



SOLVAY

asking more from chemistry®

ASKING

MORE

2015
COMPLEMENTARY
ANNUAL REPORT

-
SUSTAINABLE
DEVELOPMENT
INFORMATIONS

SUSTAINABLE VALUE CREATION

Our strategy is a virtuous circle in which positive actions interact to create enriching contributions centered around a single goal: creating a future with more potential.



12.4 bn
NET SALES

30,900
EMPLOYEES

145
INDUSTRIAL SITES AND
A PRESENCE IN 53 COUNTRIES

WHO WE ARE

An international chemical and advanced materials company, Solvay assists its customers in innovating, developing, and delivering high-value, sustainable products and solutions that consume less energy and reduce CO₂ emissions, optimize the use of resources and improve the quality of life. Solvay serves diversified global end markets including automotive and aerospace, consumer goods and healthcare, energy and environment, electricity and electronics, building and construction, as well as industrial applications.

Solvay is headquartered in Brussels with about 30,000 employees spread across 53 countries. It generated pro forma net sales of €12.4 bn in 2015, with 90% made from activities where it ranks among the world's top 3 players. Solvay SA (SOLB.BE) is listed on Euronext in Brussels and Paris (Bloomberg: SOLB.BB – Reuters: SOLB.BR).

Asking MORE

from chemistry

SUSTAINABILITY AT THE HEART OF SOLVAY'S STRATEGY

Solvay believes that innovative chemistry holds solutions for future generations. Throughout its history, the Group has continuously and successfully transformed itself in order to confront immediate challenges, always with a view to securing the best possible future for its people, businesses, the planet and society at large.

To make the seemingly impossible possible, the Group draws its strength from people. One of its key objectives is to attract and develop high-performing talent. Fueled by agility, collaboration, curiosity and courage, Solvay employees are success-driven and committed to the Group's ambition.

In pursuing its passion for scientific and technical progress, Solvay strives to achieve ever more with less: fewer risks, fewer resources and less waste, in order to deliver more sustainable innovation.

For Solvay, "Asking more from Chemistry" means responsible success in the way it acts, innovates and contributes to society.

This report completes the information provided in the Annual Report which mainly presents the high materiality social and environmental issues. You will find here a series of indicators reflecting the deployment of Solvay Way, the group's Sustainability approach. Finally this report presents the group's objectives that have been pursued over the last few years and recent key achievements.

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TWO COMPLEMENTARY ANNUAL REPORTS

Solvay's high materiality issues are now included in the 2015 Solvay Annual Report as a first step towards integrated reporting.

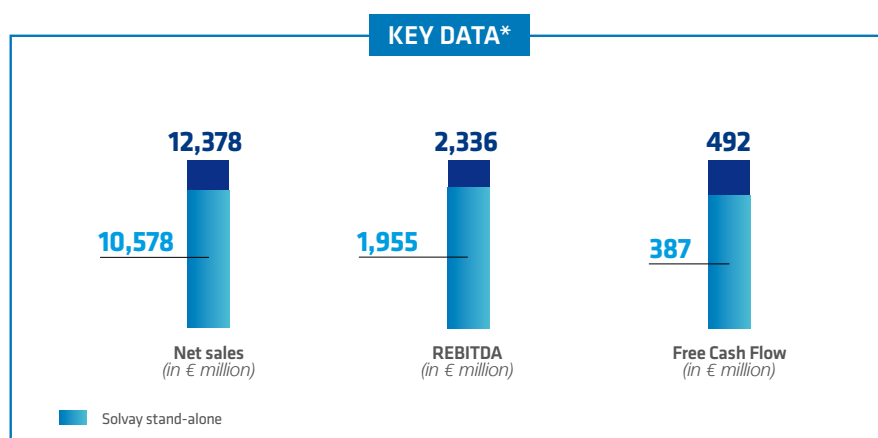
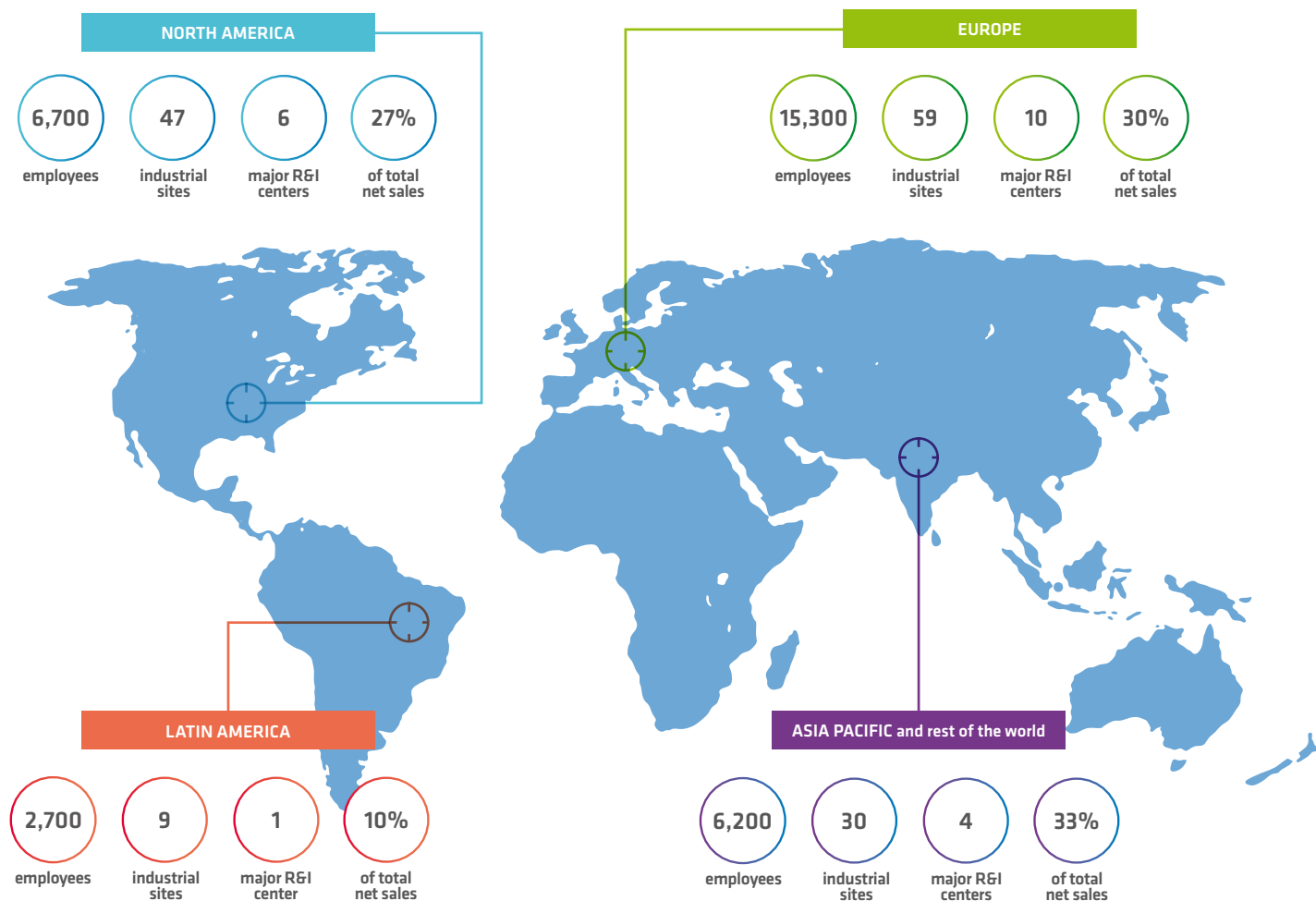
This 2015 Complementary Annual Report on Sustainable Development informations completes the 2015 Annual Report with a series of indicators according to the Global Reporting Initiative (G4) guidelines.

www.annualreport2015.solvay.com

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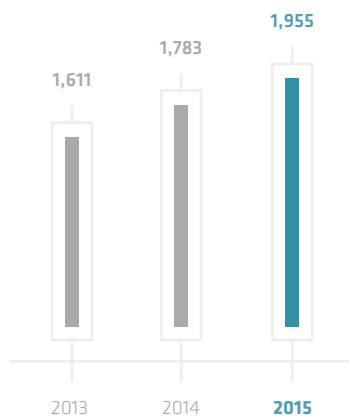
SOLVAY PRO FORMA 2015*
(UNAUDITED, INCLUDING CYTEC)



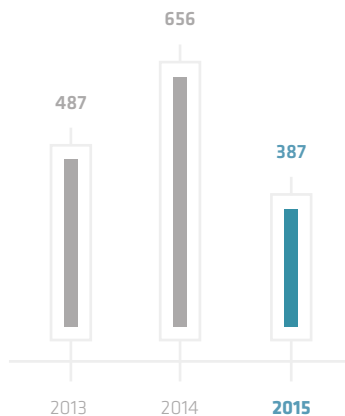
* Following the acquisition of Cytec at year end 2015 and in order to provide a reference frame for the Group's performance going forward, Solvay presents pro forma information for the year 2015 both on an IFRS and Underlying basis. These unaudited figures represent a situation as if the acquisition had taken place on January 1, 2015.

SOLVAY (EXCLUDING CYTEC)
AS OF DECEMBER 31, 2015

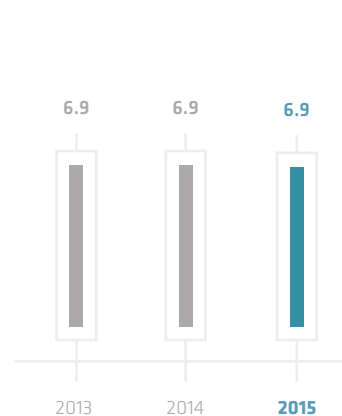
REBITDA
(in € million)



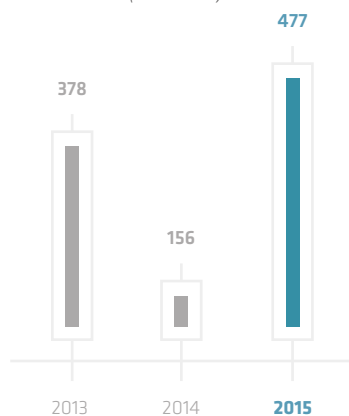
Free Cash Flow
(in € million)



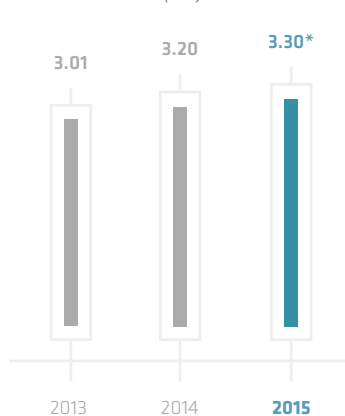
CFROI
(as percentage)



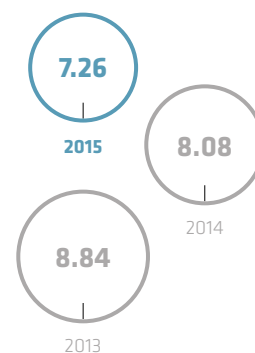
Adjusted Net Income, Solvay Share
(in € million)



Dividend**
(in €)



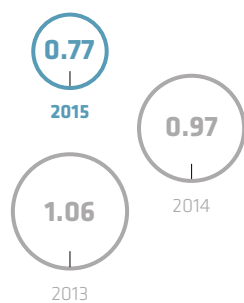
Greenhouse gas intensity
(Kg CO₂ eq. per € REBITDA)



5

Occupational accidents at Group sites

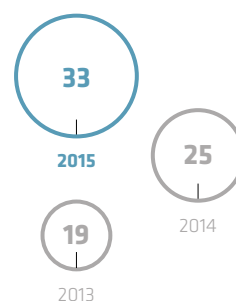
(rate of accidents with medical treatment, with or without work stoppage)
(per million hours worked)



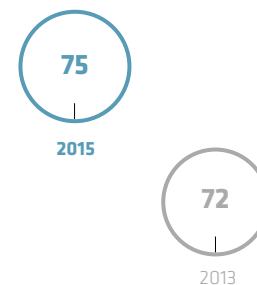
Employees involved in societal actions
(as percentage)



Sustainable solutions (SPM)
(as percentage of net sales)



Employee engagement index
(as percentage)



* Recommended to the Ordinary Shareholders' Meeting scheduled on May 10, 2016.

** The 2013 and 2014 historical data have been adjusted for the bonus factor of 0.9398 resulting from Solvay's right issue completed in 2015.



Research and Innovation Center at Lyon, France.



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ABOUT
THIS REPORT

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1. CONTENT AND STRUCTURE

G4-18

1.1 External reporting guidelines

Under the GRI Content Index Service, the GRI has verified the accuracy of the GRI Content Index. This Complementary Annual Report on Sustainable Development informations is published in accordance with the Core option of the Global Reporting Initiative (G4) guidelines.

Solvay communicates progress on the UN Global Compact principles in accordance with the GC Advanced Level. The GRI Content Index from p. 124 to p. 132 provides information on GRI indicators for topics relevant to the Global Compact principles and its 21 Advanced criteria.



This symbol indicates information relevant to the implementation of the ten principles and on the 21 Advanced criteria. If it appears at the beginning of a chapter, the entire content of the chapter is relevant.



Solvay supports the Sustainable Development Goals (SDGs). The SDGs icons indicate important information for the reader. The sections with SDG icons show how they are implemented by Solvay.



To ensure reliability and credibility of its extra-financial reporting, Solvay has commissioned one of its statutory auditors, Deloitte, to verify a selection of sustainability information. This verification process aims to provide a limited assurance report on a targeted selection of sustainable development information. The audit scope has been reviewed this year to cover entire sections of this report marked by the audit sign, instead of a list of indicators and assertions.

A selection of indicators from published in the section "Extra-financial statements" Solvay's annual report has also been audited.

This verification process involves the following steps: a review of the reporting scope and analysis of the organization, protocols and reporting tools, a test of the reliability of the information at site level (audit sample), a review of the implementation of controls during consolidation steps and verification of the published information.

For more details on the Assurance report, the reader is referred to the Addendum section of this report.

