the Group's policies.

The Code of Conduct is part of the Group's constant effort to maintain and strengthen trust both among all its employees and between the Group and its partners, including its employees, their representatives, shareholders, customers and suppliers, government agencies and all other third parties.

To obtain the widest possible involvement of all employees in implementing the Code, the Group will continue to promote a rich and balanced social dialogue between senior management and social partners.

The Solvay group takes various measures to ensure that the Code is applied, including targeted training programs and sanctions in case of violation.

The Legal & Compliance Function under the authority of the Group General Counsel, contributes to the compliance culture. The Ethics and Compliance Department has the more specific objective of strengthening a culture based on ethics and in compliance with the Solvay Values and Code of Conduct.

Compliance Officers have been appointed in all four geographic zones where the Group is active. They are assisted by a network of experienced employees tasked, in addition to their other responsibilities, with supporting activities in this area.

The Group encourages its employees to take up any difficulty or question relating to the application of the Code of Conduct with superiors or other identified interlocutors (Compliance Officers, legal staff, human resources).

The Group also operates, on a worldwide basis, an Ethics Helpline in the form of an external service to voice any difficulties or pose questions in complete confidence and in some cases on an anonymous basis. The Ethics Helpline is managed in accordance with applicable legislation and in particular with the laws governing data protection.

In the joint ventures, Board representatives make every effort to have rules adopted that are in line with the Group's Code of Conduct.

# 11 Preventing insider trading

The Group has established a policy for preventing insider trading, and a manual containing strict rules of confidentiality and non-use of "inside information" for both regular and occasional insiders. This policy and manual have been widely circulated within the Group.

The interpretation and oversight of compliance with these rules are entrusted to a Transparency Committee composed of the Group Corporate Secretary (Chairman), who is also Group General Manager Communication, the Chief Financial Officer, the Group General Counsel and the Group General Manager Human Resources. In particular, this Committee advises the Board of Directors, the Executive Committee and any employee confronted with a difficult situation.

This policy is applied equally by the Executive Committee and the Board of Directors.

Moreover, in conformity with the law of August 2, 2002, persons exercising managing responsibilities within the Group, and persons who are closely related to them, that is:

- the members of the Solvay SA Board of Directors;
- the members of the Executive Committee;
- the Corporate Secretary;
- the Group General Manager Human Resources; and
- the Group General Counsel;

have been informed and are regularly reminded of their obligation to declare to the Financial Services and Markets Authority every transaction involving Solvay shares.

# 12 Internal organization of the Solvay group

The internal organization of the Solvay group is described on page 32 of this annual report.



# 13 Relations with shareholders and investors

# 13.1 Performance of the Solvay share

Solvay shares are dually listed on Euronext Brussels – the primary listing – and, since January 2012, on Euronext Paris under the unique mnemonic code of SOLB. Furthermore, Solvay joined the CAC 40 stock index on September 21, 2012. Both these events reflect the Group's long history in France as well as its economic weight.

On December 31, 2014, its price was  $\in$  112.4, as against  $\in$  115.0 at the end of 2013. During 2014, the average price was  $\in$  114.91 and the highest price was  $\in$  129.15 (July 22, 2014).

Average daily trading volume as reported by Euronext was 193,011 shares in 2014, compared with 213,337 shares in 2013.

# 13.2 Active financial communication

Throughout the year the Investor Relations team has endeavored to communicate in a timely and effectively manner with, and present financial and strategically relevant facts about and developments concerning Solvay to various investor groups, equity and credit analysts and other stakeholders, on a worldwide basis. To that end, in the course of the year, the Investor Relations team members have held regular contacts with financial analysts and institutional and retail investors, including updates with facts regarding financial and strategic trends and have organized selected presentations, visits and roadshows.

The Group is very attentive to the equal treatment of all shareholders.

The Group's communication policy is to disseminate, as soon as reasonably possible, information that is of material interest to the market in the form of press releases and/or press conferences and public presentations available in the Group internet website.

# Solvay SA

Investor Relations Rue de Ransbeek, 310 B-1120 Brussels (Belgium) e-mail: investor.relations@solvay.com Internet: www.solvay.com

# **13.3** Individual investors

For many years the Group has maintained very close relations with individual investors both by taking part in fairs and conferences and by providing regular information on the life of the Group (press releases, the annual report, etc.) on request.

In 2014, the Solvay group actively continued its meetings with individual investors.

By way of example:

- in January 2014, Solvay met the members of Investas, an association of Luxembourg retail investors;
- in April 2014, Solvay took part in an "Investors' Event" organized in Antwerp by the Netherlander federation of Investments Clubs and Investors, VFB (Vlaamse Federatie van Beleggingsclubs en Beleggers) and attended every year by more than 1,000 participants. On this occasion, Solvay's CFO presented the Group in the presence of about 400 individual investors;
- in November 2014, Solvay organized a visit of three laboratories in its site of Brussels for 50 retail shareholders. The program of this visit also included a presentation of the Group by Solvay's CFO as well as a presentation of Solvay's Research & Innovation by the Advanced Research & Technology Innovation Director.

Furthermore, the Group implemented a campaign including Corporate & financial performance messages on financial internet sites in Belgium and in France.

Finally, Solvay launched a monthly e-newsletter called "SOLVAY IN ACTION" available in French, Dutch and English that presents key quarterly financial messages as well as stories, videos and images which illustrate the Group evolution through its key strategic levers. SOLVAY IN ACTION primarily addresses Solvay's Investors' Club but its entire content is available in the Investors section of www.solvay.com. Since the launch of SOLVAY IN ACTION in September 2014, members of the Investors' Club have almost tripled.

# 13.4 Roadshows and meetings for institutional stakeholders

Roadshows and meetings with senior Group managers are organized regularly for international financial professionals (analysts, portfolio managers, press, etc.). Solvay is also developing an active dialogue on its Sustainability policy and parameters and multiplies the opportunities of interaction with investors concerned with Corporate Social Responsibility (CSR) values.

In 2014, more than 800 total contacts were established at meetings and events organized in Europe (Brussels, London, Paris, Frankfurt, Geneva, Zurich, Edinburg, Dublin, Amsterdam, Luxembourg, Stockholm, Copenhagen, Helsinki, etc.), the United States and Asia.

Conference telephone calls with management are also systematically organized, every quarter, to comment on Group results.

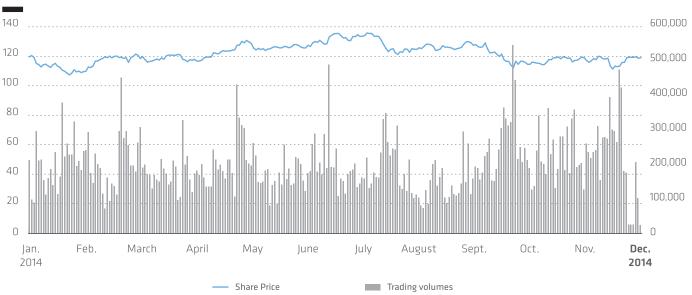


# **13.5** A specific internet site

Dedicated internet pages, www.solvay.com/en/investors, provide shareholders and investors with the latest published financial and strategic information from the Group. The site, constantly improved, provides various and valuable services. Furthermore, it is henceforth available in three languages – English, French and Dutch. Based on responsive design, it offers an optimal viewing experience on any devices.

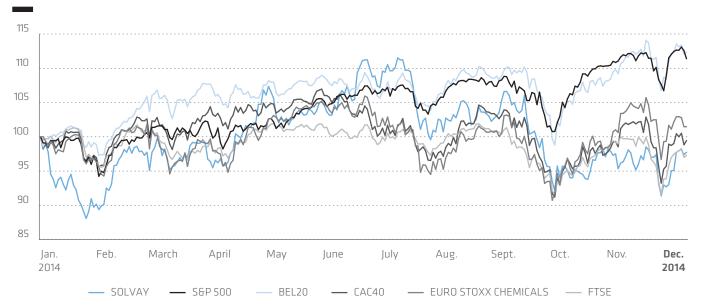
It especially provides useful contacts with sell-side analysts who closely track the Group. It further offers the opportunity to join the Investors' Club

in order to receive email notifications in the three languages concerning information of various kinds: agendas of meetings, including the Annual Shareholders' Meeting, by-laws amendments, special reports of the Board of Directors, publication of the annual report, unconsolidated parent company accounts, payment of dividends, etc. In 2014, a new section dedicated to the shareholders' information has been created. It gathers SOLVAY IN ACTION, the information program mentioned in the section 13.3 of the present report, practical information concerning shares registration and answers to the most frequent questions.



#### Solvay share prices and trading volumes from January 1, 2014 to December 31, 2014







# **14** Annex 1: Audit Committee Mission Statement

# 1 Members

The Audit Committee is composed of at least four members

The members of the Audit Committee are all non-executive Board members and at least a majority of them are independent Board members as defined in article 526 ter C. Soc.

The members of the Audit Committee collectively are competent in the area of activities of the Company, as well as in financial management, financial reporting, accounting and audit through their training and experience acquired over the course of their careers. At least one of them, who is an independent Board member, has special competence in accounting and audit.

# 2 Guests

The Audit Committee invites the following people to give reports during each of its meetings:

- the Chief Financial Officer;
- the Accounting and Reporting Manager;
- the Manager of the Internal Audit Competence Center, Risk Management and Internal Control;
- the External Auditor for the Group.

The Chairman of the Executive Committee of Solvay SA is invited once a year to discuss the Group's major risks.

# **3** Frequency of meetings

The Audit Committee will meet at least four times per year, before the Board of Directors' meetings that deal with the approval of the annual, semiannual and quarterly results.

Additional meetings may be called to debate the scope of the plans, year-end closing topics, Internal Control mechanisms, Risk Management and audit costs and to discuss other important financial questions.

# 4 Main tasks of the Audit Committee

a) The Audit Committee ensures that the annual report and the annual accounts, periodic financial statements and all other important financial communications of the Group comply with generally accepted accounting principles (IFRS for the Group, Belgian accounting law for Solvay SA). These documents must reflect a true and relevant image of the Group's business and of the parent company and must satisfy all statutory and regulatory provisions.

- b) The Audit Committee regularly examines the strategies and accounting practices applied to prepare the financial statements of the Group and ensures their conformity with good business practices and the appropriate accounting standards.
- c) The Audit Committee regularly examines the scope of the external audit by the external auditor and its implementation throughout the Group. The Audit Committee examines the recommendations formulated by the external auditor and the report sent by the external auditor to the Board of Directors.
- d) The Audit Committee oversees the effectiveness of the Group's internal control systems and in particular the financial, operational and compliance control, as well as risk management. The Audit Committee also ensures that the electronic information systems used to generate financial data meet the required standards. The Audit Committee makes sure these systems meet statutory and regulatory requirements.
- e) In terms of internal audit, the Audit Committee verifies the scope/ programs/results of the internal audit Department's work and ensures that internal audit has adequate resources. The Audit Committee ensures proper follow-up to the recommendations made by internal audit.
- f) The Audit Committee verifies and oversees the independence of the external auditor, in particular concerning additional services requested outside of the legal mission. In this regard, it is the Audit Committee that proposes an external auditor to the Board of Directors, which then will put forward the candidate for approval and appointment by the General Shareholders' Meeting (including compensation). Also, in concert with the CEO and the CFO, the Audit Committee participates in the choice of the manager of the Internal Audit Competence Center.
- g) The Audit Committee examines the areas of risk that are likely to have a material influence on the financial situation of the Group. These risks include, for example, the exchange rate risk, significant litigation, environmental issues, questions linked to product liability, etc. During this examination, the Audit Committee studies the procedures in place in order to identify these significant risks and to quantify their possible impact on the Group and the functioning of the control systems.

### 5 Minutes

As a Committee of the Group's Board of Directors, the Audit Committee prepares minutes of each of its meetings and submits them to the Board.

# **15** Annex 2: Compensation policy for General Managers

In 2012, the Group has reviewed its Compensation policy with the objective of:

- reinforcing the link between mainly variable compensation and both individual and collective performance;
- aligning better variable compensation with relevant market practices.

To assess relevant competitive practice, Solvay takes as its frame of reference a selection of European chemical and industrial manufacturing companies with international operations and annual sales revenues and headcount reasonably close to its own. The composition of this group is reviewed on a periodic basis to assure that it continues to reflect the Company's strategic orientation. It is currently composed out of sixteen European-based multinational companies headquartered in six different European countries and active in both the Chemical sector and/ or Industrial sector.

For executives with a non-European home country and who are based outside Europe, the home country practice (ideally weighted towards the chemicals sector) constitutes the reference. For data relating to the international market, the services of internationally recognized compensation consultants are retained.

Solvay's objective is to provide total compensation levels that are at or around the median of the chosen reference market for normal performance and close to the upper quartile level of the market in case of outstanding collective and individual performance.

The compensation of the General Managers comprises the Base Salary (reviewed on an annual basis), Annual Incentives, Long Term Incentives and Other Benefits.

The new Compensation policy effective as of 2013, covers the Executive Committee members, the General Managers and the Heads of large Global Business Units.

# **Compensation policy**

The Compensation policy is composed of Short Term Incentive (STI) plan providing for annual bonus linked to the Group business performance and Long Term Incentive (LTI) plan to introduce a link with the global Group performance.

# **Short Term Incentives (STI)**

STI are partly linked to the Group performance and partly linked to individual performance.

The target annual incentive ranges, according to position level, from 50% (General Managers and Heads of large GBUs) to 60% (members of the Executive Committee) of base salary. The target short-term incentive consists of three components weighted as follows:

- 30% depending on the individual performance of the manager as measured against a set of pre-determined objectives, approved, for Executive Committee members by the Board of Directors;
- 60% linked to the actual performance achieved towards a combination of annual pre-set collective Group economic performance objectives (REBITDA under a specific Free Cash Flow constraint);
- 10% related to a Group Sustainable Development indicator.

The actual annual incentive can vary from 0% in case of poor performance up to 200% of target in case of outstanding collective and individual performance.

# Long Term Incentives (LTI)

The Long Term Incentives consist of a 50/50 mix of Stock Options (SOP) and Performance Share Units (PSU).

With respect to stock options, the Board of Directors determines annually the volume of Stock options available for distribution based on their accounting fair value at grant, using the Monte Carlo financial formula. The total volume of options available is then allocated to the top executives of the Company based on the importance of their individual contribution/position to the success of the Solvay group.

With respect to PSU's, it is equally the Board's responsibility to determine the envelope available for distribution based on the closing value of the Solvay share at grant date. The total volume of PSU's available is then allocated to the senior managers of the Company based on their expected ability to substantially contribute to the achievement of Solvay's ambitions.

The SO plan is a plan vanilla plan providing each beneficiary with the right to buy Solvay shares at a strike price corresponding to the fair market value of the shares upon grant. They bear no intrinsic value at that point in time and will only generate a potential gain for the beneficiaries if the stock price rises. This grant is conceded for a duration of eight years. It cannot be exercised for the first three calendar years following the grant. Options are not transferrable except in case of death. The plan contains a so called bad leaver clause.



The PSU plan, settled in cash, provides for a possible pay-out in three years time if a combination of pre-set performance objectives are met (REBITDA and CFROI long-term evolution based on this three year period), with a +/-20% adjustment depending on the actual performance versus the initial pre-set objective. The minimum pay-out can vary between zero (if the minimum performance required or "threshold" is not met), 80% if the performance minimum "threshold" is met up to 120% for a performance exceeding a pre-defined ceiling performance.

In its sole discretion the Executive Committee (or the Board of Directors for the Executive Committee members) may decide/recommend individual grants of + or -50% of the target to reward special or unique achievements or circumstances or to acknowledge insufficient performance, while respecting the 50/50 split between SOP and PSU grants.

Each annual LTI plan is subject to prior Board approval.

In its sole discretion, the Executive Committee (or the Board of Directors for Executive members) assesses the achievement of the targets and the Executive Committee (or the Board of Directors for Executive members) may also re-evaluate the targets in case of material change of perimeter or other unexpected circumstances.

# **Other benefits**

The General Managers are entitled to retirement, death-in-service and disability benefits, as a rule, on the basis of the provisions of the plans applicable in their home country. Other benefits, such as medical care and company cars or car allowances, are also provided according to the rules applicable in the host country. The nature and magnitude of these other benefits are largely in line with the median market practice.

# Short Term and Long Term Incentives applicable from 2014

#### SHORT TERM INCENTIVES - STI

	Come	x		Other (	General Managers	& Heads of large GE	lUs
Split in 3 components				Split in 3 components			
<b>Target STI</b> in % of Base Salary	Individual performance	Group performance	Sustainable Development indicator	<b>Target STI</b> in % of Base Salary	Individual performance	Group performance	Sustainable Development indicator
60%	30%	60%	10%	50%	30%	60%	10%

Actual STI pay-out can vary between 0 and 200%, according to the level of individual or group performance achieved.

#### LONG TERM INCENTIVES – LTI

	Comex	Other General Managers & Heads of large GBUs
Performance	Target Grant	Target Grant
Share Units	€ 250,000	€ 200,000

The corresponding number of PSU is determined at grant date based on the fair value of the PSU.

Between 0% and 120% of granted PSU number depending on the actual achievement over a 3 years period of the pre-set Group performance targets.

	Comex	Other General Managers & Heads of large GBUs
Stock Ontions	Target Grant	Target Grant
Stock Options	€ 250,000	€ 200,000

The corresponding number of SOP is determined at grant date, based on the accounting fair market value of the SOP.

- Each annual Long Term Incentive plan is subject to prior approval by the Board of Directors.
- The Board of Directors may decide individual grants of +/-50% of the target to reward special achievements or circumstances or to acknowledge poor performance, while respecting the split 50/50 between SOP and PSU's grants.

#### Notes

- 1) Excluding Mr. Clamadieu whose compensation is governed by specific agreements.
- The Board of Directors assesses the achievement of the targets and may also re-evaluate the targets in case of material change of perimeter or other unexpected circumstances.



# **MANAGEMENT OF RISKS**

Risk is the possibility that an event may occur that will have negative impact on people or the environment, or the assets, reputation or strategic objectives of the Group, including the missing of potential opportunities. Taking calculated risks while remaining in compliance with laws, regulations and internal rules is an inherent aspect of Solvay's business and industrial activities.

The Group applies systematic risk management integrated with strategy, business decisions and operations through the Enterprise Risk Management (ERM) approach. This approach provides that Solvay will identify, assess and manage all potentially significant business risks and opportunities. Risk management is seen as an essential management tool and aid in making the decisions needed to achieve the Company's short-, medium- and long-term objectives. During 2014, a Group Risks Dashboard was issued and updated twice to communicate to the Comex the status of the mitigation actions concerning the Group risks.

Also, the ERM methodology has been revised to include a number of improvements. These improvements aim to permit better prioritization of relevant risks and a more focused risk response by each GBU or Function. The revised methodology was put into practice during 2014 in several pilot exercises (two GBUs, and three projects). It will be rolled out to the whole Group during 2015. Internal control is one aspect of risk management, being a way to address risks present in the most significant processes. Please refer to section 8 of the Solvay Corporate Governance report pages 66 and 67 of the present report for a detailed description of the internal control system of the Solvay group.

In a context of global economic and political uncertainty, evolving power balances, different growth dynamics, shortening market cycles, rawmaterial and energy volatility and quick technological evolution, Solvay believes that effective monitoring and management of risk is critical to ensure the sustainability and growth of the Company.

## **Risk description in 10 risk categories**

Solvay has defined 10 categories of risk:

- 1 Market and growth Strategic risk
- 2 Supply chain and manufacturing risk
- 3 Regulatory, political and legal risk
- 4 Corporate governance and risk attached to internal procedures
- 5 Financial risk

- 6 Product risk
- 7 Risk to people
- 8 Environmental risk
- 9 Information and IT risk
- 10 Reputational risk

The purpose of this report is to describe the principal risks associated with each category and to outline the actions undertaken by the Group to reduce those risks. The order in which these risk categories are listed is not an indication of their importance or probability. The mitigation efforts described are no guarantee that risks will not materialize but demonstrates the Group's efforts to manage risk exposures in a proactive way.



# 1 Market and growth – Strategic risk

Strategic risk refers to Solvay's exposure to developments in its markets or its competitive environment as well as the risk of making erroneous strategic decisions. Examples of risks are technological leaps leading to the development of substitute products or more competitive manufacturing processes, economic downturn, drastic changes in energy and raw-material prices and availability, the lack of success of a new product, reduction of demand in the Group's main markets as a consequence of either new legislation or competitive actions, events affecting its most important customers, new entrants in a market, price war and significant imbalances between supply and demand in its markets.

The diverse businesses within Solvay generate a variety of risks, some of which could potentially affect the Group as a whole. But diversification contributes to the reduction of the overall risk as the Group's different businesses, processes, policies and structures offset some risks against each other merely through a balanced portfolio of products, end markets, industrial footprint and geographical reach.

# **Prevention and mitigation efforts**

The potential impact of adverse events is assessed and managed at both GBU and Corporate levels, and involves in particular:

- systematic and formal analysis of markets and marketing challenges in relation to our projects;
- maintenance of a balanced portfolio of products and geographic spread;
- diversification of the customer base in different market segments;
- adaptation of operations to the changing macroeconomic and market environment;
- selective vertical integration and diversified sourcing of raw material and energy;

- strict financial policy and allocation of resources;
- investment and innovation strategy;
- continuous monitoring of mitigation plans' progress;
- business planning and management cycles with both short-term and long-term horizons.

Sales development is an important driver of opportunities and risks for Solvay. Sales growth in 2014 proved resilient and the Group expects sustainable growth of its sales in its strategic planning horizon, driven notably by growth from emerging end markets and fast-developing regions. This creates opportunities that Solvay wants to seize by expanding its presence in these markets and economies. In 2014, the Group progressed in the construction of the announced investments in its PVDF and vanillin plants in China, silica plant in Poland, sodium bicarbonate plant in Thailand, alkoxylation plants in Singapore and the US, and its hydrogen peroxide joint-venture plant in Saudi Arabia. Economic risks in Brazil associated with market trends impacted businesses in the region and motivated the announced streamlining of the acetate tow activities.

Portfolio reshaping continued in 2014, reducing cyclical and low-growth businesses – the divestment of Eco Services and announced creation of PVC JV Inovyn – and strengthening growth engines – acquisition of Ryton<sup>®</sup> PPS by Specialty Polymers, Flux GmbH by Special Chemicals and Dhaymers by Novecare in Brazil.

New products, technologies and activities are developed by Research and Innovation activities to address customer needs and attractive opportunities in growing markets like light-weight materials, crop protection, oil & gas exploration and smart devices. To capture these opportunities Solvay opened its flagship innovation centers in Singapore and Korea in 2014.



# 2 Supply chain and manufacturing risk

Supply chain and manufacturing risk in production units and transportation refers to risks related to raw material, suppliers, production, storage units and inbound/outbound transportation. Risks include major equipment failure or damage, natural disasters, industrial and transportation accidents, strikes and drastic shortages of raw material, utilities or critical equipment.

The geographic distribution of production units around the world reduces the overall impact of one production unit being damaged or interrupted. Some specialty products are, however, produced only in one single plant.

# **Prevention and mitigation efforts**

Key risk areas are addressed with relevant dedicated policies and riskcontrol programs such as the property-loss prevention process, process safety management procedures, health and safety policies, the supplier qualification and assessment process, integrated resource planning and supply chain optimization systems, ERP (Emergency Response Plans), corporate and local crisis management procedures, business continuity planning (including for pandemic risk), and networking groups for manufacturing and supply chain managers.

Solvay buys insurance to reduce the financial impact of events potentially causing extensive damage and consequential business interruption. The property-loss prevention program is deployed with the support of a large network of risk engineers assigned by the insurers and focusing on the prevention and mitigation of damage to assets and loss of profit due to fire, explosion, accidental chemical release and other sudden adverse events. The program has been reinforced across the Group since January 2012 and includes:

- annual engineering visits to all locations with a € 100 million worstcase risk scenario;
- monitoring and update on the status of agreed risk-improvement actions for all locations;
- meetings with the Business Units on Property and Business Interruption risk improvement;
- roadmap designed to improve the Property and Business Interruption risks for plants with a € 100 million worst-case risk scenario;
- business impact analysis;
- loss-prevention training of plant personnel.

In 2014, 226 recommendations raised by external risk engineers have been completed or deleted (131 related to human elements, and 95 related to physical protection). In addition, the Solvay Curitiba plant (peroxides) has been certified Highly Protected Risk (HPR). It implies that Curitiba is a particularly safe place to work. The award also indicates that Solvay is less likely to suffer an accident that could have adverse consequences for the environment. As a matter of fact, HPR sites are eight times less likely to suffer property or business interruption losses than the next best in class. In the eyes of our clients, being HPR certified means that Solvay is among the most reliable suppliers possible.

In addition to owning several mines and quarries for extraction of fluor, trona, limestone, salt and celestite, Solvay reduces the risk of

disruption of raw-material supplies (availability, reliability and price) by a combination of:

- use of flexible medium- and long-term contracts;
- diversification of the sources of raw materials;
- development of partnerships with preferred suppliers;
- when possible, integration of key suppliers in the property loss prevention program;
- implementing processes to ensure REACH compliance up the supply chain and/or substitution, to minimize the risk of raw-materials disruption;
- implementing TfS (Together for Sustainability), an industry benchmark process for supplier assessments and audits aligned with the United Nations Global Compact reference.

In the field of energy supply, Solvay has consistently implemented programs to reduce its energy consumption for many years. While Solvay has industrial activities with high energy consumption, mainly in Europe (synthetic soda ash plants, chlorovinyls, polyamides), it also operates a range of industrial activities with a relatively low energy content as a percentage of sales price, particularly in the fluorinated polymers business of the Specialty Polymers GBU and in the Novecare GBU. The Group considers secure and reliable energy supplies to be particularly important and has taken the following strategic initiatives:

- technological leadership in processes and high-performance industrial operations to minimize energy consumption;
- diversification and flexible use of the different types and sources of primary energy;
- upstream integration in steam and electricity generation (gas cogeneration, biomass or secondary fuels cogeneration, etc.);
- periodic review of conditions of industrial sites' energy assets and connections;
- a strategy of supply coverage with long-term partnerships and medium- to long-term contracts with price-hedging protection mechanisms when needed;
- direct access to energy markets when possible (gas hubs, electrical grids, financial spot and futures exchanges);
- regular forecast reports on energy and raw-material price trends sent to businesses to anticipate sales prices realignments.

Solvay created Energy Services, aiming at optimizing energy cost and  $CO_2$  emissions for the Group and third parties. Energy Services optimizes the energy purchasing and consumption for the Group and assists GBUs in their management of energy and  $CO_2$  emissions. The Solvay group is committed to ambitious  $CO_2$  reduction targets.

A new supplier Code of Conduct has been tested and will be fully deployed early 2015. A new Red Line on road transportation logistics was fully implemented across the Group to prevent use of non-authorized suppliers.



# **3** Regulatory, political and legal risk

**Regulatory risk** refers to Solvay's exposure to changes in legislation and regulations. This could include events like governmental price regulations, taxation, tariff policies, or new regulations banning a product or imposing manufacturing, marketing and use restrictions making it unjustifiable to produce. Solvay could be exposed to important cost increases or business interruptions as a consequence of new legislation or regulations, or a more strict interpretation or application of current regulations by courts or authorities.

Solvay must obtain and maintain regulatory approval to operate its production facilities and sell its products. Given the international spread of the Group, these regulatory approvals emanate from authorities or agencies of many different countries. Withdrawal of any previously granted approval or failure to obtain an authorization may have an adverse effect on its business continuity and operating results.

For Europe in particular, all substances manufactured or used by Solvay require registration under the REACH Regulation and must meet the deadlines imposed by this regulation. This is in addition to other already existing requirements. By the second REACH registration deadline of June 1, 2013, 175 files were successfully registered with the European Chemical Agency; of these, 59 files were registered in 2012 and 116 files in 2013. The next REACH registration deadline is May 31, 2018.

**Political risk** refers to Solvay's exposure to circumstances where the normal exercise of public authority is disrupted. This could be the consequence of a social crisis, political instability, civil war, nationalization or terrorism in countries where the Group operates or sells products, resulting in delay or failure of delivery of products or unavailability of raw materials, utilities, logistic or transport facilities.

**Legal risk** refers to the exposure to actual and potential judicial and administrative proceedings. The simple fact of doing business exposes Solvay to disputes and litigation. Adverse outcomes of such disputes or litigation are always possible (see note on Important Litigation below). In the normal course of business the Group is or may become a party to judicial or administrative proceedings. See page 85 for an overview of the ongoing legal proceedings involving the Group that are considered to involve potentially significant risks. The Group is exposed to legal risk, particularly in the areas of product liability, contractual obligations, antitrust laws, patent infringement, tax assessments and environmental matters.

The Group's operations depend on the control of its key technologies and on the capacity to innovate. The questioning by third parties of the right of Solvay to use certain technologies could have an impact on its operations. Furthermore, insufficient protection by Solvay of its innovations could limit its development potential.

The geographic spread of the Group around the world is a factor reducing the impact from adverse regulatory and political developments.

# Prevention and mitigation efforts

Proper design and testing of products and their production processes contributes to the management of regulatory and legal risks, as do timely and thorough applications for necessary approvals.

Regulatory and political risk both within and outside the European Union is reduced through the continuous work of, and interactions with public authorities by, the Government and Public Affairs Department and through the local Belgian Embassy.

To manage legal risk Solvay maintains in-house legal, intellectual property and regulatory resources, and relies on additional external professional resources as appropriate. In addition the Group makes appropriate financial provisions. Awareness of legal risks is raised by dedicated training, sharing of information, self-assessment procedures and internal audits.

In the chemical industry, technological know-how can remain protected by way of trade secrets, which are often a good substitute for patent protection. However, Solvay patents new products and processes when appropriate and maintains continuous efforts to protect its proprietary information and its position as leader in technological know-how for its production processes. Solvay implements a policy to protect its innovations and its know-how, including taking specific precautions through its choice of partners in R&I and through choosing the locations of its research operations.

In respect of political risks, Solvay's actions include risk-sharing with local or institutional partners as well as monitoring of political developments in sensitive areas.



# 4 Corporate governance and risk attached to internal procedures

Solvay has adopted the 2009 Belgian Code of Corporate Governance.

In the field of corporate governance, each year Solvay publishes a corporate governance report relating to the application of the recommendations of this Code in accordance with the "comply or explain" principle (available on www.solvay.com).

Group-wide, Solvay has a Code of Conduct and adopts policies and procedures to enhance good governance of the Group.

The risk attached to internal procedures is Solvay's exposure to failure to comply with the Solvay Code of Conduct and supporting policies and procedures. Examples of risks are failure to integrate an acquired company, failure to implement good governance in a joint venture, direct or indirect involvement in human-rights violations, failure to implement human resources strategies, loss of key personnel, errors in financial reporting, corruption and failure to apply internal control.

# **Prevention and mitigation efforts**

Solvay has a compliance organization in place under the leadership of the Group General Counsel to enhance a Group-wide ethics- and compliancebased culture and to promote and monitor compliance with applicable laws, the Group Code of Conduct and supporting policies and procedures. Compliance Officers have been appointed in all four zones in which the Group is active. Training courses facilitated by the Legal & Compliance Function are organized to ensure that ethical and compliant conduct is embodied in the way business is done at Solvay and to address behavioral risks in certain specific areas such as antitrust or corruption. Regular campaigns are organized to train new employees and to maintain the right level of awareness in the whole Group. The compliance Department, in collaboration with Internal Audit, legal and other departments or functions, monitors compliance with applicable laws and Solvay's Code of Conduct. Any violation of the Code will lead to sanctions in accordance with internal regulations and applicable law. Reporting of violations is encouraged and various avenues are offered to employees including contact with the Compliance Officers. Employees can also ask questions, raise concerns or file reports through the Solvay Ethics Helpline, an external resource.

The internal-control process is applied to the most important business processes. The methodology has the following steps: (i) risk analysis along the process by the process owner supported by experts from the Risk Management Department, (ii) design of controls to reduce risks, (iii) deployment of controls and (iv) assessment of controls' effectiveness by Internal Audit. Efficient internal controls also reduce the risk of errors in financial reporting. Please refer to pages 66 and 67 of the present report for a detailed description of the internal-control system of the Solvay group.

# 5 Financial risk

Financial risk is Solvay's exposure to liquidity risk, foreign exchange risk, interest-rate risk, counterparty risk (credit risk), failure to fund pension obligations, and tax risk, mainly tax compliance risk and transfer-pricing risk.

**Liquidity risk** relates to Solvay's ability to service and refinance its debt (including notes issued) and to fund its operations, and depends on its ability to generate cash from operations and not to over-pay for acquisitions.

Solvay is exposed to **foreign-exchange risk** as a consequence of its international activities. In its present structure, the Group's exposure is mainly associated with the euro/US dollar risk, as the Group's overall activities generate a net positive US dollar flow. Consequently, a depreciation of the US dollar will generally result in lower revenues for Solvay. To a lesser extent, the Group is also exposed to euro/Japanese yen and Brazilian real/US dollar. A sensitivity analysis to those currencies is provided in the note *37D Foreign currency risks* to the consolidated financial statements on pages 188 and 189 of the present document.

Interest-rate risk is Solvay's exposure to fluctuating interest rates.

Solvay is exposed to **counterparty risk** in its cash management and in its foreign-exchange risk and interest-rate risk management as well as in its commercial relationships with customers.

With regard to the **risk of under-funding pension obligations**, Solvay is exposed to a number of defined-benefit plans. Fluctuations in discount rates, salaries and social security, longevity and asset/liability matching can have a major impact on the liabilities of such pension plans. For funded plans, the risks related to investments need to be managed, taking into account the risk-return balance. If plans are under-funded Solvay is mostly exposed to inflation and interest-rate risk. Further information is provided in the note *35A Provisions for employee benefits* to the consolidated financial statements from page 174 to page 181 of the present document.

# **Prevention and mitigation efforts**

Financial risks are analyzed, assessed and managed by the Corporate Finance Function (Treasury and Tax). Loss prevention and mitigating efforts involve a number of activities, such as:

- maintaining a strong liquidity policy;
- maintaining a natural currency hedge;
- fixed interest rates;
- hybrid pension plans, cash-balance plans and defined-contribution plans;



- internal controls dedicated to tax compliance processes and also aimed at documenting tax positions in the field of Treasury, Company Restructuring and M&A activities;
- transfer-pricing documentation prepared in line with OECD (Organization for Economic Co-operation and Development) requirements;
- recourse to external tax expertise, should the need arises.

The Group is recognized as historically having a prudent financial profile, as illustrated by its BBB+ rating<sup>(1)</sup> (Standard & Poor's BBB+; Moody's Baa2). The liquidity profile is strong, mainly supported by long-term bond issuance (for a total of  $\notin 2.7$  billion, with a first significant maturity of  $\notin 500$  million in 2018 and  $\notin 1.2$  billion hybrid bonds, treated as equity under IFRS) and substantial liquidity reserves (cash and committed credit lines, including two syndicated credit facilities of  $\notin 1.5$  billion and  $\notin 550$  million and a credit line of  $\notin 300$  million with the European Investment Bank). In addition, the Group has also access to a Belgian Treasury Bill program in an amount of  $\notin 1$  billion. The financial discipline remains conservative.

The geographic diversification of production and sales provides a natural currency hedge because of the resulting combination of an income stream and an expense base in local currency. Furthermore, Solvay closely monitors the foreign-exchange market and enters into hedging measures for terms usually shorter than one year and not exceeding 18 months whenever deemed appropriate. In practice, Solvay enters into forward and option contracts securing the value (in euro and/or US dollar) of cash flows in foreign currency during the following months. The Group manages its foreign-exchange risk for receivables and borrowings through CICC (Solvay's in-house bank) in Belgium for all affiliates of the Group where it is possible to enter in such hedging transactions and through local financial affiliates for other regions.

In its present structure, the Group has locked in the largest part of its net indebtedness with fixed interest rates. Solvay closely monitors the interest rate market and enters into interest-rate swaps whenever deemed appropriate.

Solvay manages its financial counterparty risk by working with banking institutions of the highest caliber (selection based on major rating systems) and minimizes the concentration of risk by limiting its exposure to each of these banks to a certain threshold, set in relation to the institution's credit rating.

In addition, Solvay places money with highly rated money market funds as well as investing in short term debt securities from highly rated sovereign issuers at the appropriate moments.

Furthermore, the Solvay group manages external-customer risk and cash collection through a strong network of credit managers and collectors located in operating regions and countries.

Credit-management and collection processes are supported by a set of detailed procedures and managed through Corporate and GBU Credit

Committees. These loss mitigation measures have led, over the past years, to a record-low rate of customer defaults.

Solvay has defined corporate pension-governance guidelines in order to maximize its influence over local pension fund decisions within the limits provided by local law, in particular, decisions related to investment and funding, selection of advisors, appointments of employer-nominated trustees to local pension fund Boards and other cost-management decisions.

The Group has reduced its exposure to defined-benefit plans by converting existing plans into pension plans with a lower risk profile for future services or by closing them to new entrants. Examples of plans with a lower risk profile are hybrid plans, cash-balance plans and defined-contribution plans.

A global ALM (Asset Liability Management) analysis of Group's pension plans representing more than 90% of the Group's pension obligations is performed periodically, the last one being in 2012 to identify and manage corresponding risks on a global basis.

Solvay stresses the importance of tax compliance. It monitors its procedures and systems through internal reviews and through audits performed by reputable external consultants. Internal controls dedicated to tax-compliance processes are in place to limit the occurrence of possible errors or failures.

Solvay has issued transfer-pricing policies and procedures aimed at meeting the requirements of the authorities. These are in the process of being updated.

Transfer-pricing documentation is prepared annually for each relevant Group legal entity with the assistance of internal or external experts in line with OECD requirements, in order to demonstrate the arm's-length nature of cross-company pricing. The existence and timeliness of the documentation are regularly audited by the Internal Audit Department. Internal transfer-pricing specialists assist the business in setting intragroup prices compliant with the transfer pricing policy.

The prevention and mitigation efforts for the tax litigation risk are based on thorough analysis of internal financing of affiliates, mergers, acquisitions and divestments, or proposed changes in the business organization and operations, with the assistance of external experts or law firms when the amounts at stake warrant it. Changes in laws and regulations are also monitored with the aim of adapting to new situations.

Solvay, like any other corporate taxpayer, currently faces significant growth in tax increases and the introduction of many new tax provisions. Solvay's Tax Department pays great attention to the correct interpretation and application of these new tax rules to avoid future litigation. Solvay Tax Department also follows with great attention all developments pertaining to the OECD Base Erosion and Profit Shifting program and makes sure that tax positions are consistent with these requirements.

<sup>(1)</sup> At the time of publication of this annual report.



# 6 Product risk

**Product-liability risk** is Solvay's exposure stemming from injury to third parties or damage to their property arising from the use of a Solvay product, as well as the resulting litigation. Product liability may arise from out-of-specification products, inappropriate use, previously unidentified effects, manufacturing errors resulting in defective products, product contamination, altered product quality or inappropriate safety and health recommendations. Consequences of a faulty product could be exposure to liability for injury and damage as well as recall of a product. Product-liability risk is generally higher for products used in healthcare and food & feed applications compared to other applications. Products with significant potential hazards are sold to industrial users and not directly to consumers. These products sales are accompanied by appropriate conditions of safe use.

**Product-development risk** is Solvay's exposure to adverse developments while developing new products and technologies or scaling up a process.

# **Prevention and mitigation efforts**

Solvay controls the quality and purity of its manufactured products through quality-assurance and quality-control programs, by controlling industrial processes and by deploying full composition-data management.

Product-liability exposure is reduced by product-stewardship programs giving adequate information and technical assistance to customers, ensuring a good understanding of safe use and handling.

First of all, risks of its products are identified and assessed by in-house product stewardship experts. Solvay characterizes and manages risks related to the uses and applications, and prioritizes mitigation actions regarding potential inappropriate uses in relation with the GBUs. Then

Solvay manages preparation of Safety Data Sheets (SDS) fully compliant with regulations, ensuring a harmonised content of SDS by implementing a common worldwide SAP Environment, Health & Safety (EH&S) system for the Group. Control by SDS shipping allows confirmation that any product marketed by Solvay is accompanied, whatever the means, by a compliant SDS. Solvay monitors any discrepancies registered during checks and manages shipping failures. Solvay pays particular attention to providing complete and clear information about intended use and potential hazards by means of Safety Data Sheets, labels, regulatory-compliance statements and other documentation. For example, conditions of safe use and handling, hazard levels, first aid emergency measures and emergency phone numbers are provided in the language of its customers. Recall procedures, as described in the product stewardship programs, management systems and the healthcare management process, are also developed and deployed.

Regarding product development, Solvay devotes substantial resources to R&I. Innovation is a cornerstone of the Group's strategy and Solvay considers that managing the challenges related to product development is more about opportunity than about risk for the Company.

A defined project-management process ensures optimal use of resources when moving a new product from idea to market launch in a timely manner.

The New Business Development team within the R&I Function manages the Group investments in internal and external research projects, startups and venture capital funds, allowing Solvay to remain engaged at the forefront of emerging businesses such as alternative renewable energies and organic electronics. It also includes risk-sharing through publicprivate partnerships or other forms of open innovation for developing breakthrough technologies.

# 7 Risk to people

Accidents to employees or third party individuals on Solvay's sites are generally linked to failure of safety management relating to risks in the workplace. Personnel accidents include contact with chemicals (hot, corrosive or toxic) leaking from a vessel, pump or pipe, as well as accidents caused by explosion or falling objects, falls during work at height or work with mechanical or moving equipment.

Accidents to contractors include falls during work at height during construction and maintenance, use of tools and interaction with equipment during maintenance, as well as accidents due to non-compliance with work permit procedures.

Risks of causing **injury to neighbors or the public** are mostly a consequence of major process accidents at manufacturing sites or during transport activities.

**Occupational-related diseases** including chronic diseases from exposures to occupational hazards are mostly related to past exposures resulting in health effects after a long period of latency, *e.g.* asbestos-related diseases.

 $\ensuremath{\textbf{Pandemic risk}}$  can affect employees, their families and the society at large.

Solvay activities relate to **human rights subjects** mostly through issues concerning work, health and safety. With its expanding operations in emerging countries, Solvay continuously reassesses its impact on human-rights matters.



# **Prevention and mitigation efforts**

Safety of people is the highest priority in the management of activities in Solvay. The Group has a long track record of good safety performance, and the integration and sharing of good practices coming from the two legacies, Solvay and Rhodia, has allowed significant progress.

The Comex set an ambitious target of one for MTAR (work accidents with medical treatment/one million working hours) and at the end of 2014 the Group reached its objective to drastically reduce by 30% in two years the serious accidents (accidents with irreversible consequences and chemical contact accidents) as well as elimination of fatalities. The MTAR reached a record value of 0.98 at the end of 2014. This represents a continuous safety improvement trend over the last three years. These results include not only employees but also contractors and temporary workers. The safety results are presented monthly to the Executive Committee and sent to each GBU.

To achieve that, the Health, Safety and Environment (HSE) Department defined a new management system called Solvay Care Management System (SCMS), integrating all the Solvay requirements for HSE and meeting international standards (ISO 9001, ISO 14001, OHSAS 18001). After the safety initiative of 2012, the Solvay Safety Excellence Plan was recently launched to boost safety performance. This plan is focused on three axes: clearly showing management's level of expectations, customizing action plan through site and GBU roadmaps and generating a safety excellence mindset. As such, new improved quantitative targets have been set for MTAR and serious accidents for the next two years.

HSE Corporate supports sites and GBUs by continuous development and deployment of Corporate procedures, standards, guidelines and tools to improve risk awareness to prevent accidents. Corporate collects, validates and distributes return on experience, lessons learning bulletins on typical accident scenarios and consequences, and safety alert messages with rules and recommendations. For instance, life saving rules (based on lesson learned addressing the highest HSE risk activities) will be implemented worldwide in 2015.

The understanding and management of human and organizational factors are important to safety and the Group provides programs for behavioral safety to increase the safety culture of managers, employees and contractors.

Existing internal and external research, academic or inter-company developments are monitored to identify new safety approaches ICSI (*Institut pour une Culture de Sécurité Industrielle*), EPSC (European Process Safety Centre) or CEFIC (European Chemical Industry Council) initiatives.

Solvay has put into place a global pandemic preparedness task force covering all plants and all businesses by means of a sustained network of coordinators prepared to implement regional and local prevention and mitigation activities.

Key elements of management concerning contractor safety are organized in five successive steps: (i) qualification and pre-selection, (ii) work definition and risk analysis, (iii) contract definition (context, rules, penalties and acceptance), (iv) work execution, management and reception and (v) HSE contractor evaluation, feedback and actions. This also includes prevention planning, additional training for specific risks for health and safety, and control and feedback during work and after completion. Thanks to such management elements, safety performance of contractors improved significantly during the recent years.

Visitors at Solvay sites are specially informed about the risk and the specific safety rules when entering. Process safety concerns the protection of people, assets and environment against the consequences of process incidents. Solvay's objective is to ensure a uniform, centralized and best-in-class PSM (Process-Safety Management) performance. The ownership of PSM is assigned to HSE and Solvay has a target of covering each facility with a risk analysis before the end of 2020. This ambitious target will be achieved thanks to clearly defined methodologies, tools and dedicated resources. The concept of PSM systems as applied in USA, where PSM is mandatory and must comply with OSHA (Operational Safety and Health Administration) and EPA (Environmental Protection Agency) requirements, is also used to support safety management systems in other regions, including Europe where it supports compliance with the Seveso Regulation.

The risk of an accident in connection with hazardous chemicals transportation is reduced by optimizing transport routes, relying on selected and audited haulers and worldwide emergency assistance in case of accidents through the Carechem service. In addition, every effort is made to minimize the number of transportation activities by operating with integrated production units for hazardous intermediates. Solvay follows the safety recommendations of associations like Eurochlor, ECVM (European Council of Vinyl Manufacturers) or CTEF (*Comité Technique Européen du Fluor*) and programs like Responsible Care<sup>®</sup>.

Conservative approaches in risk assessment and management reduce real risk exposure when new hazards are revealed. Such conservative approaches are shared and applied by the worldwide toxicology team and also supported by the internal "Solvay Acceptable Exposure Limit" Committee, chaired by the Corporate Medical Adviser.

Solvay has its own experts within the Company and actively cooperates with external networks. High priority is given to nano-materials and technology, endocrine disruptors and health-related applications of Solvay products.

For decades, Solvay has had in place worldwide occupational-disease monitoring and a strong program in industrial hygiene focusing on a comprehensive assessment of compliance with occupational-hygiene standards. In order to ensure a high standard of occupational-health protection for employees, in 2006 Solvay started rolling out the occupational-hygiene module and in 2008 the health module of the MEDEXIS IH-OH system in order to manage comprehensive hygiene data as well as the data related to medical surveillance, in order to standardize and leverage medical surveillance programs. The principles of the MEDEXIS IH-OH system are being progressively extended to the whole Group and shared via a unique and uniform IT tool. The system is designed to identify clusters of new possibly occupation-related diseases with multiple underlying causes, with the purpose of improving individual and collective exposure and medical traceability and facilitating the daily work of physicians and hygienists in Solvay.



# 8 Environmental risk

Environmental risk is Solvay's exposure stemming from the sudden or long-term release of a chemical substance following plant-equipment failures or transport accidents, as well as from production problems resulting in exceeding permitted emission levels. Several Solvay sites are governed by regulations concerning major-risk installations.

Exceeding permitted emission levels can lead to administrative or criminal sanctions, adverse outcomes in litigation and the risk of the loss of license to operate.

Like most other industrial companies, Solvay has to manage and remediate historical soil contamination at some sites as well as comply with future changes in environmental legislation. In Europe and elsewhere, environmental liability and the "polluter pays" principle are increasingly embedded in environmental legislation, to prevent and remedy environmental damage. For the first time, environmental damage to land, water, natural habitats and protected species has been brought under the umbrella of a single piece of European legislation.

The legislation introduces an increasingly broader scope of soilremediation legal liabilities than previously seen across Europe, including a requirement for primary remediation, complementary remediation and compensatory remediation. More generally, authorities worldwide are increasingly requiring management of soil and groundwater environmental legacies. The risk for Solvay is in particular that the ELD (European Liability Directive) will lead to increased remediation costs and in this context, a number of administrative proceedings are under way to define the need for and approach to remediation.

The risk inherent to climate change is a reality and involves potential consequences: increased sea-level rise, increased costs of energy or carbon emission trading, and increased frequency and intensity of climatic events such as hurricanes and typhoons, water shortages, tsunamis and floods, which could impact some production sites at risk of water shortage or floods. Regarding economic effects, activities in the European Union in particular are exposed to public decisions taken in isolation when those decisions could rapidly and irreversibly threaten the very existence of those chemical processes that have to remain competitive worldwide. Solvay group is exposed to the European Emission Trading System (ETS)<sup>(1)</sup>. A similar scheme has started in South Korea January 1, 2015.

# **Prevention and mitigation efforts**

Solvay considers environmental protection a key aspect in the management of its activities. Well-defined measures to prevent pollution and accidents have been in place at Solvay for a long time. Solvay implements ISO 14001 or integrated HSE management systems equivalent to ISO 14001 (Solvay Care Management System SCMS) for the environment in all plants concerned. Policies and risk control programs are applied in all production units and other facilities and are progressively implemented in newly acquired plants. The Group has, in particular, taken the necessary steps to comply and even go beyond compliance with regulations concerning major risks, which includes detailed accident-prevention measures.

Sites with historical soil contamination are carefully monitored and managed by a dedicated worldwide team. This team receives training in regulatory awareness and undertakes regular updates of appropriate provisions for monitoring and remediation according to a defined audit process. The Group has developed internal expertise in soil management. It is Solvay's policy to have a risk characterization approach at all concerned sites. Hydrogeological studies and soil characterizations are conducted to diagnose potential problems, evaluate risks to aquifers and discuss relevant remediation or confinement actions with authorities. A number of such actions have been completed or are under way.

Compliance with applicable legislation is fully integrated into environmental management systems and is constantly monitored by all Solvay sites. Corrective actions are implemented whenever necessary in close cooperation with environmental authorities to assure that no adverse effect on the environment is observed.

Solvay recognizes climate change as one of the chief environmental challenges facing our society. As a result Solvay supports the global fight against climate change. Solvay monitors the effects of climate change insofar as the risks and opportunities related thereto may affect the Group's objectives. To some extent, the risk is covered by the geographic distribution of production sites and markets served by its products.

Solvay has already reduced its greenhouse gas emissions and will continue to play its part in this challenge. The Group has committed itself, under its Sustainable Development Initiative, to further reduce its emissions of greenhouse gases and has set one long term objective to reduce by 10% by 2020 its greenhouse gas emissions as far as technically and economically feasible. A structured greenhouse gas emission reporting system, externally verified and the response to rating agencies such as the Carbon Disclosure Project, helps the Group to align its efforts on the materiality of its greenhouse gas challenges.

Because of the global nature of this challenge Solvay and the chemical sector at large call for binding international agreements which include all major emitting regions of the world and create a global level playing field for the chemical industry.

Regarding European ETS, several mitigation actions have been undertaken:

- GHG emissions are strictly monitored;
- several energy efficiency projects have been implemented, generating in average 10% of energy savings;
- the Group EUA exposure is dynamically managed with a hedging against possible shortage.

Regarding the risk of water shortages, action will be assessed to mitigate the risk at the limited number of concerned sites. The mitigation approaches include using alternative water sources, recycling and reducing consumption following an identification of sites possibly at risk. The geographic distribution of production units around the world reduces the overall impact of one production unit being slowed down or interrupted due to water shortage.

<sup>(1)</sup> ETS stands for Emission Trading Scheme. In order to fight global warming and to comply with its commitment under Kyoto Protocol, the European Union has set up a cap and trade system (EU ETS) by which more than 12,000 industrial units must reduce their greenhouse gas (GHG) emissions. Each year, the companies are granted a certain amount of European Unit Allowances (EUA) and should surrender an amount of EUA equivalent to their GHG emissions. In case of shortage, they must buy on the market the missing amount of EUA and pay a penalty.



# 9 Information and IT risk

Risks to Solvay related to information and information services include fraud, manipulation or destruction of information, inability to ensure continuity of services or to protect confidential, critical or sensitive information. In 2014, the Information Services Department Organization, the successor to Solvay and Rhodia legacies, was rolled out within Solvay Business Services (SBS).

# **Prevention and mitigation efforts**

Information Services internal controls are assessed for financial consolidation system at the Group level. Cash-management optimization (credit management/cash/in-out and working capital management), with common tools and a common organization, has been deployed for the full Group and is reducing the risks of having two different processes in two different environments.

Information Services, at Solvay group level, already partially certified ISO 9001/2008 at the end of 2013, has been fully certified for 2014 and 2015.

One single infrastructure backbone composed of a single network and a single datacenter provider reduces the risks associated with access control and system availability. By implementing only one data center with an automatic switch to a backup site, the Information Services organization has reduced the risk of discontinuity of services for the whole company. By managing only one global dedicated and globally managed network, risks of security deficiencies have been reduced. Information Services internal controls for the worldwide data center and the global network were assessed in 2014, including Disaster Recovery Plans (DRP) exercises.

A new intellectual-property information management system has been designed and is under implementation to increase the management and control of strategic Research & Innovation (R&I), industrial and patented information.

A vendor-management program has been implemented to secure Solvay's key contracts with the main Information Services and Business Process Outsourcing (BPO) suppliers to secure risks of possible inherent dependencies.

The year 2014 was also marked by updated policies regarding information security, segregation of duties, information management and crisis management. These create common understanding, methodology and language about the risks at stake and the level of exposure of Solvay, and allow for company-wide end-user trainings and awareness campaigns, planned for 2015.

Finally, a program for cyber-security and prevention of loss of confidential information has been designed. In 2015, this program will address concrete business requirement around information classification, their appropriate handling and business continuity.

# 10 Reputational risk

Reputational risk arises from Solvay's exposure to a deterioration of its reputation with its different stakeholders. Damage may occur due to the realization of any of the risks described for the other risk categories in this chapter or any unexpected crisis event, whether real, supposed or alleged, and publication of any unfavorable outcome. It may also arise from the occurrence of any event or action associated with the Solvay name that would be in breach of ethics, law or corporate governance principles and which, more generally speaking, would fall short of stakeholder expectations with regard to Solvay.

Damage to corporate reputation can be accelerated and amplified by the Internet and social networking media.

Reputation is a key asset. Loss of reputation can result in competitive disadvantage and value destruction. Reputational risk deals with the subjective, composite perception of a company by its different stakeholders. Trust is a fundamental ingredient of reputation.

# **Prevention and mitigation efforts**

Besides overall good reputation management under the supervision of the Corporate Communication Function, control practices and systems, including crisis anticipation and preparation, efficient communication (clear, consistent and timely) and long-term solid relationships with key stakeholders, both inside and outside the organization, contribute in the long run to building and consolidating trust, which is a fundamental ingredient of reputation. In addition to fostering its own good reputation, Solvay participates in specific programs implemented by key trade organizations to improve the reputation of the entire chemical industry. Members of the Executive Committee of Solvay have recently been active as presidents of ICCA (International Council of Chemical Associations), CEFIC (European Chemical Industry Council) and Plastics Europe.

Solvay has established communication processes, systems, plans and programs to create, develop and maintain a regular dialogue, including in crisis situations, with its main stakeholders: shareholders and the financial community, employees, customers and suppliers, authorities, local communities and opinion leaders. Tools include a variety of internal and external electronic and printed media tailored for internal and external audiences. Solvay maintains active press relations at the corporate and local levels, through direct contacts, press releases, conferences and visits as well as open-door and other events aimed at local communities around major sites. The Group has also adopted a set of guidelines and advice for employee use of social-networking media.

Clear values and training on practices supported by the Code of Conduct, combined with a high level of Corporate Governance, are instrumental in preventing behavior that could contribute to reputational risk.

Solvay is implementing effective management and communication systems designed to give early warning in case of actual or latent crises and to ensure an adequate response in the case of unexpected and sudden adverse events that can potentially harm the Group's reputation. Dedicated managers and employees are trained to face such situations. Crisis simulations are organized on a regular basis in the different entities of the Group.



# 11 Important litigation

With its variety of activities and its geographic reach, the Solvay group is exposed to legal risks, particularly in the areas of product liability, contractual relations, antitrust laws, patent disputes, tax assessments and HSE matters. In this context litigation cannot be avoided and is sometimes necessary to defend the rights and interests of the Group.

The outcome of proceedings cannot be predicted with certainty. It is therefore possible that adverse final court decisions or arbitration awards could lead to liabilities (and expenses) that are not covered or not fully covered by provisions or insurance and could impact materially the revenues and earnings of the Group.

Ongoing legal proceedings involving the Solvay group currently considered to involve significant risks are outlined below. The legal proceedings described below do not represent an exhaustive list.

The fact that litigation proceedings are reported below is without relation to the merits of the cases. In all the cases cited below, Solvay is defending itself vigorously and believes in the merits of its defenses.

For certain cases, Solvay has created reserves/provisions in accordance with the accounting rules to cover the financial risk and defense costs (see the note *35A Provisions for litigation* to the consolidated financial statements on page 182 of the present document).

# **Antitrust proceedings**

In 2006, the European Commission imposed fines against Solvay (including Ausimont SpA, acquired by Solvay in 2002) for alleged breaches of competition rules in the peroxygens market, amounting after appeal to  $\notin$  139.5 million for Solvay SA and  $\notin$  12.8 million for Solvay Specialty Polymers Italy SpA. Joint civil lawsuits were filed before the Court of Dortmund (Germany) in 2009 against Solvay and other producers based on the alleged antitrust violation, claiming damages from the producers on a joint and several basis. The value of the claims is approximately  $\notin$  240 million (excluding interest) against all six defendants. Several questions on the jurisdiction of the Court of Dortmund have been referred to the European Court of Justice and proceedings before the Court of Dortmund are stayed in the meantime.

In Brazil, Solvay is facing administrative claims related to alleged cartel activities in various markets. CADE (the Brazilian antitrust authority) issued fines against Solvay and others in May 2012 related to  $H_2O_2$  activity (Solvay's share of the fines is  $\notin$  29.6 million). Solvay has filed a claim contesting these administrative fines before the Brazilian Federal Court.

# **HSE related proceedings**

In September 2014 the Criminal Court of Appeal of Bologna (Italy) confirmed the decision of the Criminal Court of Ferrara of April 2012 which had dismissed the case concerning four former employees of Solvay accused of alleged criminal conduct before 1975 in relation to two cases of former polymer polyvinyl chloride (PVC) workers with diseases allegedly due to exposure to vinyl chloride monomer (VCM). Further appeal before the Cassation Court of Rome by the Public Prosecutors and/or by the Civil Parties seems at this stage very unlikely.

In October 2009 the Public Prosecutor of the Criminal Court of Alessandria (Italy) charged several individuals (including employees and former employees of Solvay, and including Ausimont SpA) in relation to alleged criminal violations of environmental laws (remediation omission) and public health legislation (intentional poisoning of potable waters). The trial is ongoing before the Assize Court of Alessandria. Solvay Specialty Polymers Italy (formerly Solvay Solexis), a subsidiary of Solvay and legal successor of Ausimont SpA, called in the trial as Civil Liable Party together with Edison SpA, may be exposed to claims for civil liability in case of a negative outcome of the proceedings. The Civil Parties admitted to the trial have provisionally quantified their civil damages claims in about € 105 million.

In May 2008 the Public Prosecutors of the Criminal Court of Pescara (Italy) charged several individuals (including former employees of Ausimont SpA acquired by Solvay in 2002; no Solvay employee is charged) in relation to alleged criminal violation of environmental laws (environmental disaster) and to alleged crimes against the public health (intentional poisoning of potable waters) taken place before 2002 (*i.e.* before Ausimont SpA's acquisition by Solvay). The Assize Court of Chieti has dismissed intentional poisoning charge and found the former employees of Ausimont guilty of culpable environmental disaster, but declared that this matter is time-barred. Public Prosecutors will probably appeal the decision.

# Pharmaceutical activities (discontinued)

In the context of the sale of the pharmaceutical activities in February 2010, the contractual arrangements have defined terms and conditions for the allocation and sharing of liability arising out of the activities before the sale.

Subject to limited exceptions, Solvay's exposure for indemnifications to Abbott for liabilities arising out of sold activities is limited to an aggregate amount representing € 500 million and is limited in duration.

This includes indemnification against certain potential liabilities for the US hormone replacement therapy (HRT) litigation, re-activated Qui Tam litigation focusing on promotional and marketing practices that allegedly influenced sales of the drugs Aceon, Luvox, and AndroGel, as well as more recently filed testosterone replacement therapy (TRT) litigation also focusing on the drug AndroGel. These claims proceed at varying rates of resolution, with all but one HRT claim resolved.

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1 n order to ensure the reliability and credibility of its extra-financial reporting, Solvay commissioned one of its statutory auditors, Deloitte, to verify a selection of sustainability information. This verification process aims at providing a limited assurance report on the targeted sustainable development indicators and assertions.

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# **MANAGEMENT REPORT**

The management report for the accounting period ending on December 31, 2014, consisting of pages 47 to 74 (Corporate governance) and 75 to 85 (Management of risks), has been prepared in accordance with Articles 96 and 119 of the Belgian Companies' Code and was approved by the Board of Directors on February 25, 2015. It covers both the consolidated accounts of the Solvay group and the statutory accounts of Solvay SA.

In this section, Solvay is presenting its 2013 and 2014 comparative Income statements. Therefore, 2013 income statement has been restated for:

- Eco Services business, which was sold on December 1, 2014. Since the 3<sup>rd</sup> quarter of 2014 Solvay restated its 2013 and 2014 income statement and statement of cash flows to reflect the discontinuation of the business;
- The retrospective application of IFRS 11 *Joint Arrangements* on January 1, 2014.

The term "restated" throughout this document must be understood as per above considerations, unless otherwise stated.

The European and Latin-American Chlorovinyls business activities are presented as "Assets held for sale" on the statement of financial position (in one single line) and as "discontinued operations" in the income statement.

The intended sale of Solvay's 70.59% majority stake in Solvay Indupa to Braskem has been rejected by the Brazilian competition authority (CADE) in November 2014. Solvay confirms that its strategic direction remains unaffected and that it is examining alternative options to sell its participation in Solvay Indupa. As a disposal within 12 months is considered highly probable, Solvay Indupa remains classified as "Assets held for sale" on the statement of financial position and as "discontinued operations" in the income statement.

Chemlogics is consolidated in the financial statements from November 1, 2013.

# 1 Highlights of 2014 – Momentum and delivery

- Group net sales at € 10,213 million, up 5% yoy, with volumes 3.6%, forex (1.4)%, scope 2.4% and stable prices 0.5%;
- REBITDA at € 1,783 million, up 11% yoy driven by volume growth (organic and external), pricing power and excellence initiatives; margins widened to 17.5% of net sales, up 90 basis points compared to last year;
- Adjusted EBIT at € 761 million, up 3.7% yoy; Adjusted Result from continuing operations at € 333 million, up 6.7% yoy;
- Adjusted Net Income Solvay share at € 156 million versus € 378 million in 2013. 2014 contained material exceptional elements largely linked to the Group's active portfolio management;
- Free Cash Flow generation at € 656 million +35% yoy; net debt decreased € 363 million from 2013 year-end;
- Dividend increased proposed: € 3.40 gross per share, up 6.3% compared to last year.

.....

	Adjusted	
In € million	2014	2013*
Net sales	10,213	9,715
REBITDA	1,783	1,611
REBITDA as % of sales	17.5	16.6
Total depreciation and amortization	(641)	(614)
EBIT	761	734
Net income, Solvay share	156	378
Earnings per share (basic)	1.87	4.54
Research expenditure	247	238
Capital expenditures (continuing operations)	861	738
Capital expenditures (discontinued operations)	127	129
Free Cash Flow	656	487

\* Restated for comparable purposes.



# 2 Business performance and analysis

## Management analysis convention

In addition to the consolidated IFRS accounts for 2013 (historical and restated) and 2014 provided in pages 128 to 209 (Financial statements) in this report, Solvay is disclosing "Adjusted" Profit & Loss information and analysis in order to provide a more meaningful presentation of the economic and financial performance of the Group and its business segments between periods.

Adjusted Profit & Loss indicators referring to 2013 and 2014 exclude noncash Purchase Price Allocation (PPA) accounting impacts related to the Rhodia acquisition.

All references to year on year evolution must be understood comparable, and on an adjusted basis for 2013 and 2014, unless otherwise stated.

The term "Net sales" refers to the sales of goods and value-added services corresponding to Solvay's know-how and core business. Net sales exclude other revenues primarily comprising commodity and utility trading transactions and other revenues deemed as incidental for the Group (for example temporary).

Furthermore, for its analysis and financial communications, Solvay uses non-GAAP^{(i)} indicators, the definitions of which are the following:

- REBITDA which consists of EBIT as presented in the income statement, excluding:
  - recurring amortization and depreciation;
  - non-recurring items;
  - material financing related costs and non-recurring items for companies consolidated using the equity method of accounting;
  - operating revenues/expenses not taken into account by management when assessing segment performances;

- non-recurring items mainly include:
  - gains and losses on the sale of subsidiaries, joint operations, joint ventures, and associates that do not qualify as discontinued operations;
  - acquisition costs of new businesses;
  - gains and losses on the sale of real estate not directly linked to an operating activity;
  - major restructuring charges;
  - impairment losses resulting from the shutdown of an activity or a plant;
  - impairment losses resulting from testing CGUs for impairment (a CGU includes tangible assets, intangible assets and allocated goodwill, if any);
  - the impact of significant litigation;
  - the remediation costs not generated by on-going production facilities (shut-down of sites, discontinued activities, previous years pollution);
- Free Cash Flow is calculated as cash flow from operating activities (including dividends from associates and joint ventures) + cash flow from investing activities (excluding acquisitions and sales of subsidiaries and other investments and excluding loans to associates and non-consolidated subsidiaries);
- net debt is defined as short and long-term financial debt less cash and cash equivalents and other current receivables – Financial instruments.

Solvay believes that these measurements are useful tools for analysing and explaining changes and trends in its historical results of operations, as they allow performance to be compared on a consistent basis. However, they are not subject to audit and are not performance measurements with respect to IFRS. The methods of calculating changes used by Solvay may differ from those used by other companies.

<sup>(1)</sup> Generally accepted accounting principles.

# Analysis of the consolidated results for the accounting period ending December 31, 2014

#### Analysis of Group operational performance

	IFF	15	Adjusted		
In € million	2014	2013*	2014	2013*	
Sales	10,629	10,150	10,629	10,150	
Other non-core revenues	416	434	416	434	
Net sales	10,213	9,715	10,213	9,715	
Cost of goods sold	(8,070)	(7,844)	(8,070)	(7,844)	
Gross margin	2,559	2,305	2,559	2,305	
Commercial and administrative costs	(1,225)	(1,189)	(1,225)	(1,189)	
Research and innovation costs	(247)	(238)	(247)	(238)	
Other operating gains and losses	(94)	(83)	16	59	
Earnings from associates and joint ventures accounted for using the equity method	(34)	34	(34)	34	
Non-recurring items	(308)	(239)	(308)	(239)	
EBIT	652	591	761	734	
Net income	13	315	89	422	
Non controlling interests	67	(44)	67	(44)	
Net income Solvay share	80	270	156	378	
Earnings per share (basic) in €	0.96	3.25	1.87	4.54	

\* Restated for comparable purposes.

#### **Net sales**

Change in net sales	Net sales		Conversion			Net sales
In € million	2013*	Scope	forex	Volume	Price	2014
Solvay group	9,715	236	(132)	349	44	10,213
		2%	(1)%	4%	-	5%
Advanced Formulations	2,432	312	(45)	140	14	2,854
		13%	(2)%	6%	1%	17%
Advanced Materials	2,551	7	(18)	243	(22)	2,762
		-	(1)%	10%	(1)%	8%
Performance Chemicals	2,902	4	(51)	(1)	90	2,944
		-	(2)%	-	3%	1%
Functional Polymers	1,763	(89)	(15)	32	(38)	1,654
		(5)%	(1)%	2%	(2)%	(6)%
Corporate & Business Services	67	1	(3)	(65)	-	-
		1%	(4)%	(97)%	-	(100)%

\* Restated for comparable purposes.

In 2014, Group net sales grew 5.1% to  $\leq$  10,213 million, supported by organic volume growth +3.6% and Chemlogics' contribution +2.4%, but slowed, however, by unfavorable foreign exchange developments (1.4)%. Net sales grew +17% in Advanced Formulations and +8.3% in Advanced Materials, both underpinned by innovation-driven demand. Net sales increased +1.4% at Performance Chemicals with positive pricing partially weighed down by forex, and they fell (6.2)% in Functional Polymers due to lower raw material prices, the divestment of Benvic as well as unfavorable forex.

#### **Operating elements**

#### Costs of goods sold

The cost of goods sold amounted to  $\in$  (8,070) million in 2014, up 3% compared to prior year, driven by Chemlogics' acquisition, volumes growth impact on variable costs and inflation. This increase was partly offset by the positive effect of competitiveness improvement linked to excellence initiatives and, to a lesser extent, by the favorable foreign exchange rate effects (net impact of the depreciation of the Brazilian real and the Japanese yen compared to euro and US dollar).



#### Commercial and administrative costs

Commercial and administrative costs of  $\notin$  (1,225) million in 2014 rose by  $\notin$  (36) million or by 3% compared to prior year. This increase is primarily due to the inflation experienced over the different regions where the Group operates. The impact of Chemlogics' acquisition is partly offset by favorable foreign exchange rate effects.

#### Research and innovation costs

Research and innovation costs amounted to  $\in$  (247) million in 2014, increasing by 4% compared to prior year thanks to reinforced research efforts of the business units. The ratio of research and innovation cost on net sales remained stable at 2.3%.

#### Other operating gains and losses

Other operating gains and losses in 2014 amounted to  $\leq$  16 million on an adjusted basis, compared to  $\leq$  59 million in 2013. In 2013, the realignment

#### REBITDA

of insurance policies of the Group had led to the reversal of provisions for positive € 22 million. The rest of the variance is essentially due to an unfavourable net balance of exceptional items.

On an IFRS basis, other operating gains and losses amounted to  $\notin$  (94) million, or a  $\notin$  (110) million difference with the adjusted accounts and corresponding to the depreciation of PPA on fixed assets relative to Rhodia's acquisition. Please refer to note 5 to the consolidated financial statements.

# Earnings from associates and joint ventures accounted for using the equity method

Earnings from associates and joint ventures accounted for using the equity method amounted to  $\in$  (34) million compared with  $\in$  34 million in 2013. The decrease of  $\in$  67 million is largely driven by an exchange loss on euro debt due to rubble devaluation, reducing RusVinyl joint venture Net Equity.

								Others	
Changes								including	
in REBITDA			Conversion					equity	
In € million	2013*	Structure	forex	Volume	Price	Variable costs	Fixed costs	earnings	2014
Group	1,611	85	(15)	139	44	38	(62)	(57)	1,783

\* Restated for comparable purposes.

**REBITDA** grew 11% to  $\notin$  1,783 million from  $\notin$  1,611 million in 2013, with organic volumes up 9% or  $\notin$  139 million. Unfavorable foreign exchange rates for the year and the phase-out of CER carbon credits weighed  $\notin$  (73) million. External growth, mostly Chemlogics, contributed 5% or  $\notin$  85 million.

The wide range of excellence measures spanning from manufacturing to innovation, marketing and sales strengthened operating performance and offset the inflation in our fixed cost base.

In a deflationary raw material context, the Group was able to maintain price increases and reported a positive pricing power. Selling prices increased  $\notin$  44 million year on year and raw material prices declined  $\notin$  (38) million, resulting in a  $\notin$  82 million positive net price effect on REBITDA to which excellence initiatives on variable costs and value pricing contributed.

All Operating Segments contributed to Solvay's REBITDA increase. Innovation-driven demand bolstered volumes and profit at the Group's growth engines Advanced Formulations and Advanced Materials. Performance Chemicals and Functional Polymers delivered strong cost reductions with operational excellence programs.

The Group's REBITDA margin on net sales widened 90 basis points to 17.5% from 16.6% in 2013, a substantial improvement when considering  $\notin$  (15) million forex impact and the CER credit phase-out between the two years.

#### Depreciation and amortization charges

In 2014, depreciation and amortization charges amounted to  $\in$  (641) million on an adjusted basis *versus*  $\in$  (614) million in 2013. This increase is mainly linked to the acquisition of Chemlogics.

Depreciation and amortization charges in 2014 IFRS accounts amounted to  $\in$  (751) million or a  $\in$  (110) million difference with the adjusted accounts and corresponding to the depreciation of PPA on fixed assets relative to Rhodia's acquisition.

#### **Non-recurring Items**

Non-recurring Items of  $\in$  (308) million ( $\notin$  (239) million in 2013) included restructuring expenses of  $\in$  (49) million *versus*  $\notin$  (115) million in 2013, as well as other costs primarily linked to environmental, litigation and portfolio management provisions for a combined  $\in$  (99) million compared to  $\in$  (59) million in the prior year. It also included non-cash impairment charges of  $\notin$  (160) million chiefly relating to Solvay's investment in the RusVinyl joint venture and to a lesser extent relative to Emerging Biochemicals epichlorhydrine plant in China.

#### **Operating result**

EBIT, on an adjusted basis, grew 4% to  $\in$  761 million from  $\in$  734 million in 2013. Besides amortization and depreciation charges of  $\in$  (641) million, it included overall financial charges of  $\in$  (65) million related to the RusVinyl project financing, including impacts from the 60% appreciation of the euro against the ruble since the end of 2013 on debt expressed in euros.

EBIT on an IFRS basis totaled  $\notin$  652 million. The difference between IFRS and adjusted figures reflects the Rhodia non-cash PPA depreciation impact of  $\notin$  (110) million.



#### Analysis of operational performance by Operating Segment

	Adjusted			
In € million	2014	2013*	Year on year evolution	
Net sales	10,213	9,715	5.1%	
Advanced Formulations	2,854	2,432	17%	
Advanced Materials	2,762	2,551	8.3%	
Performance Chemicals	2,944	2,902	1.4%	
Functional Polymers	1,654	1,763	(6.2)%	
Corporate & Business Services	-	67	n.m.	
REBITDA	1,783	1,611	11%	
Advanced Formulations	426	347	23%	
Advanced Materials	709	624	14%	
Performance Chemicals	724	682	6.1%	
Functional Polymers	111	89	25%	
Corporate & Business Services	(188)	(131)	(43)%	

\* Restated for comparable purposes.

#### **ADVANCED FORMULATIONS**

	Adjusted			
In € million	2014	2013*	evolution	
Net sales	2,854	2,432	17%	
Novecare	2,033	1,581	29%	
Coatis	484	486	(0.49)%	
Aroma Performance	337	365	(7.6)%	
REBITDA	426	347	23%	

\* Restated for comparable purposes.

In 2014, **net sales** at Advanced Formulations grew 17% to  $\leq$  2,854 million from  $\leq$  2,432 million last year. Chemlogics contributed 13%, while organic volume growth was 6%, and prices increased 1%. Forex headwinds had an adverse impact of (2)%.

In 2014, **REBITDA** grew 23% to  $\notin$  426 million, supported by organic and external volume growth. Unfavorable foreign exchange rates led to a decline of  $\notin$  (8) million.

At Novecare, growth was driven by the oil  ${\bf G}$  gas activities. The successful and swift integration of Chemlogics strongly contributed to this good dynamic.

Coatis was impacted by Brazilian economy which suffered from weak competitiveness and imports and persistent drought in the country.

Aroma Performance benefited from good growth in demand for vanillin and in pricing power in inhibitors, but industrial issues throughout the first part of the year reduced its performance.



Products by GBU	Applications	Markets	Trademarks	Competitors
Novecare				
Surfactants	_ Dispersion, foaming, conditioning,	Agro, Feed & Food Consumer Goods & Healthcare	AGRHO®, STARGUAR®, AGHRO® N PROTECT®, SOPROPHOR®, RHODOLINE®	AKZO Nobel, BASF, Clariant, Croda, Dow,
Amines	surface modification, intermediate,	Industrial Applications	<b>RHODIASOLV®</b>	Koch, Huntsman,
Synthetic and natural polymers	- gelling, rheology	Energy & Environment	SIPOMER®, MIRACARE®, RHEOMER®, JAGUAR®	Lamberti Grp Oxiteno, Stepan
Phosphorous chemistry			MACKAM®, PROBAN®, TIGUAR®, TOLCIDE®	
Coatis				
Phenol and derivatives	Synthetic resins & molding compounds (Epoxy, policarbonate, polyamide, phenolic MMA resins)	Consumer Goods		Dow, Ineos, Shell
Oxygenated solvents, of which:	Adhesives, cosmetics, mining, coating,	& Healthcare Automotive & Aeronautics Building & Construction		Arkema, Sasol,
Ketonic solvents	<ul> <li>Print Inks, wood coating, oilfield, cleaners, automotive, industrial paints,</li> </ul>	Industrial Applications		Halterman
Acetic solvents	pharma, solubilisation of actives and	Agro, Feed & Food	RHODIASOLV™	Celanese, Ineos, Eastman, Dow, Shell
Glyceryn-based solvents	- resins		AUGEO™	
Aroma Performance				
Cyclopentanone	Fragrances, building block agro, pharma	Consumer Goods & Healthcare Agro, Feed & Food		BASF, Nippon Zeon
· ·	Electronics	Industrial Applications	RHODIASOLV® XPT	
Natural vanillin	Flavors	Agro, Feed & Food	RHOVANIL® NATURAL	Shanghai apple, Bestally, Safisis, Symrise
	Flavors, fragrances, food	Agro, Feed & Food Consumer Goods & Healthcare	RHOVANIL <sup>®</sup> , RHODIAROME <sup>®</sup>	Borregaard, Jiaxing,Thrive Wanglong, Shixing, Camlin, Anhui bayi
Vanillin & ethyl-vanillin	Flavors	Agro, Feed & Food Consumer Goods & Healthcare	RHOVEA®, RHODIAROME®	Borregaard, Jiaxing,Thrive Wanglong, Shixing, Camlin, Anhui bayi
	Fragrances, crop protection	Agro, Feed & Food Consumer Goods & Healthcare Industrial Applications	VANILTEK™	Borregaard, Jiaxing,Wanglong, Shixing, Camlin, Anhui bayi
Vanilla flavors	Flavors	Agro, Feed & Food	GOVANIL™, GOVANIL™ INTENSE, GOVANIL™ NATURAL	F&F, Prova, Borregaard
IBCH	Fragrances	Consumer Goods & Healthcare	RHODIANTAL® ORIGINAL, RHODIANTAL® CANDALUM®	Kalpsutra, small Indian & Chinese companies
	Intermediate for liquid crystal	Consumer Goods & Healthcare		Central Glass, Peric, Jiangxi Time
Triflic acid (TA)	Intermediate for battery electrolyte (LiTA)	Electrical & Electronics		
	Starting raw material for pharma	Consumer Goods & Healthcare		
Triflic acid anhydride (TAA)	Intermediate for liquid crystal Starting raw material for pharma	Consumer Goods & Healthcare		
LITFSI	Antistatic agent	Electrical & Electronics		3M, Mitsubishi Materials Morita
	Electrolyte salt for batteries lonic liquid			
Trifluoroacectic Acid (TFA)	Intermediate for agro	Agro, Feed & Food		Lantian, SRF, Halocarbon Asian players
	Intermerdiate for pharma	Consumer Goods & Healthcare		
	Building block for agrochemicals	Agro, Feed & Food		
Pyrocatechol	Solvent for electronics	Industrial Applications		Camlin Caplili LIDE
FYIULALELIIUI	Building block for drugs synthesis	Consumer Goods & Healthcare		Camlin, SanJili, UBE
	Building block for fragrances	Consumer Goods & Healthcare		

Products by GBU	Applications	Markets	Trademarks	Competitors
	Monomers inhibitors	Industrial Applications		
	Building block for dyes	Industrial Applications		Camlin, Eastman, Mitsui,
	Building block for agrochemicals	Agro, Feed & Food		Ube, Sanjili
	Building block for polymers	Industrial Applications		
Hydroquinone	Building block for rubber anti-oxidants	Industrial Applications		Camlin, Eastman, Goodyear, Mitsui, Ube, Sanjili
	Photography reagent	Industrial Applications		Camlin, Eastman, Mitsui,
	Building block for food anti-oxidants	Agro, Feed & Food		Ube, Sanjili
MeHO,	Building block for agrochemicals	Agro, Feed & Food		CST
Mehų,	Monomers inhibitors	Industrial Applications		CST, Seiko, Kawagushi
ТВС	Monomers inhibitors	Industrial Applications		Camlin, KKPunja, DIC
\/evetuele	Building block for agrochemicals	Agro, Feed & Food		
Veratrole	Building block for drugs synthesis	Consumer Goods & Healthcare		
	Solvent for electronics	Industrial Applications		
Anisole	Building block for agrochemicals	Agro, Feed & Food		
	Building block for drugs synthesis	Consumer Goods & Healthcare		

#### ADVANCED MATERIALS

	Adju	sted	Year on year
In € million	2014	2013*	evolution
Net sales	2,762	2,551	8.3%
Specialty Polymers	1,490	1,288	16%
Silica	451	416	8.5%
Rare Earth Systems	266	298	(11)%
Special Chemicals	554	549	0.99%
REBITDA	709	624	14%

\* Restated for comparable purposes.

**Net sales** of Advanced Materials increased 8.3% to  $\notin$  2,762 million in 2014 from  $\notin$  2,551 million in 2013. Growth was supported by strong volumes +10% in most end markets and especially in auto and smart devices. Positive volume impacts were partially held back by lower rawmaterial led prices (1) % mainly at Rare Earth Systems, as well as by unfavorable foreign exchange rates (1) %.

**REBITDA** for Advanced Materials reached a record, up 14% at  $\notin$  709 million underpinned by robust innovation-driven demand, despite significant forex headwinds mainly Japanese yen of  $\notin$  (38) million, chiefly of a transaction nature.

The excellent Operating Segment's REBITDA reflected the performance of its four businesses. Beyond volume dynamics, excellence programs in manufacturing, purchasing and commercial activities also supported this performance.

Products by GBU	Applications	Markets	Trademarks	Competitors
Specialty Polymers				
Biomaterials for implantable devices, sulfone polymers, aromatic polyamides, aromatic polyketones	Healthcare	Consumer Goods & Healthcare	SOLVIVA® BIOMATERIALS, RADEL® PPSU, UDEL® PSU, IXEF® PARA, KETASPIRE® PEEK	Invibio, Evonik, Victrex, BASF, Sabic
Sulfone polymers, aromatic polyamides	Consumer goods	Consumer Goods & Healthcare	RADEL <sup>®</sup> PPSU, VERADEL <sup>®</sup> PESU, AMODEL <sup>®</sup> PPA, IXEF <sup>®</sup> PARA	BASF, Sabic
Aromatic polyamides, fluorinated elastomers, aromatic polyketones, fluorinated fluids	Automotive	Automotive & Aeronautics	AMODEL® PPA, IXEF® PARA, TECNOFLON® FKM, TECNOFLON® PFR FFKM, KETASPIRE® PEEK, TORLON® PAI, FOMBLIN® PFPE	Dupont, Dyneon, EMS, Victrex, Evonik, Mitsui, Kuraray
Sulfone polymers, fluoropolymers, aromatic polyamides, aromatic polyketones	Aircraft	Automotive & Aeronautics	RADEL® PPSU and SOLEF® PVDF FOAMS, RADEL® PPSU, VIRANTAGE® PESU, AJEDIUM™ FILMS, IXEF® PARA, AVASPIRE® PAEK, KETASPIRE® PEEK, TORLON® PAI	Sabic, Victrex, Evonik, Arkema
Aromatic polyamides, sulfone polymers, aromatic polyketones	Mobile electronics	Electrical & Electronics	IXEF® PARA, AMODEL® PPA, KALIX® HPPA, RADEL® PPSU, KETASPIRE® PEEK, AVASPIRE® PAEK, XYDAR® LCP	Dupont, EMS, Evonik
Fluoropolymers, cross-linkable compounds	Wire & cables	Electrical & Electronics	HALAR® ECTFE, HYFLON® PFA/ MFA®, SOLEF® PVDF, POLIDAN® PEX, COGEGUM® XLPO-HFFR	DuPont, Daikin, Dyneon, Polyone, AEI, Arkema
Aromatic polyketones, polyvinylidene chloride, fluoropolymers	Industrial and protective coatings	Industrial Applications	TORLON® AI, DIOFAN® PVDC, HALAR® ECTFE, SOLEF® PVDF, HYFLON® PFA/MFA®, KETASPIRE® PEEK	DSM, Lubrizol, Arkema, 3M, Dyneon, Victrex
Fluoropolymers, fluorinated fluids	Industrial equipment	Industrial Applications	HALAR® ECTFE, SOLEF® PVDF, HYFLON® PFA/MFA®, FOMBLIN® PFPE	Dupont, Arkema, Dyneon, Daikin
Fluorinated fluids, fluoropolymers, aromatic polyketones	Semiconductor	Industrial Applications	GALDEN® PFPE, SOLEF® PVDF, HALAR® ECTFE, KETASPIRE® PEEK	3M, Victrex, Arkema, Dupont
Cross-Linkable compounds, fluoropolymers, sulfone polymers	Plumbing	Building & Construction	POLIDAN® PEX, SOLEF® PVDF, HALAR® ECTFE, RADEL® PPSU, ACUDEL® MODIFIED PPSU, UDEL® PSU	Basf, Dyneon, Arkema, EMS
Fluoropolymers, fluorinated elastomers, cross-linkable compounds, aromatic polyketones	Oil & gas	Energy & Environment	SOLEF® PVDF, HYFLON® PFA/ MFA® TECNOFLON® FKM, TECNOFLON® PFR FFKM, POLIDAN® PEX, KETASPIRE® PEEK	Arkema, Dupont, Daikin, Victrex, Basell
Fluoropolymers	Li-Ion batteries	Energy & Environment	SOLEF <sup>®</sup> PVDF	Kureha, Arkema
Specialty Materials	Fuel cells	Energy & Environment	AQUIVION <sup>®</sup> PFSA	
Fluoropolymers	Photovoltaics	Energy & Environment	SOLEF® PVDF, HALAR® ECTFE	Dyneon, AGC, Dupont, Arkema
Sulfone polymers, fluoropolymers	Membranes	Energy & Environment	RADEL <sup>®</sup> PPSU, UDEL <sup>®</sup> PSU, VERADEL <sup>®</sup> PESU, SOLEF <sup>®</sup> PVDF	BASF, Arkema, Kureha
Silica				
Highly dispersible silica (HDS)	Energy-efficient tires	Automotive & Aeronautics	ZEOSIL®, ZEOSIL® PREMIUM EFFICIUM®	Evonik, PPG, OSC
	Polymer reinforcement	Automotive & Aeronautics Industrial Applications	ZEOSIL®	Evonik, PPG, OSC
Precipitated silica (conventional)	Oral care (toothpaste)	Consumer Goods & Healthcare	TIXOSIL®	JM Huber, PQ Corporation, WR Grace, Evonik, OSC
	Nutrition	Agro, Feed & Food	TIXOSIL®	JM Huber, PQ Corporation, WR Grace, Evonik, OSC

on	
DRT	

Products by GBU	Applications	Markets	Trademarks	Competitors
Rare Earth Systems				
Rare earth oxide formulations	Automotive catalysts	Automotive & Aeronautics	ACTALYS®, ACTALYS® HSA, EOLYS®POWERFLEX®, E-SIS® OPTALYS®, STABILYS®,	DKK, MEL Chemicals, Sasol
	High performance polishing for glass solutions	Electrical & Electronics	CEROX®	OST, Treibacher, Ferro
	Energy-efficient lighting	Electrical & Electronics	LUMINOSTAR®	Nichia
	Inorganic Pigments for high performance polymers	Electrical & Electronics	NEOLOR®	
	Semiconductor polishing	Electrical & Electronics	ZENUS®	Nikki
Special Chemicals				
Hydrogen fluoride	Refineries, steel & surface treatment, chemical industry	Industrial Applications		Honeywell, Lanxess, DDF, 3F, Mexichem, China Yingpeng, Zheijang Sanmei, Shandong donuye Group
	High voltage engineering, wet chemicals for chip etching and cleaning, chemicals for Li-batteries	Electrical & Electronics	for $C_4F_6$ : SIFREN <sup><math>\circ</math></sup>	Kemeite, Liming, Henan Huaneng Fluoride and others, HaloPolymer, Asahi Glass, Kanto Denka, Show Denko, Cental Glas Linde, AirProducts
Fluor-based compounds	Insulation, energy saving	Building & Construction	SOLKANE®, IXOL®	Honeywell, Arkema, DuPont, Albarnali, Chemtura
	Brazing, refrigerants	Automotive & Aeronautics Industrial Applications	NOCOLOK®, SOLKATHERM® SES36	Morita, Honeywell, DuPont
	Solvents (precision cleaning)	Industrial Applications	SOLVOKANE®	DuPont, Honeywell, Arkema, Central Glass, Asahi, 3M
TFAC, TFA, TFAH, TFAEt, TFK, ETFBO, Other $CF_{\mathfrak{z}}$	Buidling blocks in active ingredients, intermediates	Consumer Goods & Healthcare Agro, Feed & Food		Halocarbon, SRF, Sinochem, Lantian
Solkane 227ph, Solkane 134a ph	Propellants in asthma sprays and other medical sprays	Consumer Goods & Healthcare	SOLKANE®	Mexichem, DuPont
	Sealant	Building & Construction	SOCAL <sup>®</sup> , WINNOFIL <sup>®</sup>	Shiraishi-Omya, SMI
	Paint	Building & Construction	SOCAL®	Schaefer Kalk
	Plastisol	Automotive	SOCAL <sup>®</sup> , WINNOFIL <sup>®</sup>	Cales de Llierca, SMI
Precipitated calcium carbonate (PCC)	Polymer	Building & Construction	SOCAL <sup>®</sup> , WINNOFIL <sup>®</sup>	Shiraishi-Omya,SMI
	Healthcare & Food	Consumer Goods & Healthcare Agro, Food & Feed	SOCAL®	SMI
Electronic grade H <sub>2</sub> O <sub>2</sub>	Semiconductors, displays, photovoltaic, wet chemicals for chip etching and cleaning	Electrical & Electronics	INTEROX® PICO, INTEROX® EG-1, INTEROX® EG10, INTEROX® EG-ST	BASF, MIGAS, Santoku, PeroxChem, Changchun, Dongwoo Finechem
Electronic grade HF and $\rm NH_4F$	Semiconductors, displays, photovoltaic, wet chemicals for chip etching and cleaning	Electrical & Electronics		Stella Chemifa, Honeywell, Diakin, Morita, Kaisheng
Barium compounds	Paints, coatings, batteries, plastics, paper	Automotive & Aeronautics Electrical & Electronics Building & Construction		Sachtleben, Chinese producers
·	Ceramic capacitors, display, ceramics and special glasses	Electrical & Electronics		Red Star, Jingshan, Sakai Chemicals, Nippon Chemicals
Strontrium compounds	Display and photovoltaic glasses, ferrites	Electrical & Electronics		Red Star, Quimica del Estroncio, Jinshi, Kinglong



#### PERFORMANCE CHEMICALS

	Adju	sted	Year on year
In € million	2014	2013*	evolution
Net sales	2,944	2,902	1.4%
Soda Ash & Derivatives	1,377	1,351	1.9%
Peroxides	512	470	9.1%
Acetow	641	658	(2.5)%
Emerging Biochemicals	413	424	(2.4)%
REBITDA	724	682	6.1%

Restated for comparable purposes.

**Net sales** of Performance Chemicals grew 1.4% to  $\notin$  2,944 million. Price increases of 3% compensated for the adverse foreign exchange developments which lowered the segment's sales by (2)%. Volumes stood stable.

**REBITDA** for Performance Chemicals grew 6.1% to  $\notin$  724 million supported by good pricing. The Operating Segment's good performance was backed by all four businesses, despite unfavorable currency developments, chiefly at Acetow and Emerging Biochemicals.

Soda Ash & Derivatives delivered solid performance. Price increases across all regions and its breakthrough competitive program could make up for inflation. The targeted  $\notin$  100 million annual cost savings plan is well on track to be achieved by the end of 2015.

Peroxides' volume growth benefited from higher  $H_2O_2$  demand in mature markets as well as developments of new applications.

Acetow showed a record performance in 2014 driven by higher prices and despite the destocking impact on volume during the second half of the year.

Emerging Biochemicals was flat, reflecting weak demand in PVC and epichlorohydrin as well as pricing pressure from competition.

Following unfavorable conditions specific to the Chinese market, the Group decided to put on hold the construction of a production asset in China and booked an impairment of  $\in$  (34) million (reported as non-recurring item below REBITDA).

**Note:** The sale of the Eco Services business to CCMP CAPITAL was completed on December 1, 2014 (consolidated as discontinued business).

Products by GBU	Applications	Markets	Trademarks	Competitors
Soda Ash & Derivatives				
	Flux in flat glass	Building & Construction Automotive & Aeronautics Energy & Environment	SODA SOLVAY® DENSE	
	Flux in container glass	Agro, Food & Feed Consumer Goods & Healthcare	SODA SOLVAY® DENSE	Tata Chemicals, FMC, Ciech, Sisecam, Nirma, Bashkim, OCI,
Na <sub>2</sub> CO <sub>3</sub> soda ash	Water softener in detergents	Consumer Goods & Healthcare	SODA SOLVAY® LIGHT	- Eti-Soda, Novacarb
	Metallurgy	Industrial Applications	SODA SOLVAY® DENSE	m
	Healthcare	Consumer Goods & Healthcare		
Na,CO,, NaHCO,, 2H,O	Flue gas cleaning agent	Energy & Environment	SOLVAIR®SELECT 200 SOLVAIR®SELECT 150	Natronx
trona 3 2	Supplement in animal feed, supplement in food	Agro, Food & Feed		
	Supplement in animal feed, supplement in food	Agro, Food & Feed	BICAR®Z, BICAR® Food, BI-PROTEC®	
NaHCO <sub>3</sub> sodium bicarbonate	Flue gas cleaning agent	Energy & Environment Industrial Applications	BICAR®TEC SOLVAIR®SBO/3 SOLVAIR® S300, SOLVAIR® S350	- Church & Dwight, FMC, Natural Soda, Tata Chemicals, Sisecam, Ciech,
	Active ingredients(API), excipient in effervescent formulations, electrolyte in hemodialysis	Consumer Goods & Healthcare	BICAR <sup>®</sup> PHARMA	Bashkim, Eti-Soda, Novacarb
CaCl <sub>2</sub> .nH <sub>2</sub> O calcium chloride	Supplement in food, supplement in animal feed, road treatment (de-icing and de-dusting), de-humidification	Agro, Food & Feed Industrial Applications	CASO <sup>®</sup>	Tetra, Nedmag, Zirax
Na <sub>2</sub> SO <sub>3</sub> sodium sulfite	Flue gas cleaning agent	Energy & Environment Industrial Applications		INDSPEC

Products by GBU	Applications	Markets	Trademarks	Competitors
Peroxides				
	Pulp (bleaching function)	Consumer Goods & Healthcare	INTEROX® MyH <sub>2</sub> O <sub>2</sub>	
Hydrogen peroxides	peroxides Chemical intermediates synthesis (HPPO, caprolactam, caprolactone, Industrial Applications INTEROX® ESBO, etc.) & mining		INTEROX®	- Arkema, Evonik, Peroxychem, Eka, Kemira, OCI
Sodium percarbonate and hydrogen peroxides	Home care (bleached powder detergent) & personal care (oral & hair care)	Consumer Goods & Healthcare	OXYPER® INTEROX®	Evonik, Kemira, Peroxychem, OCI
Hydrogen peroxides	Aquaculture, food safety	Agro, Food & Feed	PARAMOVE <sup>®</sup> INTEROX <sup>®</sup> , PROXITANE <sup>®</sup>	Eka
and peracetic acid	Water treatment	Energy & Environment	INTEROX®, PROXITANE®, OXYSTRONG®	Evonik, Kemira, Peroxychem
Inorganic peroxides and peracetic acid	Oil & gas	Energy & Environment	IXPER® PROXITANE®	Evonik, Kemira, Peroxychem
Acetow				
Cellulose acetate tow			RHODIA® FILTERTOW	Celanese, Eastman, Daicel/ Mitsubishi, Chinese companies (Jinan, Henan, Xinyang)
Cellulose acetate tow	Cigarette filters	Consumer Goods &	RHODIA DE-TOW <sup>®</sup> RHODIA COLOURED TOW <sup>®</sup>	
Cellulose acetate flakes/ Silica		Healthcare	RHODIA FILTERSORB®	
Cellulose acetate flakes	Filter tow, yarn, pharma, plastics and cut and tear films		RHODIA ACETOL®	Celanese, Eastman, Daicel/ Mitsubishi, Pacetati, Fergana
Nitric Acid	Foams, fertilizers, laundry cleaning & bleaching, disinfectant, coatings, adhesives & elastomers, metal treatment, explosives and blasting agents, cetane improver	Consumer Goods Automotive & Aeronautics Agro, Feed & Food Industrial Applications	TARANIS™	Yara, Borealis, BASF, Radici, Maxam
Cellulose acetate compound	Packaging for cosmetics as well as hair accessories, toys, eyeglass frames, handling tools and consumer electronics	Consumer Goods Electrical & Electronics	OCALIO <sup>™</sup>	Eastman, DuPont, Braskem, Daicel, Pacetati, Mazzucchelli
Acetylated wood	Outdoor applications like window frames, exterior doors and shutters, decking, exterior cladding and façades etc. as well as for construction work	Building & Construction	ACCOYA®(1)	
Emerging Biochemicals				
	Pipe, fittings, profiles, wires, cables	Building & Construction	SIAMVIC®	Thai Plastic & Chemical PCL
PVC	Film, sheets	Consumer Goods & Healthcare Industrial Applications		
NaOH caustic soda	Multiple applications	Consumer Goods & Healthcare Industrial Applications Agro, Feed & Food		AGC Chemicals (Thailand)
Bio-based epichlorohydrin	Epoxy resins	Building & Construction Electrical & Electronics Consumer Goods & Healthcare Automotive & Aeronautics	EPICEROL®	Samsung Fine Chemicals, Dow

<sup>(1)</sup> ACCOYA® is a registered trademark of Accsys Technologies.



#### FUNCTIONAL POLYMERS

	Adjus	sted	Year on year
In € million	2014	2013*	evolution
Net sales	1,654	1,763	(6.2)%
Polyamide	1,536	1,557	(1.3)%
Chlorovinyls	117	206	(43)%
REBITDA	111	89	25%

\* Restated for comparable purposes.

Functional Polymers reported **net sales** of  $\notin$  1,654 million in 2014 compared to  $\notin$  1,763 million last year. The sale of the Benvic PVC compounding business represented a decline of (5)% or  $\notin$  (89) million. Furthermore, volume growth of 2% was insufficient to compensate for a decline in prices of (2)% and unfavorable foreign exchange rates taking off (1)%.

**REBITDA** increased 25% to  $\in$  111 million from  $\in$  89 million in 2013. The operating performance was supported by both the delivery of the profit restoration plan and solid performance at Engineering Plastics which grew its volumes in Asia and showed strong pricing power. Fibras suffered from Brazil's weak macro-economic conditions.

**Discontinued Operations:** Solvay's European Chlorovinyls businesses, planned to become part of the Inovyn joint venture with INEOS, as well as Solvay Indupa, are classified as Discontinued Operations.

The sale of Benvic to OpenGate Capital was completed in June 2014.

The remaining Chlorovinyls businesses refer to the residual trading activities not included in the INEOS joint venture agreement.

The market environment declined in 2014, impacting the performance of the European Chlorovinyls business. Net sales amounted to  $\notin$  2.4 billion and REBITDA came in at  $\notin$  111 million for the combined European and Latin American business.

Products by GBU	Applications	Markets	Trademarks	Competitors
Polyamide				
Polyamide & Intermediates	5			
Adipic acid	Polyamide 6.6, other products for polyurethane and coating applications,	Industrial Applications Automotive & Aeronautics Consumer Goods	RHODIACID®	Invista, Ascend, CSM- CPEC, CNPC, BASF, Radici, Asahi, Lanxess
Hexamethylenediamine	nlasticizers	RHODIAMINE®	Invista, Ascend, BASF, Radici, CPEC	
Polyamide resin: PA 6.6 PA 6.10 PA HT PA 6.6 SD PA 6.6 FD	Plastic compounds for engineering, plastics, industrial yarns, textile and fibers applications, tire cords, airbags, textile	Industrial Applications Automotive & Aeronautics Consumer Goods & Healthcare Building & Construction Electrical & Electronics Consumer Goods & Healthcare	STABAMID®	Invista, Ascend, BASF, Radici, Asahi
Polyamide fibers and polyamide tow	Yarn for textile and carpet markets, flock for clothing and furnishing, automotive, decoration and packaging	Automotive & Aeronautics Consumer Goods & Healthcare	PASSOREA® RHODIA® TOW	Ascend, Jiaxing
Engineering Plastics				
Polyamide 6.6 compounds			TECHNYL <sup>®</sup> TECHNYL STAR®	DuPont, BASF, Radici, Ascend, Invista
Polyamide 6 compounds			TECHNYL <sup>®</sup> TECHNYL STAR <sup>®</sup>	BASF, Lanxess, DSM, DuPont, Radici
Long Chain Polyamide compounds	- Metal replacement, fire protection, - thermal management, fluid barrier	Automotive & Aeronautics	TECHNYL EXTEN®	Arkema, Evonik, EMS, UBE
High temperature Polyamide compounds	- thermal management, hald burner	Electrical & Electronics Consumer Goods & Healthcare Energy & Environment	TECHNYL <sup>®</sup> ONE	DuPont, EMS, DSM
Recycled Polyamide compounds	-	Building & Construction Industrial Applications	TECHNYL <sup>®</sup> R TECHNYL <sup>®</sup> ECO 4EARTH <sup>®</sup>	Very fragmented competition
Polyamide powders	3D Printing - Laser sintering		SINTERLINE® TECHNYL® POWDERS	Evonik, Arkema
Design, simulation services	Metal replacement, fire protection, thermal management, fluid barrier		MMI TECHNYL® DESIGN	BASF
Fibras				
Textile yarns, flat and textured	Apparel	Consumer Goods & Healthcare	AMNI <sup>©</sup> EMANA <sup>©</sup>	Hyosung, Taekwang, Nilit, Acelon, LeaLea, Fujian
Staple fiber	Abrasives	Consumer Goods & Healthcare		Invista
Industrial yarns	Sewing threads, tire, MRG	Consumer Goods & Healthcare Automotive & Aeronautics Industrial Applications		Kordsa, Enka, CSM, SRF

#### **CORPORATE & BUSINESS SERVICES**

	Adjus	sted	Year on year
In € million	2014	2013*	evolution
Net sales	-	67	n.m.
Energy Services	-	67	n.m.
Other Corporate & Business Services	-	-	n.m.
REBITDA	(188)	(131)	(43)%

\* Restated for comparable purposes.

**Net sales** were nil compared to  $\in$  67 million last year. The last carbon credit (CER) sales under the 2013 Kyoto protocol were phased out entirely in the first half of that year.

Net costs at **REBITDA** level amounted to  $\notin$  (188) million compared to  $\notin$  (131) million in 2013. The end of CER sales impacted Energy Services contribution by  $\notin$  (58) million and this loss was partially compensated for by the energy and carbon management services in Europe.

Expenses related to corporate structure and corporate functions increased to  $\notin$  (213) million from (185) million last year. The difference mainly came from the favorable  $\notin$  22 million one-off reversal of provisions linked to the realignment of the Group's insurance policies booked last year.

Furthermore, tight cost controls compensated for inflationary elements while the Group continued investing in the deployment of best-in-class business support services.



#### **Energy situation**

Energy costs are an important part of the Group's cost structure. Net energy costs represented about € 0.9 billion in 2014. Energy sources were spread over electricity and gas (circa 75%), coke, coal and anthracite (circa 20%) and steam and others (circa 5%). The Solvay group has pursued an active energy policy for many years now. In this context, it operates an energy production park with a total installed capacity of 1,000 MW. Within the Group, Solvay Energy Services focuses on optimizing the Solvay's energy costs and carbon emissions. Furthermore, Solvay Energy Services has continued deploying its operating energy efficiency excellence initiative called SOLWATT®, which aims at reducing energy consumption and optimizing energy production on industrial sites. SOLWATT® also defines the medium and long term energy strategy for each site. It is gradually rolled out and will cover all the Group's manufacturing sites by the end of 2015. The objective is to reduce by 10% the Group energy bill.

#### Additional comments on the Group consolidated income statement of the FY 2014 (IFRS/adjusted)

	IFF	15	Adju	sted
In € million	2014	2013*	2014	2013*
EBIT	652	591	761	734
Net financial expenses, of which:				
<ul> <li>Cost of borrowings</li> </ul>	(151)	(190)	(151)	(190)
<ul> <li>Interest on lending and short term deposits</li> </ul>	36	25	36	25
<ul> <li>Other gains and losses on net indebtedness</li> </ul>	(30)	(2)	(30)	(2)
<ul> <li>Cost of discontinued operations</li> </ul>	(163)	(87)	(163)	(87)
Income/losss from available-for-sale investments	(1)	40	(1)	40
Result before tax	343	378	453	521
Income tax	(84)	(170)	(120)	(209)
Net result from continuing operations	259	209	333	312
Net result from discontinued operations	(246)	106	(244)	110
Net income	13	315	89	422
Non controlling interests	67	(44)	67	(44)
Net income Solvay share	80	270	156	378

Restated for comparable purposes.

**Net financial expenses** increased to  $\in$  (309) million from  $\in$  (213) million in 2013. Charges on net debt diminished to  $\in$  (145) million from  $\in$  (166) million in 2013 as the repayment of  $\in$  1.3 billion of gross debt in the first half of 2014 helped to significantly lower the Group's negative cost of carry. Net financial expenses also contained a  $\in$  (19) million negative one-off due to the settlement of interest rate swaps in the first half of the year.