1.2 Social and environmental consolidation scope

G4-22 G4-23

Unless otherwise stated, all social and environmental indicators are reported at the financial perimeter. The extra-financial reporting is fully consistent with the Group's financial consolidation scope which includes 145 sites and 26,350 employees (25,540 full time equivalent). CYTEC is not included in this consolidation scope. The 2015 financial consolidation scope is available from page 202 to 203 of the 2015 Solvay Annual Report. The Chemlogics entity, acquired in 2013 (3.3% of the turnover in 2015) has not been integrated in the reporting of environment and Energy & CO₂ indicators.

Where relevant, data are also reported at the operational perimeter, which consolidates all activities under operational control even if not financially consolidated. Unless specifically stated, CYTEC is not included in the indicators reported.

Remark on historical emission figures

For past years (2012-2014), figures related to environmental emissions may differ from figures published in Solvay's 2014 reports. This is due to corrections aimed at improving the fit with the financial perimeter. In particular, environmental data from SolVin and Chlorchemicals were re-introduced in the 2012 totals, and consolidation of the 2 plants in Devnya (Deven, Sodi, Bulgaria), were slightly modified for all years.

Greenhouse gas (GHG) emissions are reported in accordance with the World Business Council for Sustainable Development "Guidance for Accounting & Reporting Corporate GHG Emissions in the Chemical Sector Value Chain".

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.

2. MOVING TOWARD INTEGRATED REPORTING

2.1 Materiality Analysis process

G4-19 G4-20 G4-21

Solvay has fully reviewed its materiality analysis in 2014, using the Sustainability Accounting Standards Board (SASB) approach. The SASB approach has been selected because it offers an initial exhaustive, validated list of material issues and then three tests for issue prioritization:

- **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 GBUs and Functions. The work was reviewed 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 paid to cross-checking the analysis with the work done by the Risk Management Function to ensure consistency with the Group's risk map: effective monitoring and management of risks is key to achieve Solvay's sustainability objectives.

The list of high materiality issues was again updated to take this review into account. Lastly, the analysis was compared to the SASB's draft "Chemicals Sustainability Accounting Standard" published in October 2014 and again to the provisional standard published in March 2015.

As a result of this analysis, 12 issues have been identified as highly material and indicators were selected for each high materiality issue.

2015 update

The materiality analysis was revised in 2015 and one additional high materiality issue has been added to ensure consistency with the Group's vision (Community Engagement). The list of priorities now includes five priorities selected among the high materiality issues. New long-term targets have been defined for each of the five priorities.

The wording of the material issues has been kept consistent with the SASB Materiality Map™, unless the Group's Executive Committee has made a decision to do otherwise with a view to broadening the scope of some material issues. For example, the high materiality issue labelled "Employee Engagement and Wellness" includes issues that are labelled "Labor Relations" and "Fair Labor Practices" in the SASB Materiality Map™.

SOLVAY MATERIALITY ANALYSIS



Environment



Social Capital



Human Capital



Business model and innovation



Leadership and governance

Priority topics	Greenhouse gas emissions	Community development	Employee health and safety Employee engagement and wellness	Sustainable business solutions	
High materiality topics	Air quality	Customer satisfaction			Management of the legal, ethics and regulatory framework
	Energy management				Process safety, emergency preparedness and response
	Environmental accidents and remediation				
	Water and wastewater management				
	Hazardous materials management				
Moderate materiality topics	Fuel management	Access and affordability	Diversity and inclusion	Environmental, social impacts on assets and operations	Systemic risk management
	Waste management and effluents	Data security and customer privacy	Recruitment, development and retention	Product packaging	Regulatory capture and political influence
	Biodiversity impacts	Fair disclosure and labelling	Compensation and benefits	Product quality and safety	Materials sourcing
		Fair marketing and advertising			Supply chain management

2.2 How Solvay supports the UN Sustainable Development Goals (SDGs)



As a member signatory of the UN Global Compact, the Group is already implementing the UN Sustainable Development Goals (SDGs) in its daily business with its products and solutions. Solvay's high materiality issues are in line with the global Development.



SOLVAY SUPPORTS THE UNITED NATIONS GLOBAL COMPACT

I am pleased to reaffirm Solvay's support for the ten principles of the UN Global Compact and for the 17 Sustainable Development Goals (SDGs), all of which align with our Group's values and policies. Solvay is committed to continue to advance those principles within its sphere of influence by incorporating the UN Global Compact and its principles within its strategy, culture and day-to-day operations.

Sustainability is at the heart of our vision. We want to be a role model for sustainable chemistry in the way we manufacture, do business and manage people, and by the product portfolio we offer to our customers.

In this report, we describe how Solvay creates sustainable value shared with its stakeholders. A key aspect is to conciliate the various sustainability goals and the interests of our stakeholders.

Jean-Pierre Clamadiou
Solvay Chief Executive Officer
March 31st, 2016

SOLVAY'S MATERIAL ISSUES

ARE CONSISTENT WITH

SUSTAINABLE DEVELOPMENT GOALS

- Community development
- Customer satisfaction
- Employee health and safety
- Employee engagement



PEOPLE



- Greenhouse gas emissions
- Air quality
- Energy management
- Environmental accidents and remediation
- Water and wastewater management
- Hazardous materials management



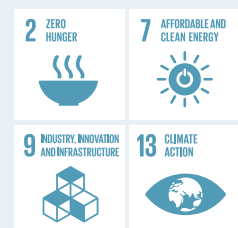
PLANET



- Sustainable business solutions
- Management of the legal, ethics and regulatory framework
- Process safety, emergency preparedness and response



PROFIT



3. STAKEHOLDERS' ENGAGEMENT



G4-24 G4-25 G4-26 G4-27 G4-37

3.1 Solvay Way's commitments to stakeholders


The Solvay Way reference framework is structured by stakeholders. The following stakeholders are identified as the most important. These stakeholders were identified when the Solvay group first implemented a sustainability framework, over ten years ago. The Rhodia group, acquired in 2011, had identified the same stakeholders. The following table shows the Solvay Way's 22 commitments and the 49 associated practices detailed in the reference framework.

SOLVAY Way is based on a framework towards...

... SIX STAKEHOLDERS | ... TO WHOM SOLVAY HAS MADE 22 COMMITMENTS | ... DECLINED IN 49 PRACTICES.

 CUSTOMERS	Integrating our CSR commitments into our customer relationships		<ul style="list-style-type: none"> Developing a collaborative approach to CSR Informing customers of product-related risks Reacting to requests to inquiries and complaints
	Controlling product-related risks		<ul style="list-style-type: none"> Deploying the Product Stewardship management system Managing the risks from substances of very high concern (SVHCs)
	CSR-integrating innovation & investment	<i>spm</i>	<ul style="list-style-type: none"> Steering innovation projects while integrating CSR Steering investment projects by new units or capacity expansions while integrating CSR
	Analyzing and developing our markets, while integrating CSR	<i>spm</i>	<ul style="list-style-type: none"> Detecting mega-trends, selecting target orientations Orienting GBUS' action plans to integrate CSR
 EMPLOYEES	Ensuring employees' health and safety		<ul style="list-style-type: none"> Controlling the risks associated with occupational exposures Promoting health and wellbeing at work Preventing occupational accidents
	Respecting employees' fundamental human rights and guaranteeing their social rights		<ul style="list-style-type: none"> Deploying the global CSR agreement Developing a culture diversity as a performance driver Making diversity a local performance lever
	Ensuring quality social dialogue		<ul style="list-style-type: none"> Respecting employees' rights of representation
	Developing employability		<ul style="list-style-type: none"> Developing employees' skills Forward management of employees and skills needs
	Motivating employees		<ul style="list-style-type: none"> Motivating employees to attain objectives Promoting improvement projects and suggestion systems Compensating employees fairly Integrating CSR commitments in remuneration policy
 PLANET	Promoting environmental management		<ul style="list-style-type: none"> Deploying an environmental management system Informing and involving employees Respecting and anticipating regulations Listing and handling incidents
	Preserving natural resources		<ul style="list-style-type: none"> Improving energy efficiency Optimizing raw materials consumption and reducing waste Reducing water consumption
	Limiting environmental impact, preserving biodiversity		<ul style="list-style-type: none"> Reducing greenhouse gas emissions Reducing the impact of processes on air, water and soil quality Preserving biodiversity on and around sites
	Exercising responsible influence		<ul style="list-style-type: none"> Transparent dialogue and communication
 INVEST	Creating value responsibly	<i>spm</i>	<ul style="list-style-type: none"> Measuring responsible value creation Integrating CSR into our acquisition decisions
	Ensuring risk management		<ul style="list-style-type: none"> Managing risk globally and risk management being part of decision taking
	Ensuring dissemination of and compliance with good management and governance practices		<ul style="list-style-type: none"> Developing responsible practices and behavior Promoting good governance at Solvay

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 SUPPLIERS	Defining prerequisites and integrating them into the supplier selection process	<ul style="list-style-type: none"> Defining prerequisites, selecting suppliers accordingly
	Evaluating buyers' CSR performance	<ul style="list-style-type: none"> Training and assessing buyers
	Managing and assessing suppliers' CSR performance, optimizing relationships	<ul style="list-style-type: none"> Managing and evaluating supplier performance Developing partnerships for innovation Ensuring balanced relationships with suppliers

 LOCAL COMMUNITIES	Ensuring the integration of entities within their territories	<ul style="list-style-type: none"> Developing and steering relationships with local stakeholders Contributing to local development
	Controlling industrial risks related to entities' presence in their territories	<ul style="list-style-type: none"> Identifying hazards and assessing industrial risks Managing industrial risks for the community Preparing for emergency situations
	Controlling supply chain risks and preventing accidents	<ul style="list-style-type: none"> Preventing accidents

3.2 Main feedback in 2015

In 2014 the work linked to materiality analysis involved only internal experts; stakeholders' expectations were included indirectly through the "evidence of interest" prioritization criteria. In 2015 we focused on stakeholders' engagement, using the group's existing stakeholders' engagement channels.

Investors

The materiality analysis was presented to a specific group of investors: descendants of the founding families of the Solvay group, who currently represent the largest group of investors. We used a dedicated social media platform to present the analysis, submitting a questionnaire that asked them to rank material issues (priority-high-moderate-low) as listed by the SASB in their materiality approach. Based on this feedback, the most important materiality issues for this specific group of investors are as follows:

HIGH MATERIALITY ISSUES FOR THE FOUNDING FAMILIES

Category	High materiality
 Environment	Energy management Environmental accidents and remediation Water and wastewater management Hazardous materials management Waste management and effluents
 Social Capital	Customer satisfaction Customers health and safety
 Human Capital	Employee health and safety Child and forced labor
 Business Model and Innovation	Sustainable business solutions Product quality and safety Product life cycle use impact
 Leadership and Governance	

Most of the issues listed as high materiality by this group of investors are already included in our own analysis. This feedback will be compared to feedback from other stakeholders, before being used as input for the annual updates to the Group's materiality analysis.

The questionnaires received from investment funds in 2015 were related to the Group's position on climate and energy policies and to the management of endocrine disruptors. Both topics are already included in the priority issues selected by the Group.

FOCUS BEST BELGIAN SUSTAINABILITY REPORT

Regarding Solvay's sustainability reporting: in 2015, the Belgian Association of Financial Analysts ranked Solvay first in both "Best Non-Financial Information 2015" and "Best Financial Information 2015". The Belgian Institute of Company Auditors awarded Solvay 'Best Belgian Sustainability Report' in the "large corporations" category.

The sustainability dimension is increasingly important to institutional investors. Ratings by financial agencies progressively encompass sustainability indicators. Solvay is developing an active dialogue on its sustainability policy and parameters. The Group is multiplying its opportunities for interaction with investors who are concerned about Corporate Social Responsibility (CSR) values.

Solvay's transparency in sustainable development matters is increasingly being appreciated and assessed as "best in class". Sustainability matters are reviewed regularly by the Executive Committee and are discussed by the Board of Directors on an annual basis.

The number of meetings with investors that focused on sustainability decreased significantly due to the acquisition of Cytec and the preparation of the COP21 conference.

	2015	2014	2013
Meeting with investors focused on sustainability	8	25	26

Employees

The materiality analysis of the Group has been presented to the Sustainable Development Commission for the Group's European Works Council. Analysis is still going on at the time of publication of this report.

Planet

Feedback from the "Planet" stakeholders (governments and non-governmental organizations) has been dominated by two main events in 2015: preparation for the COP21 conference and publication of the United Nations Sustainable Development Goals (SDG).

Communities

The Local communities chapter of this report includes examples of actions initiated locally, around our sites, within the framework of local community engagement.

Customers






No engagement actions specific to the materiality analysis have been initiated in 2015.

Suppliers

No engagement actions specific to the materiality analysis have been initiated in 2015.