The cost of discounting provisions for environmental and pension liabilities widened to  $\in$  (163) million from  $\in$  (87) million in 2013. This was mainly related to environmental provisions which in 2014 included an overall  $\in$  (35) million negative one-off impact following applicable lower discount rates across geographies, whereas in 2013, increases in discount rates resulted in a positive impact of  $\in$  36 million. Income from "available for sale investments" was nil in 2014 compared with  $\in$  40 million in 2013.

**Income taxes** on an adjusted basis narrowed to  $\in$  (120) million from  $\in$  (209) million in 2013. The nominal tax rate was 24.6% and included the recognition of an exceptional  $\in$  110 million deferred tax assets. The underlying tax rate was 32.8%, in line with the Group's expectations.

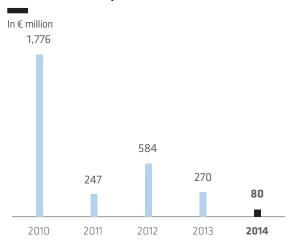
Net result from discontinued operations was  $\in$  (244) million against  $\in$  110 million in 2013, and related mainly to the pre-minorities impairment loss of  $\in$  (477) million of the European Chlorovinyls assets to be contributed to the joint venture project Inovyn. The  $\in$  177 million capital gain from the sale of Eco Services partly compensated for the impairment loss.

**Net income** on an adjusted basis fell to  $\in$  89 million from  $\in$  422 million in 2013. Net income Group Share, on an adjusted basis, came in at  $\notin$  156 million profit. Adjusted basic earnings per share amounted to  $\notin$  1.87.

Net income Group Share on an IFRS basis amounted to € 80 million.

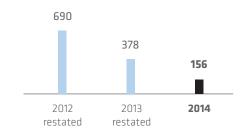
Excluding exceptional items, net income Solvay share amounted to  $\notin$  635 million, *versus*  $\notin$  507 million m in 2013.

#### Net income, Group share (IFRS)



#### Adjusted net income, Group share

In € million



#### **Financing structure**

The **net financial debt** amounted to  $\notin$  778 million at the end of December 2014, a reduction of  $\notin$  363 million, compared to  $\notin$  1,141 million at the end of December 2013.

**Gross debt** decreased from  $\notin$  3,584 million at the end of 2013 to  $\notin$  2,338 million at the end of 2014, using the available cash to repay debt.

In 2014, Solvay repaid  $\leq$  500 million EMTN bond (maturing January 2014) and had the opportunity to exercise the first call option in 2014 related to  $\leq$  500 million Rhodia senior High Yield notes maturing initially in 2018 and made an early redemption of the \$ 400 million Rhodia senior High Yield notes maturing initially in 2020.

**Equity** amounted to  $\notin$  6,778 million at the end of 2013, compared to  $\notin$  7,453 million at the end of 2013.

At the end of 2014, the **net debt to equity ratio** was 11.5%.

Solvay's **long and short-term ratings** are Baa2/P2 (stable outlook) at Moody's and BBB+/A2 (stable outlook) at Standard & Poor's.

#### Investments

#### **Free Cash Flow**

Free Cash Flow was  $\notin$  656 million, and included cash flow from discontinued operations for  $\notin$  145 million.

**Cash flow from operating activities** was  $\notin$  1,621 million compared to  $\notin$  1,299 million last year. Besides net income of  $\notin$  13 million, it consisted of:

- depreciation, amortization and non-cash impairments that totaled € 1,430 million;
- change in working capital that amounted to € 236 million, of which industrial working capital from continuing operations represented € 21 m. The Group also benefited from important cash inflows related to added value taxes recovery.

**Cash flow from investing activities** was € (650) million. It was mainly composed of capital expenditures for € (988) million (including € (127) million from discontinued operations), acquisition of subsidiaries for € (304) million, additional funding of its 50/50 joint venture in Russia RusVinyl for € (98) million and the proceeds from Eco Services disposal for € 721 million.

#### Capital expenditures in 2014

In € million	(continuing operations)		
Advanced Formulations	166		
Advanced Materials	267		
Performance Chemicals	275		
Functional Polymers	82		
Corporate & Business Services	69		
GROUP	861		



#### Total capital expenditures in 2014 amounted to € 861 million.

Besides health, safety & environment and maintenance capital expenditures, the Group selectively invested in a number of strategic projects, with priority given to businesses and geographies with superior and sustainable growth potential. Several growth investments were realized in 2014 in our growth engines and highly resilient businesses. The most significant being:

#### **In Advanced Formulations**

- the large-scale alkoxylation facility in Singapore to serve the fastgrowing Asian market in home & personal care, coatings, industrial, agrochemicals and oil & gas;
- the large-scale alkoxylation unit in the United States (Texas), at an integrated industrial facility of LyondellBasell's Equistar Chemicals affiliate, in order to serve the growing North American market;
- the specialty surfactant plant in Germany to develop and produce surfactant solutions for Solvay's home & personal care and industrial customers serving Central and Eastern Europe;

#### **Research & Innovation**

the new vanillin production facility in China representing an increase of 40% of Solvay's global production to serve the growing demand in the region.

#### **In Advanced Materials**

- the new plant of Highly Dispersible Silica (HDS) in Poland to increase н. capacity by 85,000 tons per year;
- the fluoro-polymers plant in China (in Changshu) for Specialty Polymers.

#### In Performance Chemicals

- the new mega Hydrogen Peroxide for Propylene Oxide (HPPO) plant (330kt/year) in Saudi Arabia in joint-venture with Sadara Aramco and Dow.
- the new Bicarbonate plant (100 kt/year) in Thailand to develop Asian . sales.

55

96

21

23

51

#### Net Research & Innovation costs in 2014 In € million Advanced Formulations Advanced Materials Performance Chemicals Functional Polymers Corporate & Business Services GROUP 247

#### Net Research & Innovation costs in 2014 were € 247 million.

Research & Innovation organization and policy are described in page 2 as well as in pages 28 and 29 of this report.

#### **Group employees**

The Solvay group employed 29,207 full-time equivalents (26,033 related to continuing operations and 3,174 related to discontinued operations) at December 31, 2014 compared to 29,400 at December 31, 2013. Additional information concerning the organization of the Group is available in page 32 of this report.

# Analysis of the parent company results (Solvay SA)

In € million	2014	2013
Profit for the year available for distribution	550	359
Carried forward	4,262	4,174
TOTAL AVAILABLE TO THE GENERAL SHAREHOLDERS' MEETING	4,812	4,533
Appropriation:		
Gross dividend	288	271
Carried forward	4,524	4,262
TOTAL	4,812	4,533

Solvay SA is a *société anonyme* created under Belgian law, with its registered office at rue de Ransbeek 310 at 1120 Brussels. Solvay SA has two branches: Solvay SA France (25, rue de Clichy, 75009 Paris, France) and Solvay SA Italie (Via Piave 6, 57013 Rosignano, Italy).

The accounts of Solvay SA are prepared in accordance with Belgian generally accepted accounting principles, and include its French and Italian branches.

The main activities of Solvay SA consist of holding and managing a number of participations in Group companies and of financing the Group from the bank and bond markets. It also manages the research center at Neder-Over-Heembeek (Belgium) and a very limited number of industrial and commercial activities not undertaken through subsidiaries.

The operating result is made of the balance of the head office operating costs partially offset by income from industrial and commercial activities not undertaken through subsidiaries.

Current profit before taxes amounts to  $\notin$  833 million end of 2014, compared with  $\notin$  220 million in the previous year. The current profit includes the operating result ( $\notin$  (204) million), dividends received from its various participations ( $\notin$  1,226 million) and the differential between interest paid and received on its financing activities ( $\notin$  (190) million).

The balance of extraordinary results for 2014 is  $\in$  (307) million, compared with  $\in$  102 million in 2013.

The net profit of Solvay SA amounted in 2014 to  $\notin$  550 million, compared with  $\notin$  359 million in 2013.

In the absence of transfers to untaxed reserves, carried forward net income of  $\notin$  4,812 million is available for distribution.

# Events after the reporting period and outlook

#### Events after the reporting period

On January 29, 2015, Solvay has agreed to sell its German-based refrigerant business and pharma propellants to Daikin in Japan, as its Special Chemicals Global Business Unit is gearing its activities towards selective high value-added segments in fluorine specialties and high purity chemicals. Global Business Unit (GBU) Special Chemicals will divest all of its businesses on its site in Frankfurt. Completion of the transaction is subject to customary closing conditions, including regulatory clearance in Germany and Austria.

#### Outlook

Solvay is confident to sustain recent momentum. The levers of the transformation continue to be deployed and Solvay is currently well-positioned to meet its 2016 ambitions.

# **Management of risks**

Risk management (processes, risks identified and actions undertaken to reduce them) is described on pages 75 to 85 of this report.

# **Financial instruments**

The management of financial risks and any use of financial instruments to hedge them are described on 79 and 80 and pages 184 to 193 (Note 37 *Financial instruments and financial risk management to the consolidiated financial statements*) of this report.

# **Audit Committee**

The mission, composition and modus operandi of the Audit Committee are described on pages 57, 58 and 72 (Point 14, Annex 1: Audit Committee mission statement of the Corporate governance statement) of this report.

# **Corporate Governance Statement**

The Corporate governance statement is included on pages 47 to 74 of this report. It encompasses among others a description of the legal and shareholding structure of Solvay, its capital and dividend policy, the modus operandi of the Shareholders' Meetings, the composition and modus operandi of the Board of Directors and its Committees, the composition and modus operandi of the most recent compensation report, a description of the main characteristics of risk management and internal control systems, the measures taken by Solvay to comply with Belgian rules on insider trading and a description of the Group's Code of Conduct.



# **3** Additional financial information

# Historical financial data

The following table presents the historical figures of the Group as published at the reference date. These data have not been affected by possible subsequent restatements due to perimeter changes, IFRS/IAS standards evolution, etc.

Over the reference periods, the following main changes have intervened:

2011: Rhodia consolidated as from September 17;

- 2012: Solvay Indupa activities presented as discontinued;
- 2013: Solvay Indupa and European chlorovynils activities presented as discontinued and Chemlogics consolidated as from November 1;
- 2014: application of IFRS 11. Solvay Indupa, European Chlorovynils and Eco Services activities presented as discontinued and Chemlogics fully consolidated.

	IFRS				
In € million	2010	2011	2012	2013	2014
Sales	7,109	8,109	12,831	10,367	10,628
Net sales		8,001	12,435	9,938	10,213
REBITDA	1,051	1,208	2,022	1,663	1,783
REBITDA as % of sales	15	15	16	17	17
Total depreciation and amortization	717	455	794	752	751
EBIT	305	560	1,275	647	652
Net income, Solvay share	1,777	247	584	270	80
Earnings per share (basic) (in € )	21.85	3.04	7.10	3.25	0.96
Research expenditure	181	156	261	247	247
Capital expenditures	538	4,797	826	1,809	1,399
Free Cash Flow		327	787	524	656
Financial data					
Equity <sup>(1)</sup>	6,839	6,653	6,596	7,453	6,778
Net debt	(2,902)	1,760	1,125	1,102	778
Net debt/equity (in %)	NA	26	17	15	11
Gross dividend per share (in € )	3.07	3.07	3.20	3.20	3.40
Gross distribution to Solvay shareholders	240	250	271	271	288
Personnel data					
Persons employed at December 31	16,785	29,121	29,103	29,389	29,207 <sup>(2)</sup>
Personnel costs	1,339	1,422	2,302	2,143	1,990

(1) Equity in 2013 and 2014 includes hybrid bonds.

(2) Refer to details in page 102 of this report.

# Earnings per share

Adjusted basic earnings per share amounted to  $\notin$  1.87 in 2014 compared to  $\notin$  4.54 in 2013.

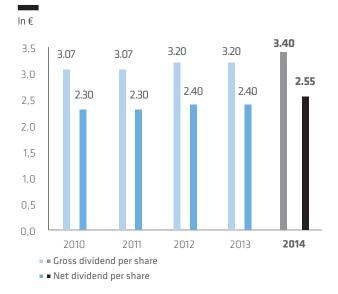
# Dividend

On February 25, 2015, the Board of Directors decided to propose to the General Shareholders' Meeting of May 12, 2015 payment of a total gross dividend of  $\in$  3.40 per share ( $\notin$  2.55 net per share).

The dividend for the fiscal year 2014, up 6.3% compared to the dividend for the fiscal year 2013, is in line with the Group's dividend policy of maintaining a stable to increasing dividend whenever possible and, as far as possible, never reducing it. Dividend was then never decreased in the last 30 years and increased in some years.

Given the interim dividend of € 1.33\* gross per share (€ 1.00 net per share; coupon no. 95) paid on January 22, 2015, the balance of the dividend in respect of 2014, equal to € 2.06\* gross per share (€ 1.55 net per share; coupon no. 96), will be paid on May 19, 2015. Solvay shares will be traded 'ex-dividend' on Euronext from May 15, 2015.

### Gross and net dividend per share



# IFRS historical consolidated data per share

ln€	2010	2011	2012	2013 <sup>(1)</sup>	<b>2014</b> <sup>(1)</sup>
Equity Solvay share	75.94	75.76	73.90	85.07	79.10
REBITDA	12.92	14.87	24.57	20.00	21.42
Net income	21.85	3.04	7.10	3.25	0.96
Net income (from continuing operations)	0.62	3.51	7.08	2.47	3.32
Diluted net income	21.80	3.03	7.06	3.22	0.96
Diluted net income (from continuing operations)	0.62	3.49	7.04	2.45	3.30
Number of outstanding shares (in thousands) at December 31	81,065	81,202	82,966	83,171	82,982
Weighted average number of shares (in thousands) for calculating IFRS basic earnings per share	81,320	81,224	82,305	83,151	83,228
Weighted average number of shares (in thousands) for calculating IFRS diluted earnings per share	81,499	81,546	82,696	83,843	83,890
Gross dividend	3.07	3.07	3.20	3.20	3.40
Net dividend	2.30	2.30	2.40	2.40	2.55
Highest price	81.9	111.6	109.8	118.9	129.15
Lowest price	67.8	61.5	62.1	97.4	100.15
Price at December 31	79.8	63.7	108.6	115.0	112.4
Price/earnings at December 31	3.6	21.0	15.30	35.4	116.59
Net dividend yield (in %)	2.9	2.9	2.0	2.1	2.3
Gross dividend yield (in %)	3.9	3.9	2.7	2.8	3.0
Annual volume (thousands of shares)	47,028	63,462	77,846	54,437	49,218
Annual volume (in € million)	3,481	5,522	6,796	5,960	5,630
Market capitalization at December 31 (in € billion)	6.8	5.4	9.2	9.8	9.5
Velocity (in %)	56	78	92	63	58
Velocity adjusted by Free Float (in %)	80	111	131	94	83

(1) Equity includes hybrid bonds.

<sup>\*</sup> Repeating last decimal. Dividend payments rounded to the nearest euro cent.

# **CORPORATE SOCIAL RESPONSIBILITY REPORT**

# 1 Introduction

Solvay's report on high materiality social and environmental issues is now included in the annual report. This combined report is a first step in Solvay's evolution towards integrated reporting. A complementary report structured according to the Global Reporting Initiative G4 framework completes the information presented in this annual report.

# 1.1 Sustainability, at the heart of the Group's culture

Solvay's culture of responsibility is part of its historical identity base. The Group pioneered many initiatives beneficial to workers: internal social security (1878), the 8 hour working day (1897), and paid holidays (1913). For the past 150 years Solvay has also been developing a culture of safety and social dialogue, including being one of the first groups to engage in a dialogue within a European structure, and then at global level. Today, its social practices are one of its strengths, positioning the Group as a leading player in Corporate Social Responsibility (CSR).

#### Solvay Way's approach and management

Solvay Way is the sustainability approach of the Group. It integrates social, societal, environmental and economic aspects into the Company's management and strategy, with the objective of creating value. It takes

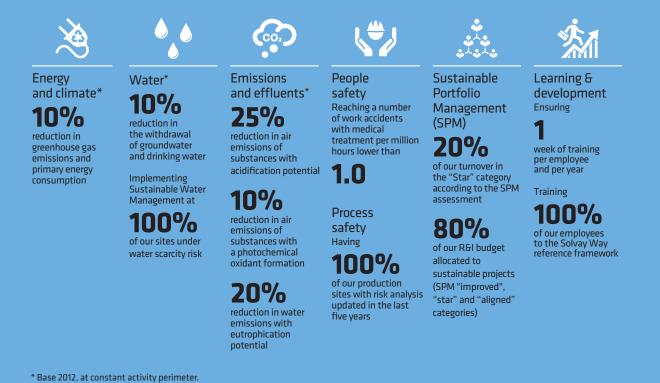
into account society's changing expectations, requiring industry to develop technologies, processes, products, applications and services in line with the objectives of sustainable development.

Solvay's commitment to sustainable development and social responsibility applies to all lifecycle stages of its products – including design, manufacturing, product applications, end-of-life and use of resources – and the social consequences of their manufacture or use.

Solvay develops and maintains permanent dialogue with its stakeholders, and their representatives, on issues of sustainable development. The discussions are based on the will to innovate and move forward together as well as to develop specific partnerships. Contracts are prepared, negotiated and executed by Solvay to reflect the Group's sustainable development policy. Solvay Way practices are reviewed each year by external partners and the Sustainable Development Function implements the findings and conclusions to achieve progress.

Regarding business portfolio management, Solvay Way integrates a specific tool: SPM (Sustainable Portfolio management). Developed by Solvay with Arthur D. Little and the Dutch organization for Technological Research TNO, SPM assesses the sustainability and the potential impacts of Solvay's product and market portfolio.

#### Sustainability's targets for 2020

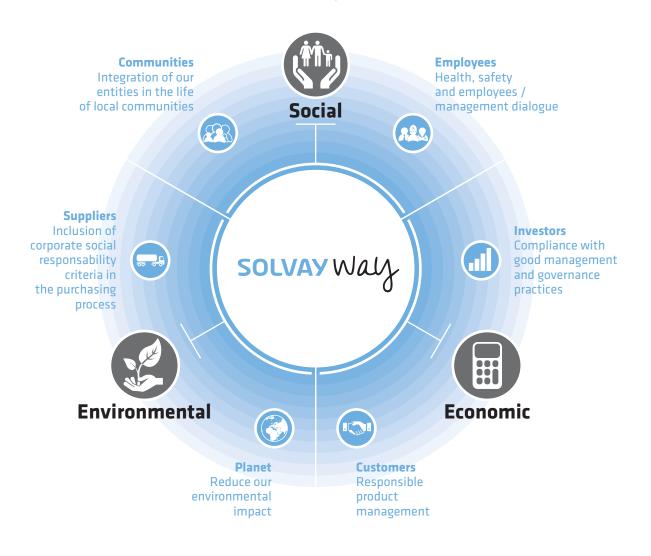


"At constant activity perimeter" means that the absolute performance is corrected for changes in production volumes and for sites entering or leaving the Group perimeter.



### Solvay Way, driving improvement

The Solvay group commits to continuous improvement regarding Corporate Social Responsibility. Its commitments and objectives are reviewed based on progress, evolution of standards and needs of stakeholders, lessons learned from self-assessments, internal and external audits and exchanges of best practices. Solvay Way is based on a reference framework towards six stakeholders (customers, employees, investors, suppliers, communities and the planet), to whom the Group has made 22 commitments declined in 49 associated practices. This reference framework helps each Solvay entity conduct yearly self-assessments of its practices in order to identify its strengths and weaknesses, and develop an appropriate improvement plan.



Each year, all Solvay production sites, business units and research centers, purchasing, finance, legal, public affairs, strategy and human resources Departments assess their practices in terms of corporate social responsibility. The objective for each entity is to identify its progress toward stakeholders in terms of Solvay Way commitments. They can hence define action plans to improve their processes and practices.

To learn more, please refer to the 2014 Sustainable Development Report: http://www.solvay.com/en/sustainability/index.html

# **Financial & extra-financial information**

### Solvay Way, integrated in the management processes

To ensure rapid progress, the Group has integrated the goals of a more sustainable development into all its managerial processes. This is the

best approach to ensure the commitment of every employee to fulfil the Group's commitment at every stage of the business cycle and in all stakeholder relationships.

### Product portfolio The SPM analysis and decision

support tool covers nearly 80% of Group net sales by 2014.



### Strategy

The strategic choices made by the businesses in their roadmaps and for their acquisition projects integrate CSR criteria.

# Audit

The Solvay Way results are audited by the internal audit teams. The related data collection, consolidation and control process have been reviewed by the statutory auditor.

### A global network for an active deployment

Compensation

10% of the annual variable bonus

of the 7,500 managers and

of the CEO relates to CSR criteria.

Coordinated by the Sustainable Development Function, Solvay Way is monitored by a global network of more than 200 "champions" and "correspondents" who ensure its active deployment within the GBU or Functions. The Sustainable Development Function keeps the overall view of the expectations of the different stakeholders and is responsible for supervising the approach on behalf of the Group. It coordinates the work of this network and reports directly to the CEO.

The Champions and correspondents play key roles in Solvay Way. They ensure the deployment of the process by mobilising their colleagues around precise objectives and by setting action plans.

Each entity is responsible for the implementation of Solvay Way within its organization. The annual self-assessment of its practices, using the Solvay Way analysis grid and scoring system, enables the entity to measure the progress achieved and to adjust its improvement plan. The Sustainable Development Function consolidates this assessment data and presents the results to the Executive Committee.

# 1.2 Voluntary external commitments

Solvay has concluded voluntary external commitments:

**For a responsible chemical industry:** Solvay commits to the "Responsible Care®" World Charter. This global chemical industry initiative aims to achieve continuous improvement in the safe handling of chemical substances from their initial development to their final use.

### Governance

The results of the annual Solvay Way assessment are presented to the Board, the Executive Committee and the managing committees of the business entities and functions.



For the respect of human rights: Solvay participates in the UN Global Compact and commits to its principles, hence contributing to the emergence of a sustainable and inclusive global economy which delivers lasting benefits to people, communities and markets.

 For a global standard in sustainability: Solvay uses the voluntary international standard ISO 26000 on social responsibility as a reference. This standard provides guidelines for organizations to operate in a socially responsible manner.



**For a responsible dialogue:** On December 17, 2013, Solvay signed a Corporate Social and Environmental Agreement for the whole Group with IndustriALL Global Union. This agreement, one of the first of its kind in the chemical

industry, gives tangible expression to Solvay's determination to ensure that basic labor rights and the Group's social standards in the areas of health, safety and environmental protection are respected on all its sites. This agreement applies to all Solvay employees. Every year, an assessment is carried out on a Solvay site to verify the correct application at a grassroots level of the commitments made by the Group, based on the International Labor Organization (ILO) standards and the principles of the United Nations Global Compact (UNGC).http://www.solvay.com/en/sustainability/Industriallagreement.html. To ensure IndustriALL Global Union Agreement by all employees, it has been integrated in the Solvay Way reference framework, as an employee practice, and each year its good deployment and understanding is evaluated through the Solvay Way assessment.



### 1.3 Materiality process

Solvay has fully reviewed its materiality analysis in 2014, using the Sustainability Accounting Standards Board (www.sasb.org) approach. The SASB's approach has been selected because it offers an exhaustive, validated list of material issues to start with, and three tests for issue prioritization allowing also to level short term and long term impacts:

- evidence of interest: frequency of occurrence of the issue in publications related to our company or industry;
- evidence of financial impact: identification of impact on revenue and cost, assets and liabilities, and risk profile;
- forward looking impact: assessment of the evolution of the issue's importance with time, in terms of magnitude, probability, or externalities.

The Sustainable Development Function coordinated the analysis, involving their network of champions in Global Business Units and Functions.

The list of material issues published by the SASB was first reviewed to check if it was exhaustive or needed completion. Then a first draft list of high materiality issues was generated, using inputs from the Sustainable Development champions in each Function and preliminary work on the chemical industry originated by the SASB. This preliminary list was then analyzed based on the methodology published by the SASB: evidence of interest (low, medium, high), evidence of financial impact (low, medium, high), and forward looking adjustment (no, yes). Additional high materiality issues were added when relevant.

The work was then cross-checked by experts in the main Corporate Functions, and the full list of material issues was again reviewed with each of the experts. Particular attention was given to cross-check the analysis with the work done by the Risk Management team to ensure consistency with the risk map of the Group. The list of high materiality issues was again updated to take into account this review.

Last, the analysis was cross-checked with the SASB's draft "CHEMICALS Sustainability Accounting Standard" published in October 2014

(http://www.sasb.org/wp-content/uploads/2014/10/RT0101\_ Chemicals\_2014-10-08\_PubComm. pdf).

Indicators were selected for each high materiality issue with the corresponding functions, based on available indicators.

Two pilots were initiated with two Global Business Units (Specialty Polymers and Novecare) to review the analysis, identify each business unit's own priorities among the high materiality issues of the Group, and identify additional high materiality issues specific to their own business. The feedback will be used to update the Group's analysis, if relevant, and to develop integrated dashboard pilots.

As a result of this analysis, 12 issues have been identified as highly material and 4 have been defined as group priorites (in **bold** in the table):

Category	Moderate materiality	High materiality (priorities in Bold)
Environment	<ul> <li>Climate change risks</li> <li>Fuel management and transportation</li> <li>Waste management and effluents</li> <li>Biodiversity impacts</li> </ul>	<ul> <li>Energy management</li> <li>GHC Emissions</li> <li>Environmental accidents and remediation</li> <li>Water use and management</li> <li>Air quality</li> <li>Hazardous materials management</li> </ul>
Social Capital	<ul> <li>Communication and engagement</li> <li>Community Development</li> <li>Impact from facilities</li> <li>Customer health and safety</li> <li>Disclosure and labelling</li> <li>Marketing and ethical advertising</li> <li>Access to services</li> <li>Customer privacy</li> <li>New markets</li> </ul>	<ul> <li>Customer satisfaction</li> </ul>
Human Capital	<ul> <li>Diversity and equal opportunity</li> <li>Training and development</li> <li>Recruitment and retention</li> <li>Compensation and benefits</li> <li>Child and forced labor</li> </ul>	<ul> <li>Employee health and safety</li> <li>Employee engagement and wellness</li> </ul>
Business Model and Innovation	<ul> <li>Accounting for externalities</li> <li>Product societal value</li> <li>Product life cycle use impact</li> <li>Packaging</li> <li>Product pricing</li> <li>Product quality and safety</li> </ul>	Sustainable business solutions
Leadership and Governance	<ul> <li>Policies, standards, codes of conduct</li> <li>Shareholder engagement</li> <li>Board structure and independence</li> <li>Executive compensation</li> <li>Lobbying and political contributions</li> <li>Raw materials demand</li> <li>Supply chain standards and selection</li> <li>Supply chain engagement and transparency</li> </ul>	<ul> <li>Management of the legal, ethics &amp; regulatory framework</li> <li>Process safety, emergency preparedness &amp; response</li> </ul>

New sustainability targets will be defined in 2015 in accordance with the new materiality analysis.



### Social and environmental consolidation scope

Unless stated otherwise, all social and environmental indicators are reported at the **financial perimeter**, fully consistent with the Group's financial consolidation scope which includes 119 sites and 26,033 full time equivalent employees in 2014 (See Solvay's 2014 consolidation scope from page 200 to 208 of the present report).

When relevant, data are also reported at the **operational perimeter**, which consolidates all activities **under operational control**.

The operational perimeter covers more sites and people than the financial perimeter since it includes activities in joint arrangements.

Greenhouse gases emissions are reported in consistency with the World Business Council for Sustainable Development "Guidance for Accounting & Reporting Corporate GHG Emissions in the Chemical Sector Value Chain".

(http://www.wbcsd.org/Pages/EDocument/EDocumentDetails. aspx?ID=15375).

Emissions type	Scope	Definition
Direct emissions	Scope 1	Emissions from operations that are owned or controlled by the reporting company.
Indirect emissions	Scope 2	Emissions from the generation of purchased or acquired energy such as electricity, steam, heating or cooling, consumed by the reporting company.

### **Stakeholders engagement**

Stakeholders are engaged throughout the year, through different initiatives:

Stakehol	der	Engagement means	Main feedbacks in 2014
1	Customers	Engagement managed by each business unit	Customer satisfaction is highly material for a number of business units and moderately material for other business units
<b>822</b>	Employees	IndustriALL Global Union contacts and site visits European Works Council meetings	Frequent dialog needed, particularly in the current active portfolio management context
	Planet	Mission of the Public Affairs Department	Increasing emphasis on management of SVHC Increasing regulatory pressure for Environmental, Social and Governance reporting
	Investors	ESG investors roadshows Board interactions Non-financial rating agencies feedback (DJSI, CDP, Vigeo, Oekom, FTSE4Good)	Increasing emphasis on materiality Increasing emphasis on management of SVHC Increasing pressure for an integrated approach of sustainability
	Suppliers	Together for Sustainability (TfS) initiative TfS conference China: about 350 participants joined the event in China – including suppliers, TfS member company representatives as well as local and international associations and non-Governmental organizations.	Better metrics needed to assess performance

In 2015, we intend to review the materiality analysis with representatives of our stakeholders and use their feedback to update the analysis.

# 2 Environment

# 2.1 Environmental management

The Group's approach to environmental management is mainly twofold: sites draw up and deploy improvement plans according to the Group environmental roadmap and local constraints, and they maintain their management systems, seeking external certification under the various verification schemes. In 2014, 102 manufacturing sites have a standardized Environmental Management System (EMS) in place. The Group policy indeed requires all industrial sites to have such a system in line with Group standards by 2018. An increasing proportion of sites have obtained external certification of their EMS in 2014.

In 2014, the Group has developed and tested the new "Solvay Care Management System" (SCMS), which aims at encompassing the management of environmental aspects, health and safety. In the coming years, this in-house system will be deployed, allowing sites to simultaneously fulfil all requirements of the three international standards: ISO 9001, ISO 14001 and OHSAS 18001. The SCMS, fully compliant with ISO 14001, allows external certification to be obtained.

**Deployment of environmental management systems** 

After training sessions for 12 sites in the four zones, as a tool for continuous improvement, the new Group HSE management system will be progressively deployed in the Group's operations in 2015 and 2016. The SCMS should also allow GBUs to get multi-site external certifications.

The Solvay's new management system (SCMS):

- covers the seven HSE domains (occupational safety, process safety, environment, industrial hygiene, health, product stewardship and transport) as well as quality (a more extensive reference system dedicated to product management, Product Stewardship Management System, is being worked on);
- incorporates requirements of ISO 9001, ISO 14001 and OHSAS 18001, ISO TS 16949;
- supplies, for every requirement, four maturity levels, from the basic mandatory level to operational excellence, with level one, corresponding to regulatory compliance.

	2013	2014	Planned 2018
Manufacturing sites with management system	77%	82%	100%
Manufacturing sites with management system externally certified	-	56%	+ 13 sites

Perimeter: Solvay financial perimeter plus all additional manufacturing sites under operational control.

Legend: Environmental management systems in line with Group requirements, either internal or external of ISO 14001 type or equivalent.

In 2014, 91 manufacturing sites or 76% of total Group sites have had environmental improvement plans reviewed, with 41 sites planning significant further reductions of emissions within the three coming years. Including R&I centres, in 2014, 110 sites or 92% of total Group sites regularly organized sessions for their personnel to raise environmental awareness.

Reduction of emissions to water continued to be implemented on a case by case basis, taking into account compliance assessments and ecotoxicity analysis based on Group standards. Reaching the Group target fixed for 2020 (i.e. (20)% reduction in water emissions with eutrophication potential compared to 2012) is under way, with (4.8)% achieved so far. As regards waste, the majority of our sites have a dedicated action plan for waste management, with a number of measures to further reduce landfill under way. The indicator for landfilled hazardous industrial waste has been reduced by 1.6% since our baseline 2012, at constant activity perimeter.

In September 2014, Solvay has signed the revised ICCA Responsible Global Charter, recommitting the Group to continuous improvement in all concerned areas.

### 2.2 Greenhouse gases emissions

Solvay's target is to reduce by 10% its greenhouse gas emissions at constant perimeter and volume.

A structured greenhouse gas emission reporting system, externally verified, and the response to rating agencies such as the Carbon Disclosure Project, helps the Group to align its efforts on the materiality of its greenhouse gas challenges.

### Definition of indicators for greenhouse gases (GHG)

The GHG emissions reported by Solvay correspond to the scope of the Kyoto Protocol and comprise the following compounds or compound families:  $\rm CO_2/N_2O/CH_4/SF_6/HFCs$  and PFCs. The impact on climate change (expressed as teq CO<sub>2</sub>) is calculated using their respective Global Warming Potential (GWP) (as defined by the IPCC) and taking further into account:

- the direct emissions for each GHG released from Solvay's industrial activities (Scope 1 of Kyoto Protocol);
- for CO<sub>2</sub>, the reporting of direct emissions, including emissions from the combustion of all fossil fuels as well as process emissions (*e.g.* thermal decomposition of carbonated products, chemical reduction of metal ores);
- the indirect emissions of CO<sub>2</sub> linked with the steam and electricity purchased from third parties (Scope 2 of Kyoto Protocol);
- the convention adopted for CO<sub>2</sub> emissions related to acquiered electricity, the one specified in the contract of the supply chain, the power supplier or, the national CO<sub>2</sub> factor published by the International Energy Agency.

Financial & extra-financial information

### Direct and indirect greenhouse gas emissions

### **GREENHOUSE GAS EMISSIONS**

(SCOPES 1 AND 2)

		2014		
		2014	2013	2012
Direct & indirect CO <sub>2</sub> emissions (scopes 1 & Z)	Mt CO <sub>2</sub>	11.7	12	11.8
Other greenhouse gases (Kyoto Protocol) emissions (scope 1)	Mt CO <sub>zeq</sub>	2.7	2.7	2.6
TOTAL GREENHOUSE GASES (KYOTO PROTOCOL) EMISSIONS	MT CO <sub>2eq</sub>	14.4	14.7	14.4
Other greenhouse gases (non-kyoto Protocol) emissions (scope 1)	Mt CO <sub>2eq</sub>	0.1	0.1	0.1

**Perimeter:** Solvay financial perimeter. In order to enable comparison over time, the figures of the previous years have been restated to take into account sites movements and change in the consolidation rules. In 2014, the greenhouse gas emission of the companies in the financial perimeter represents 80% of the total greenhouse gas emissions of all companies in the operational perimeter.

Legend: This indicator reflects the greenhouse gas emissions during a given year related to manufacturing activities of companies currently consolidated (fully or proportionately). Solvay's greenhouse gas emissions reporting is in line with the WBCSD "Guidelines for Accounting & Reporting Corporate GHG Emissions in the Chemical Sector Value Chain".

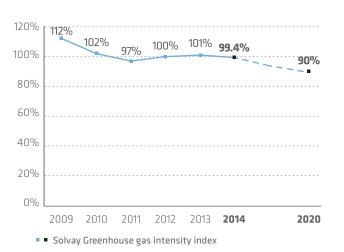
### Greenhouse gas emissions intensity

#### Solvay's 2020 target\*:

- the Group has committed to reduce its Greenhouse gas emissions by 10% (1.3% per year on average).
- \* Base 2012 at constant activity perimeter.

### Trend of greenhouse gas intensity index

#### Base 100 in 2012



Perimeter: Solvay financial perimeter.

**Legend:** Greenhouse gas intensity index "at constant activity perimeter" reflects the change in greenhouse gas emissions on a comparable basis after correcting the historical perimeter to take into account sites movements and introducing corrections for changes in production volumes from year to year.

The Group has reduced its greenhouse gas emissions by 13% since 2009, at constant activity perimeter. This was achieved thanks to the reduction of emissions of fluorinated gases in Bad-Wimpfen (Germany), Frankfurt (Germany) and Onsan (South Korea) and of nitrous oxide in Paulinia (Brazil), Onsan (South Korea) and Chalampé (France). For  $CO_2$  emissions, both the use of recycled wastes as fuels in Bernburg (Germany) or biomass in Brotas (Brazil) and projects aiming to improve the energy efficiency of manufacturing processes significantly contributed to progress in the past years.

#### Key achievements:

- in the trona mine at Green River (United States), partial recovery of the methane emitted during extraction of the trona, and its combustion, avoiding emissions equivalent to 100,000 t CO<sub>2</sub> per year since 2011. Since 2012 a part of the heat from the combustion of the recovered methane has been utilized in the manufacturing process, bringing additional energy and CO<sub>2</sub> savings;
- in Brazil, Solvay Energy Services has developed and operates a biomass fired cogeneration unit using sugar cane bagasse.



# 2

### 2.3 Energy management

Solvay has set one long term objective regarding primary energy consumption: to improve by 10% by 2020 the energy efficiency of production processes. This will be done through realistic solutions that are compatible with the specific energy requirements of a chemical industry.

Ensuring long-term energy supply is also a continuous concern. Diversifying energy sources and developing alternatives to fossil fuels wherever sustainable in ecological, economic, industrial, and social terms is a strategic goal. This takes concrete form in heavy technical investments such as the recent purchases of two cogeneration units, one in Belle Etoile (France) and one in Torrelavega (Spain) or the retrofit of the cogeneration unit in La Rochelle (France) or in partnerships and contractual arrangements extending over long periods such as the Exeltium consortium.

A structured energy reporting system, externally verified, and the response to rating agencies such as the Carbon Disclosure Project, help the Group to align its efforts on the materiality of its energy challenges.

### **Definition of indicators for energy**

Energy consumption has three components:

- primary fuels (coal, natural gas, fuel oil, etc.). The primary fuels are used for internal production of steam, electricity and mechanical energy, and in manufacturing processes (coke in lime kiln/gas in pyrolysis furnaces, etc.);
- purchased steam;
- purchased electricity.

These three components are converted into primary energy, with the following conventions:

- fuels using the net calorific values;
- steam purchased assuming an efficiency of 90% based on the net calorific value of the fuels used for its generation;
- electricity purchased assuming an average efficiency of 39.5% for all types of power production except for nuclear power (33%), based on net calorific value (source IEA).

### **Energy consumption**

	2014		
	2014	2013	2012
Energy consumption (Petajoules Low Heating Value)	180	181	179

**Perimeter:** Solvay financial perimeter. In order to enable comparison over time, the figures of previous years have been restated to take into account site movements and change in the consolidation rules. In 2014, the primary energy consumption of the companies in the financial perimeter represents 68 % of the total energy consumption of all companies in the operational perimeter.

Legend: This indicator reflects the primary energy consumption during a given year related to manufacturing activities of companies currently consolidated (fully or proportionately). Solvay's energy reporting is in line with the WBCSD "Guidelines for Accounting & Reporting Corporate GHG Emissions in the Chemical Sector Value Chain".

### **Energy intensity**

The energy intensity covers primary energy of fuels (coal, natural gas, fuel oil...) and of purchased steam and electricity.

#### Group target 2020\*:

- the Group has committed to reduce its energy consumption by 10% (1.3% per year on average).
- \* Base 2012 at constant activity perimeter.

### **Energy efficiency index**

 $\square$ 

Base 100 in 2012



Perimeter : Solvay financial perimeter.

Legend: Energy index "at constant activity perimeter" refl ects the change in energy consumption on a comparable basis after correcting the historical perimeter to take into account perimeter changes and introducing corrections for changes in production volumes from year to year.



### **Reduction of energy consumption**

The Group has reduced its overall energy intensity by 4% since 2009. Key factor in this progress is the SOLWATT® project to improve the energy efficiency of manufacturing processes and the manufacturing excellence approach. In 2015, within the SOLWATT® project, energy performance contracts will be signed between Solvay Energy Services and the other GBUs to ensure the implementation of the findings of the energy audits.

Three parallel approaches are followed:

- improving the generation efficiency of secondary energies like steam and electricity by developing the use of high efficiency cogeneration plants. Even if cogeneration is already well deployed within the Group, new cogeneration projects are now being considered in Europe, in the United States and in India;
- SOLWATT<sup>®</sup>, the internal centre of excellence in energy efficiency, aims at identifying and implementing energy savings in existing manufacturing units, via technology improvements and management behavior. This project will be extended to all sites that will be evaluated by end 2015;
- new or remodelled plants are optimized for energy consumption and generation.

For example, in 2014, the deployment of the operational excellence program has been continued in sodium carbonate manufacturing plants. The decision was taken to invest in a new cogeneration unit based on a gas-fired engine in Oldbury (United Kingdom) to replace conventional boilers. Other improvements are also decided, like a new cogeneration unit at West Deptford (United States). New cogeneration units are being studied (*e.g.* in Map Tha Phut (Thailand), in Ospiate (Italy), Porto Marghera (Italy)).

For the future, technological breakthroughs will improve the global energy efficiency of Solvay's operations. Following the mega hydrogen peroxide (HP) plants in Antwerp (Belgium) and in Map Ta Phut (Thailand), Solvay is building one of the world's most efficient HP plants in the Kingdom of Saudi Arabia.

### **Solvay Energy Services**

Solvay Energy Services optimizes the energy purchases of the Solvay group, which amounts to  $\notin$  0.9 billion per year, and helps business units and production sites to manage their energy requirements. Solvay Energy Services has been managing energy purchases for industrial third parties in France for several years.

Solvay Energy Services' mission is also to optimize energy production assets. In this context, energy efficiency actions have been undertaken to improve the operation of cogeneration installations (installations generating within the same process both thermal energy and electricity in a very efficient manner). In 2014, the retrofits of the cogeneration units in La Rochelle (France) and in Belle Etoile (France) have been completed.

Solvay Energy Services is a founding member of consortia of electricity intensive industries such as Exeltium, aimed at securing long-term supply to Solvay plants at competitive conditions.

# 2.4 Air quality

On top of controlling its emissions of greenhouse gases, Solvay commits to improve the air quality at local and regional level, in close cooperation with local stakeholders by monitoring a set of parameters that impact the environment. These parameters focus on standard pollutants (acidifying gases, Volatile Organic Compounds (VOC), particulates, heavy metals, etc.). It will be enriched in the coming years to include all substances of potential concern.

### Group targets 2020\*:

- 25% reduction (i.e. (3.1)% per year) in air emissions of substances with an acidification potential (in SO, equivalent);
- 10% reduction (i.e. (1.3)% per year) in air emissions of substances with a photochemical oxidant formation potential (in Non Metal Volatile Organic Compounds (NMVOC) equivalent);
- in addition to site-specific objectives, Group overall 2020 targets are pursued, to limit the emissions of volatile organics and acidifying gases (sulfur oxides, nitrogen oxides). These key performance indicators are largely adopted across the world to track local consequences both on health and the natural environment.

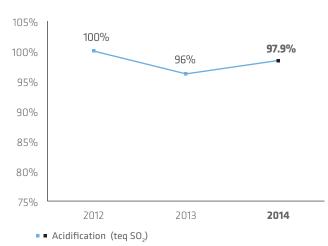
\* Base 2012 at constant activity perimeter.



### **Air emissions**

### Acidification emissions index

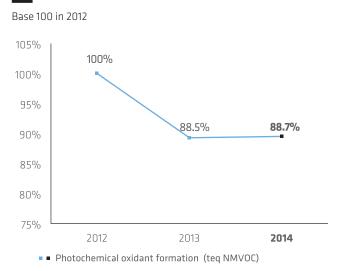
### Base 100 in 2012



Perimeter: Solvay financial perimeter.

**Legend:** Acidification emissions index "at constant activity perimeter" reflects the change in acidification emissions on a comparable basis after correcting the historical perimeter to take into account sites movements and introducing corrections for changes in production volumes from year to year.

### Photochemical oxidant formation index



Perimeter: Solvay financial perimeter.

Legend: Photochemical oxident formation index "at constant activity perimeter".

	2014		
Absolute emissions	2014	2013	2012
Acidification (teq SO <sub>2</sub> )	25,066	26,672	27,758
Photochemical oxidant formation (teq NMVOC)	20,348	18,810	19,094

Perimeter: Solvay financial perimeter.

Legend: The main impact categories are internationally recognized and calculated using the characterization factors published by ReCIPe, which is a compendium of legally recognized databases from the International Panel on Climate Change (IPCC), the World Meteorological Organization (WMO), and elsewhere.

### **Progress to targets**

The slight degradation in performance for the acidification indicator (+1.9% compared to 2013) is due to negative effects from the decision not to operate the co-generation unit at Tavaux (France) and to the lack of availability of good quality coal for the power plant of Devnya – Deven (Bulgaria), due to the political crisis in Ukraine.

The acidification indicator reflects also positive effects, notably from the start-up of the DeNOx and DeSOx units in Dombasle-sur-Meurthe (France).

It has globally improved by 2.1% since 2012. New projects to reduce emissions of power plants are planned in the coming years, for example at Tavaux (France).

The performance improvement for the photochemical oxydant formation indicator has remained essentially unchanged since 2013. The global improvement since 2012 remains at the very good level of 11.3%. Projects are planned in 2015-2016 that will resume the improvement of VOC emissions.

### **Other air parameters**

Many sites have continued to improve other air quality parameters. Local pollution prevention programs (noise, dust, odours) are in place, with dedicated control programs under way in 56 sites. For example the steep reduction in dust emissions planned in the framework of a three year program at Giraud (France).

In 2014 Solvay has completed the retrofitting of several cooling machines in order to substitute HCFC's (ozone depleting substances, mainly R22) by refrigerants with reduced effects. These projects have been carried out in the framework of the European regulations following the Montreal Protocol.

In addition, the Group has decided to initiate a more focused voluntary control program on the emissions of the newly defined Solvay Substances of Very High Concern (SVHC). This will be achieved by setting priorities on the basis of a new matrix common to all health and environmental protection risks.

### 2.5 Water management

#### Group targets 2020\*

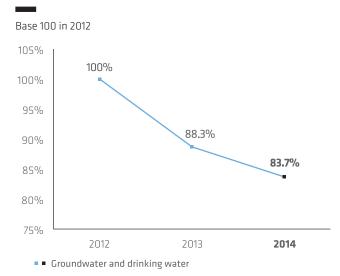
- 10% reduction (i.e. (1.3)% per year) in the withdrawal of groundwater and drinking water;
- implementing sustainable water management at 100% of our sites under water scarcity risk.
- \* Base 2012 at constant activity perimeter

In addition to site-specific objectives, in particular in water scarcity areas, a Group 2020 overall target is pursued, aimed at limiting the abstraction of groundwater (because such abstraction is not restituted to their

### Water intake

### Water consumption index

Groundwater and drinking water



#### Perimeter: Solvay financial perimeter

**Legend:** Water consumption index at constant activity perimeter reflects the change on a comparable basis after correcting the historical perimeter to take into account sites movements and changes in production volumes from year to year.

original environment compartment), and at decreasing the dependency on drinking water (still used too often in the absence of alternative, lower quality, water source).

	V2014		
Absolute intake In 1,000 m <sup>3</sup>	2014	2013	2012
Groundwater and drinking water	192,790	204,743	222,868
Total water intake	628,501	657,621	659,026

End of 2014, the achieved performance for the "sum of drinking and groundwater" indicator has already reached the level of the Group's 2020 target. The performance at constant perimeter for the "Sum of drinking water and groundwater" indicator improved by 4.6% compared to 2013 bringing the global improvement to 16.3% since the reference year 2012.

The target which was set by the Group in 2012 was to achieve an improvement of 10%. This target has already been achieved in 2014. Improvement stems from numerous water saving and recycling programs.

### Sustainable water management at Solvay sites

The Group water policy consists of protecting the quality of the water resource and limiting the need for freshwater withdrawals linked to Solvay's industrial activities. Particular efforts are made to reduce freshwater withdrawals where there is a constraint on water access for Solvay or for other needs (domestic, agricultural, industrial or environmental).

Following an internal study carried out in 2014, focusing on 28 pre-screened sites using global tools (WBCSD's Global Water Tool and WRI's Aqueduct tool), 13 sites were confirmed to be potentially confronted with water scarcity risks; four of them have already demonstrating implementation of sustainable water management.

	2014
Sites with detailed water balance (Solvay Way practice)	79 sites (66%)
TOTAL SITES IDENTIFIED BY SCREENING TOOLS AS POTENTIALLY AT WATER RISK	28
Sites for which the water scarcity risk was not confirmed	15
Sites for which the water scarcity risk was confirmed	13
Of which sites confirmed for water scarcity risk but risk already mitigated (Sustainable Water Management)	31%

Perimeter: Solvay financial perimeter plus all additional manufacting sites under operational control

### Water saving programs continue

Action plans to reduce water withdrawals focus in priority on sites using drinking water and/or groundwater and on those located in regions affected by water stress. Many sites have programs under way that alleviate water consumption and dependency of operations on water scarcity episodes, in particular, action plan to reduce water withdrawal (20 sites), water storage tank (11 sites), for recycling wastewater from external companies or third parties' waste water treatment plants (5 sites).

#### For example:

- the Baotou plant in China, located in a region under water scarcity, made very significant improvements over the past few years to reduce its relative water intake (from 250 m<sup>3</sup>/t in 2012 to 138 m<sup>3</sup>/t in 2014), *i.e.* a reduction of almost 45%;
- in Panoli, India, it has been possible to increase production capacity while keeping water intake stable, thanks to an improvement in specific consumption of 5% (2012-2014).

## 2.6 Environmental accidents and remediation

### Preventing spills and protecting subsoil

In addition to site-specific objectives, Group targets 2020 defined in 2012 to limit the risks of accidental spills and soil contamination are pursued.

#### Group targets 2020:

- to prevent accidents with environmental consequences, achieving 0 accident of level High or Catastrophic;
- 100% of our sites have a risk analysis for every production line, which has been updated in the previous five years.

All concerned sites (70) have an *ad hoc* safety management system in the framework of major risk regulations. Process Safety Management (PSM) introduces key safety elements on sites to prevent major incidents and risks. In parallel, environmental management systems now in place in 98 sites strongly contribute to preventing accidental spills. Both types of systems are key to avoid incidents that may have toxic effects and can ultimately result in negative impacts on the environment. Solvay pays much attention to intrinsic safety when designing installations.

All serious (or potentially serious) process safety incidents learned lessons have been shared across the Group in a dedicated monthly newsletter.

# Process safety incidents with environmental consequences

Since 2014, Solvay classifies and reports all incidents resulting in environmental consequences according to a scale based on various criteria, including the volume of spills and the nature of the emissions.



Incidents with potential environmental consequences (Medium - High - Catastrophic)	2014
Medium	53 incidents
High	2 incidents
Catastrophic	0 incidents

Perimeter: Solvay group manufacturing and R&I sites perimeter under operational control. The consolidated data for process safety accidents/ incidents cover 81 sites over the total of 130 operational sites.

### Main incidents 2014

Corrective actions and more generally the prevention of accidents are undertaken as an intrinsic part of our process safety management system. Two significant spills (level H) took place in 2014. Environmental consequences were ultimately kept under control.

#### Santo Andre (Brazil)

In Santo Andre, a leak in a pipe conveying industrial effluent with acidic characteristics reached the river causing a reduction of pH, leading to fish deaths (400 kgs) close to the spill. The location of the leak was quickly identified; the effluents were diverted and retained, with a quick return to normal pH of the river. A voluntary environmental compensation with the release of fingerlings of the same species is underway. To prevent recurrence of this accidental release, a set of corrective actions have been implemented.

#### **Epe (Germany)**

In Gronau-Epe (Germany) the Salzgewinnungsgesellschaft Westfalen mbH (SGW) is brining subterranean salt used as raw material. SGW belongs to various companies, among which Solvay. Three of the resulting subterranean salt caverns are used to store crude oil, as part of Germany's national energy reserves. In 2014, the drillhole-pipe of one cavern released oil in the neighbouring clay layer. A crisis team led by the mining authority managed to limit the environmental damage to a minimum.

In the coming year, Solvay's methodologies will be improved to better assess the potential environmental consequences of possible accidents. The risk mapping throughout the Group will be updated, and appropriate additional mitigation measures taken.

By the end of 2015, the Group plans to define an additional improvement target regarding level M, in addition to the target of 0 spills of level H or C.

### Protecting subsoil from past contaminations

Solvay has continued to manage past soil contamination from its historical or its acquired activities. Environmental legacies have to be managed in order to protect health and the environment, with a long term vision and at controlled cost. 2014 has been marked by a start in close collaboration with the authorities, to inactivate the subterranean source of mobile chromium by in-situ reduction to an immobile and less toxic form.

Solvay's policy aims to prevent soil contamination; to characterize soil conditions whenever needed, in active or closed sites, and to manage soil or/and groundwater contamination in the surroundings.

Whenever needed, investigation continued at concerned sites. Assessing soil conditions and risk is always taken as a key step to define and implement the most appropriate management measures.

In 2014, a strong emphasis has been placed on further developing dedicated processes or technologies to remediate soil contaminations at the source.

Participation has continued in two R&I projects in collaboration with universities, research institutes, and other companies. In France, Solvay is the leader of the Silphes project and provides pilot test at Tavaux site. Solvay also maintains its participation in the European Nanorem project, providing another test area for *in situ* pilot test in Zurzach (Switzerland).

### **Environmental provisions**

Solvay manages environmental provisions with a long term vision.

	V2014		
Environmental provisions	2014	2013	2012
In € million	713	629	828

**Perimeter:** Solvay financial perimeter. The European and Latin American Chlorovinyls activities are, as in 2013, "assets held for sale". **Legend:** The provisions are reviewed on a quarterly basis in accordance with the IFRS norms.

Financial provisions have increased by  $\in$  84 million in 2014 over 2013. This is mainly due to the development of new and on-going projects, some of which are impacted by changes in regulations. The reduction in environmental provisions in 2012 over 2013 was mainly due to the classification of the European Chlorovinyls activities as "assets held for sale" and of the evolution of financial items (discount & exchange rates).

A number of sites belonging to the Solvay group, particularly in Italy, are currently under investigation by the authorities for past soil contaminations.

# 2.7 Hazardous materials management

### **Managing product risks**

# All products: adapting to Globally Harmonized System and full REACH compliance

Solvay currently manages over 4,500 chemical substances marketed as such or in mixtures. Solvay is committed to a comprehensive understanding of hazards, risks and impacts related to each product, from production stage until end use. In order to continue assessing products and providing all necessary safety information to downstream users, Solvay fully complies with Europe's REACH registration agenda (464 substances registered so far). Solvay also pursues the necessary adaptation to cope with emerging new regulations in other countries, and with the Globally Harmonized System, a major initiative of the United Nations to harmonize the classification and labelling of chemicals worldwide.

In the European Union, the Global Harmonized System (GHS) is materialized in the "Classification, Labelling, and Packaging of substances and mixtures" (CLP). This applies to all Solvay's substances & mixtures placed on the market or handled by its personnel. For "individual substances", Safety Data Sheets for CLP classified products were released on time within the allocated schedule. The next deadline in Europe, for mixtures, is May 2015. GHS is being progressively transposed according to the regulations in other countries: Brazil for mixtures, United States for individual substances and mixtures. Worldwide, Solvay will have to reassess and classify 1,295 substances before the deadline of May 2015.

# Hazardous substances: extending shared rules on safety information

Dangerous substances deserve particular attention. Solvay has the policy of managing centrally product safety information. Taking into account evolving legislation, a strong emphasis has been put in the recent past years to improve its knowledge of how Solvay products are used by customers, so as to record and assess any associated risks.

In 2014, a particular effort merging the management of such information in the Group with a common system has been built, centralizing all this information to be fully effective in September 2015:

- standardize Product Safety Data Sheet, using shared rules and models across the Group;
- use automatic processes for Safety Data Sheet authoring and distribution (rules for GHS classification, automatic distribution according to the countries of sale, possible integration with SAP, Global Labeling System...);
- ensure consistent product labels to be regulatory compliant worldwide;
- use common regulatory data, toxicological and ecotoxicological data and phrases library.

### Pioneering in the management of substances of concern

In addition to the management systems for all dangerous substances (risk analysis, labelling and product stewardship), Solvay pioneers in adopting a global approach for dangerous substances of concern, beyond the European Union definition, based on international regulation and internal expertise of toxicologists and ecotoxicologists.

A dedicated multidisciplinary team is working on the inventory of products containing "Substances of Very High Concern" within the Solvay portfolio. The Solvay SVHC list includes all substances that are:

- Carcinogenic, Mutagenic, or Toxic to Reproduction (CMR), meeting the criteria for classification in accordance with the new Regulation on Global Harmonized System, the so-called "GHS" Regulation;
- Persistent, Toxic and Bioaccumulative (PBT) or very Persistent and very Bioaccumulative (vPvB) identified, on a case-by-case basis, through scientific evidence indicating a probability of causing serious effects to human health or to the environment of an equivalent level of concern as those above.

Our policy regarding such substances aims:

- to handle Substances of Very High Concern under strictly-controlled or equivalent conditions;
- to identify Substances of Very High Concern used or produced, update risk studies, and strive to substitute them with safer alternatives that are technologically equivalent and socioeconomically sustainable.

A roadmap for the management of these substances, in the framework of Industrial Function projects, is being deployed to advise GBUs on the strategy to implement in order to ensure a proactive management of SVHC substances as well as business continuity in respect of legal duties, Responsible Care<sup>®</sup> commitment and sustainable development.

### **Management of SVHC**

### Group target 2020:

 to complete 100% of risk assessments and analysis of possible safer alternatives when available for marketed products containing SVHC by 2020.

New dedicated rules specific to SVHC are now in place and define how such substances must be handled in Solvay's own industrial operations and when they should be placed on the market. This translates into standardized risk assessments according to the Group "Management Book". These are becoming key management levers not only in product stewardship, but also in the internal management of Occupational Health & Industrial Hygiene, and of Environmental Management.

In order to anticipate possible future banning or substitution requirements, three categories (black, red, yellow) have been established, each of which defines the level of risk management to be carried out:

- Black list: SVHCs already in a regulatory process of phasing-out or restriction with a known deadline in at least a given country or zone.
- Red list: SVHCs currently included in regulatory lists of SVHC which could be introduced into a process of authorization or restriction in the medium term.
- Yellow list: Substances requiring specific attention, under scrutiny by authorities, NGOs, scientists and industries due to current hazard properties or potential effects.

### Strict control and substitution assessment

A program (2013-2018) has been initiated to assess or reassess all substances of the SVHC list according to a revised Group-wide procedure, considering both the ways to strictly control risks and the technical and economic feasibility of substitutions. All concerned substances placed on the market by Solvay must be assessed by the end of 2018.

### Solvay's Substances of Very High Concern placed on the market<sup>(1)</sup>

	Number of substances (2014, world perimeter) <sup>(2)</sup>		_
		For which this presence is due to raw materials	Management
SVHC (list according to REACH regulation - EU Authorisation process)	8	6	<ul> <li>For substances put on the market in Europe: updating risk studies, assessing substitution alternatives</li> <li>For other regions: extending risk studies</li> </ul>
SVHC (list according to REACH regulation – EU Candidate list) <sup>(3)</sup>	17	12	<ul> <li>For substances put on the market in Europe: preparing to update risk studies and assessing substitution aternatives</li> <li>For other regions: extending risk studies</li> </ul>
All SVHC substances (according to REACH criteria)	25	18	
(Program 2018): % of SVHC reviewed for potential substitution (world)^{(4)}		0%	V2014

Perimeter: all Solvay products - except notably Benvic (now outside Solvay) and Chemlogics - put on the market, manufactured by Solvay or part of the composition of products sold.
 SVHC substances manufactured or part of the composition of products sold by Solvay worldwide currently in Europe's "Candidate list" or "Authorisation list" of the REACH process.

(3) Candidate list includes substances also present in the restriction process (annex XVII).

(4) % of products containing SVHC reviewed for potential substitution via Solvay internal dossiers (100% = all SVHC (or products containing SVHC) placed on the market by Solvay) – program with 2018 deadline.

### Markets in food, health and other "sensitive" applications

The Solvay MIcro-contaminant Level Evaluation (SMILE) campaigns have been conducted since 2000 in order to monitor the absence of dioxinlike compounds in products for sensitive applications. The products to be analysed are selected on the basis of sensitive applications: in the food and pharmaceutical fields, medical devices, cosmetic products, detergency and other sectors such as water treatment, agriculture, etc.

# Product stewardship programs for dedicated support to customers

Each business unit has a dedicated product stewardship team, in charge of following and managing product-specific and market-specific regulations, in close contact with the HSE corporate teams and zone teams.

# 3 Human capital

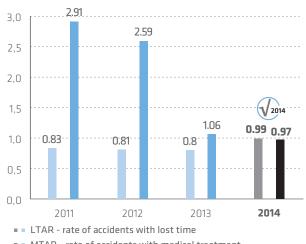
# 3.1 Employee health and safety

### **Ensuring occupational safety**

#### Group target 2020

 less than one occupational accident with medical treatment per million working hours (MTAR).

### **Occupational accidents at Group sites**



 MTAR - rate of accidents with medical treatment (with or without lost time)

**Perimeter:** Solvay financial perimeter and all additional sites under Solvay's operational control for which the Group manages and monitors safety performance - Solvay employees and contractors working on sites.

**Legend:** MTAR (Medical Treatment Accident Rate): number of work accidents leading to medical treatment other than first aid / million working hours.

LTAR (Lost Time Accident Rate): number of work accidents with lost time (away from work) more than 1 day / million working hours.



#### The challenge to improve further:

Solvay's occupational safety performance has been significantly improved in the past four years. The MTAR, which takes the severity of injuries into account reflects this improvement more accurately than the LTAR. The LTAR remains around a value of 1 in 2014 for the overall population of Solvay's own employees and contractors working on the Group's sites. The LTAR performance is better than the industry's performance in general and than the chemical industry's track record in particular. The chemical industry is generally recognized as safe with a LTAR at around 4.5 in the last years in Europe.

In addition, Solvay succeeded in better controlling accidents with chemical contacts (from 26 to 14 accidents per year) or with irreversible consequences (from 8 to 2 per year in the same period).

# However, two fatal accidents occurred in the Group in 2014 (in Egypt and India), which is not acceptable.

To make it possible for the Group to avoid fatal accident and accelerate the continuous progress curve, further efforts are required. For this very reason, Solvay will deploy a safety excellence plan for 2015-2016 for GBUs and sites along three main axes:

- clear communication of Management expectations;
- development of HSE roadmaps in the GBUs and their respective sites;
- development of a safety mindset.

This plan requires that all business units and sites should establish a roadmap to allow prioritization and follow up of the implementation of safety good practices: safety days, systematical analysis of near misses, engagement of all managerial lines to safety, exemplarity and visibility, safety tours, involvement of the entire workforce in all improvement actions, recognition, personal objectives tied to leading indicators, etc.

#### Solvay life saving rules

As part of the safety excellence plan, Solvay designed a "Solvay Life Saving Rules" program to be deployed in 2015 on all sites. Eight rules have been defined which correspond to eight dangerous activities (work at height, on powered system, traffic, etc.). The Group expects to save lives by asking for strict compliance and full enforcement by everyone. A Group communication campaign with a specific visual identity deployed on various supports has been launched in December 2014.

### **Protecting health**

#### Group targets 2020:

- all occupational individual exposure profiles assessed, controlled and recorded following Solvay new industrial hygiene standards for all employees;
- health monitoring based on individual exposure profiles and recorded following Solvay standards for all employees.

Progress in 2012-2020 roadmap	2014	2013
Industrial hygiene: number of sites trained to new IH standards	33	4
Health monitoring: number of sites with health monitoring based on individual exposure profiles according to Solvay standard	40	40

Perimeter: Solvay financial perimeter plus additional sites under operational control.

# Industrial hygiene and health monitoring based on Group standards

The aim is that all Solvay employees should have their occupational exposure profile assessed, controlled and recorded following Solvay's industrial hygiene standards. These standards have been recently reviewed, requiring new training for hygienists on all concerned sites.

Concerning health monitoring, Solvay wants to ensure that individual medical examinations are based on individual exposure profiles. Solvay has to provide accurate information to the local contracted medical teams, to enable local external physicians to perform appropriate medical surveillance. The aim is that all employees requiring medical surveillance should be ultimately monitored on the basis of Solvay's recommendations, according to their individual exposure profiles, and that this monitoring should be documented in structured systems (Medexis OH2), enabling efficient data management.

### Industrial hygiene from the start of projects

In 2014, 25 new investment projects have taken advantage of a better anticipation of industrial hygiene aspects at the early stage of design.

### **Occupational diseases**

The Group continues to improve the prevention of occupational diseases and strives to avoid all dangerous exposures. In 2014, most reported long lasting occupational diseases found their origin in occupational exposures that took place in the past. It is in particular the case for cancers and hearing losses still reported, which clearly stem from long term exposure as well as several years' latency for cancer.

The profile of disease cases remains the same over the recent years: diseases are mainly asbestos-related and geographically nearly exclusively spread in Europe and France. Besides asbestos, noise and ergonomic factors remain source factors; in some cases chemicals (benzene, PAH from coal pitch, amine and silica) were identified as causal factors in the last six years.

#### Trends in health performance

Globally the number of occupational diseases has been slowly decreasing in the last few years (30 were reported in 2013). However in 2014, occupational cancers due to past exposure to asbestos have still led to fatalities. Seven cancers have also been recognized, always due to past exposures to asbestos. The number of recognized mesothelioma cases (a type of asbestos-related cancer) still remains unfortunately stable over years, due to the long period of latency of this pathology.

At the same time, there is a downward trend for benign asbestosrelated diseases as well as for the other carcinogenic pathology related to asbestos (reported in France). A dedicated program to remove asbestos materials when possible or strictly prevent exposures has been underway for many years within the Group.



### Prevention

Solvay's health experts are engaged in a five year roadmap started in 2012, aimed at further reinforcing the tools and programs sustaining health prevention.

The new tools, stemming from the best approaches developed during the last decade, make Solvay one of the best in class in industrial hygiene assessments. Assessing or reassessing all workstations is a seven years project to be completed by 2020. Priority was given in 2014 to 33 sites, belonging to all zones, accompanied by a training pack, explaining the new hygiene tool (CTES) aimed at screening all possible critical exposures at all workstations.

The Group is willing to reinforce *ad hoc* hygiene and medical monitoring especially for workers whose tasks result in well-identified particular health risks, and for whom a worldwide mapping is under way.

In 2014, to increase the awareness of the personnel to health issues, 72 sites have carried out specific awareness prevention campaigns.

### Focus: human biomonitoring program

In 2014, a particular focus has been put on the human biominitoring program, an approach enabling the assessment of internal (body) exposure by measurement of specific biomarkers in body fluids. This approach, promoted by national health authorities and agencies, and by CEFIC, is pioneered by Solvay to assess potential risk of health effects. Currently 37 Solvay plants take part in increasing it this program related to 36 chemicals.

#### Focus: Medexis 2

Medexis 2 (Group industrial hygiene module) is a tool to globally manage data on industrial hygiene performance. It was developed in 2014 in partnership with seven pilot sites in all geographical zones. Medexis 2 will provide an integrated tool in order:

- to help hygiene experts and all concerned in the day to day handling and reporting of industrial hygiene data;
- to ensure the deployment of relevant standards for chemicals so as to ensure long term prevention and health protection of the Solvay group employees.

### 3.2 Employee engagement and well-being

The Group's employees are decisive contributors to its on-going success. Keeping employee performance at a high level is a crucial prerequisite for the high degree of productivity that is necessary to sustainably and successfully develop our activities.

Experience shows that engagement is a main driver for employee performance. Solvay thinks that a key element to foster engagement is the regular dialogue between the managers of the Group and the employees. Such dialogue is essential with individuals and with employee representatives, where in place, and their organizations, where in place. It is part of Solvay culture. It is based on the conviction that together individuals are better prepared for economic, social and organizational changes. Solvay considers that maintaining trusting and constructive relations with employees and their representatives is the basis of such dialogue.

The Group commits to respect employees' fundamental human rights and to guarantee their social rights. These include the freedom of association and of collective bargaining, including the decision whether or not to form trade unions. Both elements are considered basic requirements for maintaining the necessary acceptance by employees and by society at large in order to deploy its activities.

The level of dialogue achieved by the Group is good, even at times innovative. However, Solvay strives to improve even further the level of its social dialogue, as the relationship with its employee representatives is considered to be crucial for its future development and for its acceptance in society at large. This topic and its level of maturity is part of the Solvay Way annual self-assessment.

### European Works Council (EWC):

A permanent dialogue on sustainability issues has been established for years between Solvay and its European Works Council (EWC). In 2014, the EWC met in plenary session for one week, the sustainable development EWC commission met twice and the EWC Secretariat met 10 times with senior Group management, allowing these representative bodies to be part of the evolution of the Group.

### Agreement with IndustriALL Global Union

On December 17, 2013, Solvay signed a CSR agreement with IndustriAll (an international global trade union federation created in 2012 out of three trade union federations in metallurgy, textile/garments/leatherworking, and chemicals/energy/mining (ICEM) and representing over 50 million workers in 140 countries).

This agreement commits Solvay to respect the ILO standards and the principles of the United Nations Global Compact. Each year, two assessments, one of which on safety issues, are carried out by IndustriALL Global Union representatives on a site to monitor correct application of the commitments at grassroots level. An annual review was presented to a multi-national body representing the Group's employees (European Works Council). IndustriALL Global Union agreement has been implemented in 2014, and the two first assessments took place, one in Bulgaria for the global safety panel, and the other one in India.



### **Employee representation Indicator**

Trade unions are present on a majority of Solvay sites around the world. Union membership is estimated at 20% in Europe, 30% in South America, 10% in North America and 30% in Asia.

Collective agreements are in the majority of cases extended to all employees even if not members of a union.

### V<sup>2014</sup> Coverage by collective agreement becomes 82.2% worldwide.

These data indicate that freedom of association is ensured within the Group and that its practical application provides mutually agreed conditions of work to our employees.

# 4 Business model and innovation

From a business perspective, Solvay sets itself the objective of progressively transforming its portfolio, notably by growing its revenue in sustainable solutions sought in the marketplace and therefore allocates the vast majority of its resources to even more sustainable developments (internal and external growths).

### Sustainable Porfolio Management (SPM)

In order to deliver this very ambitious vision, well-informed and balanced decisions need to be made regarding resource allocation and balancing the business portfolio. This is the raison d'être of the SPM (Sustainable Portfolio Management) methodology: systematically, robustly and rigorously developing the information that decision makers need when making their judgments, taking into account the sustainability megatrends that may positively or negatively affect Solvay's top and bottom lines.

### How the methodology works

The SPM methodology was designed in-house in 2009 and developed further with the support of two recognized consultancies, Arthur D. Little and TNO. It has been continuously improved since 2009 in order to make SPM evaluations at Product-Application Combinations (PACs) level more pertinent and reliable.

The operations vulnerability (vertical axis) indicator evaluates any potential financial risk posed by the "polluter pays for the damage" megatrend. The basic evaluation begins with a classic ecoprofile calculation (ISO 14040 to 44). The environmental impacts are monetized, summed up and evaluated against the average sales price for that product in that application (the intent is to reflect sustainable development issues and not short-term market prices effects).

The market alignment (horizontal axis) indicator addresses the sustainability megatrends in the marketplace *i.e.* do we anticipate double-digit growth for this product because it is an active part of the sustainable solution that the market, the consumers or the brand owners, demands.

The assessment is made at the Product-Application Combination (PAC) level, using a detailed and precise questionnaire and is supported by external authoritative evidences:

- Star: PAC for which there are no negative but positive signals, in line with sustainability trends in the marketplace, with anticipated double-digit growth;
- Aligned: PAC for which there are no negative but positive signals resulting from sustainability trends in the marketplace, without anticipated double-digit growth;
- Neutral: for which there are neither positive nor negative signals resulting from sustainability trends in the marketplace;
- Exposed: PAC for which there are weak negative signals resulting from sustainability trends in the marketplace;
- Challenged: PAC for which there are strong negative signals resulting from sustainability trends in the marketplace.

To be classified as "Star" or "Aligned", products must serve a use that demonstrates a direct, significant and measurable benefit to the market, impacting positively upon at least one of the sustainability benefits below. If a sustainability roadblock is identified, then the Product Application Combination will be classified as "Challenged" or "Exposed".

# **Financial & extra-financial information**

Essential living conditions	Living well		
Climate change	Medical care		
Energy efficiency	Chronic diseases		
Exposure to harmful and toxic substances	Limitation of the effects of aging		
Resource efficiency	Medical care at home		
Fresh water	Water & air quality		
Renewable materials	Safety & prevention		
Availability of food	Healthy nutrition		
Renewable energy	Healthy habits		
Biodegradability	Topical care		
Recyclability			
Waste treatment			
Minimizing use of scarce inputs			

Legend: List of the SPM benefits.

The above list has been set up by:

- identifying authoritative "think-tanks" on the subject: Rocky Mountain institute, World Watch Institute, WWF, Greenpeace, UNEP, Wuppertal Institute, WBCSD, International Institute for Sustainable Development, London School of Economics, Sierra Club, Öko Institut;
- comprehensively listing the sustainability topics that matter to them;
- selecting the topics for which a chemicals might be part of the solutions or the problems.

The list has continuously been improved over years to mirror the latest progresses in corporate social responsibility.

### **Closely embedded in key Group processes**

The SPM methodology is owned by the Corporate Sustainable Development Function and managed by a small team of experts. It thus serves as a strategic tool to develop the information that is required to anticipate the impacts of potential decisions on the sustainability profile of the Group:

- the SPM methodology is integrated into the Solvay Way framework and serves as a tool to measure maturity of organizations with regard to the integration of sustainability in business practices (three commitments and seven practices);
- the SPM profile is an integral part of the strategic discussions of each of the Global Business Units (GBUs) with the Executive Committee (Comex);
- decisions about investments (capital expenditure and acquisitions) taken by the Comex or the Board of Directors include a sustainability challenge that encompasses an exhaustive SPM analysis of the contemplated investment;
- the SPM work plan is discussed each year between each GBU and the Sustainable Development Function. Priorities and workloads are defined based on the results of the SPM evaluation of the previous year and including any new elements in the marketplace, regulations, etc. The evaluations are carefully prepared in close consultation with the Solvay Way Champion of the GBU and realized in workshops with GBU experts: strategy, industrial, product stewardship, marketing and technical services.

### Focus:

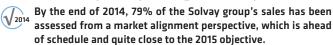
As an example: Adipic acid (the product) is a raw material used in the manufacturing of polyamide 6.6; Polyamide 6.6 is a lightweight product ultimately used to manufacture mechanically stressed parts under the hood of an automobile in its hot air induction system (the application), thus reducing the weight of the car and thereby increasing its energy efficiency.

### Validation of the SPM analysis

An in-depth verification of the "Market Alignment" results covering 144 Product-Applications Combinations (PACs) is currently carried out by Arthur D. Little. To date, 69 PACs evaluations were confirmed by Arthur D. Little, 2 PACs were not confirmed and Solvay endorsed Arthur D. Little score. 73 PACs are still in revision process.

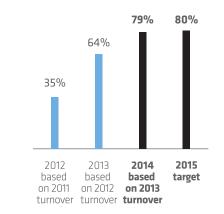
Until recently, Solvay kept the SPM methodology in-house. The Group now believes that there is significant value for other companies, in further improving the methodology through having it challenged by other companies, and in creating consistent benchmarks. Arthur D. Little is Solvay's partner in making the methodology available to interested parties.

### Assessment scope and planning - Product portfolio





### Sustainable Portfolio management



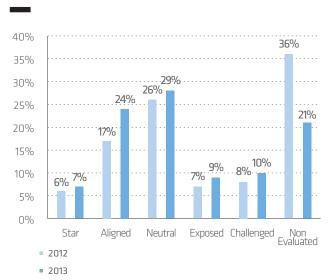
Legend: SPM penetration expressed as the ratio of the operational turnover assessed with the SPM methodology to the total operational turnover. Perimeter: SPM operational perimeter: entities are fully consolidated or proportionately

**Perimeter:** SPM operational perimeter: entities are fully consolidated or proportionately consolidated in the case Solvay isn't the sole owner.

### Assessment results per category – Product portfolio

### Solvay's targets 2020:

 to reach 20% of revenue with "Product-Application Combinations" in the "Star" category, i.e. in markets expected to experience double-digit growth for sustainability reasons.



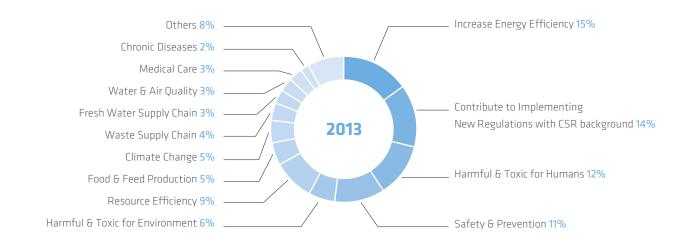
### Percentage of turnover per SPM category

**Perimeter:** Operational perimeter: entities are fully consolidated or proportionately consolidated in the case Solvay isn't the sole owner. **Legend:** Breakdown of the Benefits behind the Aligned and Star PACs.

The assessed portfolio encompasses 24% of Product-Application Combinations in the "Aligned" category and 7% in the "Star" one, both in progress compared to previous year. Together, this 31% (up from 8% vs. previous year) of revenue represents "Product-Application Combinations" matching stakeholders sustainability expectations.

The share of the sales in SPM Star category is continuously increasing and we feel confident of delivering the ambitious 2020 objective.

### Turnover Breakdown by Sustainability Benefit for Aligned and Star SPM Categories



Perimeter: SPM operational perimeter: entities are fully consolidated or proportionately consolidated in the case Solvay isn't the sole owner.



# 5 Leadership and governance

## 5.1 Management of the Legal, Ethics and Regulatory Framework

Management of the legal, ethics and regulatory framework has been identified as a high materiality issue in the complete revision of the materiality analysis performed in 2014. In the past, Solvay has been reporting on the cost of major litigations; work is going on to establish better developed indicators.

The cost of major litigation is developed in the Management of risks section on page 85 of the present report.

The Solvay Code of Conduct and other elements relating to compliance are developed in the Corporate Governance section on page 68 and seq. of the present report.

### 5.2 Process safety, emergency preparedness & response

### Group targets 2020:

 100% of our sites\* have a risk analysis for every production line updated in the last five years.

\* Solvay financial perimeter + all other operations under operational perimeter.

In addition to site-specific objectives, the Group overall 2020 targets aim at ensuring the integrity of operating systems and processes, by applying good design principles alongside best engineering and operating practice. It deals with the prevention and control of incidents, which have the potential to release hazardous materials or energy into the environment. The backbone of risk control is formed by regular risk analysis according to a new risk scale.

Solvay's policy aims to implement the Process Safety Management (PSM) system on sites according to the risks of their processes, and to cover all local requirements; and to perform consistent hazard identification and risk analysis for existing, new or modified installations using methods and procedures in line with Group standards.

### **Regular Risk analysis**

	2014
% of concerned production lines having a risk analysis updated in the last five years	65%
% level 1 risk situations solved within one year (Solvay red line)	100%

 $\mbox{Perimeter:}$  Solvay group manufacturing perimeter under operational control. The consolidated data for process safety risk analysis cover 112 sites over the total of 130 operational sites

75% of our sites have a dedicated PSM system adapted to each site's process risks. Solvay currently operates 70 sites with units classified as major risk installations.

Process safety is an essential and enduring element of the Group's sustainability, in terms of protection of people and the environment, and of business continuity for all sites concerned. Process safety ensures the integrity of operating systems and processes by applying good design principles alongside best engineering and operating practice. It deals with the prevention and control of incidents that have the potential to release hazardous materials or energy into the environment.

### Solving risk level 1 situations

Among the sites which performed risk analysis assessment, the Solvay new program, handling of "risk level 1" situations, is now fully under way. A key element of Solvay's new program now fully under way is the handling of "risk level 1" situations. This requirement has been fully fulfilled in 2014.

Risk scenario has been further characterized using the Group's standardized matrix (Levels 1, 2, 3).

There were 111 "risk level 1" situations at the end of 2012, all solved in 2013. There were 11 "risk level 1" situations at the end of 2013, all solved in 2014.

All risk level 1 situations have been handled and resolved within
 12 months (full compliance with the Solvay "red line")

At the end of 2014, 217 "Risk level 1" situations have been identified and have to be mitigated during 2015.

157 "Risk Level 1" situations on 217 are relating to one site in China.

Progress to the 2020 target that aims at ensuring that all sites have a risk analysis for every-production line updated in the last five years is at 65% at end 2014.

# Hydrogen peroxide plant in Curitiba distinguished for business loss prevention

This year, the Curitiba site (Brazil) has been distinguished as best in class for business loss prevention, with qualification for drastically reduced insurance costs. The award means that Curitiba implements the best industrial risk mitigation practices worldwide. Only 6% of the world's chemical plants are HPR certified. Within the Solvay group, Curitiba is just the third plant to reach that level, after Deer Park and West Deptford in the United States.

# 6 Social capital

### **Customer satisfaction**

Customer satisfaction materiality assessment is not uniform for all the Global Business Units in the Group: its importance at corporate level has been raised following the full materiality analysis review performed in 2014 because it was material for business units representing a substantial part of the Group's financial results.

Net Promoter Score has been selected as the relevant indicator for consolidation at group level. Some business units use it already and a first assessment has been performed at group level for the 100 largest customers, representing about a third of the group revenue.

This report includes results of customer satisfaction surveys pioneered by some business unit, and covers more than half of the Group's turnover.

Global Business Unit	Customer satisfaction indicator	2014	2013	2012	Comment
Acetow	Net promoter score* (NPS)	24 %	-	-	NPS measurement started in 2014.
	Overall satisfaction	83%	96%	94%	In 2014, in a short market, flexibility was limited.
Emerging Biochemicals	Net promoter score	48%	-	30% (2011)	Vinyls only.
Silica	Net promoter score	22%	-	9%	-
Novecare	"Overall satisfaction" and then move to "compare to competitor"	95% (Asia)	76% (North America, Europe and Latin America)	82% (North America)	Based on customers feedback, satisfaction surveys have been switched from annual frequency to a frequency of 18 months-2 years.
Specialty Polymers	Net promoter score	26%	22%	32%	The decrease in 2013 reflects the impact of a Force Majeure at Specialty Polymer's major production site in 2012.
Polyamide & Intermediates	Overall satisfaction (annual survey)	93.8%	92.5%	95%	Answer rate is around 40% worldwide.
Group level: 100 largest customers	Net promoter score	14%	-	-	NPS measurement started in 2014.

\* Net promoter score is a customer loyalty metric developed by (and a registered trademark of) Fred Reichheld, Bain & Company, and Satmetrix.



# **FINANCIAL STATEMENTS**

# **1** Consolidated financial statements

Solvay (the "Company") is a public limited liability company governed by Belgian law and quoted on Euronext Brussels, and Euronext Paris. The principal activities of the Company, its subsidiaries, joint operations, joint ventures and associates (jointly the "Group") are described in note 1 on segment information.

The consolidated financial statements were authorized for issue by the Board of Directors on February 25, 2015. They have been prepared in accordance with the IFRS accounting policies, which are described on the following pages.

#### General comment:

- Eco Services business was sold on December 1, 2014. Since 3<sup>rd</sup> quarter of 2014, Solvay restated its 2013 and 2014 income statement and statement of cash flows to reflect the discontinuation of the business;
- Dn January 1, 2014, the Group adopted IFRS 11 Joint Arrangements. The impact of the retrospective application on the 2013 comparative financial information is disclosed in IFRS main accounting policies, 1. Basis of preparation.

### **Income statement**

In € million	Notes	2014	2013
Sales	(1) (2)	10,629	10,150
Revenue from non-core activities		416	434
Net sales		10,213	9,715
Cost of goods sold		(8,070)	(7,844)
Gross margin		2,559	2,305
Commercial and administrative costs		(1,225)	(1,189)
Research and development costs		(247)	(238)
Other operating gains and losses	(5)	(94)	(83)
Earnings from associates and joint ventures	(6)	(34)	34
Non-recurring items	(7)	(308)	(239)
EBIT		652	591
Cost of borrowings	(8)	(151)	(190)
Interest on lendings and short term deposits	(8)	36	25
Other gains and losses on net indebtedness	(8)	(30)	(2)
Cost of discounting provisions	(8)	(163)	(87)
Income/loss from available-for-sale financial assets	(8)	(1)	40
Result before taxes		343	378
Income taxes	(9)	(84)	(170)
Result from continuing operations		259	209
Result from discontinued operations	(10)	(246)	106
Net income for the year	(11)	13	315
Non-controlling interests		67	(44)
Net income (Solvay share)		80	270
Basic earnings per share from continuing operations (in €)		3.32	1.98
Basic earnings per share from discontinued operations (in $€$ )		(2.36)	1.27
Basic earnings per share (in €)	(13)	0.96	3.25
Diluted earnings per share from continuing operations (in $\in$ )		3.30	1.96
Diluted earnings per share from discontinued operations (in $\in$ )		(2.34)	1.27
Diluted earnings per share (in €)	(13)	0.96	3.23
RATIOS			
Gross margin as a % of sales		24.1%	22.7%
Interest coverage ratio		6.6	5.0
Income taxes / Result before taxes (%)		24.5%	44.8%

Interest coverage ratio = (EBIT less non-recurring items) / Charges on net indebtedness. Explanatory notes can be found after the financial statements.

### NON IFRS METRICS

In € million	Notes	2014	2013
REBITDA	(3)	1,783	1,611
Adjusted net income	(12)	89	422

# Statement of comprehensive income

In € million	Notes	2014	2013
Net income for the year		13	315
Other comprehensive income			
Recyclable components			
Hyperinflation	(14)	(11)	30
Gains and losses on available-for-sale financial assets	(14)	1	(23)
Gains and losses on hedging instruments in a cash flow hedge	(14)	(60)	(9)
Currency translation differences	(14)	231	(356)
Non recyclable components			
Remeasurements of the net defined benefit liability	(14)	(497)	109
Income tax relating to recyclable and non recyclable components			
Income tax relating to components of other comprehensive income	(14)	72	(38)
Other comprehensive income, net of related tax effects		(264)	(287)
Comprehensive income for the year		(251)	28
attributed to:			
<ul> <li>owners of the parent</li> </ul>		(167)	25
non-controlling interests		(84)	3



# **Statement of cash flows**

The amounts below include the effect of the discontinued operations.

In € million	Notes	2014	2013
Net income		13	315
Adjustments to net income			
<ul> <li>Depreciation, amortization and impairments<sup>(1)</sup></li> </ul>	(15)	1,430	963
Earnings from associates and joint ventures accounted for using the equity method		34	(35)
Net financial charges and Income/ loss from available-for-sale investments		356	248
<ul> <li>Income taxes expense</li> </ul>	(16)	314	236
Changes in working capital	(17)	236	20
Changes in provisions	(18)	(213)	(245)
Dividends received from associates and joint ventures accounted for using equity method		19	44
Income taxes paid	(16)	(217)	(268)
Other	(19)	(351)	20
Cash flow from operating activities		1,621	1,299
Acquisition (-) of subsidiaries	(20)	(304)	(878)
Acquisition (-) of investments - Other	(20)	(107)	(103)
Loans to associates and non consolidated companies	(20)	5	4
Sale (+) of investments	(20)	721	44
Acquisition (-) of tangible assets	(20)	(923)	(797)
Acquisition (-) of intangible assets	(20)	(64)	(70)
Sale (+) of tangible and intangible assets	(20)	21	33
Dividend from available-for-sale financial assets		0	4
Changes in non-current financial assets		1	18
Cash flow from investing activities		(650)	(1,745)
Capital increase (+) / redemption (-)		0	0
Proceed from bond issuance classified as equity	(21)	0	1,191
Acquisition (-) / sale (+) of treasury shares	(24)	(41)	(1)
Increase in borrowings		151	130
Repayment of borrowings		(1,365)	(234)
Changes in other current financial assets		134	205
Interests paid		(234)	(201)
Hybrid Dividends paid		(41)	0
Dividends paid		(291)	(343)
Other	(22)	(3)	(61)
Cash flow from financing activities		(1,690)	686
Net change in cash and cash equivalents		(718)	240
Currency translation differences		21	(55)
Opening cash balance		1,972	1,787
Closing cash balance <sup>(2)</sup>	(36)	1,275	1,972
FREE CASH FLOW FROM CONTINUING OPERATIONS <sup>(3)</sup>		511	198
FREE CASH FLOW FROM DISCONTINUED OPERATIONS <sup>(3)</sup>		145	289
TOTAL FREE CASH FLOW		656	487

On tangible assets, intangible assets and goodwill.
 Including cash in assets held for sale (€ 24 million in 2014 and € 11 million in 2013).
 Free Cash Flow = Cash flow from operating activities (including dividends from associates and joint ventures) + cash flow from investing activities (excluding acquisitions and disposals of subsidiaries and other investments and excluding loans to associates and non-consolidated entities).
 Explanatory notes can be found after the financial statements.



# Cash flows from discontinued operations

In € million	Notes	2014	2013
Cash flow from operating activities		272	423
Cash flow from investing activities		(127)	(133)
Cash flow from financing activities		(21)	(23)
NET CHANGE IN CASH AND CASH EQUIVALENTS	(23)	124	268

# **Statement of financial position**

In € million	Notes	2014	2013
ASSETS			
Non-current assets		11,529	11,217
Intangible assets	(25)	1,543	1,621
Goodwill	(26)	3,151	3,096
Tangible assets	(27)	5,386	5,015
Available-for-sale financial assets	(29)	43	38
Investments in associates and joint ventures	(30)	380	582
Other investments	(31)	121	114
Deferred tax assets	(9)	710	501
Loans and other non-current assets	(37)	194	251
Current assets		6,365	7,306
Inventories	(32)	1,420	1,300
Trade receivables	(37)	1,418	1,331
Income tax receivables		52	38
Other current receivables - Financial instruments	(37)	309	481
Other current receivables - Other	(33)	500	572
Cash and cash equivalents	(36)	1,251	1,961
Assets held for sale	(34)	1,414	1,621
Total assets		17,894	18,523
EQUITY & LIABILITIES			
Total equity		6,778	7,453
Share capital		1,271	1,271
Reserves		5,293	5,804
Non-controlling interests		214	378
Non-current liabilities		6,088	6,927
Long-term provisions: employee benefits	(35)	3,166	2,685
Other long-term provisions	(35)	854	793
Deferred tax liabilities	(9)	378	473
Long-term financial debt	(36)	1,485	2,809
Other non-current liabilities		204	166
Current liabilities		5,029	4,144
Other short-term provisions	(35)	308	342
Short-term financial debt	(36)	853	775
Trade liabilities	(37)	1,461	1,340
Income tax payable		355	21
Dividends payable		114	113
Other current liabilities	(38)	776	604
Liabilities associated with assets held for sale	(34)	1,162	949
Total equity & liabilities		17,894	18,523
RATIOS			
Net debt to equity ratio		11.5%	15.3%

Net debt to equity ratio = net debt / total equity. Net debt = short and long-term financial debt less cash and cash equivalents and other current receivables - Financial instruments. Explanatory notes can be found after the financial statements.



# Statement of changes in equity

	Equity attributable to equity holders of the parent								_			
	Share	Issue	Treasury	Hybrid		Currency translation	Available- for-sale	i reserve (Fai Cash flow	ir value) Defined benefit pension		Non- controlling	Total
In € million	capital	premiums	shares	Bonds	earnings	differences	assets	hedges	plan	Total	interests	equity
Balance at December 31, 2012	1,271	18	(160)		5,997	(453)	17	15	(575)	4,860	443	6,574
Net profit for the period					270					270	44	315
Items of other comprehensive income <sup>(1)</sup>					20	(315)	(23)	(9)	81	(245)	(41)	(287)
Comprehensive income					291	(315)	(23)	(9)	81	25	3	28
Hybrid Bonds <sup>(2)</sup>				1,194						1,194		1,194
Cost of stock options					10					10		10
Dividends					(276)					(276)	(76)	(352)
Acquisitions/sale of treasury shares			28		(29)					(1)		(1)
Increase (decrease) through changes in ownership interests in subsidiaries that do not result in loss of control					(8)					(8)	8	
Balance at December 31, 2013	1,271	18	(132)	1,194	5,985	(768)	(6)	6	(494)	5,804	378	7,453
Net profit for the period					80					80	(67)	13
ltems of other comprehensive income <sup>(1)</sup>					(9)	241	1	(49)	(433)	(249)	(17)	(266)
Comprehensive income					71	241	1	(49)	(433)	(169)	(84)	(252)
Hybrid Bonds <sup>(2)</sup>												
Cost of stock options					11					11		11
Dividends					(266)					(266)	(26)	(292)
Hybrid bonds dividends					(42)					(42)		(42)
Acquisitions/sale of treasury shares			(39)		(2)					(41)		(41)
Increase (decrease) through changes in ownership interests in subsidiaries that do not result in loss of control <sup>(3)</sup>					(7)					(7)	(54)	(61)
Balance at December 31, 2014	1,271	18	(171)	1,194	5,753	(527)	(4)	(43)	(927)	5,293	214	6,778

Impact on retained earnings following the application of IAS 29, resulting mainly from the restatement of non-monetary assets (as property, plant and equipment) to reflect current purchasing power as at year end using a general price index from the date when they were first recognized.
 Following the acquisition of Chemlogics and to strengthens Solvay's capital structure, a hybrid bond has been issued for a worth of € 1.2 billion. This bond qualifies as Equity Instrument

as IAS 32 criteria are fulfilled.

(3) Of which a reclassification of NCI (€ 52 million) to non current liabilities that reflects the re-purchase obligation towards non controlling interest (EBRD initial investment in pre-operational RusVinyI) existing since 2011. The related impact of this is immaterial on the debt to equity ratio, and does not affect Solvay's other key performance indicators (*i.e.* Group net sales, REBITDA, EBIT, net result, net result Group share, Free Cash Flow).

# 2 Notes to the consolidated financial statements

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# **IFRS main accounting policies**

The main accounting policies used in preparing these consolidated financial statements are set out below:

# 1 Basis of preparation

This information was prepared in accordance with European Regulation (EC) 1606/2002 on international accounting standards (IFRS) dated July 19, 2002. The Group's consolidated financial statements for the year ended December 31, 2014 were prepared in accordance with IFRS (International Financial Reporting Standards) as published by the International Accounting Standards Board (IASB), and endorsed by the European Union.

The accounting standards applied in the consolidated financial statements for the year ended December 31, 2014 are consistent with those used to prepare the consolidated financial statements for the year ended December 31, 2013, except for those described in section A below.

# Standards, interpretations and amendments applicable as from 2014

- IFRS 10 Consolidated Financial Statements. This standard prescribes a new definition of control. Such did not lead to a change in scope of fully consolidated entities for the Solvay group;
- IFRS 11 Joint Arrangements. This standard supersedes IAS 31 Interests in Joint Ventures and prescribes that a joint arrangement (i.e. an arrangement under which Solvay has joint control together with one or several other parties) can either be classified as a joint venture or as a joint operation. In the latter case, Solvay has direct rights to the assets, and obligations for the liabilities, relating to the joint arrangement. Accordingly, Solvay's interests in joint operations are treated under a method similar to the proportionate consolidation, whereas the equity method was applied under IAS 31 to jointly controlled entities. In absence of clear guidance by IFRS 11 about the proportion of recognition relative to the assets, liabilities, revenues and expenses of a joint operation, especially when the parties' rights to the assets and obligations for the liabilities differ from their respective ownership interest in the joint operation, Solvay's accounting policy takes into account the ownership interest of the joint operation. The initial application of IFRS 11 affected the accounting treatment of the following joint arrangements classified as joint operations:
  - BASF Interox H<sub>2</sub>O<sub>2</sub> Production NV;
  - Deven AD;
  - MTP HPJV C.V.;
  - MTP HPJV Management B.V.;
  - MTP HPJV (Thailand) Ltd.;
  - Saudi Hydrogen Peroxyde Co.;
  - Solvay Sisecam Holding AG;
  - Solvay Sodi AD.

The impacts resulting from the retrospective application of the new standard on the 2013 financial statements are as follows:

Income statement:

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- Net sales: increase of € 65 million;
- REBITDA: increase of € 41 million;
- Net result: no impact.
- Statement of Cash Flows:
- Capex: increase of € 57 million;
- Free Cash Flow: decrease of € 37 million.
- Statement of Financial Position:
  - Equity: no impact;
  - Net debt: increase of € 40 million.
- IFRS 12 Disclosures of Interests in Other Entities. This standard impacts disclosures, as presented in the notes hereafter (mainly notes 42 to 44);
- Standards, interpretations and amendments applicable as from 2014, which do not have a material impact on the Group's consolidated financial statements for the year ended December 31, 2014:
  - IAS 27 Separate Financial Statements;
  - IAS 28 Investments in Associates and Joint Ventures;
  - Amendments to IFRS 10, IFRS 12 and IAS 27 Consolidated Financial Statements and Disclosure of Interests in Other Entities: Investment Entities;
  - Amendments to IFRS 10, IFRS 11 and IFRS 12 Consolidated Financial Statements, Joint Arrangements and Disclosure of Interest in Other Entities: Transition Guidance;
  - Amendments to IAS 32 Financial Instruments: Presentation Offsetting Financial Assets and Financial Liabilities;
  - Amendments to IAS 36 Impairment of Assets Recoverable Amount Disclosures for Non-Financial Asset;
  - Amendments to IAS 39 Financial Instruments: Recognition and Measurement - Novation of Derivatives and Continuation of Hedge Accounting.

# Standards, interpretations and amendments applicable in 2015

- IFRIC 21 Levies;
- Improvements to IFRS (2011-2013 cycle) (applicable for annual periods beginning on or after January 1, 2015).

The above are not expected to have a material impact on the Group's consolidated financial statements.

# Standards, interpretations and amendments applicable after 2015

- Amendments to IAS 19 Defined Benefit Plans: Employee Contributions (applicable for annual periods beginning on or after February 1, 2015).
- Improvements to IFRS (2010-2012 cycle) (applicable for annual periods beginning on or after February 1, 2015).
- Improvements to IFRS (2012-2014 cycle) (applicable for annual periods beginning on or after January 1, 2016, not yet endorsed in EU).
- IFRS 9 Financial Instruments (applicable for annual periods beginning on or after January 1, 2018, not yet endorsed in EU).
- IFRS 14 Regulatory Deferral Accounts (applicable for annual periods beginning on or after January 1, 2016, not yet endorsed in EU).
- IFRS 15 Revenue from Contracts with Customers (applicable for annual periods beginning on or after January 1, 2017, not yet endorsed in EU).
- Amendments to IFRS 10 and IAS 28 Sale or Contribution of Assets between an Investor and its Associate or Joint Venture (applicable for annual periods beginning on or after January 1, 2016, not yet endorsed in EU).
- Amendments to IFRS 11 Accounting for Acquisitions of Interests in Joint Operations (applicable for annual periods beginning on or after January 1, 2016, not yet endorsed in EU).
- Amendments to IAS 16 and IAS 38 Clarification of Acceptable Methods of Depreciation and Amortisation (applicable for annual periods beginning on or after January 1, 2016, not yet endorsed in EU).
- Amendments to IAS 16 and IAS 41 Agriculture: Bearer Plants (applicable for annual periods beginning on or after January 1, 2016, not yet endorsed in EU).
- Amendments to IAS 27 Equity Method in Separate Financial Statements (applicable for annual periods beginning on or after January 1, 2016, not yet endorsed in EU).
- Amendments to IFRS 10, IFRS 12 and IAS 28 Investment Entities: Applying the Consolidation Exception (applicable for annual periods beginning on or after January 1, 2016, not yet endorsed in EU).
- Amendments to IAS 1 Disclosure Initiative (applicable for annual periods beginning on or after January 1, 2016, not yet endorsed in EU).

The impact from the application of those standards, interpretations and amendments is currently being assessed.

# 2 Basis of measurement and presentation

The consolidated financial statements are presented in millions of euros, which is also the functional currency of the parent company. The Group's consolidated financial statements were prepared on a historical cost basis, except for financial instruments, which are accounted for in accordance with the categories of financial instruments as defined in IAS 39 *Financial Instruments: Recognition and Measurement.* 

The preparation of the financial statements requires the use of estimates and assumptions that have an impact on the application of accounting policies and the measurement of amounts recognized in the financial statements. The areas for which the estimates and assumptions are material with respect to the consolidated financial statements are presented in the section related to *Critical accounting judgments and key sources of estimation uncertainty*.

### **3** Principles of consolidation

The consolidated financial statements incorporate the financial statements of the Company, and:

- entities controlled by the Group (its subsidiaries). Control is achieved when the Company (a) has power over an investee, (b) exposure, or rights, to variable returns from its involvement with the investee, and (c) the ability to use its power over the investee to affect the amount of the investor's returns. To assess whether the Group has control, potential voting rights are taken into consideration. Subsidiaries are fully consolidated. The results of subsidiaries acquired or disposed of during the year are included in the consolidated income statement from the effective date of acquisition and up to the effective date of disposal, as appropriate;
- arrangements over which the Group exercises joint control, and that qualify as joint operations (see *IFRS main accounting policies – 6*. *Interests in joint operations*);
- arrangements over which the Group exercises joint control, and that qualify as joint ventures (see IFRS main accounting policies – 5. Investments in associates and joint ventures);
- entities over which the Group has significant influence (see IFRS main accounting policies – 5. Investments in associates and joint ventures).

Where necessary, adjustments are made to the financial statements of subsidiaries so to align their accounting policies with those of the Group.

All intra-group transactions, balances, income and expenses are eliminated on consolidation.

Non-controlling interests in subsidiaries are presented separately from the Group's equity. Non-controlling interests are initially measured, either at fair value (full goodwill method), or at the non-controlling interest's proportionate share in the recognised amounts of the acquiree's identifiable net assets (proportionate goodwill method). The choice of measurement is made on an acquisition-by-acquisition basis. Subsequent to acquisition, the carrying amount of non-controlling interests is the amount of those interests at initial recognition plus the non-controlling interests' share of subsequent changes in equity. Total comprehensive income is attributed to non-controlling interests even if this results in the non-controlling interests having a deficit balance.

Changes in the Group's equity interest in a subsidiary that do not result in a loss of control are accounted for as equity transactions. The carrying amounts of the Group's interests and the non-controlling interests are adjusted to reflect the changes in their relative interests in the subsidiary. Any difference between the amount by which the noncontrolling interests are adjusted and the fair value of the consideration paid or received is recognized directly in equity.

When the Group loses control of a subsidiary, the profit or loss on disposal is calculated as the difference between (i) the aggregate of the fair value of the consideration received and the fair value of any retained interest, and (ii) the previous carrying amount of the assets (including goodwill) and liabilities of the subsidiary and any non-controlling interests. Amounts previously recognized in other comprehensive income in relation to the subsidiary are accounted for (i.e. reclassified to profit or loss or transferred directly to retained earnings) in the same manner as would be required if the relevant assets or liabilities were disposed of. The fair value of any investment retained in the former subsidiary at the date when control is lost is considered to be the fair value on initial recognition for subsequent accounting in accordance with IAS 39 Financial Instruments: Recognition and Measurement or, when applicable, the cost on initial recognition of an investment in an associate or jointly controlled entity in accordance with IAS 28 Investments in Associates and Joint Ventures.



### 4 **Business combinations**

Acquisitions of subsidiaries are accounted for using the acquisition method. The consideration for each acquisition is measured at the aggregate of the fair values (at the date of acquisition) of assets transferred and liabilities incurred or assumed, and equity instruments issued by the Group in exchange for control of the acquiree. Acquisition-related costs are recognized in profit or loss as incurred.

Where applicable, the consideration for the acquisition includes any asset or liability resulting from a contingent consideration arrangement, measured at its acquisition-date fair value. Subsequent changes in such fair values are adjusted against the cost of acquisition where they qualify as measurement period adjustments (see below). All other subsequent changes in the fair value of contingent consideration classified as an asset or liability are accounted for in accordance with relevant IFRSs. Changes in the fair value of contingent consideration classified as equity are not recognized.

Where a business combination is achieved in stages, the Group's previously held interests in the acquired entity are remeasured to fair value at the acquisition date (*i.e.* the date the Group attains control) and the resulting gain or loss, if any, is recognized in profit or loss. Amounts arising from interests in the acquiree prior to the acquisition date that have previously been recognized in other comprehensive income are reclassified to profit or loss, where such treatment would be appropriate if that interest were disposed of.

The acquiree's identifiable assets, liabilities and contingent liabilities that meet the conditions for recognition under IFRS 3 *Business Combinations* are recognized at their fair value at the acquisition date, except that:

- deferred tax assets or liabilities, and liabilities or assets related to employee benefit arrangements are recognized and measured in accordance with IAS 12 *Income Taxes*, and IAS 19 *Employee Benefits*, respectively;
- liabilities or equity instruments related to the replacement by the Group of an acquiree's share-based payment awards are measured in accordance with IFRS 2 Share-based Payment; and
- assets (or disposal groups) that are classified as held for sale in accordance with IFRS 5 Non-current Assets Held for Sale and Discontinued Operations are measured in accordance with that Standard.

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, the Group reports provisional amounts for the items for which the accounting is incomplete. Those provisional amounts are adjusted during the measurement period (see paragraph below), or additional assets or liabilities are recognized, to reflect new information obtained about facts and circumstances that existed as of the acquisition date that, if known, would have affected the amounts recognized as of that date.

The measurement period is the period from the date of acquisition to the date the Group obtains complete information about facts and circumstances that existed as of the acquisition date, and does not exceed twelve months.

### 5 Investments in associates and joint ventures

An associate is an entity over which the Group has significant influence and that is neither a subsidiary, nor an interest in a joint arrangement. Significant influence is the power to participate in the financial and operating policy decisions of the investee but is not control or joint control over those policies.

A joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the arrangement. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about relevant activities require the unanimous consent of the parties sharing control.

The results, assets and liabilities of associates and joint ventures are incorporated in these financial statements using the equity method of accounting, except when the investment is classified as held for sale, in which case it is accounted for in accordance with IFRS 5 Noncurrent Assets Held for Sale and Discontinued Operations. Under the equity method, on initial recognition, investments in associates and joint ventures are recognized in the statement of financial position at cost, and the carrying amount is adjusted for post-acquisition changes in the Group's share of the net assets of the associate or joint venture, less any impairment in the value of individual investments. Losses of an associate or joint venture in excess of the Group's interest in that associate or joint venture (which includes any long-term interests that. in substance, form part of the Group's net investment in the associate or joint venture) are recognized only to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the associate or joint venture.