3.3 Performance recognized in sustainability rating agencies

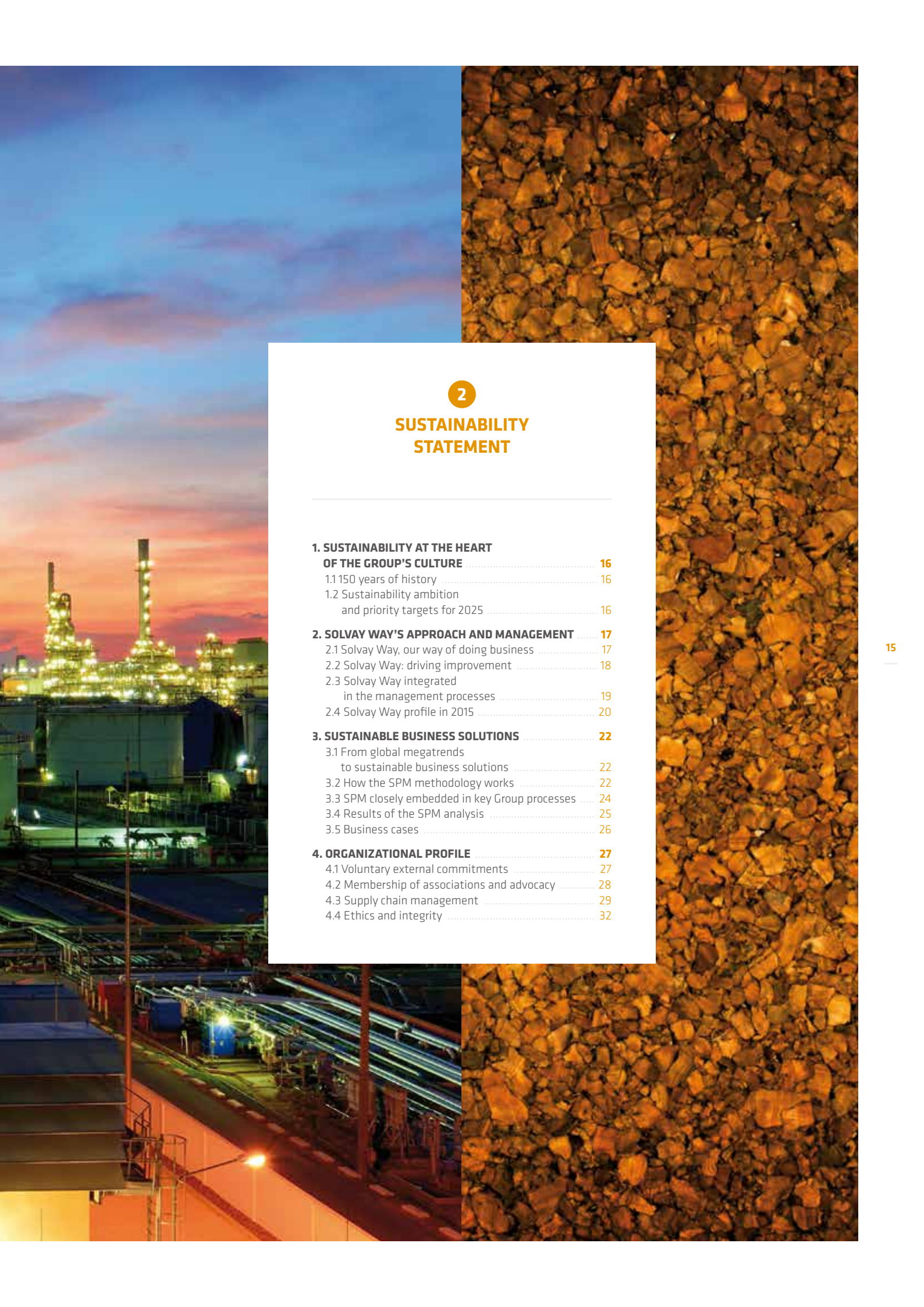
Every year, as a quoted company, Solvay answers questionnaires from global or European extra-financial rating agencies. They analyze and classify companies according to their results in the field of Corporate Social Responsibility (CSR). Best-performing companies are ranked in the different non-financial stock market indices. Inclusion in these gives Solvay's investors and other external stakeholders a broader base for assessing the Group's global performance. It also gives Solvay a good opportunity to challenge its policies, processes and practices in terms of their ability to integrate the sustainability dimension. The challenge for this year will be to analyze the weak aspects pointed out by the Dow Jones Sustainability Index (DJSI) to improve Solvay's overall sustainability performance.

RATING AGENCY	GLOBAL RESULT	POSITIONING	BEST SCORES	WEAKEST SCORES
RobecoSAM <i>(reference for Dow Jones Sustainability Index)</i> 	Score ⁽¹⁾ of 81/100	Better than 84% of the companies from the sector	<ul style="list-style-type: none"> Product stewardship Environmental reporting Social reporting Human capital development Talent attraction and retention 	<ul style="list-style-type: none"> Operational eco-efficiency Risk management Customer relations management Corporate governance
Carbon Disclosure Project <i>(reference for Carbon Disclosure Leadership Index and Carbon Performance Leadership Index, now called the A List)</i> 	Performance: C Disclosure: 97/100		<ul style="list-style-type: none"> Governance and Strategy (Disclosure and Performance) Risk and Opportunity Management (Disclosure) 	<ul style="list-style-type: none"> Emissions management (Performance) Risk and Opportunity Management (Performance)
Evalueserve <i>(reference for FTSE4Good)</i> 	Absolute score: 3.8/5 Solvay included in the FTSE-4Good Index	Score relative to peers: 98%	<ul style="list-style-type: none"> Within the first decile of the "supersector" companies 	<ul style="list-style-type: none"> Governance Climate change Health and safety Labor standard
Vigeo <i>(reference for NYSE Euronext Vigeo 120 world, Ethibel Excellence)</i> 	Overall score of 58/100	Solvay's performance is considered to be robust and stable	<ul style="list-style-type: none"> Environmental strategy Health and safety Energy Product safety Water Accidental pollution Atmospheric emissions 	<ul style="list-style-type: none"> Governance Transportation Green products Community involvement Responsible lobbying
OEKOM 	Rated B-	Classified as Prime. Prime companies ranking among the leaders in their industry	<ul style="list-style-type: none"> Strategy for addressing climate change and related risks Incorporation of environmental product life cycle assessments in the development of new products Good measures to check compliance of key suppliers with the company's labour/health and safety standards Group-wide implementation of safety management systems and comparatively low accident rate 	<ul style="list-style-type: none"> Strategy to substitute substances of concern Information on substances and product risk assessments

⁽¹⁾ The scores are: 76/100 for economic, 86/100 for social and 81/100 for environmental dimensions.



Tavaux site, France.



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SUSTAINABILITY
STATEMENT

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1. SUSTAINABILITY AT THE HEART OF THE GROUP'S CULTURE



1.1 150 years of history

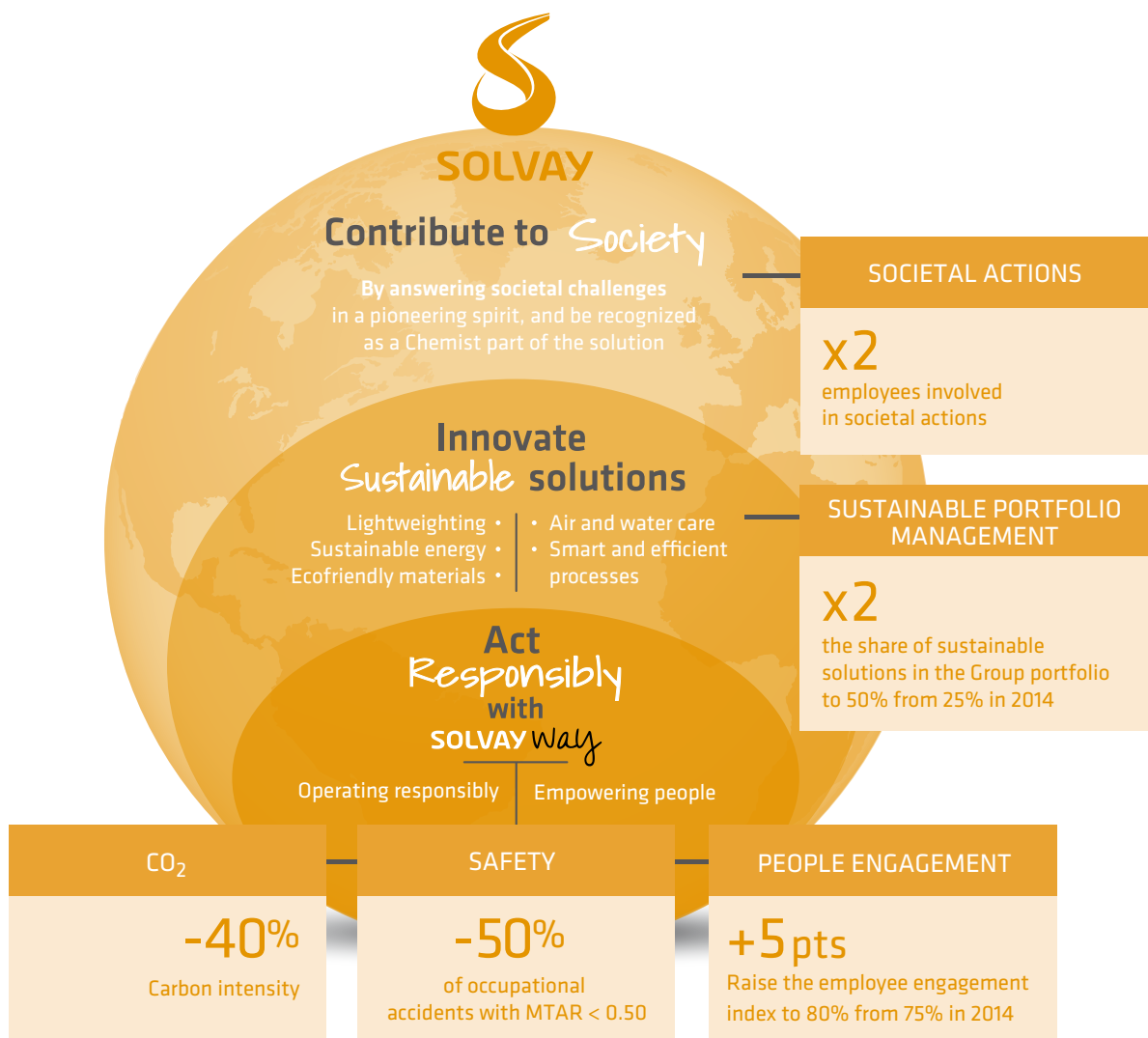
Solvay's culture of responsibility is part of its historical identity. The Group has pioneered a number of initiatives that have been beneficial to workers: internal social security (1878), the eight hour working day (1897), and paid holiday (1913). For the past 150 years Solvay has also been developing a culture of safety and social dialogue. It was one of the first groups to engage in social dialogue at a European and then a global level. This vision is still guiding the way the Group conducts business through Solvay Way, its sustainability approach. Today, its social practices are one of its strengths, positioning the Group as a leading player in Corporate Social Responsibility (CSR).

1.2 Sustainability ambition and priority targets for 2025

Solvay defined five priority targets in order to guide each entity on common objectives to reach the Group's sustainability ambition.

SOLVAY'S AMBITION

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2. SOLVAY WAY'S APPROACH AND MANAGEMENT

2.1 Solvay Way, our way of doing business



G4-35 G4-36

Solvay Way is the Group's approach to sustainability. 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 that are in line with the objectives of sustainable development.

Solvay's commitment to sustainable development and social responsibility applies to all life cycle 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 a 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. Progress of maturity in Enterprise Risk Management is one of the Solvay Way practices.

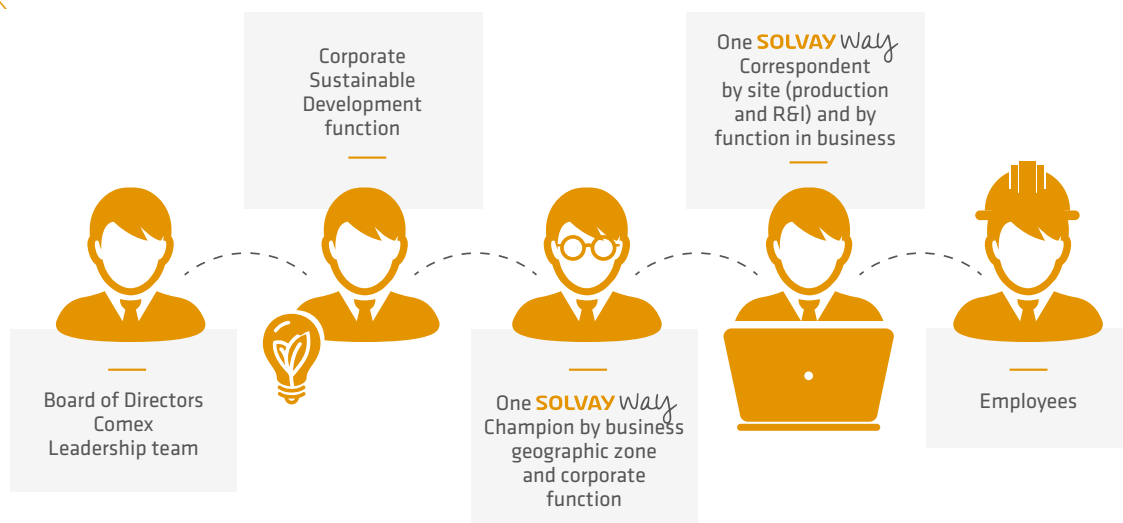
Regarding business portfolio management, Solvay Way integrates a specific tool: SPM (Sustainable Portfolio management). Developed by Solvay with Arthur D. Little and the Dutch Organization for Applied Scientific Research (TNO), SPM assesses the sustainability and the potential impacts of Solvay's product and market portfolio.

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 GBUs or the Functions. The Sustainable Development Function is responsible for supervising the approach on behalf of the Group. It coordinates the work carried out by this global network and reports directly to the CEO.

The network of Solvay Way Champions and Correspondents play a key role by ensuring deployment of the process, by motivating their colleagues to fulfill precise objectives, and by setting action plans to improve their processes and practices.

Each entity is responsible for implementing the 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 Board of Director, the Executive Committee and the Leadership team.

SOLVAY WAY NETWORK



2.2 Solvay Way: driving improvement

The Solvay sustainability commitments and objectives are reviewed based on progress, the evolution of standards and the needs of stakeholders and lessons learned from self-assessments, internal and external audits and exchanging ideas about best practices.

Solvay Way is based on a reference framework divided into six stakeholders (customers, employees, investors, suppliers, communities and the planet), to whom the Group has made 22 commitments broken down into 49 associated

practices. This reference framework helps each Solvay entity to conduct yearly self-assessments of its practices in order to identify its strengths and weaknesses and to develop an appropriate improvement plan.

Each year, all Solvay production sites, business units and research centers, industrial, purchasing, finance, legal, public affairs, strategy and human resources departments assess their practices in terms of corporate social responsibility.

SOLVAY WAY: OUR SUSTAINABILITY APPROACH



2.3 Solvay Way integrated in the management processes

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To ensure rapid progress, the Group has integrated the goals of a more sustainable development at every stage of the people management and the business cycle. This is the best way to fulfill the Group's commitment.

The CSR bonus structure reflects both individual and external recognition. The first part is linked to the improvement of the Solvay Way profile in each entity.

The other part depends on the Group's level of recognition by extra-financial rating agencies.