Any excess of the cost of acquisition over the Group's share of the net fair value of the identifiable assets and liabilities and contingent liabilities of the associate or joint venture recognized at the date of acquisition, is goodwill. The goodwill is included within the carrying amount of the investment and is assessed for impairment as part of that investment. Any excess of the Group's share of the net fair value of the identifiable assets, liabilities and contingent liabilities over the cost of acquisition, after reassessment, is recognized in profit or loss in the period in which the investment is acquired.

Where a group entity transacts with an associate or joint venture of the Group, profits and losses are eliminated to the extent of the Group's interest in the relevant associate or joint venture.

# 6 Interests in joint operations

A joint operation is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the assets, and obligations for the liabilities, relating to the arrangement. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about relevant activities require the unanimous consent of the parties sharing control. In its consolidated financial statements, the Group recognizes its share of the joint operations' assets, liabilities, revenue and expenses, based on its ownership interest in the joint operation.



# 7 Goodwill

Goodwill arising in a business combination is recognized as an asset at the date that control is obtained (the acquisition date). Goodwill is measured as the excess of the sum of:

- (a) the consideration transferred;
- (b) the amount of any non-controlling interests in the acquiree; and
- (c) in a business combination achieved in stages, the acquisition date fair value of the previously held equity interest in the acquiree;

over the share acquired by the Group in the fair value of the entity's identifiable net assets at the acquisition date.

The consideration transferred corresponds to the sum of the fair values of the assets transferred and liabilities incurred by the acquirer to former owners of the acquiree and the equity interests issued by the acquirer.

Goodwill is not amortized but is tested for impairment on an annual basis, and more frequently if there are any impairment triggers identified.

For the purpose of impairment testing, goodwill is allocated to each of the Group's cash-generating units (or groups of cash-generating units) in accordance with IAS 36 *Impairment of Assets*.

A cash-generating unit is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other group(s) of assets.

These tests consist of comparing the carrying amount of the assets or (groups of) cash-generating units with their recoverable amount. The recoverable amount of an asset or a (group of) cash-generating unit(s) is the higher of its fair value less costs to sell and its value in use. If the recoverable amount of the cash-generating unit is less than its carrying amount, the impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to the unit and then to the other assets of the unit pro-rata on the basis of the carrying amount of each asset in the unit. An impairment loss recognized for goodwill is not reversed in a subsequent period.

On disposal of an operation within a cash-generating unit to which goodwill has been allocated, the goodwill associated with the operation disposed of is included in the determination of the profit or loss on disposal. It is measured on the basis of the relative values of the operation disposed of and the portion of the cash-generating unit retained, unless another method better reflects the goodwill associated with the operation disposed of.

# 8 Foreign currencies

The individual financial statements of each Group entity are prepared in the currency of the primary economic environment in which the entity operates (its functional currency). For the purpose of the consolidated financial statements, the results and financial position of each Group entity are expressed in euros (EUR), which is the functional currency of the Company and the presentation currency of the consolidated financial statements.

In preparing the financial statements of the individual entities, transactions in currencies other than the entity's functional currency are recognized at the rates of exchange prevailing at the dates of the

transactions. At the end of each reporting period, monetary items denominated in foreign currencies are retranslated at the closing rate.

Non monetary items carried at fair value that are denominated in foreign currencies are retranslated at the closing rate when the fair value was determined. Non-monetary items that are measured in terms of historical cost in a foreign currency are not retranslated.

Exchange differences are recognized in profit or loss in the period in which they arise except for:

- exchange differences on foreign currency borrowings relating to assets under construction for future productive use, which are included in the cost of those assets when they are regarded as an adjustment to interest costs on those foreign currency borrowings;
- exchange differences on transactions entered into in order to hedge certain foreign currency risks (see *IFRS main accounting policies – 23. Hedge accounting* below for hedge accounting policies); and
- exchange differences on monetary items receivable from or payable to a foreign operation for which settlement is neither planned nor likely to occur in the foreseeable future (therefore forming part of the net investment in the foreign operation), which are recognized initially in other comprehensive income under "currency translation differences".

For the purpose of presenting consolidated financial statements, the assets and liabilities of the Group's foreign operations are expressed in euros using closing rates. Income and expense items are translated at the average exchange rates for the period except when the impact of applying the average rate is materially different from applying the spot rate at the respective transactions date, in which case the latter is applied. Exchange differences arising, if any, are recognized in other comprehensive income and accumulated in a separate component of equity (attributed to non-controlling interests as appropriate) under "currency translation differences".

Currency translation differences are reclassified from equity to profit or loss, on:

- a disposal of the Group's entire interest in a foreign operation, or a partial disposal involving loss of control over a subsidiary that includes a foreign operation. In this case, all of the accumulated exchange differences in respect of that operation attributable to the Group are reclassified to profit or loss. Any exchange differences that have previously been attributed to non-controlling interests are derecognized, but they are not reclassified to profit or loss;
- a partial disposal of an interest in a joint arrangement or an associate that includes a foreign operation, when the retained interest is a financial asset. In this case, the proportionate share of the accumulated exchange differences is reclassified to profit or loss.

In the case of a partial disposal of a subsidiary (*i.e.* no loss of control) that includes a foreign operation, the proportionate share of accumulated exchange differences is reattributed to non-controlling interests and is not recognized in profit or loss.

Goodwill and fair value adjustments arising on the acquisition of a foreign operation are treated as assets and liabilities of the foreign operation and translated into the reporting currency at the closing spot rate.



The main exchange rates used are:

		Year-end rate		Average rate	
		2014	2013	2014	2013
1 euro =					
Argentine peso	ARS	10.3879	8.9834	10.7730	7.2770
Brazilian real	BRL	3.2207	3.2576	3.1211	2.8674
Chinese yuan renminbi	CNY	7.5358	8.3491	8.1876	8.1645
British pound sterling	GBP	0.7789	0.8337	0.8062	0.8493
Japanese yen	JPY	145.2300	144.7200	140.3130	129.6464
Russian ruble	RUB	72.3370	45.3246	50.9460	42.3283
Thai baht	THB	39.9100	45.1780	43.1534	40.8222
US dollar	USD	1.2141	1.3791	1.3287	1.3280
Venezuelan bolivar fuerte	VEF	7.6526	8.6789	8.3740	8.0595

### 9 Provisions for retirement obligations and other long-term employee benefits

The Group's employees are offered various post-employment and other long term employee benefits as a result of legislation applicable in certain countries, contractual agreements entered into by the Group with its employees or constructive obligations.

The post-employment benefits are classified as defined benefit, or defined contribution plans.

### **Defined contribution plans**

Defined contribution plans involve the payment of fixed contributions to a separate entity, and releasing the employer from any subsequent obligation, as this separate entity is solely responsible for paying the amounts due to the employee. Once the contributions have been paid, no liability is recognized in the consolidated financial statements. The contributions are recognized in employee benefit expense when they are due.

### **Defined benefit plans**

Defined benefit plans concern all plans other than defined contribution plans, and include:

- retirement benefits: pension plans, termination benefits, other retirement obligations and supplemental benefits;
- other long-term employee benefits: long-service benefits granted to employees according to their seniority in the Group;
- other post-employment benefits: medical care.

Taking into account projected final salaries on an individual basis, postemployment benefits are measured by applying a method (projected unit credit method) using assumptions involving the discount rate, life expectancy, turnover, wages, annuity revaluation, medical cost inflation and discounting of sums payable. The assumptions specific to each plan take into account the local economic and demographic contexts.

The discount rates are interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating to the terms of the related pension obligation.

The amount recorded under post-employment obligations corresponds to the difference between the present value of future obligations and the fair value of the plan assets intended to fund them. If this calculation gives rise to a deficit, an obligation is recognized in liabilities. Otherwise, a net asset limited to the lower of the surplus in the defined benefit plan and the present value of any future plan refunds or any reduction in future contributions to the plan is recognized.

The defined benefit cost consists of service cost and net interest (based on discount rate) on the net liability or asset, both recognized in profit or loss, and remeasurements of the net liability or asset, recognized in other comprehensive income.

Service cost consists of current service cost, past service cost resulting from plan amendments or curtailments and settlement gains or losses.

The interest expenses arising from the reverse discounting of the benefit obligations, the financial income on plan assets (determined by multiplying the fair value of the plan assets by the discount rate) as well as interest on the effect of the asset ceiling are recognized on a net basis in profit or loss from financial items.

Remeasurements of the net liability or asset consist of:

- actuarial gains and losses on the benefit obligations arising from experience adjustments and/or changes in actuarial assumptions (including the effect of changes in the discount rate);
- the return on plan assets (excluding amounts in net interest) and changes in the limitation of the net asset recognized (excluding amounts in the net interest).

Other long-term benefits such as long service awards are accounted for in the same way as post-employment benefits but remeasurements are fully recognized in profit or loss from financial items during the period in which they occur.

The actuarial calculations of post-employment obligations and other long-term benefits are performed by independent actuaries.

### 10 Non-recurring items

Non-recurring items mainly include:

- gains and losses on the sale of subsidiaries, joint operations, joint ventures, and associates that do not qualify as discontinued operations;
- acquisition costs of new businesses;
- gains and losses on the sale of real estate not directly linked to an operating activity;
- major restructuring charges;
- impairment losses resulting from the shutdown of an activity or a plant;
- impairment losses resulting from testing CGUs for impairment (a CGU includes tangible assets, intangible assets and allocated goodwill, if any);
- the impact of significant litigation;
- the remediation costs not generated by on-going production facilities (shut-down of sites, discontinued activities, previous years pollution).

### **11** Income taxes

### **Current tax**

The current tax payable is based on taxable profit for the year. Taxable profit differs from profit as reported in the consolidated income statement because of items of income or expense that are taxable or deductible in other years and items that are never taxable or deductible. The Group's liability for current tax is calculated using tax rates that have been enacted or substantively enacted by the end of the reporting period.

### **Deferred tax**

Deferred tax is recognized for temporary differences between the carrying amounts of assets and liabilities in the financial statements and their corresponding tax bases used in the computation of taxable profit.

Deferred taxes are calculated by tax entity. Deferred tax liabilities generally are recognized for all taxable temporary differences.

Deferred tax assets generally are recognized for all deductible temporary differences to the extent that it is probable that taxable profits will be available against which those deductible temporary differences can be utilized.

The following items do not give rise to the recognition of deferred tax:

- deferred tax liabilities following the initial recognition of goodwill;
- the initial recognition of an asset or liability in a transaction which is not a business combination and affects neither accounting profit nor taxable profit.

In addition, deferred tax liabilities are recognized for taxable temporary differences associated with investments in subsidiaries, joint operations, joint ventures, and associates, except where the Group is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax assets arising from deductible temporary differences associated with such investments and interests are only recognized to the extent that it is probable that there will be sufficient taxable profits against which to utilize the benefits of the temporary differences and they are expected to reverse in the foreseeable future.

The carrying amount of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the period in which the liability is settled or the asset is realized, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period. The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the manner in which the Group expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities and when they relate to income taxes levied by the same taxation authority and the Group intends to settle its current tax assets and liabilities on a net basis.

### Current and deferred tax for the period

Current and deferred tax are recognized as an expense or income in profit or loss, except when they relate to items that are recognized outside profit or loss (whether in other comprehensive income or directly in equity), in which case the tax is also recognized outside profit or loss, or when they arise from the initial accounting for a business combination. In the case of a business combination, the tax effect is taken into account in the accounting for the business combination.



## 12 Leases

Leases are classified as finance leases whenever the terms of the lease transfer substantially all the risks and rewards incidental to ownership. All other leases are classified as operating leases.

Agreements not in the legal form of a lease contract are analyzed in accordance with IFRIC 4 *Determining whether an Arrangement contains a Lease* to determine whether or not they contain a leasing contract to be accounted for in accordance with IAS 17 *Leases*.

### Finance leases – lessee

Assets held under finance leases are initially recognized as assets of the Group at their fair value at the inception of the lease or, if lower, at the present value of the minimum lease payments. The corresponding liability to the lessor is included in the statement of financial position as a finance lease obligation.

Assets held under finance leases are depreciated over their expected useful lives on the same basis as owned assets or, where shorter, the term of the lease.

Lease payments are apportioned between finance expenses and reduction of the lease obligation so as to produce a constant periodic rate of interest on the remaining balance of the liability. Finance expenses are recognized immediately in profit or loss, unless they are directly attributable to qualifying assets, in which case they are capitalized in accordance with the Group's general policy on borrowing costs (see *IFRS main accounting policies – 17. Capitalized borrowing costs*). Contingent rentals arising under finance leases are recognized as expenses in the periods in which they are incurred.

### **Operating leases – lessee**

Operating lease payments are recognized as an expense on a straightline basis over the lease term, except where another systematic basis is more representative of the time pattern in which economic benefits from the leased asset are consumed. Contingent rentals arising under operating leases are recognized as an expense in the period in which they are incurred.

In the event that lease incentives are received to enter into operating leases, such incentives are recognized as a liability. The aggregate benefit of incentives is recognized as a reduction of rental expense on a straight-line basis, except where another systematic basis is more representative of the time pattern in which economic benefits from the leased asset are consumed.

# 13 Intangible assets

Intangible assets acquired separately or internally developed are initially measured at cost.

After initial recognition, intangible assets are measured at cost less accumulated amortization and accumulated impairment losses, if any.

Subsequent expenditure on intangible assets is capitalized only if it is probable that it will increase the future economic benefits associated with the specific asset. Other expenditure is expensed as incurred.

Intangible assets are amortized on a straight-line basis over their estimated useful lives. The amortization period and method are reviewed at each financial year-end. A change in the useful life of an intangible asset is accounted for prospectively as a change in estimate.

Patents and trademarks	2-20 years
Software	3-5 years
Development expenditures	2-5 years
Other intangible assets	5-20 years

### Licenses, patents and similar rights

Expenditure on acquired licenses, patents, trademarks and similar rights is capitalized and amortized on a straight-line basis over the shorter of the contractual period, if any, and the estimated useful life, which is normally considered not to exceed 20 years.

### **Research and Development costs**

Research costs are expensed in the period in which they are incurred.

Development costs are capitalized if, and only if all the following conditions are fulfilled:

- the cost of the asset can be reliably measured;
- the technical feasibility of the product has been demonstrated;
- the product or process will be placed on the market or used internally;
- the assets will generate future economic benefits (a potential market exists for the product or, where it is to be used internally, its future utility is demonstrated);
- the technical, financial and other resources required to complete the project are available.

The capitalized development costs are amortized on a straight-line basis over their useful lives.

Capitalized expenditure comprises employee expenses, the cost of materials and services directly attributable to the projects, and an appropriate share of directly attributable fixed costs including, and where applicable, borrowing costs. It is amortized as from the moment the relevant products are sold or the relevant industrial processes are used over the estimated term of the economic benefits expected to flow from the project. The expenditure is tested for impairment if there is trigger for impairment, and annually for projects under development (see *IFRS main accounting policies – 16. Impairment of tangible and intangible assets excluding goodwill*).

Development expenditure which does not satisfy the above conditions is expensed as incurred.

### Other intangible assets

Other intangible assets mainly include customer lists and other intangible commercial assets, such as brand names, acquired separately or in a business combination. These are amortized on a straight-line basis over their estimated useful life.



### 14 Greenhouse gas emission allowances and Certified Emission Reductions

With respect to the mechanism set up by the European Union to encourage manufacturers to reduce their greenhouse gas emissions, the Group was granted carbon dioxide  $(CO_2)$  emission allowances for some of its installations. The Group is also involved in Clean Development Mechanism (CDM) under the Kyoto protocol. Under these projects, the Group has deployed facilities in order to reduce greenhouse gas emissions at the relevant sites in return for Certified Emission Reductions (CER).

In the absence of any IASB standard or interpretation regulating the accounting treatment of  $CO_2$  emission rights, the Group applies the Trade / Production model, according to which:

- emission allowances and purchases are presented as inventories if they will be consumed in the production process;
- they are presented as derivatives if they are held for trading.

### **Treatment of European Union Allowances (EUA)**

These allowances are granted each year and are generally delivered free of charge and are valid over the entire trading period if not used.

### **Treatment of Certified Emission Reductions (CER)**

Under the CDM projects, Solvay has deployed facilities in order to reduce the greenhouse gas emissions at its Onsan (South Korea) and Paulinia (Brazil) sites. Upon verification by independent experts, should these emissions fall below the benchmark levels set by the UNFCCC, Solvay receives Certified Emission Rights (CER) which are freely transferable.

The cost of allocated CERs mainly corresponds to the depreciation of gas emission reduction units and operation fixed costs.

### **Treatment of Energy Services' activities**

Energy Services is involved in developing CO<sub>2</sub> instrument trading, arbitrage and hedging activities, and developing the "Origination" activity. The net income or expense from these activities is recognized in other operating income for the "industrial" component, where Energy Services sells the CERs generated by Solvay, as well as for the "trading" component, where Energy Services purchases/sells CERs and EUAs.

### 15 Property, plant & equipment

### **Initial recognition**

The property, plant and equipment owned by the Group are recognized as assets at acquisition cost when the following criteria are satisfied:

- it is probable that the future economic benefits associated with the asset will flow to the Group;
- the cost of the asset can be reliably measured.

Items of property, plant and equipment are carried on the statement of financial position at cost less accumulated depreciation and impairment, if any. The cost of an item of property, plant and equipment comprises its purchase price and any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management. If applicable, the cost comprises borrowing costs during the construction period.

The components of an item of property, plant and equipment with different useful lives are depreciated separately.

Items of property, plant and equipment are derecognized from the statement of financial position on disposal or when no future economic benefits are expected from their use or disposal. The gain or loss arising from the derecognition of an item of property, plant and equipment is recognized in profit or loss in the period of derecognition.

### **Useful lives**

Land is not depreciated.

The estimated useful lives, residual values and depreciation methods are reviewed at each year-end, and any changes in estimates are accounted for prospectively.

Depreciation is calculated on a straight-line basis, according to the useful lifes listed below:

Buildings	30-40 years
IT equipment	3-5 years
Machinery and equipment	10-20 years
Transportation equipment	5-20 years

Depreciation is included in the income statement within cost of goods sold, commercial and administrative costs, and R&D costs.

### Subsequent expenditure

Subsequent expenditure incurred for the replacement of a component of an item of property, plant and equipment is only recognized as an asset when it satisfies the recognition criteria mentioned above.

The carrying amount of replaced items is derecognized.

Repair and maintenance costs are recognized in the income statement as incurred.

Regarding its industrial activity, Solvay incurs expenditure for major repairs over several years for most of its sites. The purpose of this expenditure is to maintain the proper working order of certain installations without altering their useful life. This expenditure is considered as a specific component of the item of property, plant and equipment and is depreciated over the period during which the economic benefits are expected to be obtained, *i.e.* the major repairs' interval.

### **Dismantling costs**

Dismantling and restoration costs are included in the cost of an item of property, plant and equipment if the Group has a legal or constructive obligation to dismantle or restore. They are depreciated over the useful life of the items to which they pertain.

Generally, Solvay does not have any legal or constructive obligation to dismantle and/or restore its operating sites in accordance with IAS 37 *Provisions, Contingent Liabilities and Contingent Assets.* As such, an obligation is only likely to arise upon the discontinuation of a site's activities. The costs of dismantling of discontinued sites or installations are provided for when there is a legal obligation (due to a request or injunction from the relevant authorities), or when there is no technical alternative than to dismantle, so to ensure the safety compliance of the discontinued sites or installations.



# 16 Impairment of tangible and intangible assets excluding goodwill

At the end of each reporting period, the Group reviews the carrying amounts of its tangible and intangible assets to determine whether there is any indication that those assets have suffered an impairment loss. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss (if any). Where it is not possible to estimate the recoverable amount of an individual asset, the Group estimates the recoverable amount of the cash-generating unit to which the asset belongs. Where a reasonable and consistent basis of allocation can be identified, corporate assets are allocated to individual cash-generating units, or otherwise they are allocated to the smallest group of cash-generating units for which a reasonable and consistent allocation basis can be identified.

The recoverable amount is the higher of fair value less costs to sell and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset for which the estimates of future cash flows have not been adjusted.

If the recoverable amount of an asset (or cash-generating unit) is estimated to be less than its carrying amount, the carrying amount of the asset (or cash-generating unit) is reduced to its recoverable amount. An impairment loss is recognized immediately in profit or loss.

Where an impairment loss subsequently reverses, the carrying amount of the asset (or cash-generating unit) is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined (net of amortization or depreciation) had no impairment loss been recognized for the asset (or cash-generating unit) in prior years. A reversal of an impairment loss is recognized immediately in profit or loss.

# 17 Capitalized borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale.

Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalization.

All other borrowing costs are recognized in profit or loss in the period in which they are incurred.

### 18 Government grants

Government grants are not recognized until there is reasonable assurance that the Group will comply with the conditions attaching to them and that the grants will be received.

Government grants relating to the purchase of property, plant and equipment are deducted from the cost of those assets. They are recognized in the statement of financial position at their expected value at the time of initial government approval. The grant is recognized in profit or loss over the depreciation period of the underlying assets as a reduction of depreciation expense.

Other government grants are recognized as income on a systematic basis over the periods in which the related costs, which they are intended to compensate, are recognized. Government grants that are receivable as compensation for expenses or losses already incurred or for the purpose of giving immediate financial support to the Group with no future related costs are recognized in profit or loss in the period in which they become receivable.

### 19 Inventories

Cost of inventories includes the purchase, conversion and other costs incurred in bringing the inventories to their present location and condition. The cost of inventories is determined by using the weighted average cost or first-in, first-out (FIFO) method. Inventories having a similar nature and use are measured using the same cost formula.

Inventories are measured at the lower of purchasing cost (raw materials and merchandise) or production cost (work in progress and finished goods) and net realizable value. Net realizable value represents the estimated selling price, less all estimated costs of completion and the estimated costs necessary to make the sale.

# **20** Financial assets

Financial assets include available for sale securities, loans and receivables, including derivative financial instruments. All financial assets are recognized and derecognized on trade date where the purchase or sale of a financial asset is under a contract whose terms require delivery of the financial asset within the timeframe established by the market concerned, and are initially measured at fair value, plus transaction costs, except for financial assets classified as at fair value through profit or loss, which are initially measured at fair value.

A financial asset is classified as current when the cash flows expected to flow from the instrument mature within one year.

At initial recognition, Solvay classifies financial assets into one of the four categories provided in IAS 39 *Financial Instruments: Recognition and Measurement.* This classification determines the method for measuring financial assets at subsequent balance sheet dates: amortized cost or fair value.

Amortized cost is the amount at which the financial asset is measured at initial recognition minus principal repayments, plus or minus the cumulative amortization using the effective interest method of any difference between that initial amount and the maturity amount, and minus any reduction for impairment or uncollectibility.

For instruments quoted in an active market, the fair value corresponds to a market price (level 1). For instruments that are not quoted in an active market, the fair value is determined using valuation techniques including reference to recent arm's length market transactions or transactions involving instruments which are substantially the same (level 2), or discounted cash flow analysis including, to a maximum extent, assumptions consistent with observable market data (level 3). However, if the fair value of an equity instrument that does not have a quoted price in an active market cannot be reliably estimated, it is measured at cost.



#### **Effective interest method**

The effective interest method is a method of calculating the amortized cost of a debt instrument and of allocating interest income over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash receipts (including all fees on points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) through the expected life of the debt instrument, or, when appropriate, a shorter period, to the net carrying amount on initial recognition.

Income is recognized on an effective interest basis for debt instruments other than those financial assets classified as at fair value through profit or loss.

# Financial assets at fair value through profit or loss (FVTPL)

Financial assets are classified as at fair value through profit or loss if they are held for trading. Financial assets at FVTPL are measured at fair value, with any resulting gains or losses recognized in profit or loss. A financial asset is classified in this category if acquired principally for the purpose of selling in the short term. Derivatives are also classified as at FVTPL unless they are designated and effective as hedging instruments.

#### Held-to-maturity investments

Debentures with fixed or determinable payments and fixed maturity dates that the Group has the positive intent and ability to hold to maturity are classified as held-to-maturity investments. Held-to-maturity investments are measured at amortized cost using the effective interest method less any impairment, with revenue recognized on an effective yield basis.

#### **Available-for-sale financial assets**

Available-for-sale financial assets include equity investments in entities, which were not acquired principally for the purpose of selling in the short term, and which are not subsidiaries, joint operations, joint ventures, or associates. Assets classified in this category are measured at fair value, with any resulting gains or losses recognized in other comprehensive income. If there is objective evidence that the asset is impaired, the cumulative loss that has been recognized in other comprehensive income is reclassified from equity to profit or loss. However, they are measured at cost if they do not have a quoted price in an active market and their fair value cannot be reliably measured by alternative valuation methods.

#### Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments which are not quoted in an active market. The Group's loans and receivables category comprises cash and cash equivalents, trade receivables and other non-current receivables except pension fund surpluses. Cash equivalents are short-term, highly liquid investments that are readily convertible to known amounts of cash, have original maturities of three months or less from the date of acquisition, and are subject to insignificant risk of change in value. Loans and receivables are measured at amortized cost using the effective interest method, less any impairment. Interest income is recognized by applying the effective interest rate.

#### Impairment of financial assets

The impairment loss of a financial asset measured at amortized cost is equal to the difference between the carrying amount and the estimated future cash flows, discounted at the initial effective interest rate. The impairment of an available-for-sale financial asset is calculated with reference to its current fair value.

An impairment test is performed, on an individual basis, for each material financial asset. Other assets are tested as groups of financial assets with similar credit risk characteristics.

Impairment losses are recognized in the income statement.

The impairment loss is reversed if the reversal can be related objectively to an event occurring after the impairment was recognized. For financial assets measured at amortized cost, the reversal is recognized in profit or loss. After reversal, the carrying amount of the financial asset measured at amortized cost shall not exceed what the amortized cost would have been, had the impairment not been recognized. Impairment losses with respect to an equity instrument classified as available for sale are not reversed through profit or loss. Impairment losses with respect to debt instruments classified as available for sale are recognized in profit or loss to the extent of the impairment loss previously recognized in profit or loss. Impairment losses relating to assets measured at cost cannot be reversed.

## **21** Financial liabilities

Financial liabilities are classified as either "financial liabilities at fair value through profit or loss (FVTPL)" or "financial liabilities measured at amortized cost".

# Financial liabilities at fair value through profit or loss (FVTPL)

Financial liabilities are classified as at fair value through profit or loss if they are held for trading. Financial liabilities at FVTPL are stated at fair value, with any resulting gains or losses recognized in profit or loss. A financial liability is classified in this category if acquired principally for the purpose of selling in the short term. Derivatives are also classified as at FVTPL unless they are designated and effective as hedging instruments.

# Financial liabilities measured at amortized cost using the effective interest method

Financial liabilities measured at amortized cost, including borrowings, are initially measured at fair value, net of transaction costs. They are subsequently measured at amortized cost using the effective interest method, with interest expense recognized on an effective yield basis.

The effective interest method is a method of calculating the amortized cost of a financial liability and of allocating interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments through the expected life of the financial liability, or, where appropriate, a shorter period, to the net carrying amount on initial recognition.

The Group's financial liabilities measured at amortized cost comprises non-current financial debt, other non-current liabilities, current financial debt, trade liabilities and dividends payable included in other current liabilities.



## 22 Derivative financial instruments

Derivative financial instruments are financial instruments with all three of the following characteristics:

- their value changes in response to the change in a specified interest rate, financial instrument price, commodity price, foreign exchange rate, index of prices or rates, credit rating or credit index, etc.;
- they require no initial net investment or an initial net investment that is smaller than would be required for other types of contracts that would be expected to have a similar response to changes in market factors; and
- they are settled at a future date.

The Group enters into a variety of derivative financial instruments to manage its exposure to interest rate risk, foreign exchange rate risk and commodity risk, including foreign exchange forward contracts and options, interest rate swaps, cross-currency swaps, commodity options and swaps, and energy purchase and sale contracts. Further details of derivative financial instruments are disclosed in note 37.

Derivatives are initially recognized at fair value at the date a derivative contract is entered into and are subsequently remeasured to their fair value at the end of each reporting period. The resulting gain or loss is recognized in income or expense, unless the derivative is designated and effective as a hedging instrument (see *IFRS main accounting policies – 23. Hedge accounting*). The Group designates certain derivatives as hedging instruments of the exposure to variability in cash flows with respect to a recognised asset or a highly probable forecast transaction (cash flow hedges).

A derivative with a positive fair value is recognized as a financial asset whereas a derivative with a negative fair value is recognized as a financial liability. Derivative instruments (or portions of them) are presented as non-current assets or non-current liabilities if the remaining maturity of the underlying settlements is more than twelve months after the reporting period and it is not expected to be realized or settled within twelve months. Other derivative instruments (or portions of them) are presented as current assets or current liabilities.

## 23 Hedge accounting

The Group designates certain derivatives, and embedded derivatives in respect of foreign currency risk, energy risk and  $CO_2$  emissions risks, as hedging instruments in cash flow hedges.

At the inception of the hedge relationship, the entity documents the relationship between the hedging instrument and the hedged item, along with its risk management objectives and its strategy for undertaking various hedge transaction. Furthermore, at the inception of the hedge and on an ongoing basis, the Group documents whether the hedging instrument is highly effective in offsetting changes in cash flows of the hedged item.

Note 37 sets out details of the fair values of the derivative instruments used for hedging purposes.

## **Cash flow hedges**

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognized in other comprehensive income. The gain or loss relating to the ineffective portion is recognized immediately in profit or loss. Amounts previously recognized in other comprehensive income and accumulated in equity are reclassified to profit or loss in the periods when the hedged item is recognized in profit or loss, in the same line of the income statement as the recognized hedged item. However, when the hedged forecast transaction results in the recognition of a nonfinancial asset or a non-financial liability, the gains and losses previously accumulated in equity are transferred from equity and included in the initial measurement of the cost of the non-financial asset or nonfinancial liability.

Hedge accounting is discontinued when the Group revokes the hedging relationship, the hedging instrument expires or is sold, terminated, or exercised, or no longer qualifies for hedge accounting. Any gain or loss accumulated in equity at that time remains in equity and is recognized when the forecast transaction is ultimately recognized in profit or loss. When a forecast transaction is no longer expected to occur, the gain or loss accumulated in equity is recognized immediately in profit or loss as a reclassification adjustment. If all or a portion of a loss recognized in other comprehensive income will not be recovered in one or more future periods, the amount that is not expected to be recovered is immediately reclassified into profit or loss.

## 24 Shareholders' equity

## **Share capital**

Ordinary shares are classified as equity. Mandatorily redeemable preference shares are classified as liabilities.

Incremental costs directly attributable to the issue of new ordinary shares or options are shown in equity as a deduction, net of tax, from the proceeds.

#### Reserves

The reserves include:

- retained earnings;
- the effects of the revaluation of derivatives documented as hedging instruments in cash flow hedges;
- the effects of the revaluation of available-for-sale financial assets, as these are unrealised gains and losses;
- equity instruments similar to deeply subordinated bonds, whose characteristics justify recognition in shareholders' equity: no maturity, interest is payable annually but can be deferred indefinitely;
- currency translation differences from the consolidation process relating to the translation of the financial statements of foreign operations prepared in a functional currency other than the euro;
- treasury shares;
- impact of hyperinflation accounting;
- actuarial gains and losses related to post-employment benefits.

## **Non-controlling interests**

Those represent the share of non-controlling interests in the net assets and comprehensive income of subsidiaries of the Group. This share represents the interests in subsidiaries that are not held directly by the parent company or indirectly through subsidiaries.



## **25** Provisions

Provisions are recognized when (a) the Group has a present obligation (legal or constructive) as a result of a past event, (b) it is probable that the Group will be required to settle the obligation, and (c) a reliable estimate can be made of the amount of the obligation.

The amount recognized as a provision is the best estimate of the consideration required to settle the present obligation at the end of the reporting period, taking into account the risks and uncertainties surrounding the obligation. Where the effect of the time value of money is material, the amount is the present value of expenditures required to settle the obligation. Impacts of changes in discount rates are recognized in the financial result for the provisions listed below.

When some or all of the economic benefits required to settle a provision are expected to be recovered from a third party, a receivable is recognized as an asset if it is virtually certain that reimbursement will be received and the amount of the receivable can be measured reliably.

#### **Onerous contracts**

Present obligations arising under onerous contracts are recognized and measured as provisions. An onerous contract is considered to exist where the Group has a contract under which the unavoidable costs of meeting the obligations under the contract exceed the economic benefits expected to be received under it.

#### Restructurings

A restructuring provision is recognized when the Group has developed a detailed formal plan for the restructuring and has raised a valid expectation in those affected that it will carry out the restructuring by starting to implement the plan or announcing its main features to those affected by it. The measurement of a restructuring provision includes only the direct expenditures arising from the restructuring, which are those amounts that are both necessarily entailed by the restructuring and not associated with the ongoing activities of the entity.

#### **Environmental liabilities**

Solvay periodically analyzes all its environmental risks and the corresponding provisions. Solvay measures these provisions to the best of its knowledge of applicable regulations, the nature and extent of the pollution, clean-up techniques and other available information.

# 26 Reporting in hyperinflationary economies

The Venezuelan economy being considered as a hyperinflationary economy, the Group has applied the hyperinflationary accounting requirements of IAS 29 *Financial Reporting in Hyperinflationary*  *Economies* to its Venezuelan operations. The financial statements are based on the historical cost basis and have been restated to take into account the effects of inflation.

The index used to reflect current values is the inflation rate published by Banco Central de Venezuela.

	At 31/12/2014	At 31/12/2013
Index at year end (2002 = 100)	2,118	1,264
Movement of the year	67.5%	56.2%

## 27 Segment information

An Operating Segment is a component of the Group that engages in business activities from which it may earn revenues and incur expenses, whose operating results are regularly reviewed by the entity's chief operating decision maker and for which discrete financial information is available. The Solvay group's chief operating decision maker is the Chief Executive Officer. It is further detailed in note 1.

## **28** Revenue recognition

Net sales and other revenue are measured at the fair value of the consideration received or receivable, net of returns, rebates and trade benefits granted and sales tax.

Net sales comprise the sales of goods (goods and goods for resale) and value-added services corresponding to Solvay's know-how.

Other revenue primarily includes commodity and utility trading transactions and other revenue deemed as incidental by the Group (*e.g.* temporary contracts following the sale of businesses).

Net sales and other revenue are recognized when all the following conditions have been satisfied:

- the Group has transferred to the buyer the significant risks and rewards of ownership of the goods or, with respect to the rendering of services, the stage of completion can be measured reliably;
- the Group retains neither continuing managerial involvement to the degree usually associated with ownership nor effective control over the goods sold;
- the amount of revenue can be measured reliably;
- it is probable that the future economic benefits associated with the transaction will flow to the Group; and
- the costs incurred or to be incurred in respect of the transaction can be measured reliably.



## 29 Non-current assets held for sale and discontinued operations

Non-current assets and disposal groups are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. This condition is regarded as met only when the sale is highly probable and the asset (or disposal group) is available for immediate sale in its present condition. For a sale to be highly probable, management should be committed to a plan to sell the asset (or disposal group), an active program to locate a buyer and complete the plan should be initiated, the asset (or disposal group) should be actively marketed at a price which is reasonable in relation to its current fair value, the sale should be expected to be completed within one year from the date of classification, and actions required to complete the plan should indicate that it is unlikely that significant changes to the plan will be made or that the plan will be withdrawn.

A discontinued operation is a component of the Group which the Group has disposed of or which is classified as held for sale, and:

- represents a separate major line of business or geographical area of operations;
- is part of a single co-ordinated plan to dispose of a separate major line of business or geographical area of operations; or
- is a subsidiary acquired exclusively with a view to resale.

A component of the Group consists of operations and cash flows, which can be clearly distinguished operationally and for financial reporting purposes, from the rest of the Group.

When the Group is committed to a sale plan involving loss of control of a subsidiary, all of the assets and liabilities of that subsidiary are classified as held for sale when the criteria described above are met, regardless of whether the Group will retain a non-controlling interest in its former subsidiary after the sale.

Non-current assets (and disposal groups) classified as held for sale are measured at the lower of their previous carrying amount and fair value less costs to sell. Any excess of the carrying amount over the fair value less costs to sell is recognized as an impairment loss. Depreciation of such assets is discontinued as from their classification as held for sale. Prior period statements of financial position are not restated to reflect the new classification of a non-current asset (or disposal groups) as held for sale.

In the statement of comprehensive income, the statement of cash flows, and disclosures, discontinued operations are re-presented for prior periods presented.

## 30 Finance income and costs

Finance costs comprise:

- the interest on borrowings calculated using the effective interest method;
- the systematic amortization of transaction costs relating to credit lines;
- borrowing prepayment or credit line cancellation costs;
- the cost of the reverse discounting of non-current non-financial liabilities; and
- the impact of changes in discount rates.

Finance income comprises the interest income on plan assets, cash income and dividends.

Net foreign exchange gains or losses on financial items and the changes in fair value of financial derivatives are presented respectively in finance income or costs, with the exception of changes in fair value of derivatives that are hedging instruments, and which are recognized on the same line item as the hedged item.

All interest on borrowings is recognized in finance costs as incurred, with the exception of borrowing costs directly attributable to the acquisition, construction and production of qualifying assets (see *IFRS main accounting policies – 17. Capitalized borrowing costs*).

## 31 Share-based payments

Solvay has set up compensation plans, including equity-settled and cash-settled, share-based compensation plans.

In its equity-settled plans, the Group receives services as consideration for its own equity instruments (including shares or share options). The fair value of services rendered by employees in consideration for the granting of equity-instruments represents an expense. This expense is recognized on a straight-line basis in the income statement over the vesting periods relating to these equity-instruments with the recognition of a corresponding adjustment in equity. At each reporting date, the Group re-estimates the number of options likely to vest. The fair value of services rendered is measured in reference to the fair value of the equity-instruments on the grant date. It is not subsequently remeasured. The impact of the revised estimates is recognized in profit or loss against a corresponding adjustment in equity.

In its cash-settled plans, the Group acquires services by incurring a liability to transfer to its employees of those services amounts that are



based on the price (or value) of equity instruments (including shares or share options) of the Group. The fair value of services rendered by employees in consideration for the granting of equity-instruments represents an expense. This expense is recognized on a straight-line basis in the income statement over the vesting periods relating to these equity-instruments with the recognition of a corresponding adjustment in liabilities. At each reporting date, the Group re-estimates the number of options likely to vest. The Group measures the services acquired and the liability incurred at the fair value of the liability. Until the liability is settled, the Group remeasures the fair value of the liability at the end of each reporting period and at the date of settlement, with any changes in fair value recognised in profit or loss for the period.

## 32 Statement of Comprehensive Income

In accordance with IAS 1 *Presentation of Financial Statements*, the Group elected to present either a single statement of comprehensive income or two statements, *i.e.* an income statement immediately followed by a comprehensive income statement. The Group elected to do the latter.

The components of other comprehensive income (OCI) are presented before related tax effects with one amount shown for the aggregate amount of income tax relating to those components.

## **33** Contingencies

Contingent assets are not recognized in the financial statements. They are disclosed if an inflow of economic benefits is probable.

Contingent liabilities are not recognized in the financial statements, except if they arise from a business combination. They are disclosed unless the possibility of an outflow of economic benefits is remote.

## 34 Events after the reporting period

Events after the reporting period which provide additional information about the Group's position at the closing date (adjusting events) are reflected in the financial statements. Events after the reporting period which are not adjusting events are disclosed in the notes if material.

## 35 Non IFRS metrics

Financial communication puts emphasis on two non IFRS metrics:

- a. REBITDA which consists of EBIT as presented in the income statement, excluding:
- recurring amortization and depreciation;
- non-recurring items (see note 7);
- material financing related costs and non recurring items for companies consolidated using the equity method of accounting;
- operating revenues/expenses not taken into account by management when assessing segment performances;
- adjusted net income which corresponds to IFRS net income adjusted for amortization and depreciation resulting from the Rhodia Purchase Price Accounting.

**Financial & extra-financial information** 

# Critical accounting judgments and key sources of estimation uncertainty

### Impairment

The Group performs annual impairment tests on goodwill, and on cashgenerating units for which there are indicators that the carrying amount might be higher than the recoverable amount. This analysis requires management to estimate the future cash flows expected to arise from the cash-generating units and a suitable discount rate in order to calculate present value.

Further details are provided in note 28.

## **Deferred tax assets**

The carrying amount of a deferred tax asset is reviewed at each reporting date. The carrying amount of a deferred tax asset is reduced to the extent that it is no longer probable that the Group will earn sufficient taxable profits against which the deductions can be offset. Any such reduction is reversed to the extent that it becomes probable that sufficient taxable profits will be available.

The corporate tax competence center, which has the overview of the Group deferred tax situation, is systematically involved in assessing deferred tax assets.

Deferred tax assets for losses are based on five-year revenue forceasts, except for holding companies where ten-year financial revenue forecasts are highly predictable and are consequently used.

Further details are provided in note 9.B.

### **Employee benefits obligations**

The actuarial assumptions used in determining the defined benefit obligations at December 31 as well as the annual cost can be found in note 35. All main employee benefits plans are assessed annually by independent actuaries. Discount rates and inflation rates are defined globally by management. The other assumptions (such as future salary increases and expected rates of medical care cost increases) are defined at a local level. All plans are supervised by the Group's central Human Resources Department with the help of a central actuary to check the acceptability of the results and assure uniformity in reporting.

During the fourth quarter of 2014, updated US mortality tables have been published. The Group expects to apply those mortality tables as from 2015. Based on an initial assessment, the application at December 31, 2014 would have increased the defined benefit obligation and decreased other comprehensive income by  $\notin$  45 million.

Further details are provided in note 35.

## **Environmental Provisions**

Environmental provisions are managed and coordinated jointly by an Environmental Remediation competence center and the Finance Department.

The forecasts of expenses are discounted to present value in accordance with IFRS.

The discount rates fixed by geographical area correspond to average riskfree rate on 10-year government bonds. These rates are set annually by Solvay's Finance Department and can be revised based on the evolution of economic parameters of the country involved. To reflect the passage of time, the provisions are increased each year on a prorated basis at the discount rates defined above.

Further details are provided in note 35.

#### **Provisions for litigation**

Any significant litigation (tax and other, including threat of litigation) is reviewed by Solvay's in-house lawyers with the support, when appropriate, of external counsels at least every quarter. This review includes an assessment of the need to recognize provisions or remeasure existing provisions together with Solvay's Finance Department and the Insurance Department. The resulting report is submitted to the Executive Committee by the Group General Counsel and thereafter to the Audit Committee and to the Board of Directors.

Further details are provided in note 35.

#### Fair value adjustments for business combinations

In accordance with IFRS 3 *Business Combinations*, the Group measures the assets, liabilities and contingent liabilities acquired in a business combination at fair value. Fair value adjustments are based on external appraisals or valuation models, *e.g.* for contingent liabilities and intangible assets which were not recognized by the acquiree. Internal benchmarks are often used for valuing specific production equipment. All of these valuation methods rely on various assumptions such as estimated future cash flows, remaining useful economic life, etc.

Further details are provided in note 26.

#### **Classification as Held for sale**

Assets are classified as Held for sale if their carrying amount will be recovered through a sale transaction rather than through continuing use. This condition is regarded as met only when the sale is highly probable and the asset is available for immediate sale in its present condition. Amongst other conditions, management must be committed to the sale, which should be expected to qualify for recognition as a completed sale within one year from the date of classification. However, in some cases, an asset may remain classified as Held for sale for a period exceeding one year if it remains unsold due to events or circumstances beyond the Group's control.

Chlorovinyls business was classified as a disposal group held for sale in 2013. The transaction is expected to be closed in the first half of 2015.

On November 12, 2014, the Brazilian competition authority (CADE) notified its decision to reject the intended acquisition of Solvay's 70.59% majority stake in Solvay Indupa by Brazilian chemical producer Braskem. Solvay confirms that its strategic direction remains unaffected and that it is examining alternative options to sell its participation in Solvay Indupa. As a disposal within 12 months is considered highly probable, Solvay Indupa remains classified as non-current assets held for sale and discontinued operations at December 31, 2014. To assess the fair value of the Group interest in Solvay Indupa, management has referred to the amount of the deal signed with Braskem and rejected at year end by Brazilian competition authority.

Further details are provided in note 34.

# **General description of the segments**

Solvay is organized into five Operating Segments:

**Advanced Formulations:** As one of Solvay's growth engines, the businesses grouped under Advanced Formulations stand out for their innovation capacity and relatively low capital intensity. Their offerings address major societal trends, meeting ever stricter requirements to respect the environment and to save energy, and challenges of the mass consumer markets.

**Advanced Materials:** A leader in markets with high entry barriers and strong returns on investment, the Advanced Materials segment is a major contributor to the Group's performance and growth. Innovation, its global presence feature and long-term partnerships with customers provide a compelling competitive edge with industries seeking increasingly energy efficiency and less polluting functionalities. **Performance Chemicals:** Operating in mature resilient markets, this segment's success is based on economies of scale, competitiveness and quality of service. Solidly cash-generating, the Performance Chemicals businesses are engaged in programs of excellence to create additional sustainable value.

**Functional Polymers:** The key success factors of this segment, which primarily groups the Polyamide activities, are continuous manufacturing optimization and innovation. Solvay is one of few players to operate across the entire polyamide 6.6 chain.

**Corporate & Business Services** This segment includes the Solvay Energy Services business which delivers energy optimization programs within the Group as well as for third parties. It also includes the Corporate Functions.



## Notes to the income statement

# **NOTE 1** Financial data by segment (Income statement per segment after reclassification in discontinued operations for Chlorovinyls, Solvay Indupa, and Eco Services)

Information per segment for 2014 is presented below:

2014 In € million Income statement items	Advanced formulations	Advanced Materials	Performance Chemicals	Functional Polymers	Corporate & Business Services	Group Total
Net sales (including the inter-segment sales)	2,859	2,770	2,970	1,756	0	10,355
Inter-segment sales	(5)	(8)	(26)	(103)	0	(142)
Net sales	2,854	2,762	2,944	1,654	0	10,213
Gross margin	639	958	733	181	48	2,559
REBITDA	426	709	724	111	(188)	1,783
EBIT						652
Net financial charges						(308)
Income taxes						(84)
Result from discontinued operations						(246)
Net income						13

Statement of financial position and other items	Advanced formulations	Advanced Materials	Performance Chemicals	Functional Polymers	Corporate & Business Services	Group Total
Capital expenditures (continuing operations)	166	267	275	82	69	861
Capital expenditures (discontinued operations)			26	101		127
Capital expenditures - Investments (continuing operations)	50	231	0	107	23	411
Working capital						
Inventories	334	561	298	206	21	1,420
Trade receivables	342	359	436	186	95	1,418
Trade liabilities	344	272	363	214	267	1,461

Capital expenditures are related to fixed assets (tangible and intangible) and investments in subsidiaries and other investments.

Information per segment for 2013 is presented below:

<b>2013</b> In € million	Advanced	Advanced	Performance	Functional	Corporate &	
Income statement items	formulations	Materials	Chemicals	Polymers	Energy	Group Total
Net sales (including the inter-segment sales)	2,436	2,566	2,944	1,856	67	9,869
<ul> <li>Inter-segment sales</li> </ul>	(4)	(15)	(42)	(93)		(154)
Net sales	2,432	2,551	2,902	1,763	67	9,715
Gross margin	535	847	668	171	85	2,305
REBITDA	347	624	682	89	(131)	1,611
EBIT						591
Net financial charges						(213)
Income taxes						(170)
Result from discontinued operations						106
Net income						315

# Financial & extra-financial information

## 2013

In € million Statement of financial position and other items	Advanced formulations	Advanced Materials	Performance Chemicals	Functional Polymers	Corporate & Energy	Group Total
Capital expenditures (continuing operations)	136	213	244	74	99	765
Capital expenditures (discontinued operations)				102		102
Capital expenditures - Investments (continuing operations)	881	1	0	86	13	981
Working capital						
Inventories	281	489	296	217	16	1,300
Trade receivables	295	327	479	200	31	1,331
Trade liabilities	286	240	372	231	212	1,340

External net sales by cluster are presented below:

In € million	2014	2013
Advanced Formulations	2,854	2,432
Novecare	2,033	1,581
Aroma Performance	337	365
Coatis	484	486
Advanced Materials	2,762	2,551
Specialty Polymers	1,490	1,288
Silica	451	416
Rare Earth Systems	266	298
Special Chemicals	554	549
Performance Chemicals	2,944	2,902
Soda Ash & Derivatives	1,377	1,351
Peroxides	512	470
Acetow	641	658
Eco Services	0	0
Emerging Biochemicals	413	424
Functional Polymers	1,654	1,763
Polyamides	1,536	1,556
Chlorovinyls	117	206
Corporate & Business Services	0	67
Energy Services	0	67
CBS	0	0
TOTAL	10,213	9,715



## **NOTE 2** Sales by country and region (continuing operations)

Group sales by country and region are as follows:

In € million	2014	%	2013	%
Belgium	142	1%	151	2%
Germany	877	9%	909	9%
Italy	456	4%	485	5%
France	494	5%	495	5%
Great Britain	226	2%	240	2%
Spain	259	3%	271	3%
European Union - other	687	7%	644	7%
European Union	3,141	31%	3,196	33%
Other Europe	300	3%	254	3%
United States	2,231	22%	1,809	19%
Canada	127	1%	96	1%
North America	2,358	23%	1,906	20%
Brazil	828	8%	858	9%
Mexico	110	1%	113	1%
Latin America - other	183	2%	172	2%
Latin America	1,121	11%	1,142	12%
Russia	151	1%	172	2%
Turkey	65	1%	81	1%
China	823	8%	755	8%
India	195	2%	176	2%
Japan	321	3%	349	4%
South Korea	349	3%	350	4%
Thailand	455	4%	445	5%
Egypt	57	1%	55	1%
Other	875	9%	835	9%
Asia and Rest of the World	3,292	32%	3,218	33%
TOTAL	10,213	100%	9,715	100%



## Invested capital and capital expenditures by country and region

Invested capital and capital expenditures by country and region for continuing operations are shown below:

		Invested ca	pital			Capital expend	litures	
In € million	2014	%	2013	%	2014	%	2013	%
Belgium	2,668	22%	2,584	22%	(76)	6%	(21)	1%
Germany	742	6%	688	6%	(101)	8%	(45)	3%
Italy	758	6%	678	6%	(70)	6%	(62)	4%
France	2,282	19%	2,531	21%	(169)	13%	(200)	12%
Great Britain	95	1%	86	1%	(8)	1%	(8)	0%
Spain	224	2%	225	2%	(13)	1%	(16)	1%
European Union - other	172	1%	255	2%	(71)	6%	(46)	3%
European Union	6,939	57%	7,046	59%	(509)	40%	(399)	23%
Other Europe	3	0%	3	0%	0	0%	(5)	0%
United States	2,600	21%	2,356	20%	(332)	26%	(998)	58%
Canada	3	0%	2	0%	0	0%	0	0%
North America	2,603	21%	2,357	20%	(332)	26%	(998)	58%
Brazil	447	4%	474	4%	(97)	8%	(39)	2%
Argentina	35	0%	69	1%	0	0%	0	0%
Latin America - other	164	1%	68	1%	(1)	0%	(1)	0%
Latin America	645	5%	611	5%	(97)	8%	(40)	2%
Russia	154	1%	413	3%	(99)	8%	(91)	5%
Turkey	0	0%	0	0%	0	0%	0	0%
Thailand	435	4%	387	3%	(25)	2%	(11)	1%
China	651	5%	581	5%	(90)	7%	(98)	6%
South Korea	180	1%	174	1%	(18)	1%	(24)	1%
India	204	2%	167	1%	(10)	1%	(6)	0%
Singapore	50	0%	32	0%	(18)	1%	(8)	0%
Japan	69	1%	53	0%	(3)	0%	(3)	0%
Egypt	113	1%	106	1%	(1)	0%	(10)	1%
Other	149	1%	77	1%	(69)	5%	(27)	2%
Asia and Rest of the World	2,005	16%	1,990	17%	(332)	26%	(278)	16%
TOTAL	12,195	100%	12,007	100%	(1,272)	100%	(1,719)	100%

Invested capital includes the non-current assets (excluding the deferred taxes), inventories and trade receivables and payables. Capital expenditures include tangibles, intangibles and investments in subsidiaries and other investments.

## **NOTE 3 REBITDA (non IFRS metrics)**

REBITDA for continuing operations is the non IFRS metrics used by management to monitor segment performances and to allocate resources.

REBITDA is computed as follows:

In € million	2014	2013
EBIT IFRS	652	591
Non-recurring items	308	239
Equity Earnings RusVinyl (financing scheme impact)	65	11
Adjustment of Chemlogics retention plan	8	1
Adjustment of Chemlogics inventories at fair value (PPA)	3	13
Other adjustments	(5)	
Recurring IFRS depreciation and amortization	751	757
REBITDA (INCOME STATEMENT KPI MONITORED BY MANAGEMENT)	1,783	1,611

Year on year improvement is mainly driven by volumes growth, operational excellence programs offsetting fixed costs inflation and protecting pricing power.