HOW SUSTAINABILITY IS INTEGRATED INTO SOLVAY DECISIONS PROCESSES

	Group dimensions structured by policies or processes		Integrating sustainability in this way:
 PEOPLE MANAGEMENT	GROUP CULTURE	<ul style="list-style-type: none"> • People and Management model • Code of Conduct 	Is integrated in SOLVAY Way practices
	COMPENSATION POLICY	<ul style="list-style-type: none"> • 10% of the variable remuneration for the CEO and the 7500 managers of the Group • 10% of the Plan named "Global Profit Sharing" for every employee 	Is linked to SOLVAY Way results
 BUSINESS CYCLE	1 YEAR OUTLOOK	<ul style="list-style-type: none"> • Current products (portfolio and processes) • Future spending (innovation, acquisitions) 	Are analyzed by <i>Spm</i> and results are challenged Sustainability integration level is assessed through SOLVAY Way
		<ul style="list-style-type: none"> • Control & monitoring 	SOLVAY Way assessments & <i>Spm</i> analysis are audited
	5 TO 10 YEARS OUTLOOK	<ul style="list-style-type: none"> • 5-year business strategic plan 	The <i>Spm</i> target and Group's priority targets performance are challenged
		<ul style="list-style-type: none"> • Risk management • Integrated reporting & thinking 	Are integrated in SOLVAY Way

2.4 Solvay Way profile in 2015



Deployed in 2013, Solvay Way is a continuous improvement approach, aiming to involving Solvay employees. In 2015, 45% (9,300 employees on 20,500) of Solvay employees on industrial and R&I sites have been involved in actions related to Health Safety and Environment (HSE), social and local communities aspects. This strong involvement shows the interest of employees towards Solvay's sustainable development approach.

In 2015, for the third campaign, all GBUs and corporate functions have carried out a self-assessment for the 6 stakeholders, involving 122 sites industrial and R&I sites and the 10 major administrative sites.

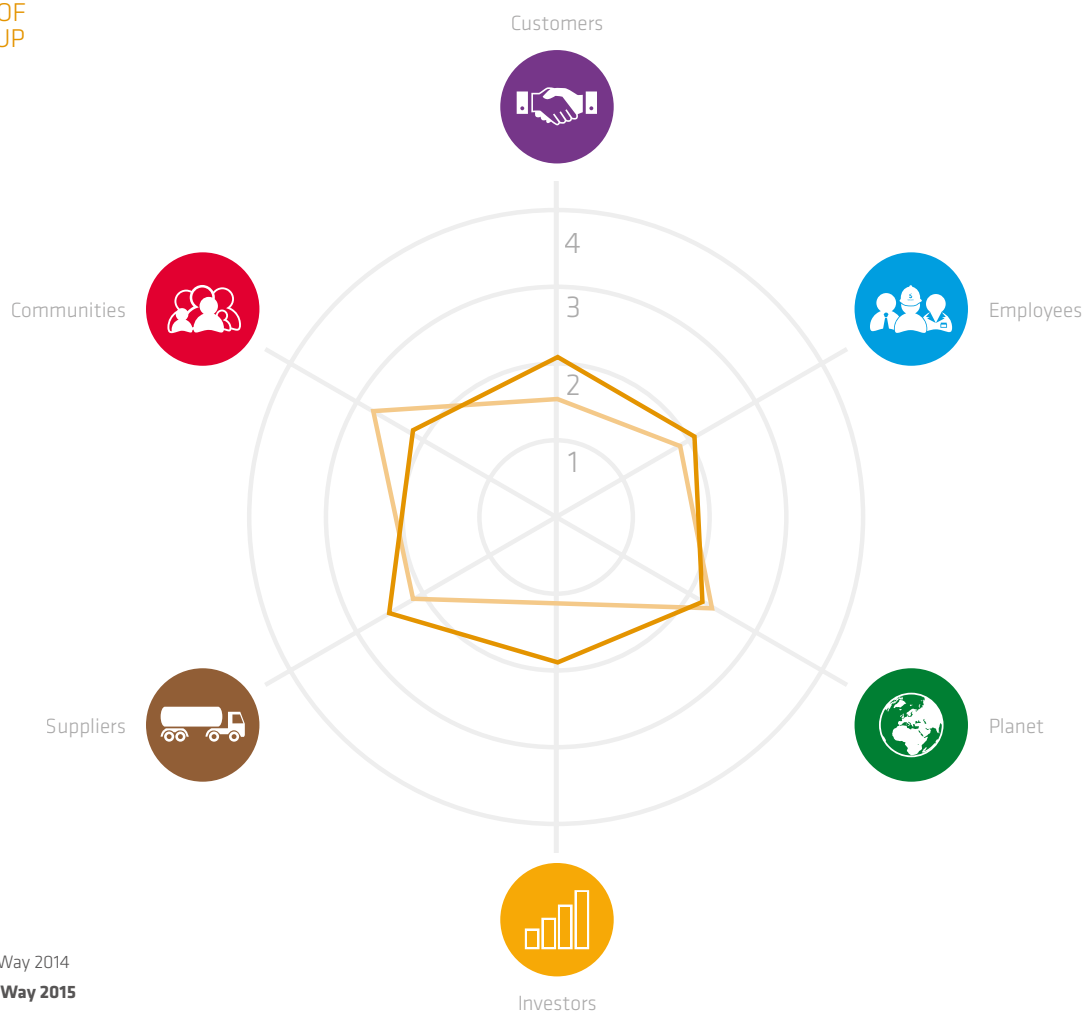
The following Solvay Way spider is the result of these self-assessments. The 2015 results are affected by:

- A perimeter change: 10 new sites are in, 15 sites are out
- The framework updates: 10 practices (on 49) have been totally changed or updated to reinforce our HSE approach with the new "Solvay Care Management System".

FOCUS EACH SOLVAY WAY'S PRACTICE IS STRUCTURED ON FOUR SCALE LEVELS

- 1. Launch:** the entity is essentially responsive to the expectations of stakeholders. An inventory is conducted;
- 2. Deployment:** the entity implements a structured, internal progress dynamic with stakeholders. Methods are used to set priorities. Resources are deployed and managers are mobilized in action plans;
- 3. Maturity:** action plans bring measurable progress. Their implementation is carried out and audited throughout the perimeter with details of lessons learned; employees are mobilized in their deployment;
- 4. Performance:** the entity is close to the benchmark of the profession. The improvement process is sustainable, the results are sustainable. The entity is recognized for its exemplary performance. All stakeholders adhere to the approach.

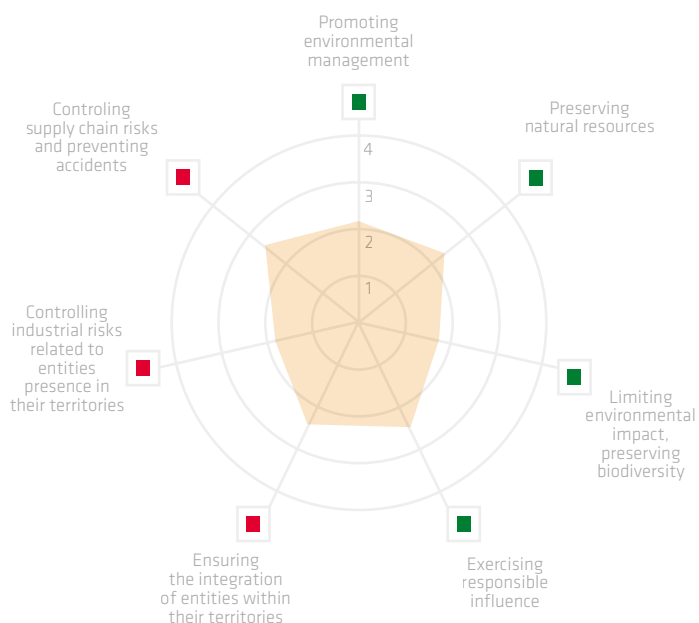
SOLVAY WAY PROFILE OF THE GROUP



Planet & Communities profile



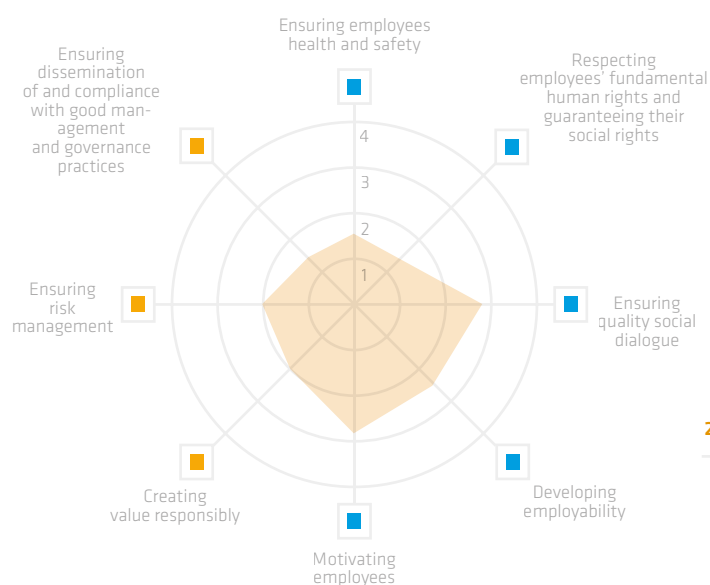
- Practices have been updated in order to integrate Solvay Care Management System (SCMS) requirements and new Health Safety and Environment (HSE) programs such as regulatory compliance management and SVHCs management related to the environment.
- New indicators are on going to improve the reporting on local initiatives such as amount of donation and number of Solvay employees involved in local actions.



Employees & Investors profile



- A Global Profit Sharing process have been implemented integrating a CSR criteria.
- The Solvay Safety Excellence program has been implemented in industrial sites, using the 8 life saving rules.
- High materiality issues and indicators have been implemented.
- The Enterprise Risks Methodology has been rolled out across the whole group to include improvements aiming at allowing a better prioritization of relevant risks and a more focused risk response by each Global Business Units, Function, and at Group level.



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Customers & Suppliers profile



- GBU have made improvements in evaluating investments projects, assessing the CSR challenges by using the Sustainable Portfolio Management methodology for projects superior to 5 € millions
- Progress has been made by conducting and sharing across the entire group a comprehensive study of the megatrends that the chemical industry is facing. These trends have be translated into tangible medium and long term impacts on Solvay businesses. All these elements are now better integrated in the strategic decision making processes of the businesses.
- Regarding the supplier stakeholder, the corporate purchasing function have deployed of a clear and simple training module on the Solvay Purchasing Processes (SPP) to integrate Corporate Social Responsibility. Furthermore, this module has been integrated into the "fundamental" training model of the global "Purchasing Academy" program.



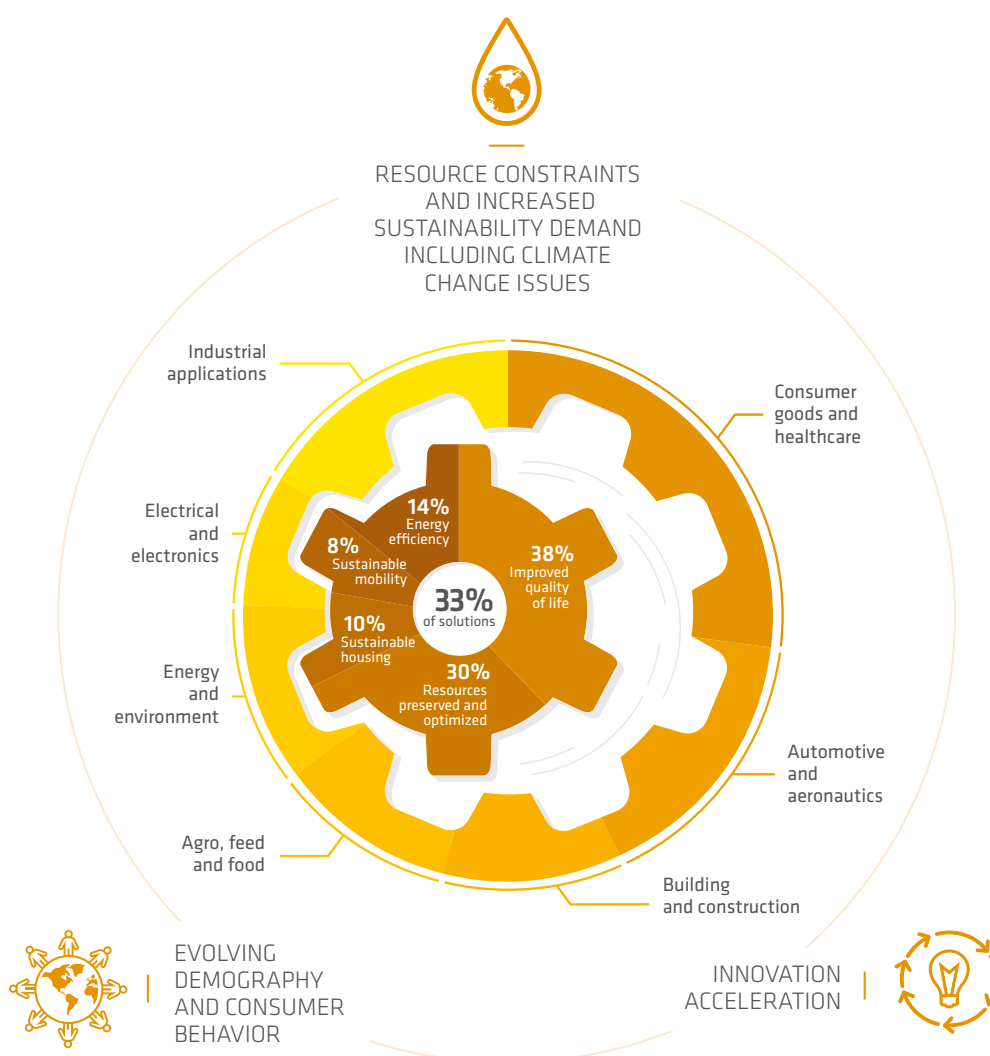
3. SUSTAINABLE BUSINESS SOLUTIONS

G4-2

3.1 From global megatrends to sustainable business solutions

G4-EC2

The Sustainable Portfolio Management (SPM) tool is the compass of the Group to set target for more sustainable business, measure the progress, steer the portfolio and inform businesses and top management in their decision making.



■ Solvay markets ■ SPM benefits ○ In 2015, 33% of Solvay turnover brings sustainable solutions to the market.

3.2 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. This methodology provides a fully consistent assessment of the sustainability contribution of Solvay products in their specific applications, with a strong Life Cycle Thinking focus. SPM relies on Life Cycle Assessment, with a cradle-to-gate scope measuring the environmental footprint of the manufacturing, and on a detailed and precise questionnaire, with a cradle-to-cradle scope, measuring the alignment with market expectations.

The uniqueness of the SPM tool is to consider both axis:

- the environmental manufacturing footprint and its correlated business risks and opportunities, and,
- the marketplace and how a product faces in its specific applications the sustainability challenges.

The first aspect is pondered through the environmental footprint indicator. It evaluates any potential financial risk posed by the “polluter pays for the damage” principle. The basic evaluation begins with a classic eco-profile calculation (ISO 14040 to 44). The environmental impacts are monetized, using “shadow prices” reflecting the long term cost to society of each environmental impact, as communicated by authoritative sources (TNO, International Energy Agency). The monetized environmental impact of each product is compared to the average sales price in that application. These ratios are then classified by increasing risk, from Very Low Risk to Very High Risk, relative to the average of the Group in 2013.

The other aspect is evaluated through the market alignment indicator. It addresses the sustainability dimension of megatrends in the marketplace. The approach is to anticipate accelerated growth for a product because it is an active component of the sustainable solutions, as the market demands. For this Market alignment analysis, SPM refers to a list of sustainability benefits.

List of sustainability benefits screened by SPM

Solvay has established a list of benefits articulated around “essential living conditions” and “human living well”. To start with, Solvay identified the 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.

Sustainability topics that matter to them have been listed on the basis of their publications. Finally, Solvay selected the topics for which chemicals might be part of the solutions or the problems.

This list is used in the Market alignment analysis. To be considered as a part of the “solutions”, products must serve in an application that demonstrates a direct, significant and measurable benefit to the society at large. They must not exhibit any sustainability concern and have a low environmental manufacturing footprint. If a sustainability roadblock is identified, or if its environmental manufacturing footprint is too high, then, the Product-Application Combination (PAC) will be ranked in “challenges”.

This list has continuously been improved over years to mirror the latest progresses in Corporate Social Responsibility.

THE SPM BENEFITS

ESSENTIAL LIVING CONDITIONS

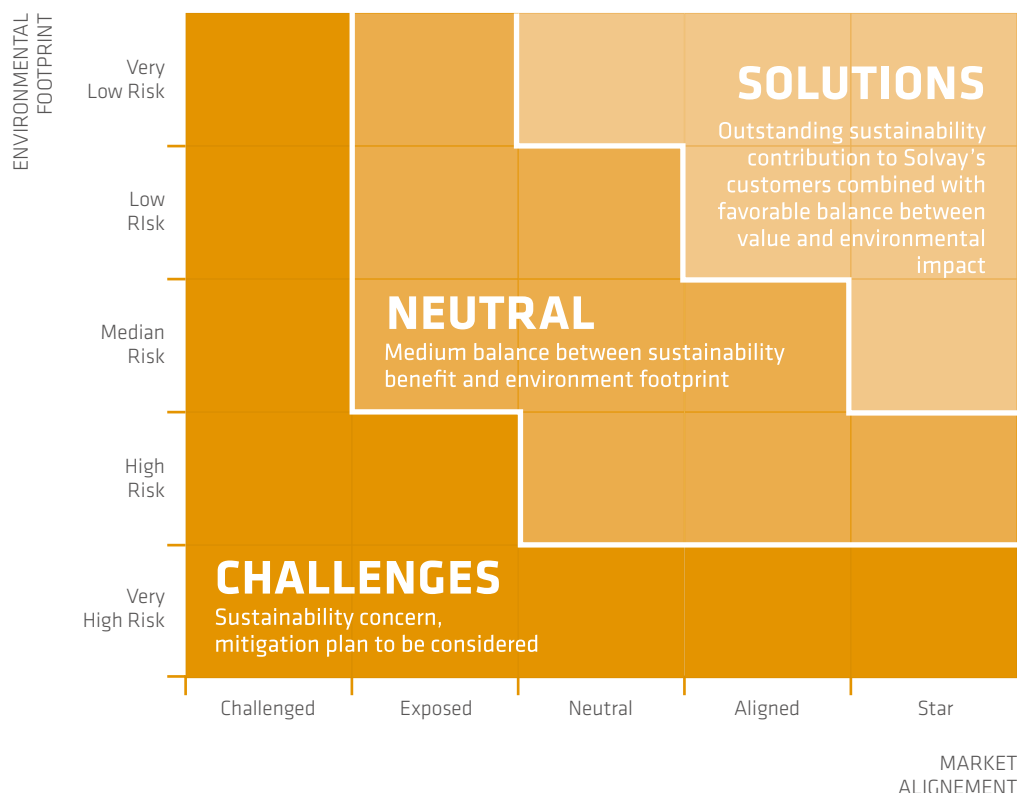
	Climate change		Availability of food
	Energy efficiency		Renewable energy
	Exposure to harmful and toxic substances		Biodegradability
	Resource efficiency		Recyclability
	Fresh water		Waste treatment
	Renewable materials		Minimizing use of scarce inputs

LIVING WELL

	Medical care		Safety & prevention
	Chronic diseases		Healthy nutrition
	Limitation of the effects of aging		Healthy habits
	Medical care at home		Topical care
	Water & air quality		

The result of the SPM analysis are presented by a heatmap showing the revenue breakdown by Solutions, Neutral and Challenges categories.

THE SPM HEATMAP



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Legend: SPM grade level:

- *Star:* Product-Applications Combination (PAC) for which there are no negative signals, but there are positive signals, in line with sustainability trends in the marketplace, with anticipated double-digit growth;
- *Aligned:* PAC for which there are no negative signals, but there are positive signals resulting from sustainability trends in the marketplace, without anticipated double-digit growth;
- *Neutral:* PAC 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.

3.3 SPM closely embedded in key Group processes

The Sustainable Portfolio Management methodology is owned by the Corporate Sustainable Development Function, managed by a small team of experts and deployed in close cooperation with Business and other Functions. It serves as a strategic tool to develop robust and fact-based information that is required to develop more robust strategies because they incorporate the sustainability dimension in business activities:

- the SPM methodology is integrated into the Solvay Way framework and serves as a tool to measure the maturity of organizations with regard to integrating sustainability in business practices;
- the SPM profile is an integral part of the strategic discussions that each of the GBUs holds with the Executive Committee. The SPM bridge, integrated in the GBU's Business Strategic Review, is consistent with the Financial bridge, including timeframe;
- decisions about investments (capital expenditure above € 10 million and acquisitions) made by the Executive Committee 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 include 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 are carried out during workshops with GBU experts in strategy, industrial, product stewardship, marketing and technical services.

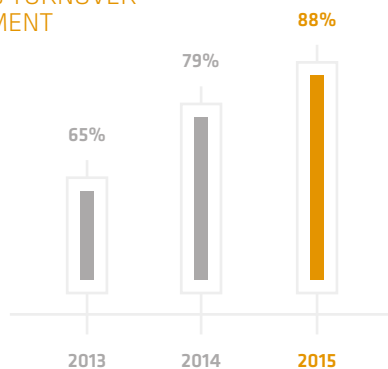
3.4 Results of the SPM analysis



Assessment scope and planning - Product portfolio

By the end of 2015, 88% of the Solvay group's turnover had been assessed with the SPM methodology.

SOLVAY'S TURNOVER ASSESSMENT



Legend: SPM penetration rate expressed as the ratio of the turnover assessed with the SPM methodology to the total turnover in perimeter at the given year.

Perimeter: The perimeter considered by SPM encompass all companies detained by Solvay, at their detention rate.

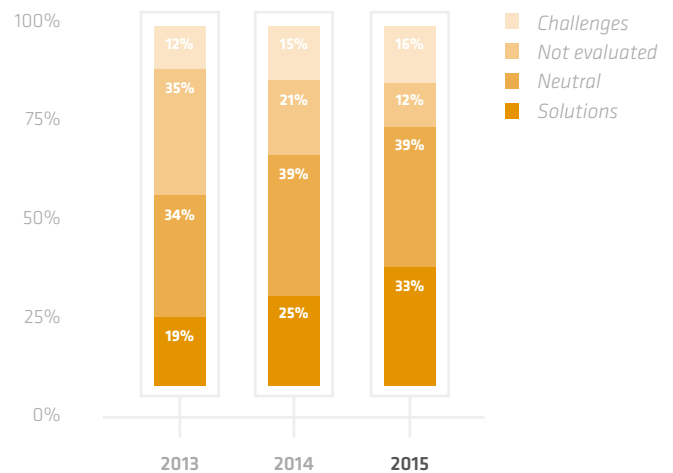
Assessment results per category - Product portfolio

Solvay has defined new targets for the five priorities selected within high materiality issues, including SPM. The former target was only focusing on the market alignment axis. This new target requires progress on both axis : market alignment and environmental footprint from manufacturing.

Solvay's 2025 priority targets

- Generate at least 50% of the Group consolidated revenue in Sustainable Solutions.

REVENUE BREAKDOWN BY SPM HEAT MAP CATEGORIES



Legend: Revenue breakdown by SPM Heat Map categories. All figures expressed in line with Solvay perimeter on December 31st of the given year.

Perimeter: The perimeter considered by SPM encompass all companies detained by Solvay, at their detention rate.

By end 2015, the assessed portfolio encompasses 33% of Product-Application Combinations in the "Solutions", in significant progress in comparison to the previous year (up 8%).

This improvement consists in:

- 3 %, from change in perimeter (Inovyn);
- 2 %, from non-recurring quick wins;
- 3 %, from innovation programs aiming at developing more sustainable business.

This objective balances the ambitious transformation program of the Group on one hand, and anticipated increasingly more sustainable regulations and buying behaviors from our customers and the consumers, on the other hand.

Solvay's former SPM target, set in 2012, was to achieve 20% of revenue with "Product-Application Combinations" (PACs) in the "Star" category by 2020. In 2015, the assessed portfolio encompasses 10% of this category.

External validation

Over the last two years, in-depth verification of the Market Alignment results covering 291 Product-Applications Combinations (PACs) has been carried out by Arthur D. Little, our partner in developing and improving the SPM methodology. Arthur D. Little reaches:

- the same conclusion for 225 PACs;
- a more negative conclusion for 10 PACs, which has been endorsed by Solvay;
- a more positive conclusion for 6 PACs, which has been endorsed by Solvay;
- no final conclusion for 50 PACs, still under review.

Agreed results are integrated in the following year. The impact of the correction is negligible.

TOWARDS A REFERENCE FRAMEWORK FOR ACTIVE PORTFOLIO MANAGEMENT

Solvay co-chairs two coalitions that are instrumental in setting the industry reference framework for Active Portfolio Management:

- WBCSD's Portfolio Sustainability Assessment initiative aims at creating a high standards and common framework for the steering of product portfolio on sustainability criteria;
- TNO's joint research program on Sustainable Chemical Product Performance aims at setting a reference methodology for measuring product performance, with a strong scientific background.

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3.5 Business cases

PROMOTING A SUSTAINABLE SALMON INDUSTRY WITH PARAMOVE®.

The human population of the world is expected to reach 8 billion by 2024. One of the biggest challenges society faces is to feed more people with limited resources. To meet the growing demand for food, many consider aquaculture to be the most sustainable way to produce animal protein. Around half of the fish consumed in the human food chain today is grown on fish farms and this figure is expected to grow to 75 percent by 2025.

Solvay contributes directly to food security with GBU Peroxides PARAMOVE® Hydrogen Peroxide. In salmon farming, there are a number of diseases that can kill the fish if left untreated. Solvay offers the PARAMOVE® system, a solution for the control of sea lice, the main concern of farmers. The main benefits of PARAMOVE® are that it quickly removes the parasites leaving only oxygen and water in the environment, and leaves no residue in the fish itself. Aquaculture Stewardship Council (ASC) certified farms are therefore not limited in the number of treatments that can be given, unlike other non-peroxide treatments. Salmon-producing companies covering more than 50% of global production have already committed to getting their farms ASC certified by 2020 through the Global Salmon Initiative (GSI).

For more details about the ASC, see <http://www.asc-aqua.org/>

SODA ASH IN WINDOW DOUBLE GLAZING

Addressing the climate change issue goes along with a lower demand for energy that still is nowadays massively from fossil origin.

Solvay's soda ash decreases massively the energy that is required to produce glass by lowering significantly the temperature of the melting point. It is used in the manufacturing of the most prevalent type of glass (90% of glass), namely the soda-lime glass, which is relatively inexpensive, chemically stable, reasonably hard, and extremely workable. This soda-lime glass is capable of being resoftened and remelted numerous times, making it the best choice for glass recycling too.

Soda ash halves the demand for energy in glass manufacturing, and glass itself serves as energy saver for housing: until it will be recycled, emission of millions of tonnes of CO₂ will have been avoided during the lifetime of double and triple glazing windows (source, TNO Report 2008-DR1240/B by TNO Built Environment and Geosciences, Delft, The Netherlands, "... more than 100 million tonnes of CO₂ could be achieved annually if all Europe's buildings were fitted with advanced energy saving glass).

OPTALYS® IN GASOLINE DEPOLUTION

Vehicles are major contributors to air pollution. The largest part of combustion gas is neither toxic nor noxious: Nitrogen (N₂), water vapor (H₂O), and carbon dioxide (CO₂), although the latter contributes to global warming. A relatively small but still too high part of combustion gas (about 1%) is noxious or toxic: Carbon monoxide (CO), unburnt Hydrocarbons (HC), Nitrogen oxides (NO_x) and Particulate Matter. Solvay's OPTALYS® products comprise Cerium (a rare earth) & Zirconium oxides, which enhance the destruction of those pollutants in three-way catalytic converters.

Internal combustion engines cannot be optimized for highest fuel efficiency and lowest emissions, at the same time. Modern cars operating conditions of the engine are optimized for fuel efficiency and air pollutants are neutralized in three-way catalytic converters, where OPTALYS® products play their role for the air quality.

4. ORGANIZATIONAL PROFILE

4.1 Voluntary external commitments

G4-15

Solvay has set voluntary external commitments:



- **For human rights:** Solvay participates in the UN Global Compact and is committed to upholding its principles, thus contributing to the emergence of a sustainable and inclusive global economy which delivers lasting benefits to people, communities and markets.

ISO 26000

- **For a global standard in sustainability:** Solvay uses the voluntary international standard ISO 26000 on social responsibility as its point of reference. This standard provides guidelines for organizations to operate in a socially responsible manner. Solvay Way incorporates the requirements of this international standard.



- **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 of its sites. This agreement applies to all Solvay employees. Every year, a Solvay site is assessed to ensure the commitments made by the Group are being applied correctly at a grassroots level, based on International Labor Organization (ILO) standards and the principles of the United Nations Global Compact (UNGC).