## **NOTE 4** Personnel expenses

In € million	2014	2013
Wages/salaries and direct social benefits	(1,338)	(1,301)
Employer's contribution for social insurance	(305)	(307)
Pensions & Insurance benefits	(240)	(245)
Other Personnel expenses	(107)	(93)
TOTAL	(1,990)	(1,947)

## NOTE 5 Other operating gains and losses

In € million	2014	2013
Start-up, formation and preliminary study costs	(22)	(24)
Recurring capital gain on sales of fixed assets	8	10
Net foreign exchange gain and losses	(6)	4
Amortization of intangible resulting from PPA Rhodia	(110)	(143)
Balance of other gains and losses	36	69
Other operating gains and losses	(94)	(83)

## NOTE 6 Earnings from associates and joint ventures

The net income of the joint ventures and associates amounts to € (34) million in 2014 against € 34 million in 2013. The decrease relates mainly to the financial expenses (€ (65) million) of RusVinyl after the Ruble devaluation impacting the euro denominated debt.

## **NOTE 7** Non-recurring items

Non-recurring items have been defined in section IFRS main accounting policies - 10. Non-recurring items.

Non-recurring items for continuing operations include the following:

In € million	2014	2013
Restructuring	(49)	(115)
Costs related to non ongoing activities	(52)	(32)
M&A costs and capital gains / losses	(19)	(22)
Major litigations	(29)	(5)
Impairment	(160)	(65)
Non-recurring items	(308)	(239)

In 2014, the non recurring items are mainly related to:

- restructuring costs (€ (49) million) related mainly to Rhodia integration (€ (11) million), Okorusu (€ (8) million) and change in portfolio (€ (9) million);
- impairment related mainly to RusVinyl (€ (110) million) and EPICEROL<sup>®</sup> (€ (34) million);
- litigation and environmental costs of non ongoing activities (€ (44) million).

In 2013, the non recurring items are mainly related to:

- restructuring costs (€ (115) million) related mainly to Rhodia integration (€ (46) million) and Soda Ash and Derivatives EMEA (€ (45) million);
- impairment Plextronics (€ (30) million) and Benvic (€ (32) million);
- litigation and environmental costs of non ongoing activities (€ (25) million).

## NOTE 8 Net financial charges

In € million	2014	2013
Cost of borrowings - Interest expense on financial liabilities at amortized cost	(151)	(190)
Interest income on cash and cash equivalents	35	24
Interest income on other current receivables – Financial instruments	1	1
Other gains and losses on net indebtedness	(30)	(2)
Cost of discounting provisions	(163)	(87)
Income/loss from available-for-sale investments	(1)	40
Net financial charges	(308)	(213)

Details on "Other current receivables – financial instruments" and on "Cash and cash equivalents" are included in note 36.

Net financial charges at the end of 2014 and 2013 do not include the net financial charges for Indupa, the Chlorovinyls activities included in the proposed joint venture with Ineos, Eco Services recognized in discontinued operations and RusVinyl financing related costs recognized in equity earnings.

Net financial charges (cost of borrowings, interests and other gains and losses on net indebtedness) were  $\notin$  145 million at the end of 2014 compared to  $\notin$  166 million at the end of 2013. Excluding exceptional items, the net financial charges would have decreased from  $\notin$  164 million to  $\notin$  124 million.

The evolution of the cost of borrowings at the end of 2014 compared to 2013 is partly explained by the decrease in gross debt (reimbursement of EMTN bond in January 2014 and the two Rhodia high yield bonds in

## **NOTE 9** Income taxes

## 9.A. Income taxes

## Components of the tax charge

The tax charge breaks down as follows:

the first half of 2014). The balance includes the remaining accretion and premium paid for the two Rhodia high yield bonds.

Other gains and losses on net indebtness include the following exceptional items:

- in 2014, the high yield accretion (€ 9 million), the interest rate swap (€ (20) million) and the Venezuela hyperinflation expense (€ (11) million);
- in 2013, the interest rate swap (€ 5 million) and the Venezuelan hyperinflation (€ (8) million).

The cost of discounting provision increased as a consequence of the change in discount rate (increase in 2013, decrease in 2014).

In 2013, the income from available-for-sale financial assets is related to sale of all the shares AGEAS held by the Group.

In € million	2014	2013
Current taxes related to current year	(272)	(133)
Current taxes related to prior years	2	(37)
Deferred income tax	189	5
Tax effect of changes in the nominal tax rates on deferred taxes	(3)	(4)
TOTAL	(84)	(170)

In € million	2014	2013
Income tax on items allocated directly to equity	72	(38)
TOTAL	72	(38)

## Reconciliation of the tax charge

The effective tax charge has been reconciled with the theoretical tax charge obtained by applying to the pre-tax profit of each Group entity the nominal tax rate prevailing in the country in which it operates.



In € million	2014	2013
Earnings before taxes	343	378
Equity method	(34)	34
Earnings before taxes without equity method	377	344
Reconciliation of the tax charge		
Total tax charge of the Group entities computed on the basis of the respective local nominal rates	(145)	(112)
Weighted average nominal rate	38%	33%
Tax effect of permanent differences	49	(2)
Tax effect on distribution of dividends	(25)	(53)
Tax effect of changes in tax rates	(3)	(4)
Tax effect of current and deferred tax adjustments related to prior years	13	15
Changes in unrecognized deferred tax assets	27	(14)
Effective tax charge	(84)	(170)
Effective tax rate	24%	45%

The 2013 figures have been restated to take into account:

- IFRS 11 restatement;
- Reclassification of Eco Services to discontinued operations;
- Equity earnings method, which were included in the tax effect of permanent differences;
- Withholding taxes on distributable earnings which were included in the tax effect of permanent differences.

The weighted average nominal rate increased by 5% in 2014 (compared to 2013) due to the higher weight of earnings before tax in countries with a higher tax rate (France and USA) and lower weight of earnings before tax in countries with a lower tax rate (The Netherlands, China and Russia).

The effective tax rate decreased from 45% to 24% mainly due to the positive impact of (i) permanent differences ( $\in$  51 million), (ii) distribution of dividends ( $\in$  28 million) and (iii) changes in unrecognized deferred tax assets ( $\in$  41 million), that result mainly from the recognition in 2014 of additional deferred tax assets for losses in holding companies ( $\notin$  110 million) based on 10-year revenue forecasts (instead of 5 years previously – see *Critical accounting judgements and key sources of estimation uncertainty*).

The favorable impacts of permanent differences ( $\in$  51 million) mainly result from:

- Reduction of non deductible expenses (provisions for tax litigations (€ 23 million));
- Non taxable capital gains on disposal of investments (€ 18 million).

## 9.B. Deferred taxes in the statement of financial position

The net recognized deferred taxes recorded in the statement of financial position fall into the following categories:

<b>2014</b> In € million	Opening balance	Recognized in income statement	Recognized in OCI	Exchange rate effect	Acquisition/ Disposal	Other	Transfer asset held for sale	Closing balance
Temporary differences								
Employee benefits obligations	172	7	59	9		2	(14)	234
Provisions other than employee benefits	119	23		8			(15)	136
Tangible assets	(613)	53	2	(30)	28		39	(521)
Goodwill	39	(8)						31
Tax losses	273	107		4		(2)	4	386
Tax credits	12			1			(2)	11
Assets held for sale		(9)			31	(6)	(15)	
Other	25	15	12	2		1	3	57
TOTAL (NET AMOUNT)	27	186	72	(6)	59	(5)		334
Deferred tax assets in statement of financial position	501							710
Deferred tax liabilities in statement of financial position	(473)							(378)

The total of deferred tax assets amounts to € 3,588 million of which € 2,878 million are not recognized.

The unrecognized deferred tax assets result from (i) losses carried forward (€ 6,785 million in holding companies, notably Rhodia SA since 2011) for which relative deferred tax assets (€ 2,180 million) were not recognized and (ii) deferred tax assets on other temporary differences (€ 698 million across the Group).

The table outlines the net recognized deferred tax assets by nature.

<b>2013</b> In € million	Opening balance	Recognized in income statement	Recognized in OCI	Exchange rate effect	Acquisition/ Disposal	Other	Transfer asset held for sale	Closing balance
Temporary differences								
Employee benefits obligations	240	(7)	(29)	(4)	(1)		(28)	172
Provisions other than employee benefits	200	(59)		(9)			(13)	119
Tangible assets	(716)	7		29	(2)		68	(613)
Goodwill	47	(8)						39
Tax losses	260	24		(5)	(1)		(5)	273
Tax credits	7	5						12
Assets held for sale	(10)	8				24	(22)	
Other	4	31	(9)	(3)		З	(1)	25
TOTAL (NET AMOUNT)	32	1	(38)	8	(3)	28		28
Deferred tax assets in statement of financial position	525							501
Deferred tax liabilities in statement of financial position	(493)							(473)

## Other information

The majority of the Group's tax loss carryforwards has generated deferred tax assets. The tax loss carryforwards generating deferred tax assets are given below by expiration date.

In € million	2014	2013
Within 1 year	14	47
Within 2 years	20	34
Within 3 years	27	44
Within 4 years	21	15
Within 5 or more years	136	149
No time limit	1,013	752
Losses carried forward for which deferred tax assets were recognized	1,231	1,041
Losses carried forward for which no deferred tax assets were recognized	6,785	6,709
TOTAL OF LOSSES CARRIED FORWARD	8,016	7,750

The balance at the end of 2013 has been restated to € 1,041 million as it did not take into account all losses carried forward which had generated deferred tax assets.



## NOTE 10 Discontinued operations (Pharma, Chlorovinyls, Solvay Indupa, and Eco Services)

Since September 30, 2013, following the filing of Chlorovinyls joint venture plan for EU clearance, Solvay is presenting the associated activities in discontinued operations.

On May 6, 2013 Solvay and INEOS signed a Letter of Intent to combine their European Chlorovinyls activities in a 50-50 joint venture. The joint venture would pool both groups' assets across the entire chlorovinyls chain, including PVC, caustic soda and chlorine derivatives. RusVinyl, Solvay's Russian joint venture in chlorovinyls with Sibur, is excluded from the transaction. In September 2013, Solvay and INEOS submitted their application for competition clearance with the European Commission. On May 8, 2014, the European Commission approved the PVC joint venture between INEOS and Solvay, subject to conditions. On May 18, 2014, Solvay and INEOS signed a non-binding letter of intent for the combination of their respective European chlorovinyls activities into a 50/50 joint venture. On June 26, 2014, the binding agreement has been signed. The proposed transaction is subject to the applicable information/consultation procedures with employee representatives in the countries involved, and fulfillment of the conditions imposed by the European Commission. The occurrence and timing of the completion of the transaction are dependent on the above procedures and approvals. Until the completion, Solvay and INEOS will continue to manage their PVC businesses separately.

On July 30, 2014 Solvay has signed a binding agreement to sell its sulfuric acid virgin production and regeneration Eco Services business to affiliates of CCMP Capital Advisors, LLC. As from the 3<sup>rd</sup> quarter, Solvay reports Eco Services businesses under Assets Held for Sale and Discontinued Operations. Consequently, Solvay restated its 2013 and 2014 income statement and statement of cash flows to reflect the discontinuation of the business. The transaction was completed in the fourth quarter of the year.

On November 12, 2014, the Brazilian competition authority's (CADE) notified its decision to reject the intended acquisition of Solvay's 70.59% majority stake in Solvay Indupa by Brazilian chemical producer Braskem. Solvay confirms that its strategic direction remains unaffected and that it is examining alternative options to sell its participation in Solvay Indupa. As a disposal within 12 months is considered highly probable, Solvay Indupa remains classified as non-current assets held for sale and discontinued operations at December 31, 2014.

In € million	2014	2013
Sales	2,680	2,798
Breakdown discontinued operations		
Loss recognised as result of remeasurement to fair value less costs to $sell^{(1)}$	(476)	(68)
EBIT Pharma (post closing litigation)	1	105
EBIT Chlorovinyls	83	80
EBIT Solvay Indupa	17	
EBIT Eco Services	59	64
EBIT Eco Services (capital gain)	349	
Financial charges Chlorovinyls	(16)	(11)
Financial charges Solvay Indupa	(32)	
Financial charges Eco Services	(1)	(1)
Tax Chlorovinyls	(35)	(42)
Tax Solvay Indupa	(4)	
Tax Eco Services (mainly on capital gain)	(190)	(22)
TOTAL RESULT FROM DISCONTINUED OPERATIONS	(246)	106
attributed to:		
<ul> <li>owners of the parent</li> </ul>	(196)	106
non-controlling interests	(50)	0

(1) See note 34.

Discontinued operations include:

- Pharma post closing adjustments (mainly milestone in 2013);
- Eco Services business;
- Impairment Chlorovinyls Europe (€ (476) million).

Solvay Indupa 2013 discontinued operations net income results from impairment loss related to change in fair value after signing the share purchase agreement with Braskem in December 2013 ( $\in$  (68) million in 2013).

# Financial & extra-financial information

## NOTE 11 Net income

Net income amounts to  $\notin$  13 million versus  $\notin$  315 million in prior year. This decrease in net income results mainly from:

higher REBITDA (€ 171 million);

## **NOTE 12** Adjusted net income (non IFRS metrics)

Adjusted net income excludes from the IFRS net income the main impact of the Rhodia Purchase Price Accounting related to the amortization of intangible assets (after taxes).

Adjusted net income is computed as follows:

In € million	2014	2013
NET INCOME IFRS	13	315
Adjustments to IFRS net income		
Amortization of PPA on intangible fixed assets	110	143
Tax on adjustments	(36)	(39)
PPA amortization on discontinued operations	2	3
ADJUSTED NET INCOME	89	422

## NOTE 13 Earnings per share

Number of shares (in thousands)	2014	2013
Weighted average number of ordinary shares (basic)	83,228	83,151
Dilution effect of subscription rights	662	692
Weighted average number of ordinary shares (diluted)	83,890	83,843

	2014		201	3	
	Basic	Diluted	Basic	Diluted	
Net income of the year (Solvay share) including discontinued operations (in thousands €)	80,239	80,239	270,477	270,477	
Net income of the year (Solvay share) excluding discontinued operations (in thousands €)	276,665	276,665	164,546	164,546	
Earnings per share (including discontinued operations) (in $\in$ )	0.96	0.96	3.25	3.23	
Earnings per share (excluding discontinued operations) (in €)	3.32	3.30	1.98	1.96	

The basic earnings per share amount are obtained by dividing net income by the number of shares.

The diluted earnings per share amount is obtained by dividing net income by the number of shares, increased by the number of potentially diluting shares attached to the issue of share options. For the purpose of calculating diluted earnings per share, there were no adjusting elements to net income of the year (Solvay share). Full data per share, including dividend per share, can be found in the management report.

The average closing price during 2014 was € 114.84 per share (2013: € 109.96 per share). In function of this average closing price all share options were in the money, and therefore dilutive, for the presented period (see note 24).

- non-recurring items (€ (308) million in 2014 compared to (239) million in 2013);
- higher discounting costs in financial expenses (€ (77) million);
- Iower result from discontinued operations (€ (352) million).



## Notes to the statement of comprehensive income

## NOTE 14 Consolidated statement of comprehensive income

## Presentation of the tax effect relating to each item of other comprehensive income

		2014			2013		
In € million	Before-tax amount	Tax expense(-)/ benefit (+)	Net-of-tax amount	Before- taxamount	Tax expense(-)/ benefit (+)	Net-of-tax amount	
Gains and losses on remeasuring hyperinflation	(11)	2	(9)	30	(10)	20	
Hyperinflation	(11)	2	(9)	30	(10)	20	
Gains and losses on remeasuring available-for-sale financial assets	1	0	1	(3)		(3)	
Recycling of available-for-sale financial assets disposed of in the year*			0	(20)		(20)	
Available-for-sale financial assets	1	0	1	(23)	0	(23)	
Effective portion of gains and losses on hedging instruments in a cash flow hedge	(59)	11	(48)	35		35	
Recycling to the income statement*	(1)		(1)	(44)		(44)	
Cash flow hedges	(60)	11	(49)	(9)	0	(9)	
Currency translation differences arising during the year	232		232	(356)		(356)	
Recycling of currency translations differences relating to foreign investments disposed of in the year	(1)		(1)			0	
Currency translation differences on foreign operations	231	0	231	(356)	0	(356)	
Unrecognized actuarial gains and losses on defined benefit pension plans	(497)	59	(438)	109	(28)	81	
Other comprehensive income	(336)	72	(264)	(249)	(38)	(287)	

\* See note 37.

## **Hyperinflation**

The Venezuelan economy being considered as a hyperinflationary economy, since 2013, the Group applies the hyperinflationary accounting requirements of IAS 29 *Financial Reporting in Hyperinflationary Economies* to its Venezuelan operations. The financial statements are based on the historical cost basis and have been restated to take into account the effects of inflation (2014:  $\in$  (9) million after taxes, 2013:  $\notin$  20 million after taxes).

## **Cash flow hedges**

(see note 37: 2014: € (60) million; 2013: € (9) million)

The loss ( $\notin$  (59) million before taxes) is related to the effective portion of change in fair value for cash flow hedges (currency cash flow hedges for  $\notin$  (46) million).

The recycling of cash flow hedge ( $\in$  (1) million after taxes) corresponds mainly to  $\in$  (7) million of currency cash flow hedges and to  $\in$  6 million of energy cash flow hedges.

## **Currency Translation differences**

The total difference amounts to  $\leq 231$  million of which  $\leq (243)$  million for the Group's share, increasing the balance from  $\leq (780)$  million at the end of 2013 to  $\leq (549)$  million at the end of 2014.

The main variances are linked to:

- the depreciation of the Russian ruble (€ (185) million), the Argentine peso (€ (17) million), the British pound sterling (€ (35) million) compared to the euro;
- the appreciation of the US dollar (€ 335 million), the Brazilian real (€ 22 million), the Thai baht (€ 39 million), the Chinese yuan renminbi (€ 13 million), the South-Korean won (€ 12 million) and the Indian rupee (€ 18 million) compared to the euro.

# Notes to the statement of cash flows (continuing and discontinued operations)

## NOTE 15 Depreciation, amortization and impairments

In 2014 total depreciation, amortization and impairment losses amount to  $\in$  (1,430) million, of which:

- normal straight-line depreciation and amortization: € 790 million (€ 641 million for continuing operations, € 110 million for PPA Rhodia amortization for continuing operations, € 36 million for discontinued operation and € 3 million for PPA Rhodia for discontinuing operations);
- net impairment loss amounted to € 638 million (€ 152 million for continuing operations and € 486 million for discontinued operations).

In 2013 total depreciation, amortization and impairment losses amounted to  ${\ensuremath{\in}}$  (963) million, of which:

- normal straight-line depreciation and amortization € 872 million (€ 638 million for continuing operations, € 143 million for PPA Rhodia amortization and € 91 million for discontinued operations);
- net impairment loss amounted to € 91 million (€ 22 million for continuing operations and € 68 million for discontinued operations).

## NOTE 16 Income tax

#### In 2014

**Income tax expense** ( $\in$  314 million) includes  $\in$  230 million for discontinued operations (including tax on capital gain Eco Services  $\in$  171 million).

**Income tax paid** amounts to  $\in$  (217) million of which  $\in$  (13) million for discontinued operations.

## In 2013

**Income tax expense** ( $\in$  236 million) including  $\in$  65 million for discontinued operations.

**Income tax paid** amounted to  $\in$  (268) million of which  $\in$  (48) million for discontinued operations.

## NOTE 17 Changes in working capital

The change in working capital amounted to  $\notin$  236 million in 2014, of which  $\notin$  105 million for continuing operations, due to very low ratio working capital on sales at year end (notably record low accounts receivable overdue performance) and  $\notin$  131 million for discontinued operations, mainly due to Pharma ( $\notin$  102 million) and Indupa business in Latin America ( $\notin$  20 million).

In 2013 the change in working capital amounted to  $\notin$  20 million, of which  $\notin$  (67) million for continuing operations and  $\notin$  87 million for discontinued operations, mainly due to Chlorovinyls.

## NOTE 18 Changes in provisions

In 2014 the amount ( $\in$  (213) million) includes:

- the cash-out for € (398) million includes € (35) million for discontinued operations, mainly Chlorovinyl;
- the additions (€ 345 million) and reversals (€ (158) million) presented in the note 35.

In 2013 the amount (€ (245) million) included:

- the cash-out for € (433) million: total of € (617) million minus the settlement of H<sub>2</sub>O<sub>2</sub> anti-trust case for € 175 million, as this amount was already placed in escrow;
- the additions (€ 440 million) and reversals (€ (243) million).

## NOTE 19 Other non-operating and non-cash items

The other non-operating and non-cash items for 2014 ( $\in$  (357) million) mainly include the gross capital gain of Eco Services ( $\in$  (349) million). In 2013 the other non-operating and non-cash items amounted to  $\in$  20 million.

## NOTE 20 Cash flows linked to the acquisition/disposal of assets and investments

2014			
In € million	Acquisitions	Disposals	Total
Subsidiaries	(304)	732	428
Associates and joint ventures	(107)		(107)
Other		(11)	(11)
Total investments	(411)	721	310
Tangible/intangible assets	(988)	21	(967)
TOTAL	(1,398)	742	(657)

## 2013

In € million	Acquisitions	Disposals	Total
Subsidiaries	(878)	(6)	(884)
Associates and joint ventures	(86)		(86)
Available-for-sale investments	(10)	50	40
Other	(7)		(7)
Total investments	(981)	44	(937)
Tangible/intangible assets	(867)	33	(834)
TOTAL	(1,848)	77	(1,771)

## In 2014

The acquisition of subsidiaries ( $\in$  (304) million) is mainly related to the acquisition of Ryton<sup>®</sup> PPS ( $\notin$  (198) million). Other acquisitions are Erca Quimica Brazil, Flux Schweiß- und Lötstoffe GmbH and Solvay Biomass Energy.

The acquisition of associates and joint ventures ( $\notin$  (107) million) mainly relates to the capital increase in the RusVinyl PVC joint venture ( $\notin$  (98) million).

The acquisition of tangible/intangible assets ( $\in$  (988) million) relates to various projects:

- Novecare's expansion of ethoxylation capacity in Asia and the United States;
- Aroma: Vanillin production new plant in Zhenjiang (China), boosting its production capacities by 40%;
- The investment in Specialty Polymers in Changshu (China);
- Silica: build-up of a new Highly Dispersible Silica (HDS) plant in Wloclawek (Poland);
- Peroxides: build-up of a Megaplant H<sub>2</sub>O<sub>2</sub> JV in Saudi Arabia with Sadara (JV Dow-Aramco)
- Peroxides: Eagle (60Kt H,O, plant at Zhengiang (China));
- Soda Ash and Derivatives: build-up of a large sodium bicarbonate plant in Thailand;
- Soda Ash and Derivatives: investments linked to competitiveness improvements.

The acquisition of tangible and intangible assets related to discontinued operations amounts to  $\in$  (127) million.

#### In 2013

**The acquisition of subsidiaries** ( $\in$  (878) million) was mainly related to the acquisition of Chemlogics and it is composed of the total consideration transferred in cash ( $\in$  (888) million), net of the cash held by the Company at acquisition ( $\notin$  7 million).

**Disposal of investments** in 2013 refered to the sale of the AGEAS shares (€ 50 million).

The acquisition of associates and joint ventures ( $\notin$  (103) million) mainly related to the capital increase in the RusVinyl PVC joint venture ( $\notin$  (86) million) and in the hydrogen peroxyde joint venture with Sadara in Saudi Arabia ( $\notin$  (24) million).

**The acquisition of tangible/intangible assets** ( $\in$  (867) million) relates to various projects, many of them extending over several years:

- Novecare's expansion of ethoxylation capacity in Asia and the United States;
- Novecare's new surfactant plant in Germany;
- Doubling of Aroma Performance's production capacity for specialty fluorinated derivatives at its plant in Salindres (France);
- The investment in Specialty Polymers in Changshu (China);
- Silica: build-up of a new Highly Dispersible Silica (HDS) plant in Wloclawek (Poland).

The acquisition of tangible and intangible assets related to discontinued operations amounts to  $\in$  (133) million.

## NOTE 21 Proceed from Bond issuance classified as equity

Following the acquisition during 2013 of Chemlogics and to strengthen Solvay's capital structure, a hybrid bond has been issued for a worth of € 1.2 billion. This bond qualifies as an equity instrument in accordance with IAS 32 *Financial Instruments: Presentation.* The amount reported in the cash flow statement in 2013 is the cash received after deduction of issuance costs.

The classification of the Hybrid Bonds in equity is mainly based on the discretionary nature of all payments:

- no maturity (perpetual bond) as the issuer has a call option at every reset date to redeem the instrument;
- at the option of the issuer, interest payments can be deferred indefinitely.

The coupons related to the  $\in$  1.2 billion Hybrid Bonds treated as equity, amount to  $\in$  42 million during 2014, and 0 during 2013 ( $\in$  700 million NC5.5 at 4.199% and  $\in$  500 million NC10 at 5.425%) and are reported as dividends upon declaration (see statement of changes in equity).

## NOTE 22 Other cash flows from financing activities

In 2014 the other cash flows from financing activities ( $\notin$  (3) million) include a various number of non significant cash inflows and outflows.

In 2013 the other cash flows from financing activities ( $\notin$  (61) million) include the payments for the liquidity clause related to share based payments signed as part of the Rhodia acquisition ( $\notin$  (32) million).

## NOTE 23 Cash flow from discontinued operations

The 2014 cash flow from discontinued operations ( $\leq$  124 million) results from the cash in of the Androgel milestone, related to the disposal of the pharma business ( $\leq$  100 million) and the total cash flow of the Indupa business in Latin America ( $\leq$  (2) million), Chlorovinyls ( $\leq$  (9) million) and Eco Services ( $\leq$  44 million) reclassified as discontinued operations.

In 2013 the cash flow from discontinued operations ( $\notin$  268 million) results from the cash in of the Androgel milestone and insurance indemnities, related to the disposal of the Pharma business ( $\notin$  128 million) and the total cash flow of the Indupa business in Latin America ( $\notin$  6 million) and Eco Services business ( $\notin$  55 million) and Chlorovinyls reclassified as discontinued operations ( $\notin$  80 million).

## **NOTE 24** Share-based payments

## **Stock Option Plan**

At the end of 2013, the Group held 1,529,870 treasury shares, to cover the share options offered to Group executives. At the end of 2014, the Group held 1,719,208 treasury shares, which have been deducted from consolidated shareholders' equity.

As it has in every year since 1999, the Board of Directors renewed the share option plan offered to executive staff (around 72 persons) with a view to involving them more closely in the long-term development of the Group. The majority of the managers involved subscribed the options offered to them in 2014 with an exercise price of  $\notin$  107.61, representing the average stock market price of the share for the 30 days prior to the offer.

The 3-year vesting period is followed by a 5-year exercise period, at the end of which any unexercised options expire. The settlement method is in equity.

Share options	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Number of share options granted and still outstanding at 31/12/2013	119,440	408,200	305,300	146,900	250,300	430,400	413,250	779,847	405,716	
Granted share options										362,436
Forfeitures of rights and expiries										
Share options exercised	(31,900)	(284,000)	(92,450)	(48,150)	(67,400)	(208,200)				
Number of share options at 31/12/2014	87,540	124,200	212,850	98,750	182,900	222,200	413,250	779,847	405,716	362,436
Share options exercisable at 31/12/2014	87,540	124,200	212,850	98,750	182,900	222,200	0	0	0	0
Exercise price (in €)	97.30	109.09	96.79	58.81	72.34	76.49	65.71	88.71	111.01	107.61
Fair value of options at measurement date (in €)	10.12	21.20	18.68	14.95	19.85	15.58	13.54	22.53	21.32	24.25

	201	14	2013		
	Number of share options	Weighted average exercise price	Number of share options	Weighted average exercise price	
At January 1	3,259,353	87.97	3,761,947	84.92	
Granted during the year	362,436	107.61	405,716	111.01	
Forfeitures of rights and expiries during the year	0	0.00	(6,500)	86.85	
Exercised during the year	(732,100)	91.06	(901,810)	85.63	
At December 31	2,889,689	89.65	3,259,353	87.97	
Exercisable at December 31	928,440		1,253,940		

**Financial & extra-financial information** 

The share options resulted in a charge in 2014 of  $\in$  10.6 million calculated by a third party according to the Monte Carlo model and recorded in the income statement under commercial and administrative costs.

The model places a value on the options taking into account the fact that some of them will be exercised before the option maturity.

The value of the option is based on:

- the price of the underlying asset (Solvay share): € 111.45 at March 24, 2014;
- the time outstanding until the option maturity: exercisable from January 1, 2018;
- the option exercise price: € 107.61;
- the risk-free return: 1.67%;
- the volatility of the underlying yield, implied from option price: 25.40%;
- based on a divided yield of 2.9%.

Weighted average remaining contractual life:

In years	2014	2013
Share option plan 2005	2.8	4.8
Share option plan 2006	1.4	2.7
Share option plan 2007	2.5	4.0
Share option plan 2008	2.0	3.0
Share option plan 2009	2.9	3.9
Share option plan 2010	4.0	5.0
Share option plan 2011	5.0	5.9
Share option plan 2012	5.1	6.1
Share option plan 2013	6.2	7.2
Share option plan 2014	7.2	0.0

## **Performance Share Units Plan (PSU)**

Since 2013, the Board of Directors renewed a yearly Performance Share Units plan, offered to executive staff with the objective of involving them more closely in the development of the Group, making this part of the long term incentive policy. All the managers involved accepted the PSU offered to them in 2014 with a grant price of  $\notin$  113.40. The

Performance Share Units Plan is qualified as a cash-settled share-based plan. Beneficiaries will obtain cash benefit, based upon the Solvay share price, as well as performance conditions.

Each plan has a 3 year vesting period, after which a cash settlement will take place, if vesting conditions are met.

Performance share units	Plan 2014	Plan 2013
Number of PSU	206,495	217,206
Grant date	24/02/2014	25/03/2013
Acquisition date	01/01/2017	01/01/2016
Vesting period	24/02/2014 to 31/12/2016	25/03/2013 to 31/12/2015
D f	50% of PSU Granted depending upon the level of REBITDA at closing Financial Year 2016	50% of PSU Granted depending upon the level of REBITDA at closing Financial Year 2015
Performance conditions	50% of PSU Granted depending upon the level of CFROI at closing Financial Year 2016	50% of PSU Granted depending upon the level of CFROI at closing Financial Year 2015
Validation of performance conditions	By the board of Directors, subject to confirmation by Solvay Statutory Auditors	By the board of Directors, subject to confirmation by Solvay Statutory Auditors

In 2013 a charge on the income statement regarding 2013 PSU plan was of  $\in$  8.4 million, and as of December 31, 2014, the impact on the income statement amounts to  $\in$  19 million.

# Notes to the statement of financial position

## NOTE 25 Intangible assets

		Patents and	Other intangible	
In € million	Development costs	trademarks	assets	Total
Gross carrying amount				
At December 31, 2012	147	933	941	2,022
Capital expenditures	42	1	27	70
Disposals and closures	(11)	(5)	(48)	(64)
Increase through business combinations	30	1	289	319
Currency translation differences	(2)	(25)	(9)	(36)
Other	1	9	(6)	3
Transfer to assets held for sale	(2)	(8)	5	(4)
At December 31, 2013	206	907	1,199	2,310
Capital expenditures	38	5	22	64
Disposals and closures	(5)	(46)	(71)	(122)
Increase through business combinations	0	39	23	62
Currency translation differences	5	31	58	94
Other	3	21	(6)	18
Transfer to assets held for sale	2	0	1	3
AT DECEMBER 31, 2014	249	956	1,226	2,430
Accumulated amortization				
At December 31, 2012	(53)	(332)	(175)	(559)
Amortization	(18)	(78)	(117)	(212)
Disposals and closures	11	5	42	58
Currency translation differences	0	10	3	13
Other	1	8	4	13
Transfer to assets held for sale	0	4	(6)	(2)
At December 31, 2013	(58)	(383)	(248)	(690)
Amortization	(27)	(65)	(115)	(207)
Disposals and closures	3	19	15	38
Currency translation differences	(1)	(13)	(11)	(25)
Other	0	(1)	(2)	(4)
Transfer to assets held for sale	0	1	(1)	(1)
AT DECEMBER 31, 2014	(83)	(442)	(362)	(887)
Net carrying amount				
At December 31, 2012	94	602	766	1,463
At December 31, 2013	147	523	951	1,621
AT DECEMBER 31, 2014	165	514	864	1,543

The carrying amount of other intangible assets consists mainly of acquired customer relationships and of technologies related to Rhodia. The average useful life of these assets is 11 years.

In 2014, the acquisitions of Ryton<sup>®</sup> PPS and Flux Schweiß- und Lötstoffe GmbH included intangible assets for € 62 million.



## NOTE 26 Goodwill

In € million	Total
Gross carrying amount	
At December 31, 2012	2,717
Arising on acquisitions	533
Impairments	(4)
Currency translation differences	(9)
Transfer to assets held for sale	(141)
At December 31, 2013	3,096
Arising on acquisitions	29
Disposals and closures	(51)
Currency translation differences	76
AT DECEMBER 31, 2014	3,151

Following acquisitions, the goodwill increased by  $\notin$  29 million mainly due to:

- the acquisition of Erca Química on April 1, 2014 which generated a new goodwill for € 17 million;
- the acquisition of Flux Schweiß- und Lötstoffe GmbH on September 30, 2014 which generated a new goodwill for € 16 million;
- the purchase price adjustment of Chemlogics due to the working capital (€ (4) million);

The disposal is related to Eco Services ( $\notin$  (51) million).

# Purchase Price Allocation related to the acquisition of Ryton<sup>®</sup> PPS (asset deal)

On December 31, 2014 Solvay completed the acquisition of the Ryton<sup>®</sup> PPS business from U.S.-based Chevron Phillips Chemical Company. The purchase aims at further strengthening unmatched leadership in Specialty Polymers' solutions.

The following table summarizes the consideration paid for Ryton<sup>®</sup> PPS and the amounts of assets and liabilities assumed recognized provisionally at the acquisition date.

In € million	
TOTAL CONSIDERATION TRANSFERRED (CASH)	198
Recognised amounts of identifiable assets acquired and liabilities assumed	198
Tangible fixed assets	116
Intangibles assets	44
Inventories	38
Non industrial working capital and pension liabilities	0
GOODWILL	0

The fair value of intangible assets mainly corresponds to trade name and patents.

Had Ryton<sup>®</sup> PPS business been consolidated from January 1, 2014, the consolidated statement of comprehensive income would have included revenue of  $\in$  111 million and operational profit for  $\in$  (11) million.

Acquisition costs amounted to  $\in$  4 million and are recorded in the non-recurring items.

In 2013, the goodwill increased by € 383 million following:

- the acquisition of Chemlogics on October 31, 2013 which generated a new goodwill for € 529 million;
- the change of control of the Lansol company, which generated a new goodwill for € 4 million;

- the qualification of Chlorchemicals activities as "Held for sale", which triggered the transfer of the existing goodwills allocated to the CGUs "Chlorovinyls Europe", "Olefins" and to the segment "Functional Polymers", to the line "Assets held for sale" for € 141 million;
- the impairment of the existing goodwill in the CGU Plastics Integration for € 4 million, following the qualification of the Benvic activities as Assets held for sale.

#### Other acquisitions

During 2014 Solvay completed the acquisition of Erca Química in Brazil, Solvay Biomass Energy in the United States and Flux Schweiß- und Lötstoffe GmbH in Germany for a total cash amount of  $\notin$  96 million. These transactions generated a total amount of provisional goodwill of  $\notin$  33 million. The identifiable net assets acquired amount to  $\notin$  63 million and mainly consist of tangible and intangible assets and inventories.

# Purchase Price Allocation related to the acquisition of Chemlogics

On October 31, 2013, Solvay acquired 100% of the privately-held Chemlogics, a company offering products to ease frictions in drilling. This acquisition enables Solvay's Novecare business unit to become a leader with an extensive portfolio of tailored chemical solutions for the fast-growing oil & gas market.

The acquisition of Chemlogics will generate significant synergies. Synergies will come from an extended client base and thanks to a

comprehensive offering of innovative products and technologies enabling oilfield service players worldwide to competitively and safely extract oil and gas while reducing water consumption. The goodwill of  $\leq$  529 million arising from the acquisition reflects those synergies expected from the acquisition and the potential of growth.

This goodwill is deductible for US income tax purposes over 15 years.

The following table summarizes the consideration paid for Chemlogics and the amounts of assets and liabilities assumed recognized provisionally at the acquisition date.

In € million	2013	2014 changes	Final
TOTAL CONSIDERATION TRANSFERRED (CASH)	888	6	894
Recognised amounts of identifiable assets acquired and liabilities assumed	359	10	369
Tangible fixed assets	30	10	40
Intangibles assets	317		317
Inventories	56		56
Non industrial working capital	(6)		(6)
Accounts receivable and payable	22		22
Net debt	(60)		(60)
GOODWILL	529	(4)	525

The fair value of intangible assets mainly corresponds to customer relationships.

Had Chemlogics been consolidated from January 1, 2013, the consolidated statement of comprehensive income would have included revenue of  $\notin$  10,258 million and operational profit for  $\notin$  962 million.

Contingent consideration ( $\notin$  60 million) is included in the acquisition price and is related to the achievement of performance targets.

The sale agreement contains a retention plan of  $\notin$  17 million for key employees subject to future services. This cost is recognized in the operational profit over the 3-year vesting period.

Acquisition costs in 2013 amounted to  $\in$  5 million and were recorded in the non-recurring items.

The amount paid for the acquisition is  $\in$  881 million after deducting  $\notin$  7 million of cash acquired.

The change in 2014 relates to (i) the adjustment of the purchase price for the working capital ( $\in$  (4) million) and to (ii) the purchase of tangible assets ( $\in$  10 million).



## Goodwill by cash-generating unit (CGU)

Goodwill acquired in a business combination is allocated on acquisition to the cash-generating units (CGU) or groups of CGUs (Operating Segments) that are expected to benefit from that business combination. The carrying amounts of goodwill and related impairment have been allocated as follows:

	2013								2014		
In € million	beginning	Transfer to asset held for sale	Acquisition and divestment	Impairment	Currency translation	end of the	Transfer	Acquisition and divestment	Impairment	Currency translation	At the end of the period
Groups of CGUs	penou	Sdie	uivestillellt	impannent	unterences	periou	Hallster	uivestillellt	impairment	unrerences	periou
(Operating Segments)											
Advanced Formulations	221					221					221
Advanced Materials	485					485					485
Performance Chemicals	166					166		(9)			157
Functional Polymers	9	(9)				0					0
Cash generating units											
Novecare	478		529		(6)	1,001		13		71	1,085
Polyamides	170					170					170
Rare Earth Systems	161					161					161
Specialty Polymers	186				(1)	185				3	188
Acetow	120					120					120
Soda Ash and Derivatives EMEA	120					120	(120)				0
Soda Ash and Derivatives NAFTA	42					42	(42)				0
Soda Ash and Derivatives						0	162				162
Chlorovinyls Europe	122	(122)				0					0
Coatis	82					82					82
Silica	72					72					72
Aroma Performances	49					49					49
Energy Services	49					49		1			50
Fluorochemicals	50		4		0	53		16		1	70
Eco Services	42					42		(42)			0
Hydrogen Peroxyde Europe	20					20					20
Emerging Biochemicals	20					20					20
Hydrogen Peroxyde Mercosur	14					14					14
Olefins	11	(11)				0					0
Hydrogen Peroxyde Nafta	7					7				1	8
Hydrogen Peroxyde Asia	11				(1)	10					10
Precipitated Calcium Carbonate	4					4					4
Plastics Integration	4			(4)		0					0
PVC Mercosur	2				0	2					2
TOTAL GOODWILL	2,717	(141)	533	(4)	(8)	3,096	0	(22)	0	76	3,150

In 2014, the CGUs Soda Ash and Derivatives EMEA and NAFTA have been merged due to (i) the globalisation of export management inside one Global Business Unit and to (ii) the implementation of one global management which leads to more interdependent cash flows.

Financial & extra-financial information

## NOTE 27 Tangible assets

		Fixtures &	Other tangible	Properties under	
In € million	Land & Buildings	Equipment	assets	construction	Total
Gross carrying amount					
At December 31, 2012	3,138	12,657	248	543	16,585
Capital expenditures	5	78	4	711	798
Disposals and closures	(39)	(195)	(29)	(14)	(277)
Increase through business combinations	14	18	5	9	45
Currency translation differences	(92)	(452)	(13)	(22)	(578)
Other	98	315	216	(597)	32
Transfer to assets held for sale	(348)	(2,281)	(45)	(30)	(2,704)
At December 31, 2013	2,776	10,139	387	600	13,902
Capital expenditures	17	161	10	756	945
Disposals and closures	(113)	(691)	(40)	(30)	(875)
Increase through business combinations	18	108	1	0	127
Currency translation differences	97	442	17	48	605
Other	85	387	51	(409)	114
Transfer to assets held for sale	(16)	(25)	(2)	(49)	(92)
AT DECEMBER 31, 2014	2,863	10,521	424	916	14,725
Accumulated depreciation					
At December 31, 2012	(1,629)	(9,046)	(203)	(2)	(10,880)
Depreciation	(74)	(623)	(26)		(723)
Impairment	(16)	(33)	0		(49)
Reversal of impairment					0
Disposals and closures	23	156	27		206
Currency translation differences	33	279	11		323
Other	19	185	(151)	2	56
Transfer to assets held for sale	246	1,895	39		2,180
At December 31, 2013	(1,398)	(7,186)	(303)	0	(8,887)
Depreciation	(79)	(332)	(64)		(475)
Impairment		(288)	(2)		(290)
Reversal of impairment	4				4
Disposals and closures	60	531	30		621
Currency translation differences	(40)	(269)	(14)		(323)
Other	(19)	(49)	3		(65)
Transfer to assets held for sale	19	53	2		75
AT DECEMBER 31, 2014	(1,452)	(7,540)	(348)	0	(9,339)
Net carrying amount	••••	••••			
At December 31, 2012	1,509	3,611	45	541	5,706
At December 31, 2013	1,378	2,953	84	600	5,015
AT DECEMBER 31, 2014	1,412	2,982	77	916	5,386

See also note 20 with respect to capital expenditures.

## **Finance leases**

In € million	Land and buildings	Fixtures and equipment	Total
Net carrying amount of finance leases included in the table above	2	0	2



## **Finance lease obligations**

	Minimum lea	se payments	Present value of minimum lease payments			
In € million	2014	2013	2014	2013		
Amounts payable under finance leases:						
Within one year	1	1	1	1		
In years two to five inclusive	3	2	3	2		
Beyond five years	0		0			
Less: future finance charges	(3)	(1)	(3)	(1)		
Present value of minimum lease payments of finance leases	1	2	1	2		
Less: Amount due for settlement within 12 months						
Amount due for settlement after 12 months			1	2		

The carrying amount of lease obligations approximates their fair value.

## **Operating lease obligations**

In € million	2014	2013
Total minimum lease payments under operating leases recognized in the income statement of the year	86	84

In € million	2014	2013
Within one year	85	80
In years two to five inclusive	242	245
Beyond five years	97	95
TOTAL OF FUTURE MINIMUM LEASE PAYMENTS UNDER NON-CANCELLABLE OPERATING LEASES	424	420

Operating leases are mainly related to offices and warehouses.

## NOTE 28 Impairment

## Assets other than non-current assets held for sale

In accordance with IAS 36 *Impairment of Assets*, (see *IFRS main accounting policies – 7. Goodwill, and 16. Impairment of tangible and intangible assets excluding goodwill)*, the recoverable amount of property, plant and equipment, intangible assets, cash-generating units (CGUs) or groups of CGUs, including goodwill, corresponds to the higher of their fair value less costs of disposal, and their value in use. The latter equals the present value of the future cash flows expected to be derived from each asset, CGU or group of CGUs and is determined using the following inputs:

- business plan approved by management based on growth and profitability assumptions, taking into account past performances, forecast changes in the economic environment and expected market developments. Such business plan generally covers 5 years, unless management is confident that projections over a longer period are reliable;
- consideration of a terminal value determined based on the cash flows obtained by extrapolating the cash flows of the last year of the business plan referred to above, affected by a long-term growth rate deemed appropriate for the activity and the location of the assets;
- discounting of expected cash flows at a rate determined using the weighted average cost of capital formula.

#### Discount rate

The discount rate is estimated based on an extensive benchmarking with peers, for it to reflect the return investors would require if they were to choose an investment in the underlying assets. The weighted average cost of capital used to discount future cash flows was set at 7.7% in 2014 (8.2% in 2013). Such decrease is mainly driven by a decrease of the equity risk premium. In accordance with Group policies, the change has been capped at 50 basis points.

#### Long-term growth rates

The long-term growth rate was set between 1% and 3% depending on the CGU. The growth rates are consistent with the long-term average market growth rates for the respective CGUs, and the countries in which they operate.

Other key assumptions are specific to each CGU (energy price, volumes, margin, etc.).

#### General

Except as disclosed below, the impairment tests performed at December 31, 2014 did not lead to any impairment of assets, as the recoverable amounts of the (groups of) CGUs were significantly higher than their carrying amounts. More specifically, the difference between the (groups of) CGUs' carrying amount and their value in use represents in all cases more than 10% of their carrying amount. As such, for those (groups of) CGUs, a reasonable change in a key assumption on which the recoverable amount of the (groups of) CGUs is based, would not result in



an impairment loss for the related (groups of) CGUs. In this respect, we note the following:

- the group of CGUs Polyamide & Intermediates includes a goodwill of € 170 million. Its recoverable amount has been determined to equal its value in use, calculated as explained above. An increase of the discount rate with 50 basis points decreases the positive difference between the recoverable amount and the carrying amount from € 337 million to € 215 million. A decrease of the growth rate with 100 basis points decreases the positive difference between the recoverable amount and the carrying amount from € 337 million to € 215 million.
- the group of CGUs Rare Earth Systems includes a goodwill of € 161 million. Its recoverable amount has been determined to equal its value in use, calculated as explained above. An increase of the discount rate with 50 basis points decreases the positive difference between the recoverable amount and the carrying amount from € 50 million to € 11 million. A decrease of the growth rate with 100 basis points decreases the positive difference between the recoverable amount amount from € 50 million to € 21 million.

Impairment losses are recognized as non-recurring items (see note 7).

#### **RusVinyl**

RusVinyl is a Russian joint venture in chlorovinyls (Operating Segment: Functional Polymers) in which Solvay holds a 50% equity interest, together with Sibur who holds the remaining 50% equity interest. After application of the equity method, the equity investment has been tested for impairment during the fourth quarter of 2014, following the latest developments in the Russian economy that took place during this quarter, including but not limited to the substantial devaluation and the increased volatility of the RUB/€ exchange rate. The recoverable amount of the investment has been estimated based on a dividend discount model (value in use calculation). The impairment loss recognized during 2014 amounts to  $\in$  110 million.

The recoverable amount is highly sensitive to the RUB/ $\in$  exchange rate. This rate impacts the carrying amount of the investment, the foreign

## **NOTE 29** Available-for-sale financial assets

currency losses on the euro denominated debt, and consequently the distributable earnings potential. Sensitivities on exchange rate RUB/ $\in$  and, inflation in Russia lead to a range of outcomes varying between  $\notin$  120 million above and below the recoverable amount.

#### Other

Following conditions specific to the Chinese market, the Group decided to put on hold the construction of a production asset in Solvay Biochemical (Taixing) (Operating Segment: Performance Chemicals). The resulting impairment test led to the recognition of an impairment loss on property, plant and equipment in the amount of  $\notin$  34 million.

#### Non-current assets held for sale

This paragraph should be read together with note 34 Assets held for sale. The impairment loss recognized on non-current assets held for sale during 2014 relates to the discontinued operations of the chlorovinyls to be contributed to the 50/50 joint venture with INEOS. The joint venture will pool both groups' assets across the entire chlorovinyls chain, including PVC, caustic soda and chlorine derivatives. The assets classified as held for sale are measured at the lower of their carrying amount and their fair value less costs of disposal. This fair value less costs of disposal has been calculated based on the agreement signed with INEOS at the end of the second quarter. It considers the upfront payment of  $\in$  175 million at closing, the transfer of liabilities worth € 250 million into the joint venture, as well as Solvay's exit conditions after three years, when it will receive additional cash proceeds targeted at € 250 million. These final cash proceeds at exit will be adjusted based on the joint venture's average REBITDA performance during its three-year period, with a minimum exit payment of € 75 million. As a result the fair value is categorized in level 3 and the key assumption is the average REBITDA performance in the next three years. Based on this, at June 30, 2014, an impairment loss of  $\in$  477 million, allocated to goodwill ( $\in$  143 million), and property plant and equipment and accruals for costs of disposal (€ 335 million) has been recognized. The impact on net income/loss Group share amounted to € (422) million, after taking into account the portion attributable to noncontrolling interests.

In € million	2014	2013
CARRYING AMOUNT AT JANUARY 1	38	66
Acquisition of New Business Development (NBD)	4	10
Gains and losses on remeasuring available-for-sale financial assets	1	(3)
Available-for-sale financial assets disposed of in the year		(35)
Available-for-sale financial assets impaired in the year	(1)	
Other	1	0
CARRYING AMOUNT AT DECEMBER 31	43	38
Of which recognized directly in equity	(4)	(6)

See also note 37 B.

In 2013, the disposal of available-for-sale financial assets is related to sale of all the AGEAS shares held by the Group.



## **NOTE 30** Investments in associates and joint ventures

## **INVESTMENTS IN ASSOCIATES\***

In € million	2014	2013
CARRYING AMOUNT AT JANUARY 1	19	32
Acquisition / Disposal	11	(2)
Net income from associates	0	(2)
Dividend received from associates	(2)	(2)
Impairment of Plextronics		(11)
Transfer from other investments		5
Currency translation differences	1	(2)
Other	1	
CARRYING AMOUNT AT DECEMBER 31	30	19

\* See note 42.

#### **INVESTMENTS IN JOINT VENTURES\***

In € million	2014	2013
CARRYING AMOUNT AT JANUARY 1	563	562
Capital increase / decrease	97	86
Net income from joint ventures	(34)	33
Dividend received from joint ventures	(15)	(49)
Impairment of RusVinyl	(110)	
Currency translation differences	(154)	(71)
Other	2	1
CARRYING AMOUNT AT DECEMBER 31	350	563

\* See note 42.

The capital increase in joint ventures mainly relates to the investment in RusVinyl (2014 € 96 million, 2013 € 84 million).

The currency translation difference in joint ventures mainly relates to the depreciation of the depreciation of the Russian ruble, the Thai baht, the Brazilian real and the Indian rupee compared to the euro.

## **NOTE 31** Other investments

In € million	2014	2013
CARRYING AMOUNT AT JANUARY 1	114	127
Disposed of during the year	(5)	(3)
Acquired during the year	16	
Capital increase / decrease	3	7
Changes of consolidation method	(1)	(5)
Changes in consolidation scope		(5)
Transfer to assets held for sale		(1)
Impairments	(8)	(8)
Reversal of impairments	2	4
Other	1	(2)
CARRYING AMOUNT AT DECEMBER 31	121	114

## **NOTE 32** Inventories

In € million	2014	2013
Finished goods	854	763
Raw materials and supplies	591	546
Work in progress	45	45
TOTAL	1,490	1,355
Write-downs	(70)	(55)
NET TOTAL	1,420	1,300

## NOTE 33 Other current receivables – Other

In € million	2014	2013
VAT and other taxes	249	277
Advance to suppliers	30	34
Financial instruments – operational	52	53
Insurance premiums	18	16
Other	151	193
OTHER CURRENT RECEIVABLES - OTHER	500	572

Financial instruments include held for trading and cash flow hedge derivatives (see note 37 A).

## **NOTE 34** Assets held for sale

		2014			201	3	
	Chlorovinyls	Solvay Indupa		Chlorovinyls	Solvay Indupa	Benvic	
In € million	at fair value	at fair value	Total	at book value	at fair value	at fair value	Total
Property, plant and equipment	635	145	780	672	91	0	763
Goodwill	0	1	1	142	0	0	142
Other intangible assets	4	0	4	7	0	0	7
Investments	0	11	11	0	14	0	14
Inventories	166	55	221	149	56	11	216
Trade and other receivables	315	57	372	333	102	34	469
Cash and cash equivalent	0	24	24	0	11	0	11
Assets held for sale	1,120	294	1,414	1,302	273	46	1,621
Non-current liabilities	111	5	116	325	90	7	422
Trade and other payables	765	281	1,047	320	185	22	527
Liabilities associated with assets held for sale	876	286	1,162	645	275	29	949
NET ASSETS DIRECTLY ASSOCIATED WITH DISPOSAL GROUP	244	7	251	657	(2)	17	672
Included in other comprehensive income							
Currency translation differences*	0	(63)	(63)	(1)	(60)	0	(61)
Defined benefit pension plan	(49)	(3)	(52)	(23)	(2)	(2)	(27)
OTHER COMPREHENSIVE INCOME	(49)	(65)	(114)	(24)	(62)	(2)	(88)

\* Including  $\in$  (53) million for the Solvay share in Solvay Indupa in 2014 ( $\in$  (51) million in 2013).

Assets held for sale at year end include Chlorovinyls net assets held for sale for  $\leqslant$  244 million in 2014, and result from the difference between the fair value of the net assets contributed ( $\leqslant$  404 million), the estimated adjustments ( $\leqslant$  (137) million based on year-end balance) for target working capital, excluded assets and liabilities (of which financial debts) and other costs to sell ( $\leqslant$  (22) million).