To ensure compliance with the IndustriALL Global Union Agreement by all employees, it has been integrated in the Solvay Way reference framework, as an employee practice, and each year Solvay Way assessment evaluates how well it is deployed and understood.

European Pact for Youth

- **For improving young people's chances of employment:** At the Enterprise 2020 Summit, the European Commission and business leaders including Mr. Jean Pierre Clamadiou, CEO of Solvay, launched the 'European Pact for Youth' to create 10,000 partnerships between business and education to boost young people's chances of employment. The initiative aims to improve the quality of training and skills that young people can acquire including transversal, digital, entrepreneurial, green and soft skills.

FOCUS GLOBAL COMMITMENT ON CLIMATE CHANGE

Solvay recognizes the importance of limiting temperature increases to 2°C and of reducing the world's Greenhouse Gas (GHG) emissions to fight climate change. The Group is actively engaged in the fight against climate change, one of the greatest global challenges of our times. Solvay has joined forces with industrial concerns acting together to help lead the global transition to a low carbon economy.

As an actor that is truly committed to the fight against global warming, in the run-up to COP21, Solvay's CEO Jean-Pierre Clamadiou was personally engaged in the high level dialogue between business, governments and climate negotiators in multiple policy-making circles around the world.

Within the framework of COP21, Solvay has participated in several initiatives, such as:

Launching the Business Dialogue, convened by the COP Presidency for high level exchanges between business and governments, and promoting stepped-up climate action in partnership between countries and the private sector on numerous occasions such as the High Level Event of the UN General Assembly and the Business Climate Summit.

Fostering the establishment of carbon pricing worldwide and the convergence of emissions trading schemes to stimulate low carbon investment decisions and emission reductions globally by joining the Carbon Pricing Leadership Coalition and adopting the Business Leadership Criteria on Carbon Pricing of the Global Compact. Solvay has also decided to set an internal carbon price applicable to all investment decisions from January 1st, 2016.

Collaborating in the forward-thinking Low Carbon Technology Partnerships that are initiative-led to accelerate the development and large-scale deployment of key low-carbon technologies, led by the World Business Council for Sustainable Development (WBCSD).

Signing the Open Letter from Global CEOs to World Leaders Urging Concrete Climate Action; the Open letter to the European Council, European Commission and European Parliament from Cefic; the Message from Belgian stakeholders in support of COP21, the Paris Pledge; and the French Business Climate Pledge with 38 other businesses from all sectors operating in France.

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FOCUS SOLVAY COMMITS TO REINFORCED ICCA RESPONSIBLE CARE GLOBAL CHARTER

In October 2014, Solvay subscribed to the new International Council of Chemical Associations (ICCA) Responsible Care Global Charter, which reinforces the commitment of multinational chemical companies to continuously improve their health, safety and environmental (HSE) performance worldwide. Solvay has been a signatory of the ICCA charter since its inception in 2007.

The charter creates a common vision on Responsible Care and enables the global Chemical Industry to speak with one voice. It clarifies the role and responsibilities of global chemical players in implementing its HSE requirements on their sites to protect staff and communities, in product life-cycles to benefit users, consumers and the environment as well as in the safe management of manufacturing processes.

By recommitting to the new charter, Solvay shows its resolve in strengthening the Responsible Care initiative across the globe and to further improve its own HSE performance in all of the countries where it does business, as well as in dialogue with communities, authorities and other stakeholders.

The charter was officially launched at the 4th International Conference on Chemicals Management on Oct 1st 2015 in Geneva by Jean-Pierre Clamadiu participating in an ICCA Executive level side event. Together with other international CEOs, he highlighted the significant growth in Responsible Care, both in its strengthened performance commitments and its geographic expansion.

Solvay has been developing and strengthening its Responsible Care policy for more than 20 years now. It reinforced it in 2012 through eight new, well-defined policies in HSE, embedded throughout the Group. Responsible Care is part of the Group's sustainability strategy, Solvay Way.

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4.2 Memberships of associations and advocacy

G4-16

Solvay is committed to maintaining a dialogue with stakeholders and it is a member of several associations at global, regional and national level. Trade associations adopt broad policy positions in order to get near to consensus (i.e. very often lowest common denominator), but as companies we can still express disagreement in a number of ways, including internal discussion within working groups or publicly stating the difference between our position and that of the trade associations.

The list of membership of some associations, in the regions and countries where Solvay is present, includes the following: WBCSD (World Business Council for Sustainable Development), ICCA (International Council of Chemical Associations), BusinessEurope, ERT (European Roundtable of Industrialists), Cefic (the European Chemical Industry Council), ACC (American Chemistry Council), ABIQUIM (Brazilian Chemical Industry Association), AICM (Chinese Association of International Chemical Manufacturers) and CPCIF (China Petroleum & Chemical Industry Federation).

Solvay participates in working groups and policy coordination groups. Solvay senior representatives sit on the steering boards of many of those associations.

- **ICCA (International Council of Chemical Associations)** - With Jean-Pierre Clamadiu as sponsor of the ICCA's Responsible Care Leadership Group and member of the ICCA Board, Solvay played a key role in the Responsible Care Global Charter's revision and in expanding Responsible Care to new regions like China, India and Africa. Under his supervision, ICCA's Responsible Care Leadership Group has also welcomed China and Vietnam as new members. Furthermore, a globally harmonized ICCA approach has been developed to Process Safety Performance reporting, one of the main pillars of Responsible Care. Roll-out of a pilot program will start at the beginning of 2016 and will last for about 6 to 8 months.
- **BusinessEurope** - BusinessEurope is the leading European business trade association. BusinessEurope and its members campaign for the issues that most influence business performance in Europe and globally. Within this framework, Solvay provides its input through its participation in working groups dealing with energy, the environment, and research as well as trade policy.
- **ERT (European Round Table of Industrialists)** - Together with the European Round Table of Industrialists (ERT), Solvay is an advocate of policies to improve European competitiveness, growth and employment. In particular, Solvay actively participates in the working groups dealing with energy, trade and competition policies. Jean-Pierre Clamadiu chairs the Societal Changes Working Group, whose main focus is aspects related to EU labour force and education issues (e.g. youth unemployment, skills gap, labour mobility, women in leadership positions).

FOCUS WORLD BUSINESS COUNCIL FOR SUSTAINABLE DEVELOPMENT (WBCSD)

Solvay is fully committed to the World Business Council for Sustainable Development (WBCSD), with Jean Pierre Clamadiu, CEO of Solvay, now a member of WBCSD's Executive Committee, and co-chair of the Board of its energy and climate cluster. As an active member of WBCSD since 2009, Solvay is working with other chemical sector companies on sustainability metrics and on barriers to sustainable solutions in the value chains. Solvay co-steered, with DSM and BASF, a project delivering guidance for the chemical industry on life cycle metrics for chemical products. WBCSD's metrics projects (e.g. Natural Protocol, Social Protocol, Reporting Matters) share a common objective: to worldwide ensure consistent communications worldwide on how chemicals impact on and contribute to sustainability. ICCA takes part in and disseminates the output of WBCSD's chemical subgroup.

WBCSD's chemical subgroup significantly contributed to the preparation of COP21, taking action to accelerate the implementation of transformational business solutions to address climate change. As an industry serving other industries the chemical industry can help unlock the potential of up to an additional 1GT CO2 savings per year by 2030, along with the use of its products in key sectors like building, automotive, packaging and food. In addition, the chemical industry can adopt breakthrough technologies in its own production processes focusing on new processes that use non-fossil carbon sources. This initiative belongs to a set of nine WBCSD Low Carbon Technology Partnership Initiatives (LCTPI) and was presented by Jean-Pierre Clamadiu within the framework of COP21.

The action lines of the chemicals LCTPI will serve as a platform for further dialogue on action to be taken, with an increasing number of chemical companies and stakeholders worldwide.

FOCUS Cefic (The European Chemical Industry Council)

Cefic is the forum and the voice of the chemical industry in Europe and facilitates dialogue between industry and policy makers as well as various stakeholders to share chemical industry technical expertise.

Jean-Pierre Clamadieu will be President of Cefic until October 2016 having held the post since October 2014. During his first year of Presidency and in the run-up to the Convention of Parties on Climate Change held in Paris in December 2015, he campaigned for a carbon price mechanism that is market-based and prevents 'carbon leakage' of emissions-generating activities to countries with weaker emission regimes. He also constantly works to strengthen the credibility of the European Chemical Industry Council through an open dialogue with stakeholders.

In addition, Solvay experts provide input on energy, industrial and research policy, as well as product stewardship related issues. Representatives of the businesses work with the different Cefic sector groups on specific issues related to individual substances or groups of substances.

ACC (American Chemistry Council)

The American Chemistry Council is America's oldest trade association of its kind, and represents companies engaged in the business of chemistry. Solvay sits on the Board of committees that contribute to setting the association's strategy and Solvay representatives use their expertise to contribute to the ACC's work on transportation, energy, the environment, process safety and product stewardship issues. Solvay's experts also provide their technical input to activities, focusing on product-related issues which are relevant for Solvay's businesses, e.g. plastics.

ABIQUM - Brazilian Chemical Industry Association

Together with ABIQUIM and its members, Solvay works to foster increased competitiveness and sustainable development of chemical industries in Brazil. Solvay participates in all of ABIQUIM's meetings and supported activities related to several topics, such as climate change, product stewardship related issues (e.g. Global Product Safety implementation, the workshop on Globally Harmonized System of Classification and Labelling of Chemicals) and innovation (e.g. ABIQUIM Seminar on Technology and Innovation).

AICM (Association of International Chemical Manufacturers)

Solvay, as a member of AICM (Association of International Chemical Manufacturers) contributes to a sustainable growth of the Chinese chemical industry, actively promotes Responsible Care chemical management principles among all stakeholders, and is an advocate of cost-effective, science- and risk-based policies. For instance, Solvay has acted as key advisory board member for the following issues: responsible care, environment protection regulation, sharing of best practices, logistics and trade.

CPCIF (China Petroleum & Chemical Industry Federation)

Solvay works in the framework of CPCIF (China Petroleum and Chemical Industry Federation) and together with other Chinese industries to develop international cooperation so as to promote technological advancement and chemical industry upgrading. For instance, in the course of 2015, Solvay closely followed the development of China's 13th Five Year Plan and monitored investment policies from Chinese authorities in the field of carbon trade and energy saving.

4.3 Supply chain management

G4-12

Strategy

Solvay is committed to integrating economic, societal and environmental criteria in all its activities. The Group operates in full compliance with Solvay Way, its corporate social responsibility approach. Furthermore, Solvay also requires its employees to act in accordance with the highest ethical and legal standards. Similarly, the Group is determined to work with suppliers who are committed to the same principles of sustainability and ethical behavior. Solvay expects all stakeholders in the supply chain to respect all laws and regulations governing their activities and ensure compliance with the spirit of the law, ethical standards and international norms.

Worldwide Procurement

Our Organization

The purchasing and supply chain organization is designed to animate the entire network of around 400 professionals in Purchasing and around 2,000 in Supply Chain. They are responsible for creating additional value through simple and clear purchasing processes and excellence programs. They are in charge of organizing a sustainable and timely supply of goods and services to all of Solvay's sites and customers. They have to provide the required level of service and safety as well as an optimized total cost of ownership. The purchasing strategy is defined by the Purchasing and Supply Chain Excellence Function jointly with the 15 GBUs. The strategy is executed and deployed at a global, regional or local level to leverage the supplier market structure.

Our Suppliers

Solvay purchases raw materials to manufacture its 14,000 finished products references, technical goods for its production sites as well as several kinds of services like transport, technical maintenance and consultancy worth around € 8 billion. Solvay has 43,425 suppliers worldwide. Nevertheless, 73% of this spend is sourced locally. The suppliers work with Solvay throughout the whole value chain from the delivery of raw materials through production, to logistics services to transporting the finished products to the Group's customers.

Among its suppliers, Solvay has identified 1,080 "critical suppliers". These suppliers may present a risk for the business, social standards or for the environment, or they have been selected as strategic because Solvay is developing or wishes to develop a partnership in innovation with them. Solvay requires these critical suppliers to pass a third party Corporate Social Responsibility (CSR) assessment and implement an action plan to mitigate risk if the supplier does not meet the Group's standard requirements. By doing so, Solvay expects a long term significant improvement of its suppliers' sustainability practices and a positive impact on its supply chain sustainability. The share of critical suppliers represents a minimum of 55% of the total Solvay spend. The ambition is to assess all critical suppliers before the end of 2020.

PURCHASING SPEND BY DOMAIN AND ZONE IN 2015

	ENERGY	GENERAL EXPENSES AND INFORMATION TECHNOLOGY	LOGISTICS AND PACKAGING	RAW MATERIALS	TECHNICAL GOODS AND SERVICES	TOTAL
Asia Pacific	2%	1%	2%	10%	4%	19%
Europe, Middle East, Africa	11%	6%	6%	14%	8%	46%
Latin America	2%	1%	2%	7%	2%	13%
North America	1%	3%	4%	10%	4%	22%
total	16%	11%	13%	42%	18%	100%

How we ensure a constant dialogue and improvement with our suppliers on CSR topics

Solvay keeps improving its process and increasing environmental, social and corporate governance standards, also acting in collaboration with its suppliers. The way of working is defined in one core process: The Solvay Purchasing Process (SPP). In addition, the Group has made significant improvements in Category Management, Risk Management, Solvay Supplier Code of Conduct, as well as in the program Every Buyer Every Visit.

Solvay Purchasing Process (SPP)

Sustainability is an integral part of each of the process steps, from building the strategy, through supplier selection and qualification to contracting, supplier performance evaluation, finally resulting in building a balanced relationship with suppliers.

In 2015, Solvay extended its existing purchasing processes to include category management. Category management raises the maturity of the purchasing organization to the next level by defining purchasing strategies by spend category. Steered and validated by the Strategic Sourcing Decision Committee (SSDC), these strategies aim to generate more value for the Solvay group by more in-depth analysis of the upstream and downstream markets, identification of opportunities, establishing selection matrices and risk profiles. In order to perform the above, environmental and social, as well as security of supply and innovation criteria, are taken into account.

Solvay Way

Solvay Way is fully embedded in the Solvay Purchasing Processes and the progress is evaluated annually against the following three practices:

Defining prerequisites and integrating them into the supplier selection process

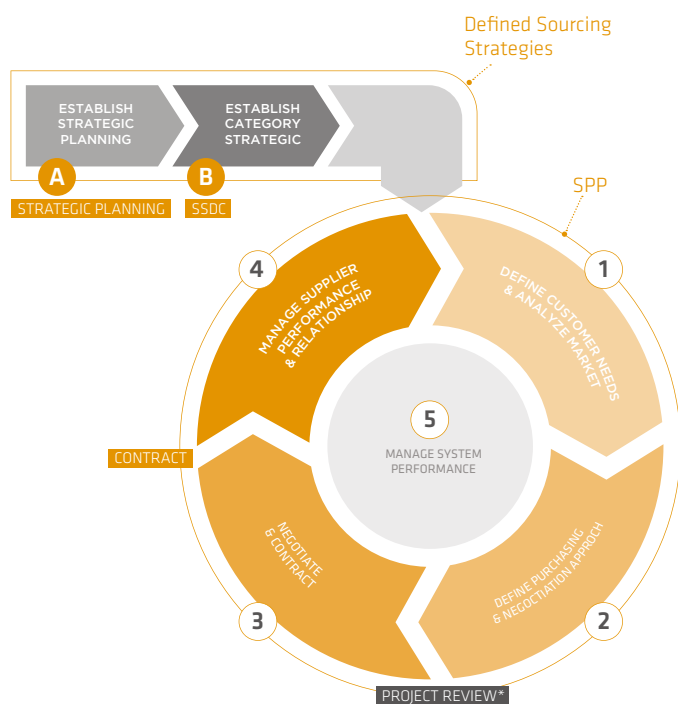
For each tender, suppliers are qualified, selected and evaluated with a single methodology across the world. One important criterion among others is CSR which is evaluated on the basis of an internal CSR questionnaire for non-critical suppliers and a third party evaluation for all critical suppliers. The CSR evaluation covers the following themes: environment, labor and human rights, health and safety, ethics & governance and management. Furthermore, referencing CSR as a contract clause is a practice that has been put in place.

Evaluation of buyers' CSR performance

Respecting the CSR prerequisites is an integral part of the performance evaluation of the buyers. Collective and individual bonuses are partially linked to the progress of the Solvay Way practices' scores.

Managing and assessing suppliers' CSR performance and optimizing relationships

As explained above, "critical suppliers" are assessed by a third party. Their CSR performances are monitored and improved through action plans mutually agreed between the buyers and the suppliers. In 2011, Solvay took part in creating and implementing the "Together for Sustainability" (TfS) association launched by a group of chemical companies. The TfS approach consists of using a best-in-class external service provider that performs sustainability assessments and of using prequalified audit companies who do standardized physical site audits on behalf of the different member companies. (See details further below.)



*Performed by SSDC

Solvay is also selecting innovation projects with its strategic suppliers based on their CSR impact. For example, in packaging: in collaboration with one of Solvay's main packaging suppliers the Group further developed the re-use of 1,000-liter containers, which are one of the Group's most used units. In the year to date, Solvay covers 25% of its total need in Europe with re-used containers. In some plants the Group went even further and achieved full coverage. A supplier collects the used packages on site and redelivers them to Solvay after retreatment. This initiative has a strong impact on the environment and the Group's CO₂ footprint.

In 2015, Solvay launched an annual supplier satisfaction survey involving 791 suppliers (see below).

Risk Management

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In addition to the special focus on critical suppliers, Solvay has identified six major risks in supply chain management:

1. Lack of innovation in working collaboratively with suppliers.
2. Non-compliance with major regulations which may result in penalties, litigation and reputational damage.
3. Transport accidents which may cause injury to neighbors or members of the public.
4. Uncontrolled subcontractor's chain which may lead to CSR issues, supply chain disruption, poor quality of work or accidents.
5. The general security situation in a country or zone which may disrupt one of the Group supply chains, causing loss of product and customer complaints.
6. Lack of capacity available in the transportation industry which may lead to higher costs and supply chain disruption.

For each risk, a risk owner is nominated with the responsibility of further developing the analysis and of implementing a risk response with an action plan. All of those actions are coordinated by the Compliance team.



SOLVAY'S SUPPLIER CODE OF CONDUCT

During 2015, Solvay deployed its new Supplier Code of Conduct which outlines the importance of Corporate Social Responsibility (CSR) to the Group. This Supplier Code of Conduct is aligned with the Solvay Code of Conduct and the CSR agreement with IndustriALL Global Union. It was inspired by the UN Global Compact and Responsible Care® practices.

The full implementation of the Supplier Code of Conduct was initiated in 2015 and will be further pursued in 2016. All new and re-negotiated contracts contain a reference to the Solvay Supplier Code of Conduct or a valid alternative. Moreover, all critical suppliers must subscribe to the principles detailed in the Solvay Supplier Code of Conduct notwithstanding the existence of a contract.

Every Buyer Every Visit

In 2015, Solvay set up a clear action plan with a strong focus on "supplier visits" called 'Every Buyer Every Visit' where during every visit every buyer will dedicate a part of the discussion to health, safety and the environment, CSR, and innovation. The buyer will record this discussion in a short meeting report. The target is to ensure CSR is included as a topic in every supplier meeting but also to embed CSR in the hearts of the buyers. The buyers will thus follow up improvements during their regular contacts with the supplier. In the event of findings of deficiency, a site audit followed by a corrective action plan may be triggered.

Together for Sustainability (TfS)

Solvay is one of the six founding members of this initiative, which was founded with the purpose of developing and implementing a global program to assess and improve sustainability practices within the supply chains of the chemical industry. The objective is the enhancement of suppliers' environmental and social standards. With the help of TfS assessments performed by EcoVadis, an external service provider for CSR assessments and on-site TfS audits, the supplier's sustainability performance is verified against pre-defined criteria (Environment, Labor & Human Rights, Health & Safety, Fair Business practices) that are tailored to the requirements of the chemical industry. The results are shared among TfS members, thus maximizing the visibility of suppliers among TfS members as well as reducing their workload since they only have to participate in an assessment or audit once on behalf of a TfS member and not multiple times. Since its foundation in 2011, the TfS initiative has almost tripled its member base, and stands at present at 16 members. Additional companies are in onboarding phase. For more information on the TfS Initiative, its members, assessment and audit processes, please visit the TfS website at <http://www.tfs-initiative.com>.

All TfS members individually decide and identify suppliers that will be invited to participate in an assessment or audit. Principally, suppliers from all purchasing categories and geographical locations can be part of the TfS assessment or audit. Since the start of the TfS initiative, the sustainability performance of 4,600 suppliers has been rated within the TfS initiative based on EcoVadis assessments and 446 TfS audits have been conducted by means of the TfS Audit Program.

In 2015, as many as 2,580 sustainability assessments were shared among TfS members and 179 new TfS audit reports were received by the TfS initiative. Solvay primarily concentrates its efforts on inviting any of its suppliers that are considered "critical" to participate in a TfS assessment.

While TfS assessments are carried out by EcoVadis on behalf of the respective TfS member, the TfS audits are performed by four audit companies selected by TfS and the suppliers can choose the most suitable for them.

For both evaluation methods, a detailed analysis is available indicating the achieved score level and highlighting strengths and areas for improvement detected throughout the evaluation. Buyers will review the evaluation results with their respective suppliers to agree on and monitor improvement actions where necessary.

In 2015, Solvay invited 247 suppliers to participate in TfS assessments or audits, 150 of them completed the assessment and obtained an EcoVadis score. An analysis showed that in general the suppliers with the highest spend achieve very good results. 97 evaluated suppliers were asked to implement corrective action plans in order to reach a satisfactory level. In most of these cases the major point of concern was the lack of evidence provided such as, for instance, a copy of their formal anti-bribery policy.

Solvay strongly supports TfS in adopting a continuous improvement approach and dialogue with the supplier. The objective is to reinforce mutual understanding for sustainability aspects within the supply chain. To create more awareness and to raise awareness of TfS internationally, supplier events are organized - in 2015, the location for the TfS supplier event was Brazil. In addition, TfS held a breakout session at the China Petroleum and Chemical Industry Conference in Shanghai.

Supplier Evaluation (internal) & Satisfaction Survey

In addition to external supplier evaluations as in the context of TFS, Solvay also asks for supplier evaluations to be done regularly by internal parties in contact with the supplier. The criteria evaluated are the supplier's CSR performance, innovation capacity, general relationship and supplier competitiveness. In 2015, a total of 1,376 suppliers were evaluated by Solvay.

2015 SUPPLIER EVALUATION BY DOMAIN AND BY SCOPE

SCOPE / DOMAIN	ENERGY	GENERAL EXPENSES, INFORMATION SYSTEMS, INFORMATION TECHNOLOGY	LOGISTICS	PACKAGING	RAW MATERIALS	TECHNICAL GOODS AND SERVICES, CAPITAL EXPENDITURE	TOTAL GÉNÉRAL
Global Business Units	4	1	6	6	233	0	250
Global Domains		38	48			3	89
Asia Pacific		8	42	22		52	124
Europe	1	18	48	74	45	600	786
Latin America		8	18	7	15	32	80
North America		4	12	4	3	24	47
Total	5	77	174	113	296	711	1,376

Supplier satisfaction surveys are also conducted to complement supplier internal evaluations. In 2015, Solvay sent out 791 on-line questionnaires to its suppliers to check their degree of satisfaction. 482 replies were received representing a response rate of 61%. The purpose of this survey is, in line with the new ISO 9001, to get feedback from suppliers to improve our process and to ensure balanced relationships with them. The feedback from 2015 is clear. The suppliers continue to express a high level of satisfaction with their business with Solvay and want to maintain a longer term relationship. They recognized the professionalism of the buyers, their transparent, cooperative and supportive attitude in particular. Suppliers also took the opportunity to suggest some additional areas of improvement such as communication concerning general news, business forecasts and new products. They strive to work closely with us to find more synergies, win-win business and to be more innovative. The feedback has been integrated into the management of the Function by drafting a supplier handbook (to be issued early 2016) with the deployment of the Every Buyer Every Visit program (see above).

Training

All buyers and purchasing managers are trained in the Solvay Purchasing Process (SPP) and on the TFS process. Furthermore, Purchasing and Supply Chain Excellence Function has set up Purchasing and Supply Chain Excellence Academies. Corporate Social Responsibility is woven into the majority of the training modules. In 2015, 89 professionals have participated in the Supply Chain Academy and 125 in the Purchasing Academy. The objective is to train all buyers by June 2017.

Success Stories with Suppliers

We collaborate with our suppliers to establish long lasting and constructive solutions based on shared ethics. Here are two examples of what we did in 2015.



HELPING THE GUAR FARMERS OF TOMORROW

Solvay started a three year project that aims to teach and promote sustainable agriculture practices among 1,500 guar bean farmers in India. Solvay is a world leader in guar derivatives. Grown in India's semi-arid regions, guar is the main resource for many farming communities. The project, in partnership with L'Oreal and implemented by a non-governmental organization, will help farmers improve the use of water, preserve the soil and raise their income. Furthermore, it will reinforce the availability of bio-based guar for the industry.

Engineering Plastics hosted a Supplier Innovation Day in Shanghai, China. The event brought together more than 60 participants to discuss innovation and sustainability in more depth and to create a closer partnership with strategic suppliers. Moreover, by rewarding the supplier's proactive solutions, it will further anchor sustainable initiatives and foster collaboration.

4.4 Ethics and Integrity

The Solvay Code of Conduct

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Beginning with a message from Solvay's Chief Executive Officer, Jean-Pierre Clamadieu, Solvay's Code of Conduct is identified as the cornerstone of Solvay's Ethics and Compliance Program. The principles set forth in the Code are aligned with the 10 principles of the UN Global Compact (UNGC) and are in keeping with Solvay's commitment to be at the forefront of ethical sustainability as a signatory to the UNGC.

The current Solvay Code of Conduct received initial executive approval in September 2013 and was the culmination of drafting and vetting by Solvay's Ethics & Compliance Department, review and further input from representatives of Solvay's General Business Units and Function leadership, and a final review and input from Solvay's Executive Committee. Upon gaining Board approval, the Code was presented to and approved by the European Works Councils. In 2014, the approved Code was translated into 14 languages to be communicated directly to Solvay's diverse employee work force. The Code can be accessed through the Group's website and is available in booklet form.

The Solvay Code of Conduct sets out how Solvay wishes to conduct business and how it wishes to interact with all of its stakeholders in an ethical and lawful manner. It stresses ethics and integrity in the workplace, in doing business, and as a corporate citizen. 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. It is not an exhaustive document that anticipates every situation employees may face in their day-to-day business. Rather, the Code highlights the guiding principles that form the basis for the Group's policies.

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) to minimize the danger of violation and there are provisions for clear sanctions where necessary. The Ethics & Compliance Department is charged with implementing annual training for the employee work force at management level. Management is charged with cascading the training within their teams. Each year, a specific topic is selected to be emphasized in training, while training on the entire Code is provided for those employees who have not yet received specific training by their management or who are new to the Group. By the end of 2015, more than 75% of Solvay's employees had been trained on the Code. It is anticipated that the balance of existing and new employees will be trained by the end of 2016. In addition, formal management training on Anti-Corruption will be introduced and training for exempt employees will focus on Gift, Entertainment and Anti-Bribery. All training will emphasize the right of every employee to Speak Up.

Legal and Compliance function

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The Legal and Compliance function contributes to or enhances the compliance culture. It acts under the authority of the Group General Counsel. The Ethics and Compliance Department has the more specific objective of strengthening a culture based on ethics and on compliance with the Solvay Values and Code of Conduct. Compliance Officers have been appointed in all four geographical zones where the Group is active.

Solvay relies on its employees to support this Code of Conduct in every way. The Group cannot address questions or concerns unless it is aware of them. Employees who need clarification about the application of the Code of Conduct, who know of an ethical or compliance issue, or who believe in good faith that non-compliance issues are occurring at Solvay are encouraged to come forward and escalate such concerns through management, Human Resources, Internal Audit, the Legal Function and/or the appropriate Compliance Officer, or the Group General Counsel. The Solvay Ethics Helpline is also available to employees as an independent resource and can be accessed via toll-free numbers or the web throughout the regions.