To assess the fair value of the Group interest in Solvay Indupa, management has referred to the amount of the deal signed with Braskem (level 3 fair value classification) and rejected at year end by Brazilian competition authority.



## NOTE 35 Provisions

In € million	Employee benefits	Restructuring	Environment	Litigation	Other	Total
At December 31, 2013*	2,685	109	636	327	63	3,820
Additions	90	58	74	52	70	345
Reversals	(13)	(21)	(24)	(74)	(27)	(158)
Uses	(208)	(68)	(73)	(18)	(31)	(398)
Increase through time value of money	105	0	69	2	4	180
Remeasurements	508	0	0	0	0	508
Currency translation differences	62	1	16	2	3	84
Acquisitions and changes in consolidation scope	2	0	0	0	0	2
Disposals	(19)	0	(1)	(1)	(7)	(28)
Transfer to liabilities associated with assets held for sale	(36)	0	7	0	0	(28)
Others	(10)	(1)	7	(4)	11	3
AT DECEMBER 31, 2014	3,166	77	713	285	87	4,328
Of which current provisions	0	72	115	100	21	308

\* All presented figures include the impact of IFRS 11.

In total, provisions increased by € 508 million.

The main events of 2014 are:

- the favorable employee benefits assets performance with a positive impact in equity of € 87 million;
- the decrease in discount rates and other financial assumptions used for the computation of employee benefits obligations in the Eurozone, the United Kingdom and the United States with a negative impact in equity of € 570 million;
- the decrease in discount rates used for the computation of environmental liabilities in the Eurozone, the United States, the United Kingdom and Brazil for a total impact on net result of € 40 million;
- the classification as "Held for Sale" of "Eco Services" activities, resulting in a decrease of provisions for € 28 million.

Management expects provisions (other than Employee benefits) to be used (cash outlays) as follows:

	up to	between	beyond	
In € million at December 31, 2014	5 years	5 and 10 years	10 years	Total
Total provisions for environment	330	153	230	713
Total provisions for litigation*	201	46		247
Total other provisions	120	17	27	165
TOTAL	651	216	257	1,124

\* Excluding provisions with cash deposit to guarantee the liabilities ( $\notin$  38 million).

## 35.A. Provisions for employee benefits

#### **Overview**

The end-of-year provisions for employee benefits are composed of the following:

In € million	2014	2013
Post-employment benefits	3,015	2,539
Other long-term benefits	75	68
Benefits not valued according to IAS 19	36	36
Termination benefits	41	42
EMPLOYEE BENEFITS	3,166	2,685

Post-employment benefit plans are classified into defined contribution and defined benefit plans.

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#### Defined contribution plans

Defined contribution plans are those for which the Company pays fixed contributions into a separate entity or fund in accordance with the provisions of the plan. Once these contributions have been paid, the Company has no further obligation.

For defined contribution plans, Solvay pays contributions to publicly or privately administered pension funds or insurance companies. For 2014, the expense amounted to  $\in$  18 million compared to  $\in$  16 million for 2013.

#### Defined benefit plans

All plans which are not defined contribution plans are deemed to be defined benefit plans. These plans can be either funded via outside pension funds or insurance companies ("funded plans") or financed within the Group ("unfunded plans"). All main plans are assessed annually by independent actuaries.

The figures presented as Termination Benefits are mainly composed of pre-pension schemes in Belgium and Germany.

#### **Multiemployer Plans**

Solvay contributed in the United States to two multiemployer pension plans under collective bargaining agreements that cover certain of its union-represented employees. During 2014 Solvay has withdrawn from the PACE Industry Union-Management pension fund effective as of May 1, 2014, pursuant to a collective bargaining agreement. Also, following the divestiture of Eco Services business Solvay no longer contributes to the Western Conference of Teamsters pension fund.

Each of the multiemployer plans is a defined benefit pension plan. None of the multiemployer plans provide an allocation of its assets, liabilities, or costs among contributing employers. None of the multiemployer plans provides sufficient information to permit Solvay, or other contributing employers, to account for the multiemployer plan as a defined benefit plan. Accordingly, the Company accounts for its participation in each of the multiemployer plans as if it were a defined contribution plan.

For multiemployer plans, during 2014, Solvay paid as yearly contributions less than  ${\ensuremath{\in}}\,1$  million.

#### **Provisions for post-employment benefits**

The net liability results from the net of the provisions and the capitalized pensions assets.

In € million	2014	2013
Provisions	3,015	2,539
Capitalized pensions assets	(1)	(3)
Net liability	3,014	2,536
Operational expense	57	57
Financial expense	94	94

#### Management of risk

Over the last years, the Group has reduced its exposure to defined benefit plans by converting existing plans into pension plans with a lower risk profile for future services (hybrid plans, cash balance plans and defined contribution plans) or by closing them to new entrants.

Solvay keeps a constant follow up over group risk exposure, having a specific focus on the following risks:

#### Asset volatility

Equities, though expected to outperform corporate bonds in the longterm, create volatility and risk in the short-term. To mitigate this risk, the global objective for funded schemes is to invest in a balanced proportion between equities and bonds. The allocation to equities is monitored using ALM techniques, to ensure it remains appropriate given the respective schemes' and company's long term objectives.

#### Changes in bond yields

A decrease in corporate bond yields will increase the value placed on the schemes' liabilities for accounting purposes. For funded schemes this will be partially offset by an increase in the value of the schemes' bond holdings.

#### Inflation risk

The benefit obligations are linked to inflation, and higher inflation will lead to higher liabilities (although, in most cases, caps on the level of inflationary increases are in place to protect against extreme inflation). A limited part of the assets are either unaffected by or only loosely correlated with inflation, meaning that an increase in inflation will also increase the deficit.

#### Life expectancy

The majority of the schemes' obligations are to provide benefits for the life of the member. Increases in life expectancy will therefore result in an increase in the liabilities.

## Currency risk

This risk is limited, as major plans in foreign currency are funded and most of their assets are denominated in the currency in which benefit payments will take place.

#### **Regulatory risk**

For partly or fully unfunded plans, the Group is exposed to the risk of external funding following regulatory constraints. This should not impact the defined benefit obligation but could expose the Group to a potential significant cash outlay.

For more information about Solvay group risk management, please refer to the "Management of risks" section of the present document.

#### Description of obligations

The provisions have been set up primarily to cover post-employment benefits granted by most Group companies in line, either with local rules and customs, or with established practices which generate constructive obligations.

The largest post-employment plans in 2014 are in the United Kingdom, France, the United States, Germany and Belgium. These five countries represent 95% of the total defined benefit obligation. **Financial & extra-financial information** 

	2014	2013
United Kingdom	33%	32%
France	25%	25%
USA	15%	15%
Germany	14%	14%
Belgium	8%	8%
Other countries	5%	6%

#### **United Kingdom**

Solvay sponsors a few defined benefit plans in the United Kingdom; the largest one is the Rhodia Pension Fund. This is a final salary funded pension plan, with entitlement to accrue a percentage of salary per year of service. It was closed to new entrants in 2003 and replaced by a defined contribution plan.

Broadly, about 9% of the liabilities are attributable to current employees, 23% to former employees and 68% to current pensioners.

The Fund functions and complies with British legislation under a large regulatory framework. The Pensions Regulator has a risk based approach to regulation and a code of practice which provides practical guidance to trustees and employers of defined benefit schemes on how to comply with the scheme funding requirements. In accordance with British legislation, the Fund is subject to Scheme Specific Funding which requires that pension plans are funded.

The Rhodia Pension Fund is subject to a triennial valuation cycle for funding purposes. This valuation is performed by the scheme actuary in line with British regulations and is discussed between the Trustees and the sponsoring employer to agree the valuation assumptions and a funding plan. The last completed valuation was as at January 1, 2012 which established a fixed contribution rate of pensionable pay for active members plus a deficit recovery plan which aims to fund the scheme to technical provisions over a period of time. The next valuation is due at January 1, 2015 and will be completed in early 2016, any changes required to the contribution rate and deficit recovery plan will be agreed during this valuation process and will be implemented from 2016.

The British Rhodia Pension Fund is governed by a Board of Trustees. They manage the Fund with prudent and fair judgment. The Trustees determine the liabilities used for Statutory Funding Objectives based on prudent actuarial and economic assumptions. Any shortfall or deficit must be repaired by additional contributions and in a time frame that fits with the employer's ability to pay and the strength of covenant or contingent security being offered.

#### France

Solvay sponsors different defined benefit plans in France: the French compulsory retirement indemnity plan but also two closed and one open top hat plans.

The main plan is for all former Rhodia current and retired employees who contributed to the plan prior to its closure in the 1970s. It offers a full benefit guarantee based on the end-of-career salary. This plan is unfunded and broadly, about 92% of the liabilities are attributable to current pensioners.

#### **United States**

Solvay sponsors three different defined benefit pension plans in the United States of which two are closed to new entrants since 2003, and one is open, which is a cash balance plan. All these plans are funded.

Solvay's plans are in compliance with local laws regarding audited financial statements, governmental filings, and Pension Benefit Guaranty Corp insurance premiums where applicable. The plans are reviewed and monitored locally by Fiduciary Committees for purposes of plan investments and administrative matters.

For these American plans, Solvay's contributions take into account minimum (tax-deductible) funding requirements as well as maximum tax deductible contributions, both regulated by the Internal Revenue Service.

Eligible participants may also elect to receive their pension in a single lump sum payment in lieu of a monthly payment.

Broadly, about 37% of the liabilities are attributable to current employees, 14% to former employees for whom benefit payments have not yet commenced and 49% to current pensioners.

## Germany

Solvay sponsors four different defined benefit plans in Germany, of which two are closed to new entrants and two are open. As commonly in Germany, all these plans are unfunded. Under these plans, employees are entitled to annual pensions on retirement based on their service and final salary.

Broadly, about 60% of the liabilities are attributable to current pensioners.

#### **Belgium**

Solvay sponsors two defined benefit plans in Belgium. These are funded pension plans which are closed for future accrual since end of 2006 for the one in favor of the executives and since end of 2004 for the one in favor of the White and Blue collars. The past service benefits provided under these plans continue to be adapted each year considering annual salary increase and inflation ("Dynamic management"). As often in Belgium, because of favorable retirement lump sum taxation, most benefits are paid as lump sum.

Furthermore, Solvay sponsors two open defined contribution plans. These are funded pension plans which are open since beginning of 2007 for the one in favor of the executives and since beginning of 2005 for the one in favor of the White and Blue collars. Participants may choose to invest their contributions amongst four different investment funds



(from "Prudent" to "Dynamic"). However, regardless of their choices, the Belgian law currently foresees that the employer must guarantee a 3.25% return on employer contribution and 3.75% on personal contribution, creating that way a potential liability for the Company. The defined benefit obligation is set equal to the maximum between the actual accounts and the account balances calculated with the minimum guaranteed return, as determined by individual. For these plans Solvay has  $\in$  119 million of plan assets at December 31, 2014, and paid  $\in$  11 million of contributions during 2014. At the end of 2014 there is no material net liability recognized in the balance sheet concerning these plans.

Solvay's plans are administered through two Solvay Pension Funds that operate in compliance with local laws regarding minimum funding, investments principles, audited financial statements, governmental filings, and governance principles. Pension Funds are managed through a General Assembly and a Board of Directors delegating day-to-day activities to an operational Committee.

#### **Other Plans**

The majority of the obligations relate to pension plans. In some countries (mainly the United States), there are also post-retirement medical plans, which represent less than 5% of the total defined benefit obligation.

#### Movements of the year

#### Net expense

The amounts charged to income in respect of these plans are:

In € million	2014	2013
Service costs	48	47
Current Service cost	46	48
Past service cost (including Curtailments)	2	(1)
Net Interest	94	94
Interest cost	188	177
Interest Income	(94)	(83)
Administrative expenses paid	9	10
NET EXPENSE RECOGNIZED IN P&L – DEFINED BENEFIT PLANS	151	151
Remeasurements	508	(109)
REMEASUREMENTS RECOGNIZED IN OCI	508	(109)

The service costs and administrative expenses of these benefit plans are charged variously to cost of sales, commercial and administrative costs, research & development costs or operating gains and losses and non-recurring items, and the net interest is reported as a financial expense.

In 2013 the Group current service costs amounted to  $\notin$  48 million, of which  $\notin$  30 million related to funded plans and  $\notin$  18 million related to unfunded plans.

The Group current service costs for 2014 amounted to  $\notin$  46 million, of which  $\notin$  29 million related to funded plans and  $\notin$  17 million related to unfunded plans.

#### **Net liability**

The amounts recorded in the statement of financial position in respect of defined benefit plans are:

In € million	2014	2013
Defined benefit obligations – funded plans	2,907	2,562
Fair value of plan assets at end of period	(2,102)	(1,907)
DEFICIT FOR FUNDED PLANS	805	655
Defined benefit obligations – unfunded plans	2,197	1,881
DEFICIT / SURPLUS (-)	3,002	2,536
Amounts not recognized as asset due to asset ceiling	12	0
NET LIABILITY (ASSET) IN BALANCE SHEET	3,014	2,536
Provision recognized in the balance sheet	3,015	2,539
Asset recognized in the balance sheet	(1)	(3)



The net increase of the net liability of € 478 million between 2013 and 2014 is mainly explained by:

- remeasurements mainly due to the decrease of discount rates for the Eurozone, the United Kingdom and the United States;
- the disposal of Eco Services activities.

Defined benefit obligations evolved as follows:

In € million	2014	2013
DEFINED BENEFIT OBLIGATION AT BEGINNING OF PERIOD	4,443	4,760
Current Service cost	46	48
Interest cost	188	177
Actual employee contributions	6	4
Past Service costs (including curtailments)	2	(1)
Settlements	0	0
Acquisitions / Disposals (-)	(62)	0
Remeasurements in OCI	583	(19)
Actuarial Gains & Losses due to changes in Demographic assumptions	5	46
Actuarial Gains & Losses due to changes in Financial assumptions	570	(35)
Actuarial Gains & Losses due to experience	8	(30)
Actual benefits paid	(261)	(256)
Currency translation differences	199	(89)
Reclassification	(1)	(4)
Held for Sale	(40)	(178)
DEFINED BENEFIT OBLIGATION AT END OF PERIOD	5,103	4,443
Defined benefit obligations – funded plans	2,907	2,562
Defined benefit obligations – unfunded plans	2,197	1,881

In 2013 the classification as "Held for Sale" of Chlorovinyls activities, led to a decrease of the defined benefit obligation by  $\in$  173 million, and in 2014 led to a decrease of  $\notin$  40 million. The disposal of Eco Services activities, led to a decrease of the defined benefit obligation by  $\notin$  62 million.

The fair value of plan assets evolved as follows:

In € million	2014	2013
FAIR VALUE OF PLAN ASSETS AT BEGINNING OF PERIOD	1907	1931
Finance Income	94	83
Remeasurements in OCI	87	90
Return on plan assets (excl. amounts in net interests)	87	90
Actual employer contributions	180	185
Actual employee contributions	6	4
Aquisitions / Disposals (-)	(43)	0
Administrative expenses paid	(9)	(10)
Actual benefits paid	(261)	(256)
Currency translation differences	142	(72)
Reclassification	5	1
Held for Sale	(7)	(48)
FAIR VALUE OF PLAN ASSETS AT END OF PERIOD	2102	1907
Actual return on plan assets	181	172

The total return on plan assets amounts to  $\in$  181 million. This relatively good result comes from the better market conditions which impact positively the asset portfolio during the year.

In 2013, the classification as "Held for Sale" of Chlorovinyls activities, led to a decrease of plan assets by  $\notin$  48 million, and in 2014 led to a decrease of  $\notin$  7 million. The disposal of Eco Services activities, led to a decrease of plan assets by  $\notin$  43 million.

The Group cash contributions (including direct benefits payments) in 2013 amounted to  $\notin$  185 million, of which  $\notin$  81 million of contributions to funds and  $\notin$  104 million of direct benefits payments.

The Group cash contributions (including direct benefits payments) for 2014 amounted to  $\in$  180 million, of which  $\in$  75 million of contributions to funds and  $\in$  105 million of direct benefits payments.

Except for significant changes in the regulatory environment (see "Regulatory risk" above), the Group cash contributions in 2015 will be around  $\notin$  160 million.

The main categories of plan assets are:

	2014	2014		
	Quoted % of Total	Non Quoted % of Total	Quoted % of Total	Non Quoted % of Total
Equity	51%	0%	41%	0%
Bonds				
Bonds Investment Grade	44%	0%	35%	0%
Bonds Non Investment Grade	1%	0%	1%	0%
Properties	1%	0%	2%	1%
Cash and cash equivalents	3%	0%	2%	0%
Derivatives				
Structured debt (LDI)	0%	0%	9%	0%
Other Derivatives	0%	0%	0%	0%
Others	0%	0%	6%	3%
TOTAL	100%	0%	<b>96</b> %	4%

With respect to the invested assets, it should be noted that these assets do not contain any direct investment in Solvay group shares or in property or other assets occupied or used by Solvay. This does not exclude Solvay shares being included in mutual investment fund type investments.

Changes in net liability during the period:

In € million	2014	2013
Net amount recognized at beginning of period	2,536	2,830
Net expense recognized in profit & loss - Defined benefit plans	151	151
Actual employer contributions / direct actual benefits paid	(180)	(185)
Impact of acquisitions / disposals	(18)	0
Remeasurements	508	(109)
Reclassification	(6)	(4)
Currency translation differences	57	(17)
Held for Sale	(33)	(130)
Net amount recognized at end of period	3,014	2,536

Changes in assets ceiling during the period:

In € million	2014	2013
Effect of the limit in paragraph 58(b) and IFRIC 14 at beginning of year	0	1
Interest expense on the effect of the limit in paragraph 58(b) and IFRIC 14		0
Variation of the effect of the limit in paragraph 58(b) and IFRIC 14	12	(1)
Effect of the limit in paragraph 58(b) and IFRIC 14 at end of year	12	0

The impact of changes in asset ceiling recognized through OCI amounts to € 12 million. These impacts concern the plans of Brazil, Portugal and Switzerland.



#### Actuarial assumptions

Actuarial assumptions used in determining the benefit obligation at December 31.

These assumptions are not related to a specific segment.

	Eurozone		United Kingdom		United States	
	2014	2013	2014	2013	2014	2013
Discount rates	1.75%	3.25%	3.50%	4.50%	4.00%	4.75%
Expected rates of future salary increases	2.25% - 4.25%	2.50% - 4.50%	3.35% - 3.50%	3.50% - 3.75%	2.75% - 4.25%	2.75% - 4.25%
Inflation Rates	1.75%	2.00%	3.00%	3.25%	2.25%	2.50%
Expected rates of pension growth	0.00% - 1.75%	0.00% - 2.00%	3.00%	3.25%	NA	NA
Expected rates of medical care cost increases	2%	2%	5.5%	6.4%	4.25% - 7.75%	4.75% - 7.25%

#### Actuarial assumptions used in determining the annual cost.

These assumptions are not related to a specific segment.

	Eurozone		United Kingdom		United States	
	2014	2013	2014	2013	2014	2013
Discount rates	3.25%	3.25%	4.50%	4.25%	4.75%	3.75%
Expected rates of future salary increases	2.50% - 4.50%	2.50% - 4.50%	3.50% - 3.75%	3.00% - 3.25%	2.75% - 4.25%	3.00% - 4.50%
Inflation Rates	2.00%	2.00%	3.25%	2.50%	2.50%	2.50%
Expected rates of pension growth	0.00% - 2.00%	0.00% - 2.00%	3.25%	2.50%	NA	NA
Expected rates of medical care cost increases	2%	2%	6.4%	6.5%	4.75% - 7.25%	5.00% - 7.50%

Actuarial assumptions regarding future mortality are based on recent country specific mortality tables. These assumptions translate at December 31, 2014 into an average life expectancy in years for a pensioner retiring at age 65:

United Kingdom	United States	Belgium	France	Germany
22	19	18	24	19
25	21	21	27	23
24	19	18	27	22
26	21	21	30	26
	22 25 24	22 19 25 21 24 19	22     19     18       25     21     21       24     19     18	22     19     18     24       25     21     21     27       24     19     18     27

For the United States, Solvay expects to apply updated prospective mortality tables, published during the fourth quarter of 2014 by the Society of Actuaries, as from 2015 onwards. Please refer to the section "Critical accounting judgments and key sources of estimation uncertainty".

The actuarial assumptions used in determining the benefit obligation at December 31 are based on the following employee benefits liabilities durations:

	Eurozone	United Kingdom	United States
Duration in years	12.0	15.8	9.9

#### Sensitivities

Sensitivity to a change of percentage in the discount rates on the defined benefits obligation is as follows:

In € million	0.25% increase	0.25% decrease
Eurozone	(80)	83
United Kingdom	(63)	66
United States	(18)	18
Others	(4)	4
TOTAL	(165)	171

Sensitivity to a change of percentage in the inflation rates on the defined benefits obligation is as follows:

In € million	0.25% increase	0.25% decrease
Eurozone	73	(71)
United Kingdom	46	(45)
United States	(5)	5
Others	1	0
TOTAL	115	(111)

Sensitivity to a change of percentage in salary growth rate on the defined benefits obligation is as follows:

In € million	0.25% increase	0.25% decrease
Eurozone	26	(24)
United Kingdom	5	(5)
United States	1	(1)
Others	1	(1)
TOTAL	33	(31)

Sensitivity to a change of 1 year on mortality tables on the defined benefits obligation is as follows:

In € million	Age correction +1 Year	Age correction -1 Year
Eurozone	(88)	89
United Kingdom	(47)	47
United States	(23)	23
Others	(5)	5
TOTAL	(163)	164



#### 35.B.Restructuring provisions

These provisions stand at  $\in$  77 million, compared with  $\in$  109 million at the end of 2013.

The main provisions at the end of 2014 serve to cover:

- the costs of reorganizing the Functions and the back & front office following the integration of Rhodia (€ 30 million);
- the costs linked to the reorganization of the Soda Ash activities to address structural overcapacity in Europe (€ 13 million).

#### **35.C.Environmental provisions**

These provisions stand at  $\notin$  713 million, compared with  $\notin$  636 million at the end of 2013.

These are intended to cover the liabilities and charges of the following main problem areas:

- mines and drilling operations to the extent that legislation and/or operating permits in relation to quarries, mines and drilling operations contain requirements to pay compensation to third parties. These provisions, based on local expert advice, can be expected to be used over a 1-20 year horizon and amount to € 162 million;
- provisions related to the cessation of mercury electrolysis activities: forecast expenditure is staggered over time as a result of the expected reutilization of the sites, national regulations on the management of contaminated soils and the state of contamination of soils and groundwater. Most of these provisions can be expected to be used over a 10-20 year horizon;
- dikes, dump sites and land: the provisions relate mainly to soda plant dikes, old lime dikes and land and dump sites linked to activities at certain industrial sites; these provisions have a horizon of 1 to 20 years;

 provisions linked to various types of pollution (organic, inorganic) coming from miscellaneous specialty chemical productions; these provisions are mainly covering stopped activities or closed plants; most of these provisions have an horizon of 1 to 20 years.

The estimated amounts are discounted based on the probable date of disbursement. As well as being updated annually, provisions are adjusted every year to reflect the increasing proximity of such disbursement.

#### **35.D.Provisions for litigation**

Provisions for litigation stand at  $\notin$  285 million at the end of 2014 compared with  $\notin$  327 million at the end of 2013.

The main provisions at the end of 2014 serve to cover:

- tax risks (€ 190 million);
- legal claims (€ 95 million).

#### 35.E. Other provisions

Other provisions, set up to cover specific risks such as obligations related to the shutdown or disposal of activities, amount to  $\in$  87 million, compared with  $\in$  63 million at the end of 2013.

#### NOTE 36 Net indebtedness

The Group's net indebtedness is the balance between its financial debts and other current receivables – financial instruments, and cash and cash equivalents. It amounts to  $\notin$  778 million at the end of 2014 compared with  $\notin$  1,141 million at the end of 2013, using the excess cash to reimburse the financial debt.

In € million	2014	2013
Financial debt	2,338	3,584
Other current receivables – Financial instruments	(309)	(481)
Cash and cash equivalents	(1,251)	(1,961)
NET INDEBTEDNESS	778	1,141

Liabilities (+) / Assets (-)

Solvay's ratings by two rating agencies are: BBB+/A2 (stable outlook) at Standard and Poors, and Baa2/P2 (stable outlook) at Moody's.

#### **Financial debt**

In € million	2014	2013
Subordinated loans	499	498
Bonds	491	1,832
Long-term finance lease obligations	2	3
Long-term debts to financial institutions	300	300
Other long-term debts	193	176
Amount due within 12 months (shown under current liabilities)	505	519
Other short-term borrowings (including overdrafts)	348	255
TOTAL FINANCIAL DEBT (SHORT AND LONG-TERM)	2,338	3,584

In 2014, in January, Solvay reimbursed the € 500 million EMTN bond maturing, and in May, the two Rhodia high yield bonds of respectively € 500 million (first call option) and \$ 400 million (earlier redemption).

As from April 2014, Solvay successfully issued Belgian Treasury Notes (€ 75 million at the end of 2014) under its available program of € 1 billion.

#### **Borrowings and credit lines**

The largest borrowings maturing after 2014 are:

							2014		2013	
In € million	Nominal amount			Coupon	Maturity	Secured	Amount at amortized cost	Fair value	Amount at amortized cost	Fair value
EMTN bonds issued by Solvay SA (Belgium)	500	300		4.75%	2018	No	491	571	490	567
		200	(tap)	5.71%						
Retail	500			5.01%	2015	No	500	510	499	530
European Investment Bank	300			3.90%	2016	No	300	320	300	327
Deeply subordinated debt issued by Solvay Finance SA (France) with support from Solvay SA (Belgium)	500	*		6.375%	2104	No	499	525	498	530
TOTAL	1,800						1,790	1,926	1,787	1,953

\* Rating agencies Moody's and Standard & Poors have treated this issue as part equity (50%), part debt (50%). In IFRS, however, it must be treated 100% as debt. This debt is subordinated to the other debts of the Group and is listed in Luxembourg. The coupon carries a fixed rate for the first ten years. In 2016 the coupon converts to a floating rate (3-month Euribor +335 basis points) until maturity in 2104. Solvay has an option to redeem this issue at par from 2016 onward. The issuer has a coupon nonpayment option governed by the rules of the coupon carry-forward mechanism.

There is no default on the above-mentioned financial debt. There are no financial covenants, neither on Solvay SA, nor on any of the Group's holding companies.

In November 2013, following the acquisition of Chemlogics for US\$ 1,345 million financed with available cash, the Group issued  $\in$  1.2 billion hybrid bonds (treated as equity under IFRS) with the aim to further strengthen the Group's financial position ahead of its refinancing of debt maturities from 2014 onwards.

#### Other current receivables – financial instruments and cash and cash equivalents

The total cash available, cumulating the "Other current receivables – financial instruments" and "Cash and cash equivalents", amounts to  $\notin$  1,560 million at the end of 2014 compared to  $\notin$  2,443 million at the end of 2013.

In 2014, Solvay used part of the available treasury to reimburse in January the  $\notin$  500 million EMTN bond and in May the two Rhodia high yield bonds of respectively  $\notin$  500 million (first call option) and \$ 400 million (earlier redemption).

#### **Other current receivables – financial instruments**

In € million	Classification	2014	2013
	Assets available for		
Money Market Funds (MMF)	sale	300	366
Bonds and Treasury Bills with maturity of more than 3 months from date of acquisition	Assets held to maturity	0	95
Other current financial asset		9	20
OTHER CURRENT RECEIVABLES – FINANCIAL INSTRUMENTS		309	481

The "Other current receivables – financial instruments" amount to € 309 million at the end of 2014, of which € 300 million is invested in "Money Market Funds". At the end of 2014, the Group no longer holds any "Bonds and Treasury Bills with maturity of more than three months from date of acquisition". The other current financial assets mainly include financial assets at fair value through profit and loss.

#### **Cash and cash equivalents**

Cash and cash equivalents amount to € 1,251 million at the end of 2014 compared to € 1,961 million at the end of 2013.

In € million	Classification	2014	2013
Marketable securities	Available for sale	3	27
Term deposits	Loans and Receivables	485	385
Bonds and Treasury Bills of less than 3 months	Held to maturity	9	632
Cash	Loans and Receivables	754	917
CASH AND CASH EQUIVALENTS		1,251	1,961

By their nature, the carrying amount of cash and cash equivalents is equal to, or a very good approximation of, their fair values.



#### NOTE 37 Financial instruments and financial risk management

#### 37.A. Overview of financial instruments

The following table gives an overview of the carrying amount of all financial instruments by class and by category as defined by IAS 39 *Financial Instruments: Recognition and Measurement.* 

	2014	2013
In € million	Carrying amount	Carrying amount
Held for trading	42	31
Cash flow hedges (Derivatives)	10	22
Available-for-sale investments – New Business Development	43	38
Loans and receivables (including trade receivables, loans and other non-current assets except pension fund surpluses)	1,612	1,582
Other current receivables – financial instruments (classification: see previous page)	309	481
Cash and cash equivalents (classification: see previous page)	1251	1961
TOTAL FINANCIAL ASSETS	3,268	4,115
Held for trading	(32)	(3)
Cash flow hedges (Derivatives)	(57)	(12)
Financial liabilities measured at amortized cost (includes long-term financial debt, other non-current liabilities, short-term financial debt, trade liabilities and dividends payable included in other current liabilities)	(4,086)	(5,200)
Financial lease liabilities	(31)	(3)
TOTAL FINANCIAL LIABILITIES	(4,206)	(5,219)

#### 37.B. Fair value of financial instruments

#### Valuation techniques and assumptions used for measuring fair value

Solvay's New Business Development (NBD) activity has built a Corporate Venturing portfolio which is made of direct investments in start-up companies and of investments in Venture Capital funds. All these investments are related to the NBD. They are all valued at fair value according to the valuation guidelines published by the European Private Equity and Venture Capital Association.

The fair values of financial assets and financial liabilities with standard terms and conditions and traded on active liquid markets are the quoted market prices.

The fair values of derivative financial instruments are equal to their quoted prices, if available. In case such quoted prices are not available, a discounted cash flow analysis is performed using the applicable yield curve for the duration of the instruments for non-optional derivatives, and option pricing models for optional derivatives.

Foreign currency forward contracts are measured using quoted forward exchange rates and yield curves derived from quoted interest rates matching maturities of the contracts.

Interest rate swaps are measured at the present value of future cash flows estimated and discounted based on the applicable yield curves derived from quoted interest rates.

Fixed for floating energy price swaps and options are measured using quoted forward energy prices and yield curves derived from quoted

interest rates matching the maturities of the swaps. Options are valued based on the present value of probability weighted expected future payoffs, using market reference formulas.

The fair values of other financial assets and financial liabilities (other than those described above) are determined in accordance with generally accepted pricing models based on discounted cash flow analysis.

The table "Financial instruments measured at fair value in the consolidated statement of financial position" provides an analysis of financial instruments that, subsequent to their initial recognition, are measured at fair value, grouped into Levels 1 to 3 based on the degree to which the fair value is observable:

- Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at the measurement date;
- Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly; and
- Level 3 inputs are unobservable inputs for the asset or liability.

In accordance with the Group internal rules, the responsibility for measuring the fair value level resides with (a) the treasury Department for the non-energy derivative financial instruments, including the financial debt, (b) Energy Services business unit for the energy derivative financial instruments and (c) the finance Department for non-derivative financial assets.



#### Fair value of financial instruments measured at amortized cost

	2014		2013		
In € million	Carrying amount	Fair value	Carrying amount	Fair value	Fair value level
Loans and receivables					
Loans and receivables (including trade receivables, loans and other non-current assets except pension fund surpluses)	1612	1612	1582	1582	2
Other current receivables – financial instruments					
Bonds and treasury bills of more than 3 months	0	0	95	95	1
Other current financial assets	9	9	20	20	2
Cash and cash equivalents					
Term deposits	485	485	385	385	2
Bonds and Treasury Bills of less than 3 months	9	9	632	632	1
Cash	754	754	917	917	2
TOTAL FINANCIAL ASSETS	2869	2869	3631	3631	
Subordinated loans and bonds	(1,490)	(1606)	(2,838)	(2981)	1
Long and short-term financial debt	(817)	(837)	(743)	(770)	2
Other non-current liabilities, trade liabilities and dividends payable included in other current liabilities	(1780)	(1780)	(1619)	(1619)	2
Financial lease liabilities	(31)	(31)	(3)	(3)	2
TOTAL FINANCIAL LIABILITIES	(4118)	(4254)	(5203)	(5373)	



#### Financial instruments measured at fair value in the consolidated statement of financial position

		2014		
In € million	Level 1	Level 2	Level 3	Total
Held for trading				
<ul> <li>Foreign exchange contracts</li> </ul>		11		11
<ul> <li>Energy swaps, futures and forward contracts</li> </ul>		22		22
<ul> <li>CO<sub>2</sub> certificates futures and forward contracts</li> </ul>	1			1
CO <sub>2</sub> options		1		1
<ul> <li>Solvay share price swaps</li> </ul>		7		7
Cash flow hedges				
<ul> <li>Foreign exchange contracts and swaps</li> </ul>		7		7
<ul> <li>CO<sub>2</sub> certificates futures and forward contracts</li> </ul>	3			3
<ul> <li>Solvay share price swaps</li> </ul>		1		1
Available-for-sale investments				
<ul> <li>New Business Development</li> </ul>			43	43
<ul> <li>Other current receivables – financial instruments (Money Market Funds)</li> </ul>	300			300
Cash and cash equivalents				
<ul> <li>Marketable securities</li> </ul>	3			3
TOTAL FINANCIAL ASSETS	306	49	43	398
Held for trading				
<ul> <li>Foreign exchange contracts</li> </ul>		(5)		(5)
<ul> <li>Energy swaps, furtures and forwards contracts</li> </ul>	(3)	(18)		(21)
CO <sub>2</sub> options		(2)		(2)
<ul> <li>CO<sub>2</sub> certificates futures and forward contracts</li> </ul>	(3)	(1)	(1)	(4)
Cash flow hedges				
<ul> <li>Foreign exchange contracts and swaps</li> </ul>		(41)		(41)
<ul> <li>Energy swaps and futures contracts</li> </ul>		(13)		(13)
Interest rate swaps		(1)		(1)
<ul> <li>Solvay share price swaps</li> </ul>		(1)		(1)
<ul> <li>CO<sub>2</sub> certificates futures and forward contracts</li> </ul>	(1)			(1)
TOTAL FINANCIAL LIABILITIES	(6)	(82)	(1)	(88)

		2013		
In € million	Level 1	Level 2	Level 3	Total
Held for trading				
<ul> <li>Foreign exchange contracts</li> </ul>		2		2
<ul> <li>Energy swaps, futures and forward contracts</li> </ul>		3		3
<ul> <li>CO<sub>2</sub> certificates futures and forward contracts</li> </ul>	3	2		5
Interest rate swaps		5		5
<ul> <li>Solvay share price swaps</li> </ul>		15		15
Cash flow hedges				
<ul> <li>Foreign exchange contracts and swaps</li> </ul>		18		18
<ul> <li>Energy swaps and futures contracts</li> </ul>		2		2
<ul> <li>Solvay share price swaps</li> </ul>		1		1
Available-for-sale investments				
New Business Development			38	38
<ul> <li>Other current receivables - financial instruments (Money Market Funds)</li> </ul>	366			366
Cash and cash equivalents				
<ul> <li>Marketable securities</li> </ul>	27			27
TOTAL FINANCIAL ASSETS	397	49	38	484
Held for trading				0
<ul> <li>CO<sub>2</sub> certificates futures and forward contracts</li> </ul>	-1	-1		-3
Cash flow hedges				
<ul> <li>Foreign exchange contracts and swaps</li> </ul>		-5		-5
<ul> <li>Energy swaps and futures contracts</li> </ul>	-1			-1
CO <sub>2</sub> certificates futures and forward contracts	-6			-6
TOTAL FINANCIAL LIABILITIES	-8	-7		-16

The category "Held for trading" usually contains financial instruments that are used for treasury management, foreign currency exchange rate,

commodity or carbon risk management, but which are not documented as hedging instruments.

#### **Movements of the period**

#### Reconciliation of level 3 fair value measurements of financial assets and liabilities

		2014			
	At fair value throu	igh profit or loss	Available-for-sa	le	
In € million	Derivatives	Non-derivatives	Shares	Other	Total
Opening balance at January 1	0		38		38
Total gains or losses					
<ul> <li>Recognized in the income statement</li> </ul>	0		(1)		-1
<ul> <li>Recognized in other comprehensive income</li> </ul>			2		2
Acquisitions			4		4
Closing balance at December 31	(1)		43		43

			2013		
	At fair value throu	igh profit or loss	Available-for-sa	ale	
In € million	Derivatives	Non-derivatives	Shares	Other	Total
Opening balance at January 1	(7)		31		24
Total gains or losses					
<ul> <li>Recognized in the income statement</li> </ul>	7				7
<ul> <li>Recognized in other comprehensive income</li> </ul>			(3)		(3)
Acquisitions			10		10
Closing balance at December 31	0		38		38

#### Income and expenses of financial instruments recognized in the income statement and in equity

In € million	2014	2013
Recognized in the income statement		
Recycling from equity of currency cash flow hedges*	1	38
Recycling from equity of energy cash flow hedges*	(6)	(1)
Changes in the fair value of financial instruments held for trading (energy/CO <sub>2</sub> emission rights)	(1)	(5)
Recognized in the gross margin	(6)	31
Interest on loans and receivables	35	65
Ineffective portion of changes in the fair value of energy cash flow hedges	0	1
Changes in the fair value of financial instruments held for trading(energy/CO <sub>2</sub> emission rights)	0	(2)
Changes in the fair value of financial instruments held for trading (currency)	5	5
Changes in the fair value of financial instruments held for trading (Solvay share price swaps)	0	1
Ineffective portion of changes in the fair value of currency cash flow hedges	2	1
Recycling from equity of currency cash flow hedges*	5	5
Recycling from equity of energy cash flow hedges*	0	(3)
Recognized in other operating gains and losses	47	72
Changes in the fair value of financial instruments held for trading (energy/CO <sub>2</sub> emission rights)	0	(4)
Changes in the fair value of financial instruments held for trading (Solvay share price swaps)	1	1
Recognized in non-reccuring gains and losses	1	(2)
Cost of borrowings – Interest expense on financial liabilities at amortized cost	(149)	(190)
Interest income on cash and cash equivalents	35	24
Interest income on other current receivables – financial instruments	1	1
Other gains and losses on net indebtedness	(32)	(2)
Recognized in charges on net indebtedness	(145)	(166)
Income/loss from available-for-sale investments	(1)	2
Capital gain on available-for-sale investment posted directly to the income statement	0	16
Recycling from equity of unrecognized gain and losses related to disposed available-for-sale financial assets*	0	20
TOTAL RECOGNIZED IN THE INCOME STATEMENT	(103)	(27)

\* See next table.

The currency cash flow hedges mainly correspond to forward contracts aimed at hedging forecasted flows in currencies, mainly US dollar, Japanese yen, Brazilian real, Russian ruble and South-Korean won.

**Financial & extra-financial information** 

Income and expenses on financial instruments recognized in equity break down as follows:

	Continuing	Operations
In € million	2014	2013
Net change in the fair value of available-for-sale financial assets	1	(3)
Recycling to the income statement of unrecognized gains and losses related to disposed of available-for-sale financial assets	0	(20)
Total available-for-sale financial assets	1	(23)
Effective portion of changes in fair value of cash flow hedges	(59)	35
Recycling to the income statement of currency cash flow hedges	(7)	(43)
Recycling to the income statement of energy cash flow hedges	6	4
Recycling to the income statement of interest rate swaps cash flow hedges	0	(5)
Total cash flow hedges	(60)	(9)
TOTAL	(59)	(32)

Conventionally, (+) indicates an increase and (-) a reduction in equity.

In 2013 for available-for-sale financial assets, the recycling to the income statement of the unrecognized gains and losses related to the disposal of the AGEAS shares.

#### 37.C. Capital management

See the item 2.1 Policy in respect of capital in the Corporate governance statement section of this report.

#### 37.D. Financial risk management

The Group is exposed to market risks from movements in exchange rates, interest rates and other market prices (energy prices, carbon credits and equity prices). The Solvay group uses derivatives to hedge clearly identified foreign exchange, interest rate, energy and carbon credit price risks (hedging instruments). However, the required criteria to apply hedge accounting according to IFRS are not met in all cases.

Hedge accounting cannot always be applied when the Group covers its economic risks. The Group's foreign exchange risk hedging policy is based essentially on the principles of financing its activities in local currency, systematically hedging transactional (see below) exchange risk at the time of invoicing (risks which are certain) and monitoring and hedging where appropriate exchange rate positions generated by the Group's activities, based on expected cash flows.

Furthermore, the Group is also exposed to liquidity risks and credit risks.

The Group does not enter into, nor does trade financial instruments (including derivative financial instruments) for speculative purposes.

#### **Foreign currency risks**

See the item 5 Financial risk in the Management of risks section of this report for additional information on the foreign currency risks management.

The Group undertakes transactions denominated in foreign currencies. Consequently, exposures to exchange rate fluctuations arise. Exchange rate exposures are managed within approved policy parameters utilizing forward foreign exchange contracts or other derivatives like currency options.

The Group's currency risk can be split into two categories: translation and transactional risk.

#### Translation risk

The translation exchange risk is the risk affecting the Group's consolidated accounts related to subsidiaries operating in a currency other than the EUR (the Group's reporting currency). The main other currencies are the US Dollar, Chinese Yuan, Brazilian Real and Russian Ruble.

Exchange rate fluctuations, particularly of the US Dollar and Russian Ruble, can affect earnings. In the course of 2014 the EUR/USD exchange rate moved from 1.3791 at the start of January to 1.2141 at the end of December. In the course of 2013 the EUR/USD exchange rate moved from 1.3194 at the start of January to 1.3791 at the end of December.

During 2014 and 2013, the Solvay group did not hedge the currency risk of foreign operations.

#### Transactional risk

The transactional risk is the exchange risk linked to a specific transaction, such as a Group company buying or selling in a currency other than its functional currency.

To the largest extent possible, the Group manages the transactional risk on receivables and borrowings at the level of Solvay CICC in Belgium and locally for other affiliates.

The choice of borrowing currency depends mainly on the opportunities offered by the various markets. This means that the selected currency is not necessarily that of the country in which the funds will be invested. Nonetheless, operating entities are financed essentially in their own local currencies, with this currency being obtained, where appropriate, by currency swaps against the currency held by the financing company. The cost of these currency swaps is included within the cost of borrowing. These enable the Group to limit the exchange risk both in the financial company and in the company finally using the funds.

In emerging countries it is not always possible to borrow in local currency, either because local financial markets are too narrow or funds are not available, or because the financial conditions are too onerous. In such a situation the Group has to borrow in a different currency. Nonetheless the Group considers opportunities to refinance its borrowings in emerging countries with local currency debt.



The Group's foreign exchange position is centralized at Solvay CICC. This centralized exchange position is then managed under rules and specific limits which have been set by the Group.

The main financial instruments used are the spot and forward purchase and sale of currencies, and the purchase of options.

#### Cash flow hedge

The Group uses derivatives and non derivatives to hedge identified foreign exchange rate risks (and documents those as hedging instruments). At the end of 2014 for future exposure, the Group had

mainly hedged forecasted sales in a nominal amount of US\$ 743 million on sales ( $\notin$  594 million) and  $\notin$  12,332 million ( $\notin$  90 million).

At the end of 2013, the Group had mainly hedged forecasted sales in a nominal amount of US\$ 616 million on sales (€ 518 million) and ¥ 10,014 (€ 73 million).

#### Held for trading

The daily management of the transactional risk is mainly done at Solvay CICC either via spot or forward contracts. Unless documented as hedging instruments (see above), those forward contracts are classified as held for trading.

The following table details the forward exchange contracts outstanding at the end of the period:

	Notional amount		Fair value assets		Fair value liabilites	
In € million	2014	2013	2014	2013	2014	2013
Held for trading						
<ul> <li>Forward exchange contracts</li> </ul>	395	177	11	2	(5)	0
Cash flow hedges						
<ul> <li>Forward exchange contracts</li> </ul>	711	608	7	18	(41)	(5)
TOTAL	1,106	785	18	20	(46)	(6)

The following table details the Group's sensitivity in profit or loss and equity to a 10% increase and decrease in euro against US dollar and Japanese yen as well as in Brazilian real against US dollar.

10% represents the management's assessment of a reasonably possible change in foreign exchange rates. The sensitivity analysis includes only outstanding foreign currency denominated assets and liabilities and adjusts their translation at the period end for a 10% change in foreign currency rates. The sensitivity analysis includes external loans as well as loans to foreign operations within the Group where the denomination of the loan is in a currency other than the functional currency of the lender or the borrower. It includes also the foreign exchange derivatives (not designated as hedging instruments).

A positive number below indicates an increase in profit or equity when the euro strengthens 10% against the US dollar or the Japanese yen (same for the Brazilian real against the US dollar).

For a 10% weakening of the euro against the US dollar or the Japanese yen, there would be a comparable impact on the profit or equity (the balances would be negative) (same for the Brazilian real against the US dollar).

	Strengthening of EUR vs USD		Strengthening of EUR vs JPY		Strengthening of BRL vs USD	
In € million	2014	2013	2014	2013	2014	2013
Profit or loss	3	8	0	0	0	0
Equity	40	30	6	9	10	12

#### **Interest rate risks**

See the item 5 *Financial risk* in the Management of risks section of this report for additional information on the interest rate risks management. Interest rate risk is managed at Group level.

The Group is exposed to interest rate risk because entities in the Group borrow funds at both fixed and floating interest rates. Interest rate risk is managed at Group level by maintaining an appropriate mix between fixed and floating rate borrowings.

Interest rate exposure by currency is summarized below:

In € million	At	December 31, 2014		At December 31, 2013			
Currency	Fixed rate	Fixed rate Floating rate Total		Fixed rate Floating rate		Total	
Financial liabilities							
EUR	(1,869)	(138)	(2,008)	(2,814)	(219)	(3,033)	
USD	0	(53)	(53)	(332)	(11)	(343)	
ТНВ	(41)	(94)	(135)	(32)	(109)	(140)	
BRL	(30)	(5)	(35)	(32)	(4)	(36)	
CNY	0	(30)	(30)	0	(17)	(17)	
Other	(39)	(39)	(77)	(9)	(6)	(15)	
Total	(1,978)	(359)	(2,338)	(3,219)	(365)	(3,584)	
Cash and cash equivalents							
EUR		281	281		1,217	1,217	
USD		525	525		288	288	
ТНВ		69	69		52	52	
BRL		90	90		96	96	
CNY		82	82		96	96	
Other		204	204		211	211	
Total		1,251	1,251		1,961	1,961	
Other current financial assets							
EUR		306	306		480	480	
Other		3	3		1	1	
Total		309	309		481	481	
TOTAL	(1,978)	1,200	(778)	(3,219)	2,078	(1,141)	

At the end of 2014, around  $\notin$  2 billion of the Group's gross debt was at fixed-rate, of which mainly:

- the EMTN bond issue of € 500 million maturing in 2018 (carrying amount € 491 million) and the retail bond of € 500 million (carrying amount € 500 million) maturing in 2015;
- the deeply subordinated bond placed on the market in 2006 (€ 500 million maturing in 2104 - carrying amount € 499 million) carries a fixed coupon until 2016 and floating thereafter;
- European Investment Bank € 300 million maturing in 2016.

In November 2013, following the acquisition of Chemlogics for US\$ 1,345 million financed with available cash, the Group issued € 1.2 billion hybrid bonds (treated as equity under IFRS) with the aim to further strengthen the Group's financial position ahead of its refinancing of debt maturities from 2014 onwards.

The impact of interest rate changes at the end of 2014 is the following:

 on borrowing charges: if interest rates had been 1% higher/lower and with all other variables remaining constant, these would have increased/decreased by € 6 million (2013: increase/decrease by € 5 million). This is mainly attributable to the Group's exposure to interest rates on its variable rate borrowings;

- on cash and cash equivalents and other current financial assets:
  - if interest rates had been 1% higher and with all other variables remaining constant, income would have increased by € 14 million (2013: € 21 million);
  - if interest rates had been 1% lower and with all other variables remaining constant, income would have decreased by € 14 million (2013: € (16) million).

Early 2013, the Group entered into interest rate swaps designated for hedging purposes. The initial target was to secure a potential funding in 2014, which was no longer needed following the issuance of the  $\notin$  1,200 million hybrid bonds at the end of 2013. The swap has been unwound during the first half of 2014:

- the fair value was € 5 million at the end of 2013;
- the total net cash impact from the settlement in 2014 was  $\notin$  (14) million.

In addition, the MTP HP JV (joint operation 50/50 between Dow and Solvay) in Thailand (HPPO project) has entered into an interest rate swap for hedging purpose (notional amount  $\notin$  76 million at the end of 2014). At the end of 2014, the fair value of the interest rate swap was  $\notin$  (1) million (compared to zero in 2013), included in the net financial charges.

# Financial & extra-financial information

	Notional amount Fair value assets		e assets	ssets Fair value liabilites		
In € million	2014	2013	2014	2013	2014	2013
Held for trading						
<ul> <li>interest rate instruments (Swap)</li> </ul>		500	0	5	0	0
Cash flow hedge						
<ul> <li>interest rate instruments (Swap)</li> </ul>	76	67	0	0	(1)	0

#### **Other market risks**

#### Energy price risks

The Group purchases a large portion of its coal, gas and electricity needs in Europe and the United States based on fluctuating liquid market indices. In order to reduce the cost volatility, the Group has developed a policy for exchanging variable price against fixed price through financial swap contracts. Most of these hedging instruments can be documented as hedging instruments of the underlying purchase contracts. Purchases of physical energy at fixed price contracts qualified as "own use" contracts (not derivatives) constitute a natural hedge, and are not included in this note. Similarly the Group's exposure to CO<sub>2</sub> price is partly hedged by forward purchases of European Union Allowance (EUA), which either can be documented as hedging instruments, or qualify as own use contracts.

Finally some exposure to gas-electricity or coal-electricity spreads may arise from the production of electricity on Solvay sites (mostly from cogeneration units in Europe), which can be hedged by forward purchases and forward sales or optional schemes. In this case, cash flow hedge accounting is applied.

#### **Energy Services**

Financial hedging of energy and  $\rm CO_2$  risks is managed centrally by Energy Services on behalf of the Group entities.

Energy Services also carries out trading transactions with respect to energy and  $CO_2$ , whose residual price exposure is maintained close to zero.

The following tables detail the notional principal amounts and fair values of energy price swaps and CO<sub>2</sub> derivatives outstanding at the end of the reporting period:

	Notional amount		Fair value assets		Fair value liabilites	
In € million	2014	2013	2014	2013	2014	2013
Held for trading						
<ul> <li>Energy swaps, futures and forward contracts</li> </ul>	470	254	22	3	(21)	0
CO <sub>2</sub> options	0		1	0	(2)	0
<ul> <li>CO<sub>2</sub> certificates futures and forward contracts</li> </ul>	89	170	1	5	(4)	(3)
Cash flow hedge*						
<ul> <li>Energy swaps and futures contracts</li> </ul>	72	26	0	2	(13)	(1)
<ul> <li>CO<sub>2</sub> certificates futures and forward contracts</li> </ul>	28	28	3	0	(1)	(6)
TOTAL	659	479	26	11	(40)	(10)

Less than one year.

#### **Credit risk**

See the item 5 Financial risk in the Management of risks section of this report for additional information on the credit risk management.

There is no significant concentration of credit risk at Group level to the extent that the receivables risk is spread over a large number of customers and markets.

The ageing of trade receivables, other current receivables - other, loans and other non-current assets is as follows:

				rite-down			
<b>2014</b> In € million	Total	With write-down	Not past due	Less than 30 days past due	Between 30 & 60 days past due	Between 60 & 90 days past due	More than 90 days past due
Trade receivables	1,418	77	1,229	73	21	4	14
Other current receivables – other	500	27	370	15	27	5	56
Loans and other non-current assets	194	26	167	1	0	0	0
TOTAL	2,112	130	1,766	89	48	9	70

			Of which receivables without write-down					
<b>2013</b> In € million	Total	With write-down	Not past due	Less than 30 days past due	Between 30 & 60 days past due	Between 60 & 90 days past due	More than 90 days past due	
Trade receivables	1,331	56	1,058	146	36	5	29	
Other current receivables – other	572	26	307	119	22	5	93	
Loans and other non-current assets	251	36	215	0	0	0	0	
TOTAL	2,154	118	1,580	265	58	10	122	

Other current receivables – other consist essentially of other receivables, deferred charges and accrued income.

Other non-current assets consist essentially of pension fund surpluses and other amounts receivable after more than one year. This balance includes a cash deposit made as a guarantee for the good execution of the fine imposed by the European Commission in connection with antitrust rules.

#### **Liquidity risk**

See the item 5 *Financial risk* in the Management of risks section of this report for additional information on the liquidity risk management

Liquidity risk relates to Solvay's ability to service and refinance its debt (including notes issued) and to fund its operations.

This depends on its ability to generate cash from operations and not to over-pay for acquisitions.

The Finance Committee gives its opinion on the appropriate liquidity risk management for the Group's short, medium and long term funding and liquidity management requirements.

The Group manages liquidity risk by maintaining adequate reserves, banking facilities and reserve borrowing facilities, by continuously monitoring forecasted and actual cash flows, and by matching the maturity profiles of financial assets and liabilities.

The Group staggers the maturities of its financing sources over time in order to limit amounts to be refinanced each year.

The following tables detail the Group's remaining contractual maturity for its financial liabilities with contractual repayment periods. The tables have been prepared using the undiscounted cash flows of financial liabilities, based on the earliest date on which the Group can be required to pay. The tables include both interest and principal cash flows. To the extent that interest flows are based on a floating rate, the undiscounted amount is derived from interest rate curves at the end of the reporting period.

## Financial & extra-financial information

<b>2014</b> In € million	Total	On demand or within one year	In year two	In years three to five	Beyond five years
Outflows of cash related to financial liabilities:	5,248				
Other non-current liabilities	204	204			
Short-term financial debt	853	853			
Trade liabilities	1,461	1,461			
Income tax payable	355	355			
Dividends payables	114	114			
Other current liabilities	776	776			
Long-term financial debt	1,485		811	572	102
TOTAL FINANCIAL DEBT (SHORT AND LONG-TERM)	2,338	853	811	572	102

<b>2013</b> In € million	Total	On demand or within one year	In year two	In years three to five	Beyond five years
Outflows of cash related to financial liabilities:	5,829	interne year	in year the		inte years
Other non-current liabilities	166	166			
Short-term financial debt	775	775			
Trade liabilities	1,340	1,340			
Income tax payable	21	21			
Dividends payables	113	113			
Other current liabilities	604	604			
Long-term financial debt	2,809		543	1,884	384
TOTAL FINANCIAL DEBT (SHORT AND LONG-TERM)	3,584	775	543	1,884	384

In addition to the above mentioned financing sources, the Group also has access to the following instruments:

500 million, unused at the end of 2014 and in 2013. The two programs are covered by back-up credit lines;

a Belgian Treasury Bill program in an amount of € 1 billion, of which
 € 75 million were issued at the end of 2014 (unused in 2013), and
 alternatively a US commercial paper program in an amount of US\$

 a € 1.5 billion and a € 550 million multilateral credit line, maturing respectively in 2019 and in 2018; as well as bilateral credit lines (~€ 300 million). They were all unused at the end of 2014 and 2013.

#### **NOTE 38** Other current liabilities

In € million	2014	2013
Wages and benefits debts	287	225
VAT and other taxes	112	150
Social security	94	90
Financial instruments – operational	88	16
Insurance premiums	12	10
Advance from customers	25	11
Other	157	102
OTHER CURRENT LIABILITIES	776	604



## Notes to the statement of changes in equity

#### **Currency translation differences**

The decrease amounts to  $\notin$  231 million of which  $\notin$  243 million for the Group's share, increasing the balance from  $\notin$  (780) million at the end of 2013 to  $\notin$  (549) million at the end of 2014.

The main variances are linked to the variation of the US dollar, the Brazilian real, the Thai baht, the Russian ruble and the Indian rupee compared to the euro.

#### **Revaluation reserve**

These differences represent the fair value remeasurements of availablefor-sale financial assets and financial derivatives used for hedging purposes. With respect to derivatives used for hedging, only the effective part of the hedge is recognized in other comprehensive income. The ineffective portion is directly recognized in profit or loss. The impact of the fair value remeasurement of the effective part amounts to  $\in$  (49) million in 2014 ( $\notin$  6 million in 2013). This amount recognized in other comprehensive income generally is recycled to profit or loss as the hedged risk affects profit or loss.

#### **Defined benefit pension plan**

The increase in other comprehensive income related to defined benefit pension plan is due to a change in actuarial assumptions (change in discount rate and to a lower extent difference between actual and expected return on plan assets).

#### Number of shares (in thousands)

Information on the dividend proposed to the Shareholders' Meeting as well as consolidated data per share are available in the Management report in page 105 of this report.

	2014	2013
Shares issued and fully paid in at January 1	84,701	84,701
Shares issued and fully paid in at December 31	84,701	84,701
Treasury shares held at December 31	1,719	1,530

## **Miscellaneous notes**

#### NOTE 39 Commitments to acquire tangible and intangible assets

In € million	2014	2013
Commitments for the acquisition of tangible and intangible assets	131	135
of which: joint ventures	6	0

## **NOTE 40** Dividends proposed for distribution but not yet recognized as a distribution to equity holders

The Board of Directors will propose to the General assembly of the shareholders a gross dividend of  $\in$  3.40. Taking into account the dividend advance payment distributed in January 2015, the dividends proposed for distribution but not yet recognized as a distribution to equity holders amount to  $\notin$  175 million.

#### NOTE 41 Contingent liabilities

In € million	2014	2013
Liabilities and commitments of third parties guaranteed by the Company	1,027	946
Environmental contingent liabilities	246	216
Litigation and other major commitments	35	21

The liabilities and commitments of third parties guaranteed by the Company relate mainly to guarantees given in the framework of:

- the joint venture project with Sadara for the construction and operation of an hydrogen peroxide plant in Saudi Arabia. A construction funding guarantee has been granted by Solvay to its partner to guarantee its share of the funding obligations of the project. In parallel, a similar guarantee for the funding obligations of the project by the partners has been granted to Solvay;
- RusVinyl, the joint venture with SIBUR for the construction and operation of a PVC plant in Russia. A guarantee of € 344 million has been provided on a several basis by each sponsor, SolVin and Sibur, and which corresponds for each to 50% of the amount in principal of RusVinyl project finance plus interests and costs;
- VAT payment (€ 355 million).

Within the framework of the annual review of contingent liabilities, environmental contingent liabilities for a total amount of  $\notin$  246 million have been identified.

#### NOTE 42 Joint ventures and associates

The joint ventures and associates not classified as held for sale/discontinued operations are consolidated by applying the equity method accounting.

	2014			2013		
In € million	Joint ventures	Associates	Total	Joint ventures	Associates	Total
Investments in associates and joint ventures	350	30	380	563	19	582
Earnings from associates and joint ventures accounted for using the equity method	(34)	0	(34)	33	1	34

The tables below present the summary of the statement of financial position and income statement of the material joint ventures and associates as if they were proportionately consolidated.



#### Joint ventures

2014		Peroxidos do Brasil	Solvay & CPC	Hindustan Gum &	
In € million	Rusvinyl 000	Ltda	Barium Strontium	Chemicals Ltd	Other
Ownership interest	50%	69.40%	75%	50%	
Operating Segment	Functional Polymers	Performance Chemicals	Advanced Materials	Advanced Formulations	
Statement of financial position					
Non-current assets	428	36	11	8	9
Current assets	27	43	39	136	30
Cash and cash equivalents	3	22	8	103	6
Non-current liabilities	284	8	11	1	1
Long-term financial debt	266	5	0	0	0
Current liabilities	47	22	17	12	15
Short-term financial debt	35	7	8	0	1
Investments in joint ventures	124	50	23	131	23
Income statement					
Sales	24	68	66	96	76
Depreciation and amortization	(8)	(4)	(1)	(1)	(1)
Cost of borrowings	(25)	0	0	0	0
Interest on lendings and short term deposits	1	2	0	7	0
Income taxes	22	(7)	(1)	(6)	(2)
Result from continuing operations	(74)	14	11	12	3
Result from discontinued operations	0	0	0	0	0
Net income for the year	(74)	14	11	12	3
Other comprehensive income	(163)	1	0	12	(1)
TOTAL COMPREHENSIVE INCOME	(237)	15	11	24	2
Dividend received	0	10	0	4	1

2013		Peroxidos do Brasil	Solvay & CPC	Hindustan Gum &	
In € million	Rusvinyl 000	Ltda	Barium Strontium	Chemicals Ltd	Other
Ownership interest	50%	69.40%	75%	50%	
Operating Segment	Functional Polymers	Performance Chemicals	Advanced Materials	Advanced Formulations	
Statement of financial position					
Non-current assets	700	36	5	7	11
Current assets	65	37	39	152	28
Cash and cash equivalents	49	16	6	97	3
Non-current liabilities	365	7	9	0	2
Long-term financial debt	344	4	0	0	1
Current liabilities	26	21	22	49	14
Short-term financial debt	19	6	13	2	1
Investments in joint ventures	373	45	12	110	23
Income statement					
Sales	8	68	66	111	82
Depreciation and amortization	0	(4)	(1)	(1)	(1)
Cost of borrowings	(2)	0	0	(1)	0
Interest on lendings and short term deposits	2	1	0	1	0
Income taxes	4	(6)	(2)	(18)	(2)
Result from continuing operations	(11)	13	5	21	5
Result from discontinued operations	0	0	0	0	0
Net income for the year	(11)	13	5	21	5
Other comprehensive income	(42)	(2)	0	(16)	(4)
TOTAL COMPREHENSIVE INCOME	(53)	11	5	6	1
Dividend received	0	9	0	35	5

#### Associates

In € million	2014	2013
Statement of financial position		
Non-current assets	53	15
Current assets	29	34
Cash and cash equivalents	4	4
Non-current liabilities	19	3
Long-term financial debt	16	1
Current liabilities	33	26
Short-term financial debt	10	7
Investments in associates	30	19
Income statement		
Sales	83	70
Depreciation and amortization	(3)	(2)
Cost of borrowings	0	0
Interest on lendings and short term deposits	0	0
Income taxes	0	0
Result from continuing operations	(1)	2
Result from discontinued operations	0	0
Net income for the year	0	2
Other comprehensive income	(1)	0
TOTAL COMPREHENSIVE INCOME	(1)	2
Dividend received	2	1

No single material investment in associates.

#### **NOTE 43** Joint operations

The list of joint operations is available in the *List of Companies included in the consolidation (List of joint operations)*.

- Soda Ash & Derivatives operations/interests in Devnya (Bulgaria), 75% held by Solvay and comprising the following legal entities:
  - Deven AD;
  - Solvay Sodi AD;
  - Solvay Sisecam Holding AG.
- Hydrogen Peroxide Propylene Oxide (HPPO) operations/interests in Zandvliet (Belgium), Map Ta Put (Thailand) and the HPPO plant that is being constructed in the Kingdom of Saudi Arabia, all 50% held by Solvay and comprising the following legal entities:

- BASF Interox H<sub>2</sub>O<sub>2</sub> Production NV;
- MTP HPJV C.V.;
- MTP HPJV Management B.V.;
- MTP HPJV (Thailand) Ltd.;
- Saudi Hydrogen Peroxide Co.
- Polyamides operations/interests in Butachimie (France), 50% held by Solvay.
- Acetow operations/interests of 50% held by Solvay in Primester (United States), and 49.9% held by Solvay in Warmeverbundkraftwerk Freiburg (Germany).



#### **NOTE 44** Non-controlling interests (continuing operations)

The following subsidiaries, other than those classified as held for sale have material non-controlling interests.

The amounts disclosed below are fully consolidated amounts and do not reflect the elimination of intragroup transactions.

			2014		
				Solvin's interest	
In € million	Zhejiang Lansol	Vinythai	ANAN Kasei	in RusVinyl	Solvay Soda Ash
Non controlling ownership interest	45%	41%	33%	25%	20%
Statement of financial position					
Non-current assets	18	112	15	124	291
Current assets	10	128	41		18
Non-current liabilities	0	77	0		14
Current liabilities	6	24	21		17
Income statement					
Sales	22	378	68		274
Net income for the year	0	21	9		119
Other comprehensive income	2	2	0		(17)
TOTAL COMPREHENSIVE INCOME	2	23	8		101
Dividend paid to non controlling interests	0	1	0		23
Share of non controlling interest in the net result	0	9	3	(45)	24
Accumulated non controlling interest	10	133	10	32	58

			2013		
		SolVin's interest	st		
In € million	Zhejiang Lansol	Vinythai	ANAN Kasei	in RusVinyl	Solvay Soda Ash
Non controlling ownership interest	45%	41%	33%	25%	20%
Statement of financial position					
Non-current assets	12	90	15	377	260
Current assets	12	109	30		15
Non-current liabilities	0	58	19		11
Current liabilities	4	53	20		18
Income statement					
Sales	17	381	72		277
Net income for the year	0	15	7		129
Other comprehensive income	0	(25)	(4)		10
TOTAL COMPREHENSIVE INCOME	1	(10)	3		139
Dividend paid to non controlling interests	0	10	0		50
Share of non controlling interest in the net result	0	6	2	(3)	26
Accumulated non controlling interest	9	110	8	94	54



#### **NOTE 45** Related parties

Balances and transactions between Solvay SA and its subsidiaries, which are related parties of Solvay SA, have been eliminated on consolidation and are not disclosed in this note. Details of transactions between the Group and other related parties are disclosed below.

#### **Trading transactions**

	Sale of goods		Purchase of goods		
In € million	2014	2013	2014	2013	
Joint ventures	18	0	31	16	
Associates	16	24	8	22	
Other related parties	18	10	53	18	
TOTAL	51	34	92	56	

	Amounts owed b	y related parties	Amounts owed to related parties		
In € million	2014	2013	2014	2013	
Joint ventures	2	0	2	0	
Associates	3	1	10	2	
Other related parties	2	20	14	9	
TOTAL	7	21	26	11	

#### Loans to related parties

In € million	2014	2013
Loans to associates	16	34
Loans to other related parties	12	13
TOTAL	28	47

#### **Compensation of key management personnel**

Key management personnel is composed of all members of the Board of Directors and members of the Executive Committee.

Amounts due in respect of the year (salary) or obligations existing at the end of the year (other elements):

In € million	2014	2013
Wages, charges and short-term benefits	2	2
Long term benefits	15	20
TOTAL	18	21
Total number of stock subscription options granted	388,483	497,157
Total value of stock subscription granted	8	10

#### Amounts paid during the year:

In € million	2014	2013
Wages, charges and short-term benefits	8	9
Long-term benefits	1	1
TOTAL	9	10
Excluding employer social charges and taxes		
Number of Stock subscription options granted	84,535	97,490
Charge with respect to share options granted	2	2



#### NOTE 46 Events after the reporting period

On January 29, 2015, Solvay has agreed to sell its German-based refrigerant business and pharma propellants to Daikin in Japan, as its Special Chemicals Global Business unit is gearing its activities towards selective high value-added segments in fluorine specialties and high purity chemicals. Solvay's Global Business unit (GBU) Special Chemicals will divest all of its businesses on its site in Frankfurt. Completion of the transaction is subject to customary closing conditions, including regulatory clearance in Germany and Austria.

## NOTE 47 Policy in respect of capital

See the item 2.1 Policy in respect of capital in the Corporate governance statement section of this report.

#### 2014 Consolidation scope

The Group consists of Solvay SA and a total of 366 investees in 56 countries.

The Group fully consolidates an investee when it controls the investee. Such means that the Group (a) is exposed, or has rights, to variable returns from its involvement with the investee, mainly through its equity interest in the investee, and (b) has the ability to affect those returns through its power over the investee.

For a number of investees, the Group holds a majority equity interest, and the majority of the voting rights. However, as key relevant decisions require unanimous consent, the Group exercises joint control and not control over those investees. Vice versa, for a number of investees, the Group holds between 20 and 50% of the voting rights, but as key relevant decisions require unanimous consent, the Group exercises joint control, and not significant influence over those investees. Those investees are qualified as joint arrangements.

Of these, 207 are fully consolidated, 11 are proportionately consolidated and 19 are accounted for under the equity method, whilst the other 129 do not meet the criteria of significance. In accordance with the principle of materiality, certain companies which are not of significant size have not been included in the consolidation scope. Companies are deemed not to be significant when, during two consecutive years, they do not exceed any of the three following thresholds in terms of their contribution to the Group's accounts:

- sales of € 20 million;
- total assets of € 10 million;
- headcount of 150 persons.

Companies that do not meet these criteria are, nevertheless, consolidated where the Group believes that they have a potential for rapid development, or where they hold shares in other companies that are consolidated under the above criteria.

In the aggregate, the non-consolidated companies have an immaterial impact on the consolidated data of the Group.

The full list of companies is filed with the National Bank of Belgium as an attachment to the annual report, and can be obtained from the Company head office.

## List of companies included in the consolidation

#### List of companies entering or leaving the Group

#### **Companies entering the Group**

Company	Comments
Solvay Chlorchemicals SA	new company
Chlorchemicals Trade Services SA	new company
Erca Quimica Brasil	new company
Solvay Tavaux SAS	new company
PVC Tavaux SAS	new company
Solvay Chlorovinyls GmbH	new company
Solvay Flux GmbH	new company
Societa Italiana Del Cloro S.R.L.	new company
Quimicos Da Leziria Unipessoal Lda	new company
Solvay Vostok OOO, Moscow	meets the consolidation criteria
Chloro Vinyls Spain S.L.	new company
BTH Quitman Hickory LLC	new company
Solvay Biomass Energy LLC	new company
Solvay Energy Holding LLC	new company
	Solvay Chlorchemicals SA Chlorchemicals Trade Services SA Erca Quimica Brasil Solvay Tavaux SAS PVC Tavaux SAS Solvay Chlorovinyls GmbH Societa Italiana Del Cloro S.R.L. Quimicos Da Leziria Unipessoal Lda Solvay Vostok OOO, Moscow Chloro Vinyls Spain S.L. BTH Quitman Hickory LLC Solvay Biomass Energy LLC

#### **Companies leaving the Group**

Country	Company	Comments
BELGIUM	Rhodia Belgium SA, Brussels	liquidated
	Solvay Benvic & Cie Belgium S.N.C.	liquidated
FRANCE	Benvic Europe SAS	sold to OpenGate Capital
	Hexagas SAS, Puteaux	liquidated
ITALY	Benvic Europe S.p.A.	sold to OpenGate Capital
	Società Generale per l'Industria della Magnesia S.p.A., Angera	merged into Solvay Bario e Derivati S.p.A.
NETHERLANDS	Solvay Holding Nederland B.V., Linne-Herten	merged into Solvay Chemicals and Plastics Holding B.V.
PORTUGAL	Solvay Interox – Produtos Peroxidados SA, Povoa	merged into Solvay Portugal – Produtos Quimicos S.A.
SPAIN	Benvic Europe – IB SA	sold to OpenGate Capital
UNITED STATES	Solvay Information Services NAFTA, LLC, Houston, TX	merged into Solvay America Inc.
	Peptisyntha, Inc., Torrance, CA	merged into Solvay Chemicals, Inc.
	Plextronics, Inc. Pittsburgh	liquidated



#### List of subsidiaries

Indicating the percentage holding.

It should be noted that the percentage of voting rights is very close to the percentage holding.

	0/0
ARGENTINA	
Solvay Argentina SA, Buenos Aires	100
Solvay Indupa S.A.I.C., Bahia Blanca	69.9
Solvay Quimica SA, Buenos Aires	100
AUSTRALIA	
Solvay Chemicals Pty Ltd, Sydney	100
Solvay Interox Pty Ltd, Banksmeadow	100
AUSTRIA	
Solvay Österreich GmbH, Wien	100
BELGIUM	
Carrières les Petons S.P.R.L., Walcourt	100
Chlorchemicals Trade Services SA, Brussels	100
Financière Solvay SA, Brussels	100
Solvay Chemicals International SA, Brussels	100
Solvay Chimie SA, Brussels	100
Solvay Chlorchemicals SA, Brussels	100
Solvay Coordination Internationale des Crédits Commerciaux SA, Brussels	100
Solvay Energy SA, Brussels	100
Solvay Nafta Development and Financing SA, Brussels	100
Solvay Participations Belgique SA, Brussels	100
Solvay Pharmaceuticals SA – Management Services, Brussels	100
Solvay Specialty Polymers Belgium SA / NV	100
Solvay Stock Option Management S.P.R.L., Brussels	100
Solvic SA, Brussels	75
Solvin SA, Brussels	75
BRAZIL	
Cogeracao de Energia Electricica Paraiso SA, Brotas	100
Erca Quimica Brasil, Itatiba	100
Rhodia Brazil Ltda, Sao Paolo	100
Rhodia Energy Brazil Ltda, Paulinia	100
Rhodia Poliamida Brasil Ltda, Sao Paolo	100
Rhodia Poliamida e Especialidades Ltda, Sao Paolo	100
Rhopart-Participacoes Servidos e Comercio Ltda, Sao Paolo	100
Solvay do Brasil Ltda, Sao Paulo	100
Solvay Indupa do Brasil SA, Sao Paulo	69.9
BULGARIA	
Solvay Bulgaria EAD, Devnya	100
CANADA	
Solvay Canada Inc., Toronto	100
CAYMAN ISLANDS	
Blair International Insurance (Cayman) Ltd, Georgetown	100

	%
CHINA	
Baotou Solvay Rare Earths Company Ltd, Baotou	55
Beijing Rhodia Eastern Chemical Co., Ltd, Beijing	60
Liyang Solvay Rare Earth New Material Co., Ltd, Liyang City	96.3
Rhodia Hong Kong Ltd, Hong Kong	100
Solvay (Beijing) Energy Technology Co., Ltd, Beijing	100
Solvay (Shanghai) Engineering Plastics Co., Ltd	100
Solvay (Shanghai) International Trading Co., Ltd, Shanghai	100
Solvay (Shanghai) Ltd, Shanghai	100
Solvay (Zhangjiagang) Specialty Chemicals Co. Ltd, Suzhou	100
Solvay (Zhenjiang) Chemicals Co., Ltd, Zhenjiang New area	100
Solvay Biochemical (Taixing) Co. Ltd, Shanghai	58.7
Solvay Chemicals (Shanghai) Co. Ltd, Shanghai	100
Solvay China Co., Ltd, Shanghai	100
Solvay Fine Chemical Additives (Qingdao) Co., Ltd, Qingdao	100
Solvay Hengchang (Zhangjiagang) Specialty Chemical Co., Ltd, Zhangjiagang City	70
Solvay High Performance Materials R&D (Shanghai) Co., Ltd., Shanghai	100
Solvay Silica Qingdao Co., Ltd, Qingdao	100
Solvay Speciality Polymers (Changshu) Co. Ltd, Changshu	100
Zhejiang Lansol Fluorchem Co., Ltd, Zhejiang	55
Zhuhai Solvay Specialty Chemicals Co Ltd, Zhuhai City	100
EGYPT	100
Solvay Alexandria Sodium Carbonate Co, Alexandria	100
FINLAND	100
Solvay Chemicals Finland Oy, Voikkaa	100
FRANCE	100
Cogénération Chalampe SAS, Puteaux	100
PVC Tavaux SAS	75
RHOD V S.N.C., Courbevoie	100
RHOD W S.N.C., Courbevoie	100
Rhodia Chimie SAS, Aubervilliers	100
Rhodia Energy GHG SAS, Puteaux	100
Rhodia Einergy GHG SAS, Puteaux Rhodia Finance SAS. Courbevoie	
Rhodia Laboratoire du Futur SAS. Pessac	100
	100
Rhodia Operations SAS, Aubervilliers	100
Rhodia Participations S.N.C., Courbevoie	100
Rhodia SA, Courbevoie	100
Rhodianyl SAS, Saint-Fons	100
Solvay - Carbonate - France SAS, Paris	100
Solvay - Electrolyse - France SAS, Paris	100
Solvay - Fluorés - France SAS, Paris	100
Solvay - Olefines - France SAS, Paris	100
Solvay – Spécialités – France SAS, Paris	100
Solvay Energie France SAS, Paris	100
Solvay Energy Services SAS, Puteaux	100
Solvay Finance France SA, Paris	100
Solvay Finance SA, Paris	100
Solvay Participations France SA, Paris	100
Solvay Speciality Polymers France SAS, Paris	100
Solvay Tavaux SAS	100
Solvin France SA, Paris	75



	%
GERMANY	
Cavity GmbH, Hannover	100
Girindus AG, Hannover	83.1
Horizon Immobilien AG, Hannover	100
Salzgewinnungsgesellschaft Westfalen GmbH & Co KG, Hannover*	65
Solvay Acetow GmbH, Freiburg	100
Solvay Chemicals GmbH, Hannover	100
Solvay Chlorovinyls GmbH, Hannover	100
Solvay Energy Services Deutschland GmbH, Hannover	100
Solvay Fluor GmbH, Hannover	100
Solvay Flux GmbH, Hannover	100
Solvay GmbH, Hannover	100
Solvay Holding GmbH, Freiburg	100
Solvay Infra Bad Hoenningen GmbH, Hannover	100
Solvay Organics GmbH, Hannover	100
Solvay P&S GmbH, Freiburg	100
Solvay Specialty Polymers Germany GmbH, Hannover	100
Solvin GmbH & Co KG, Hannover	75
Solvin GmbH & Co. KG – PVDC, Rheinberg	75
Solvin Holding GmbH, Hannover	75
GREAT BRITAIN	
Holmes Chapel Trading Ltd, Watford	100
McIntyre Group Ltd, Watford	100
Rhodia Holdings Ltd, Watford	100
Rhodia International Holdings Ltd, Oldbury	100
Rhodia Limited, Watford	100
Rhodia Organique Fine Ltd, Watford	100
Rhodia Overseas Ltd, Watford	100
Rhodia Pharma Solutions Holdings Ltd, Cramlington	100
Rhodia Pharma Solutions Ltd, Cramlington	100
Rhodia Reorganisation, Watford	100
Solvay Chemicals Ltd, Warrington	100
Solvay Interox Ltd, Warrington	100
Solvay Solutions UK Ltd, Watford	100
Solvay Speciality Chemicals Ltd, Warrington	100
Solvay UK Holding Company Ltd, Warrington	100
INDIA	
Rhodia Polymers & Specialties India Private Limited, Mumbai	100
Rhodia Specialty Chemicals India Limited, Mumbai	97.4
Solvay Specialities India Private Limited, Mumbai	100
Sunshield Chemicals Limited, Mumbai	62.4
IRELAND	
Solvay Finance Ireland Unlimited, Dublin	100
ITALY	
SIS Italia S.p.A., Bollate	100
Società Elettrochimica Solfuri e Cloroderivati (ELESO) S.p.A., Bollate	100
Societa Italiana Del Cloro S.R.L., Bollate	100
Solvay Bario e Derivati S.p.A., Massa	100
Solvay Chimica Bussi S.p.A., Rosignano	100
Solvay Chimica Italia S.p.A., Milano	100
Solvay Energy Services Italia S.r.I., Bollate	100
Solvay Solutions Italia S.p.A., Milano	100
Solvay Specialty Polymers Italy S.p.A., Milano	100
Solvin Italia S.p.A., Ferrara	75

\* German limited partnership, which makes use of the exemption offered by Section 264 (b) of the German Commercial Code, not to publish their annual financial statements.

	%
JAPAN	
Anan Kasei Co Ltd, Anan City	67
Nippon Solvay KK, Tokyo	100
Solvay Japan K.K., Tokyo	100
Solvay Nicca Ltd, Tokyo	60
Solvay Specialty Polymers Japan KK, Minato Ku-Tokyo	100
LUXEMBOURG	
Caredor SA, Strassen	100
Solvay Finance (Luxembourg) SA, Luxembourg	100
Solvay Hortensia SA, Luxembourg	100
Solvay Luxembourg S.a.r.I., Luxembourg	100
MEXICO	
Rhodia de Mexico SA de CV, Mexico	100
Rhodia Especialidades SA de CV, Mexico	100
Solvay Fluor Mexico SA de C.V., Ciudad Juarez	100
Solvay Mexicana S. de R.L. de C.V., Monterrey	100
Solvay Quimica Y Minera Servicios SA de CV, Monterrey	100
Solvay Quimica Y Minera Ventas SA de CV, Monterrey	100
NAMIBIA	
Okorusu Fluorspar (Pty) Ltd, Otjiwarongo	100
Okorusu Holdings (Pty) Ltd, Windhoek	100
NETHERLANDS	
Rhodia International Holdings B.V., Den Haag	100
Solvay Chemicals and Plastics Holding B.V., Linne-Herten	100
Solvay Chemie B.V., Linne-Herten	100
Solvin Holding Nederland B.V., Linne-Herten	75
NEW ZEALAND	
Solvay New Zealand Ltd, Auckland	100
POLAND	
Solvay Engineering Plastics Poland Sp z.o.o., Gorzow Wielkopolski	100
Solvay Advanced Silicas Poland Sp. z o.o.	100
PORTUGAL	
Quimicos Da Leziria Unipessoal Lda, Povoa	100
Solvay Business Services Portugal Unipessoal Lda, Carnaxide	100
Solvay Portugal – Produtos Químicos SA, Povoa	100
RUSSIA	
Solvay Vostok OOO, Moscow	100
Sertow OOO, Serpukhov Khimi	100
SINGAPORE	
Rhodia Amines Chemicals Pte Ltd, Singapore	100
Solvay Fluor Holding (Asia-Pacific) Pte. Ltd., Singapore	100
Solvay Singapore Pte Ltd, Singapore	100
Solvay Specialty Chemicals Asia Pacific Pte. Ltd., Singapore	100
Vinythai Holding Pte Ltd., Singapore	58.8
SOUTH KOREA	
Daehan Solvay Special Chemicals Co., Ltd, Seoul	100
Solvay Chemicals Korea Co. Ltd, Seoul	100
Solvay Energy Services Korea Co. Ltd, Seoul	100
Solvay Korea Co. Ltd, Seoul	100
Solvay Silica Korea Co. Ltd, Incheon	100
Solvay Specialty Polymers Korea Company Ltd, Seoul	100



	%
SPAIN	
Chloro Vinyls Spain S.L.	100
Solvay Energy Services Iberica, S.L., Madrid	100
Solvay Ibérica S.L., Barcelona	100
Solvay Quimica S.L., Barcelona	100
Solvay Solutions Espana S.L., Madrid	100
Solvin Spain S.L., Martorell	75
SWITZERLAND	
Solvay (Schweiz) AG, Bad Zurzach	100
Solvay Vinyls Holding AG, Bad Zurzach	100
Sopargest – Société de participation et de gestion SA, Fribourg	100
THAILAND	
Advanced Biochemical (Thailand) Company Ltd, Bangkok	58.8
Solvay (Bangpoo) Specialty Chemicals Ltd, Bangkok	100
Solvay Asia Pacific Company Ltd, Bangkok	100
Solvay Peroxythai Ltd, Bangkok	100
Vinythai Public Company Ltd, Bangkok	58.8
UNITED STATES	
Alcolac Inc., Cranbury NJ	100
American Soda LLP, Parachute, CO	100
Ausimont Industries, Inc., Wilmington, DE	100
Girindus America Inc., Cincinnati, OH	83.1
Heat Treatment Services Inc., Cranbury NJ	100
Rhodia India Holding Inc., Cranbury NJ	100
Rocky Mountain Coal Company, LLC, Houston, TX	100
Solvay America Holdings, Inc., Houston, TX	100
Solvay America Inc., Houston, TX	100
Solvay Biomass Energy LLC, Quitman MI	50.1
Solvay Chemicals, Inc., Houston, TX	100
Solvay Energy Holding LLC, Wilmington DE	100
Solvay Finance (America) LLC, Houston, TX	100
Solvay Financial Services INC., Wilmington DE	100
Solvay Fluorides, LLC., Greenwich, CT	100
Solvay Holding INC., Cranbury NJ	100
Solvay Soda Ash Expansion JV, Houston, TX	80
Solvay Soda Ash Joint Venture, Houston, TX	80
Solvay Specialty Polymers USA, LLC, Alpharetta, GA	100
Solvay USA INC., Cranbury NJ	100
URUGUAY	
Alaver SA, Montevideo	100
Fairway Investimentos SA, Montevideo	100
Zamin Company S/A, Montevideo	100
VENEZUELA	
Rhodia Silices de Venezuela C.A., Barquisimeto	100

#### List of joint operations

	٥/٥
AUSTRIA	
Solvay Sisecam Holding AG, Wien	75
BELGIUM	
BASF Interox H <sub>2</sub> O <sub>2</sub> Production N.V., Brussels	50
BULGARIA	
Deven AD, Devnya	73.4
Solvay Sodi AD, Devnya	73.5
FRANCE	
Butachimie S.N.C., Courbevoie	50
GERMANY	
Warmeverbundkraftwerk Freiburg GmbH, Freiburg	49.9
NETHERLANDS	
MTP HP JV C.V., Weesp	50
MTP HP JV Management bv, Weesp	50
SAUDI ARABIA	
Saudi Hydrogen Peroxide Co, Jubail	50
THAILAND	
MTP HP JV (Thailand) Ltd, Bangkok	50
UNITED STATES	
Primester, Kingsport TN	50

#### List of companies consolidated by applying the equity method of accounting

#### Joint ventures

	%
BRAZIL	
Dacarto Benvic SA, Santo André	50
Peroxidos do Brasil Ltda, Sao Paulo	69.4
GERMANY	
Solvay & CPC Barium Strontium GmbH & Co KG, Hannover	75
Solvay & CPC Barium Strontium International GmbH, Hannover	75
INDIA	
Hindustan Gum & Chemicals Ltd, New Delhi	50
MEXICO	
Solvay & CPC Barium Strontium Monterrey S. de R.L. de C.V., Monterrey	75
Solvay & CPC Barium Strontium Reynosa S. de R.L. de C.V., Reynosa	75
RUSSIA	
Poligran OAO, Tver	50
RusVinyl 000, Moscow	37.5
Soligran ZAO, Moscow Aptekars	50
VIETNAM	
Rhodia Nuoc Trong Biogas LLC, Ho Chi Minh City	75



#### Associates

	%
ARGENTINA	
Solalban Energia SA, Bahia Blanca	40.5
CHINA	
Qingdao Hiwin Solvay Chemicals Co. Ltd, Qingdao	30
FRANCE	
GIE Chime Salindres, Salindres	50
Gie Osiris, Roussillon	34.8
INDONESIA	
Solvay Manyar P.T., Gresik	50
MEXICO	
Silicatos y Derivados SA DE C.V.	20
POLAND	
Zaklad Energoeloctryczny Energo-Stil Sp. z o.o., Gorzow Wielkopolski	25
UNITED STATES	
BTH Quitman Hickory LLC, Quitman Mississippi	41.4



## **3** Summary financial statements of Solvay SA

The annual financial statements of Solvay SA are presented in summary format below. In accordance with the Companies Code, the annual financial statements of Solvay SA, the management report and the statutory auditor's report will be deposited with the National Bank of Belgium.

These documents are also available free of charge on the internet or upon request from:

Solvay SA rue de Ransbeek 310 B – 1120 Brussels

## Balance sheet of Solvay SA (summary)

In € million	2014	2013
Assets		
Fixed assets	11,769	12,229
Start-up expenses and intangible assets	131	102
Tangible assets	60	68
Financial assets	11,578	12,059
Current assets	772	1,066
Inventories	1	3
Trade receivables	138	194
Other receivables	595	735
Short-term investments and cash equivalents	11	115
Accruals	27	19
TOTAL ASSETS	12,541	13,295
Shareholders' equity and liabilities		
Shareholders' equity	7,764	7,500
Capital	1,271	1,271
Issue premiums	18	18
Reserves	1,950	1,948
Net income carried forward	4,524	4,262
Investment grants	1	1
Provisions and deferred taxes	358	333
Financial debt	3,748	4,856
<ul> <li>due in more than one year</li> </ul>	2,499	3,005
<ul> <li>due within one year</li> </ul>	1,249	1,851
Trade liabilities	153	156
Other liabilities	418	336
Accruals and deferred income	100	114
TOTAL SHAREHOLDERS' EQUITY AND LIABILITIES	12,541	13,295

### Income statement of Solvay SA (summary)

In € million	2014	2013
Operating income	956	1,000
Sales	305	325
<ul> <li>Other operating income</li> </ul>	651	675
Operating expenses	(1,160)	(1,202)
Operating profit / loss	(204)	(202)
Financial gains / losses	1,037	422
Current profit before taxes	833	220
Extraordinary gains / losses	(307)	102
Profit before taxes	526	322
Income taxes	24	37
Profit for the year	550	359
Transfer to (-) / from (+) untaxed reserves		
Profit available for distribution	550	359



## **AUDITOR'S REPORTS**

#### Limited assurance report of the Statutory Auditor on a selection of social, environmental and other sustainable development information for the year ended 31 December 2014

Pursuant to your request and in our capacity of Statutory Auditor of Solvay SA / NV, we hereby present you our limited assurance report on a selection of social, environmental and other sustainable development information disclosed in section "Governance and financial & extra-financial information", chapter "2. Financial & extra-financial information", section "Corporate Social Responsibility Report" of Solvay Group Annual Report for the year ended 31 December 2014 (the "2014 Annual Report"), identified by the symbol  $\sqrt{2014}$ .

#### **Responsibility of the Company**

This selection of information (the "Information") extracted from the 2014 Sustainable Development Report has been prepared under the responsibility of Solvay Group management, in accordance with internal measurement and reporting principles used by Solvay Group (the «Reporting Framework»). The Reporting Framework consists of specific definitions and assumptions that are summarized in section "Corporate Social Responsibility Report" of the 2014 Annual Report.

#### **Responsibility of the Statutory Auditor**

It is our responsibility, based on the procedures performed by us, to express limited assurance on whether the Information identified by the symbol  $\sqrt{2014}$  in the 2014 Annual Report is prepared, in all material respects, in accordance with the Reporting Framework.

We conducted our procedures in accordance with the international standard as defined in ISAE (International Standard on Assurance Engagements) 3000<sup>(1)</sup>. With respect to independence rules, these are defined by the respective legal and regulatory texts as well as by the professional Code of Ethics, issued by the International Federation of Account ("IFAC").

#### Nature and scope of procedures

We have carried out the following procedures to obtain limited assurance on whether the Information selected by Solvay and identified by the symbol whether the 2014 Annual Report does not contain any material errors that would question its preparation, in all material repects, in accordance with the Reporting Framework. A higher level of assurance would have required more extensive procedures.

(1) ISAE 3000 - Assurance engagements other than audits or reviews of historical information.

Financial & extra-financial information

We performed the following procedures:

- We assessed the appropriateness of the Reporting Framework with respect to its relevance, completeness, neutrality, clarity and reliability, by taking into consideration, when relevant, the sector reporting practices.
- We have verified the set-up within Solvay Group of the process to obtain, consolidate and check the selected Information with regard to its completeness and consistency. We have familiarized ourselves with the internal control and risk management procedures relating to the compilation of the information. We have conducted interviews with individuals responsible for social, environmental and other sustainable development reporting.
- Concerning the selected Information<sup>(2)</sup>:
  - For the entity in charge of their consolidation, as well as for the controlled entities, we have designed analytical procedures and verified, using sampling techniques, the calculations as well as the consolidation of this information.
- At the sites that we have selected<sup>(3)</sup> based on their activity, their contribution to consolidated indicators, their location and a risk analysis, we have:
  - Conducted interviews to verify the proper application of procedures and obtained information to perform our verifications;
  - Conducted substantive tests, using sampling techniques, to verify the calculations performed and reconcile data with supporting evidence.

#### Conclusion

On the basis of the procedures performed by us nothing came to our attention that causes us to believe that the Information identified by the symbol  $\sqrt{2}$  as included in Solvay Group Anual Report for the year ended 31 December 2014, is not prepared, in all material respects, in accordance with the Reporting Framework.

Diegem, 6 March 2015

The Statutory Auditor DELOITTE Bedrijfsrevisoren / Reviseurs d'Entreprises BV o.v.v.e. CVBA / SC s.f.d. SCRL Represented by Eric Nys

**Environmental information:** Direct & indirect CO2 emissions (scopes 1 & 2), Other greenhouse gases (Kyoto Protocol) emissions (scope 1), Total greenhouse gases (Kyoto Protocol) emissions, Other greenhouse gases (non-Kyoto Protocol) emission (scope 1), Energy consumption, Acidification, Photochemical oxidant formation (POF), Total water intake, Groundwater and drinking water.

Process safety information: % level 1 risk situations solved within one year, number of "risk level 1" situations at the end of the year.

Information related to Sustainable Portfolio Management (SPM): revenue covered by the "market alignment" assessment, revenues of Product-Application Combinations in the "Aligned" and the "Star" categories.

**Information related to Management of SVHC:** % of SVHC reviewed for potential substitution.

Information related to Environmental accidents and remediation: Environmental provisions.

Information related to Employee engagement and wellness: % of employees covered by collective agreement.

<sup>(2)</sup> Social information: Accident frequency rate – Lost Time Accident Rate (LTAR), Accident frequency rate – Medical Treatment Accident Rate (MTAR), Number of fatal accidents.

Information related to Water management: Number of sites for which the water scarcity risk was confirmed, number of sites having implemented a sustainable water management.

<sup>(3)</sup> Alexandria (Egypt), Bernburg (Germany), Brotas (Brazil), Devnya (Bulgaria), Panoli (India), Rheinberg (Germany), St-Fons (France), Chalampé (France) for industrial hazardous waste and groundwater intake only, Orange (USA) for CFC113 and R22 emissions only, Rosignano (Italia) for seawater intake only, Santo-Andre (Brazil) for Acetone emissions only, Spinetta-Marengo (Italia) for CF4 and R22 emissions only.



## Statutory auditor's report to the shareholders' meeting on the consolidated financial statements for the year ended 31 December 2014

#### To the shareholders

As required by law, we report to you in the context of our appointment as the company's statutory auditor. This report includes our report on the consolidated financial statements together with our report on other legal and regulatory requirements. These consolidated financial statements comprise the consolidated statement of financial position as at 31 December 2014, the consolidated income statement, the consolidated statement of comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the year then ended, as well as the summary of significant accounting policies and other explanatory notes.

#### Report on the consolidated financial statements - Unqualified opinion

We have audited the consolidated financial statements of Solvay SA/NV ("the company") and its subsidiaries (jointly "the group"), prepared in accordance with International Financial Reporting Standards as adopted by the European Union and with the legal and regulatory requirements applicable in Belgium. The consolidated statement of financial position shows total assets of 17,894 million EUR and the consolidated income statement shows a consolidated profit (group share) for the year then ended of 80 million EUR.

#### Board of directors' responsibility for the preparation of the consolidated financial statements

The board of directors is responsible for the preparation and fair presentation of consolidated financial statements in accordance with International Financial Reporting Standards (IFRS) as adopted by the European Union and with the legal and regulatory requirements applicable in Belgium, and for such internal control as the board of directors determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

#### Statutory auditor's responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audit. We conducted our audit in accordance with International Standards on Auditing (ISA). Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the statutory auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the statutory auditor considers internal control relevant to the group's preparation and fair presentation of consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the group's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the board of directors, as well as evaluating the overall presentation of the consolidated financial statements. We have obtained from the group's officials and the board of directors the explanations and information necessary for performing our audit.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### **Unqualified opinion**

In our opinion, the consolidated financial statements of Solvay SA/NV give a true and fair view of the group's net equity and financial position as of 31 December 2014, and of its results and its cash flows for the year then ended, in accordance with International Financial Reporting Standards as adopted by the European Union and with the legal and regulatory requirements applicable in Belgium.



#### Report on other legal and regulatory requirements

The board of directors is responsible for the preparation and the content of the directors' report on the consolidated financial statements.

As part of our mandate and in accordance with the Belgian standard complementary to the International Standards on Auditing applicable in Belgium, our responsibility is to verify, in all material respects, compliance with certain legal and regulatory requirements. On this basis, we make the following additional statement, which does not modify the scope of our opinion on the consolidated financial statements:

• The directors' report on the consolidated financial statements includes the information required by law, is consistent with the consolidated financial statements and is free from material inconsistencies with the information that we became aware of during the performance of our mandate.

Diegem, 26 February 2015

The statutory auditor DELOITTE Bedrijfsrevisoren / Reviseurs d'Entreprises BV o.v.v.e. CVBA / SC s.f.d. SCRL Represented by Eric Nys





## **DECLARATION BY THE PERSONS RESPONSIBLE**

The Board of Directors hereby declares that, to the best of its knowledge:

- a) the financial statements, prepared in accordance with applicable accounting standards, give a true and fair view of the assets, liabilities, financial position and earnings of the issuer and the entities included in the consolidation;
- b) the management report includes an accurate review of the business developments, earnings and financial position of the issuer and the entities included in the consolidation, as well as a description of the main risks and uncertainties that these entities face.

For the Board of Directors,

**Nicolas Boël** Chairman of the Board of Directors

Micoles Bail

Jean-Pierre Clamadieu Chairman of the Executive Committee and CEO Director

# Glossary

Basic earnings per share: Net income (Solvay's share) divided by the weighted average number of shares.

**Carechem:** Carechem 24 is a multilingual telephone advice service providing access to a team of trained responders 24-hours-a-day, 365-days-a-year. Carechem 24 provides companies all over the world with emergency product support during a harzardous materials incident.

**CEFIC:** European Chemical Industry Council.

**CEO:** Chief Executive Officer.

**CFO:** Chief Financial Officer.

CFROI: Cash Flow Return On Investment.

**Code of Conduct:** Solvay expresses its commitment to responsible behavior and integrity, taking into account the sustainable growth of its business, and its good reputation in the communities in which it operates.

Comex: Executive Committee.

CSR: Corporate Social Responsibility.

**Diluted earnings per share:** Net income (Solvay's share) divided by the weighted average number of shares adjusted for effects of dilution.

**Dividend yield (net):** Net dividend divided by the closing share price on December 31.

**Dividend yield (gross):** Gross dividend divided by the closing share price on December 31.

**DJ Stoxx:** Dow Jones Stoxx is a European stock index composed of the most important 665 European values.

**DJ Euro Stoxx:** Dow Jones Euro Stoxx is a pan European stock index which includes the most important 326 values of the general Dow Jones index, belonging to eleven countries of the Eurozone.

**EBIT:** Earnings before interest and taxes, i.e. operating result.

**Environmental Protection Agency:** The U.S. Environmental Protection Agency (EPA or sometimes USEPA) is an agency of the United States federal government which was created for the purpose of protecting human health and the environment by writing and enforcing regulations based on laws passed by Congress.

**Equity per share:** Equity (Solvay share) divided by the number of outstanding shares at year end (issued shares - treasury shares).

**Euronext:** Global operator of financial markets and provider of trading technologies.

Free cash flow: Cash flow from operating activities (including dividends from associates and joint ventures) and Cash flow from investing activities (excluding acquisitions and sales of subsidiaries and other investments and excluding loans to associates and non-consolidated entities).

**FTSEurofirst 300:** The FTSEurofirst 300 Index tracks the equity performance across the region of the 300 largest companies ranked by market capitalisation in the FTSE Developed Europe Index.

GBU: Global Business Unit.

#### GHG: Greenhouse gas.

**GRI:** The Global Reporting Initiative (GRI) is a leading organization in the sustainability field. GRI promotes the use of sustainability reporting as a way for organizations to become more sustainable and contribute to sustainable development.

HBP: High-barrier polymer.

HDS: Highly Dispersible Silica.

**HPPA:** Polyamide High Performance.

IFRS: International Financial Reporting Standards.

**Integrated reporting:** it is a process founded on integrated thinking that results in a periodic integrated report by an organization about value creation over time and related communications regarding aspects of value creation.

**ISO 9001:** The ISO 9001 standard defines a set of requirements for the establishment of a system of quality management in an organization, whatever its size and activity.

**ISO 14001:** The ISO 14001 family addresses various aspects of environmental management. It provides practical tools for companies and organizations looking to identify and control their environmental impact and constantly improve their environmental performance. ISO 14001:2004 and ISO 14004:2004 focus on environmental management systems.

**ISO 14040:** The ISO 14040 standard covers life cycle assessment (LCA) studies and life cycle inventory (LCI) studies.

**ISO 26000:** The ISO 26000 is a global standard which provides guidelines for organizations to operate in a socially responsible manner. The standard was published in 2010 after five years of negotiations among a large number of stakeholders worldwide. Representatives of governments, NGOs, industry, consumer groups and the world of work were involved in its development. It represents therefore an international consensus.

**Loss prevention process:** Loss prevention aims at maintaining production flow and profitability of the plants by providing risk mitigation. It also contributes to increase the protection of people and the environment.

LTAR: Lost Time Accident Rate.

LTI: Long Term Incentive.

M&A: Mergers and Acquisitions.

**Materiality:** Organizations are faced with a wide range of topics on which they could report. The relevant topics are those that may reasonably be considered important for reflecting the organization's economic, environmental and social impacts, or influencing the decisions of stakeholders, and, therefore, potentially merit inclusion in an annual report. Materiality is the threshold at which aspects become sufficiently important that they should be reported.

MTAR: Medical Treatment Accident Rate.

**Natural Currency Hedge:** A natural currency hedge is an investment that reduces the undesired risk by matching cash flows (i.e. revenues and expenses).



**Net financial expenses:** Net financial expenses comprise cost of borrowings minus accrued interests on lending and short-term deposits, plus other gains (losses) on net indebtedness, costs of discounting provisions (namely, related to Post-employment benefits and HSE liabilities) and Income / loss from available-for-sale assets.

**OCI:** Other Comprehensive Income.

**OECD:** Organization for Economic Co-operation and Development.

**OHSAS 18001:** OHASAS 18001 is an international occupational health and safety management system specification.

**OLED:** Organic Light-Emitting Diode.

**Open Innovation:** Innovation that is enriched with outside expertise, through partnerships with the academic world and by shareholdings in start-ups, either directly or via investment funds.

PEEK: Polyetheretherketone.

**PPA:** Purchase Price Allocation (PPA) accounting impacts related to the Rhodia acquisition.

PSU: Performance Share Unit.

PO: Propylene oxide.

**PPS:** Polyphenylene sulfide.

**PPSU:** Polyphenylsulfone.

**Product Stewardship:** A responsible approach in managing risks throughout the entire life cycle of a product beginning at the design stage to the end of life.

**PVC:** Polyvinyl chloride.

**PVDF:** Polyvinylidene fluoride.

**R&I:** Research & Innovation.

**REBITDA:** Recurring earnings before interest and taxes depreciation and amortization. It is defined as EBIT before depreciation and amortization charges, non-recurring items (including from equity-consolidated companies), M&A related impacts (including but not limited to Purchase Price Allocation elements,) and major financing-related impacts from equity-consolidated companies (e.g RusVinyl's).

**REACH:** REACH is the European Community Regulation on chemicals and their safe use (EC 1907/2006). It deals with the Registration, Evaluation, Authorisation and Restriction of Chemical substances. The law entered into force on June 1, 2007.

**Responsible Care®:** Responsible Care® is the global chemical industry's unique initiative to improve health, environmental performance, enhance security, and to communicate with stakeholders about products and processes.

ROE: Return on equity.

Safety Data Sheets: Safety Data Sheets are the main tool for ensuring that manufacturers and importers communicate enough information along the supply chain to allow safe use of their substances and mixtures.

**SASB:** Sustainability Accounting Standards Board. SASB's mission is to develop and disseminate sustainability accounting standards that help public corporations disclose material, decision-useful information to investors. That mission is accomplished through a rigorous process that includes evidence-based research and broad, balanced stakeholder participation.

Seveso Regulations: The Control of Major Accident Hazards Involving Dangerous Substances Regulations. These regulations (often referred to as "COMAH Regulations" or "Seveso Regulations") give effect to European Directive 96/82/EC. They apply only to locations where significant quantities of dangerous substances are stored.

**Solvay Way:** Launched in 2013 and aligned with ISO 26000, Solvay Way is the sustainability approach of the Group. It integrates social, societal, environmental and economic aspects into the company's management and strategy, with the objective to create value shared by all of its stakeholders. Solvay Way is based on an ambitious and pragmatic framework serving as a tool of both measurement and progress. Solvay Way lists 49 practices, practices that reflect the Solvay Way's 22 commitments and are structured on a four level scale (launch, deployment, maturity, performance).

#### SOP: Stock Option.

**SPM:** The Sustainable Portfolio Management tool is integrated into the Solvay Way framework (linked to 5 practices). It serves as a strategic tool to develop information on our portfolio and analyze the impacts of sustainability megatrends on our businesses.

#### STI: Short Term Incentive.

**SVHC:** Substance of Very High Concern (SVHC) is a chemical substance which utilization within the European Union has been proposed to become subject to legal authorization under the REACH regulation.

**Velocity:** Total number of shares traded during the year divided by the total number of listed shares, using the Euronext definition.

VCM: Vinyl chloride.

Velocity adjusted by free float: Velocity adjusted as a function of the percentage of the listed shares held by the public, using the Euronext definition.

WBCSD: World Business Council for Sustainable Development.

WCF: World Class Factory.

## **SHAREHOLDER'S DIARY**

#### May 6, 2015

Announcement of the 1st quarter 2015 results (at 7:00am)

#### May 12, 2015

Annual Shareholders' Meeting (at 10:30 am)

#### May 19, 2015:

Payment of the balance of the 2014 dividend of  $\in$  2.06\* (coupon no. 96). Trading ex-dividend as from May 15, 2015

#### June 10 &11, 2015

Solvay Capital Markets Day

#### July 29, 2015

Announcement of the  $2^{\rm nd}$  quarter and of the six months 2015 results (at 07:00 am)

#### October 29, 2015

Announcement of the  $3^{rd}$  quarter and the nine months 2015 results and the interim dividend for 2015 (payable in January 2016, coupon no. 97) (at 07:00)

<sup>\*</sup> Repeating last decimal. Dividend payments rounded to the nearest euro cent.

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