Speak Up

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The best way for employees to Speak Up is to go to their individual manager or supervisor first. Indeed, part of the manager's/supervisor's job is to listen to employees, understand their questions and concerns and act on them appropriately. Employees can also seek help from any other manager or supervisor; alternatively they may turn to a member of the local or regional HR, Legal Department, Internal Audit or the Compliance Officers. Management training on the Code of Conduct emphasizes the importance of maintaining an open dialogue in the workplace that encourages employees to seek out management guidance when they are faced with an ethical dilemma or when they see something that appears to be at odds with Solvay's code of ethics.

As an alternative, employees may wish to use the Ethics Helpline (both phone and web), maintained by a private third party (EthicsPoint) and which operates in accordance with local law. The Helpline is available for reporting concerns via the internet in 46 specific regions as well as in the general category "other locations." Thus, anyone may contact the Ethics Helpline from wherever he or she may be located in the world. In addition, the Ethics Helpline web tool is available in more than 40 languages. The phone line has more than 20 languages available on demand according to the number dialed. Toll free access is given to Solvay employees and is available 24 hours a day, 365 days a year.

Reports are recorded directly onto an EthicsPoint secure server to prevent any possible breach in security. EthicsPoint makes these reports available only to specific individuals within the company (the Head of Ethics & Compliance and the Group General Counsel) who are charged with evaluating the report, based on the type of violation and location of the incident and/or delegating the investigation to a regional Compliance Officer. Each of these report recipients has had training in keeping these reports entirely confidential.

All reports are investigated (assuming there is sufficient information to do so) and all investigations are conducted in a manner that reflects Solvay's values, its respect for the rights of all parties involved and applicable law. Whether conducted by regional compliance officers or practice professionals in the areas of legal, human resources, finance or audit, confidentiality is maintained throughout the investigation and all reporters are apprised of the outcome of their reports and are given an opportunity to ask follow-up questions and to comment.

In no event shall an employee who makes a report be subject to retaliation. Any person, regardless of their position, who engages in retaliatory behavior will be subject to disciplinary action. Provided that reports are made in good faith, no action will be taken against an employee raising a concern that eventually proves to be inaccurate. Abusive accusations will not be tolerated.

The Speak Up program is emphasized during every Code of Conduct training for both management and non-management employees. In addition, a full brochure is accessible on the Group's website and posters are displayed throughout our various sites.





3

ECONOMIC
PERFORMANCE

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1. RESEARCH & INNOVATION MANAGEMENT



The Research and Innovation (R&I) policy strongly reflects Solvay's ambition to reduce its environmental footprint and to increase the proportion of its revenues that meet the challenges of sustainable development. Global Business Units (GBUs) and Functions worked jointly with a cross-functional innovation approach in order to provide its customers with high-added-value, innovative and competitive solutions tailored to the present and future needs of end-users.

Scarcity of resources, the fight against climate change, soaring consumption in high-growth parts of the world, and new demands for environmental care, health and well-being are the megatrends that determine the main themes of Solvay's R&I policy.

R&I efforts are driven by the following four innovation levers:

- A process of excellence to improve its efficiency and shorten the time to market: this process for managing technological innovation, known as WEGO, was launched in 2014 and has been fully rolled out throughout the Group in all GBUs;
- An intellectual property policy to drive Solvay's future differentiation;
- An extended network of open innovation (through partnerships with academics, SMEs or other industrials) to maximize its efficiency and tap into the creativity and competencies of the outside world;
- Exploratory partnerships with startups and venture capital funds which allow Solvay to unleash potential in strategic areas.

The Group has also dedicated 17% of total R&I efforts to corporate activities, with the clear intention of maintaining long-term development projects. These projects are aimed at either building know-how and competencies in emerging technologies or developing diversification and new business development opportunities through breakthrough innovations. R&I corporate is focusing its efforts on four areas of innovation that it has identified as crucial for sustainable growth:

1. Advanced materials: The Group's expertise in polymers and formulation enables it to design new, lighter, safer and more efficient functional materials.

2. Sustainable energy: Solvay is helping to develop alternatives to fossil fuel consumption: new-generation batteries, photovoltaics, bio-energy.

3. Eco-processes: Solvay is developing breakthrough innovations for itself and its clients, offering diminished energy consumption and raw materials, reduced emissions and lower investment costs.

4. Renewable chemistry: Innovation in renewable or recycled raw materials contributes to the evolution of Group products and processes.

1.1 Sustainable Innovation Highlights in 2015

In 2015, the GBUs confirmed their ability to deliver on innovation:

Solvay introduced two new natural flavor brands

Solvay Aroma Performance, a pioneer in vanilla flavors since 1884, introduces two new natural flavor brands at the Food Ingredients Europe 2015 show: Vanifolia™ and Vanifolia™ Bean. Vanifolia™ Bean experience combines all the qualities of Vanifolia™ but with the added benefit of a natural flavor based on genuine vanilla bean extract. In Europe, this product range allows 'natural vanilla flavor' labelling, addressing growing consumer awareness for clean-label safe food ingredients.

Solvay Wins JEC Innovation Award in Singapore

Solvay's Epicerol® has won the JEC Asia 2015 Innovation Award for 'Bio-based ECH for more sustainable epoxy resins'. Both Solvay, owner of the Epicerol® technology and trade mark, and Advanced Biochemical (Thailand) Co., the producer of Epicerol®, have been awarded in the Raw Materials category thanks to its environmental performance benefits. Epicerol® is a 100% bio-based epichlorohydrin (ECH), a chemical intermediate mainly used in the production of epoxy resins, a key material for a wide range of industries, namely composites, coatings and electronics.

Solvay has launched FeSOLV scale control technology to treat iron sulfide solids in oil & gas operations.

Solvay's Novecare launched FeSOLV, a new product line to its Bricorr® corrosion and scale control family that treats iron sulfide solids generated in fracking and production systems. These chemical solids and particulates contribute to equipment corrosion and degrade the quality of water used in oilfield operations. Novecare now has a complete offering to deal with solids in stimulation and production activities. The new line delivers enhanced dissolution of all forms of iron sulfide solids, improving flow, well productivity and the quality of the water produced.

Solvay launched a brand new emulsifier

Solvay launched a brand new emulsifier range aiming at replacing classical cetyl-oleyl chemistry in Metal Working Fluid applications. The benefits of these new surfactants are higher sustainability and enhanced performance:

- Higher sustainability: the new emulsifiers provide formulations with milder labelling for they don't bear corrosive and dead fish labels. They are also based on globally-available vegetable raw materials.
- Enhanced performance: the new emulsifiers provide outstanding defoaming, as well as excellent low temperature stability.

The new Rhodasurf® LF5 is an emulsifier for cutting fluids and hot rolling fluids and is a sustainable alternative to cetyl-oleyl 5 EO.

Solvay has unveiled Efficiu[®] a breakthrough Highly Dispersible Silica for productivity and performance of automotive tires

Solvay Silica unveiled Efficiu[®] a breakthrough Highly Dispersible Silica (HDS), an innovative reinforcing filler that allows for higher productivity and greater flexibility in producing green passenger car and truck tire compounds. Highly Dispersible Silica is a benchmark for energy-saving and high-performance tires for passenger cars. Efficiu[®] offers breakthrough benefits for the automotive industry, allowing for increased productivity due to its impact on mixing and extrusion throughput and adding flexibility thanks to its silanization control and reformulation opportunities without compromising on rolling resistance, wear and grip. Efficiu[®] strongly facilitates the conversion from carbon black to HDS compounds.

CATY17 - Novel Eco-friendly process for the production of advanced oxygen-storage materials for vehicular emissions control

Solvay has developed a novel eco-friendly process for the production of oxygen storage materials for use in automotive catalytic converters. The new nitrogen-free precursor process, yields advanced Ceria-Zirconia mixed oxides via controlled co-precipitation, providing best-in-class performance and stability characteristics to our customers. The successful completion of this project required re-invention of the traditional chemical approach. This project was realized in the European labs and supported by the Solvay R&I Function through to 'Proof of Concept', then scaled up and commercialized by Solvay Special Chem in Asia, facilitated by the global Special Chem R&I team and the local industrial function in Asia. The multi-zone and multi-functional organization successfully resolved a variety of roadblocks, chemical, cultural and practical. The new commercial process, the first of its kind, now serves the Asia-Pacific market. Its implementation helps facilitate the latest, most stringent, vehicular emissions standards to limit environmental damage resulting from air quality degradation by vehicular emissions of carbon monoxide, hydrocarbon and nitric oxides in the largest vehicle growth market in the world. Moreover, this project has enabled Special Chem to achieve its long term strategy of sustainable growth while enhancing its core catalyst business and establishing Solvay as the market leader in emission control technologies.

Solvay has launched new wear-resistant Veradel[®] Polyethersulfone

Solvay Specialty Polymers introduced Veradel[®] 3300 SL 30 polyethersulfone (PESU). The new Veradel[®] grade is a tough, high-performance resin designed to meet growing global demand for advanced polymers that can improve automotive powertrain efficiency and reduce carbon emissions. Formulated to replace metal in automotive applications prone to friction and wear - such as oil pumps and exhaust gas recirculation (EGR) systems - the new resin offers wear resistance and a low coefficient of friction in both dry and lubricated environments.

Solvay has launched Tegralite[™] thermoplastic lightweighting solutions to improve time and cost efficiencies in aeronautics industry

Solvay has launched Tegralite[™], a family of high performance lightweighting materials which offer the aeronautics industry new downstream solutions and part-making capabilities that improve fuel efficiency and speed up the production, refurbishment and maintenance of planes at a lower cost. Solvay's Tegralite[™] integrates the world's broadest range of high performance polymer products from Solvay's Specialty Polymers and the complementary skills of its specialized partners, 3A Composites, Aonix and JSP, through a global network that is open for expansion. It addresses rising needs to substitute metal or heavier plastic parts with multifunctional thermoplastic materials that are able to resist shock, impact, high temperatures, fire, chemicals and noise.

Solvay has expanded the Amodel[®] PPA Portfolio to meet a growing demand for automotive electrification solutions

Solvay Specialty Polymers has expanded its Amodel[®] AE-8900 series of products for automotive electronics applications by adding five new glass fiber-reinforced grades with glass filler ranging from 30 to 60 percent. The new Amodel[®] polyphthalamide (PPA) materials provide high voltage resistance and retention of dielectric properties at elevated temperatures. They also extend the performance envelope beyond the Amodel[®] AE-1100 and AE-4100 series by delivering greater resistance to automotive fluids, enhanced thermal properties, higher mechanical strength and lower moisture absorption.

Solvay has launched Amni[®] Sustainable White belonging to a new generation of sustainable yarns

Amni[®] Sustainable White is a mass-dyed white polyamide yarn providing both outstanding whiteness and yellowing protection during the storage period. With its high-tech, brand new Amni[®] Sustainable White yarns Solvay Fibras is providing financial benefits in the process steps, as well as improving energy and water consumption. Solvay's high concern for the planet is reflected in the reuse of water during yarn production and in the reduction and treatment of greenhouse gas emissions.

Silica GEN 3: major breakthrough in silica process becomes an industrial reality

"Valet 3" breakthrough in high performance silica production: after a 25% decrease in water and steam consumption and a 30% productivity increase at the reaction and filtration stage, a new technology implemented downstream (in the liquefaction and drying process) allows for a five-fold decrease in electricity consumption at the liquefaction stage. At the drying stage, gas consumption should decrease by 10% and productivity should increase by 10%. This is the result of a fruitful collaboration between GBU R&I and Corporate R&I, Silica Livorno site Industrial teams and the supplier of the new technology. Following trials to overcome industrial issues, the first industrial implementation in our Livorno plant has been proved to achieve quality, productivity and energy gains over a short period of time.

Pierre Potier Prize for BiFor-Safe

On March 19, 2015, Solvay GBU Soda Ash and Derivatives was awarded the Pierre Potier Prize for BiFor-Safe, a Bicarb®-based formulation approved for use in organic farming. The award was presented by Emmanuel Macron, the French Minister of the Economy, Industry and Digital Affairs. BiFor-Safe is a formulation based on sodium bicarbonate and mineral salts to fight against certain parasites efficiently or to improve the general hygiene of farm buildings. PROCrop™, the main formulation of BiFor-Safe is used as a preventive measure (prophylactic treatment) to prevent the proliferation of insects in grain silos. This combination of sodium bicarbonate and other food additives has the advantage of being completely harmless to humans, animals and the environment. The Pierre Potier Prize, which distinguishes the best innovations in the Chemical Industry that focus on sustainable development, is an acknowledgement of the joint efforts of the Group's Dombasle R&D teams and Bicarbonate Activity commercial and marketing teams.

1.2 Open innovation

At Solvay we care about working with our customers, with academia and with other companies or start-ups to leverage multiple sources of ideas and thereby identify the best possible solution to a problem. Overall, we currently manage more than 100 collaborative innovation projects.

The ultimate aim of Open Innovation is to provide the Group with the best skills and technologies currently available in their specialist areas, with the main priority being to satisfy and anticipate the needs of our customers and the market.

R&I collaboration

Solvay continued to develop collaborative innovation in 2015

Solvay is fully engaged in collaborative innovation programs. The group is continuing its partnerships with the National Scientific Research Center (CNRS) of France in four Joint Research Units, at Bordeaux and Lyon in France, at Bristol PA in the United States and at Shanghai in China thus generating international cooperation.

Solvay maintains a strong involvement with regional ecosystems, especially with the Axelera competitiveness cluster, a development accelerator for chemistry and the environment. In 2015, two collaborative platforms were developed on industrial on-line analysis and advanced materials.

Solvay Special Chem has launched a partnership with one of the world's leading electronics producers, under which Solvay will build a high volume High Purity H2O2 plant in Italy to meet their facilities' fast-growing demand. As a result, the GBU's sales of electronic wet chemicals have nearly doubled over this period and are expected to double again by 2018.

Advanced materials

A new consortium has been launched: The Pole LPSE Lyon Polymer Science & Engineering with two academic and seven industrial partners to boost innovative research on polymers. It will be implanted in 2016 at a third Axel'One Campus platform, which will host researchers and mutualized high-tech equipment.

• Solvay materials fuel breakthrough innovation of "Polimotor 2" all-plastic car engine

Solvay is proudly taking a leadership role in the development of the Polimotor 2 all-plastic automotive engine, to be tested in a race car next year, demonstrating its unique and industry-leading advanced specialty polymer technologies in lightweighting through metal replacement. The collaborative project will ultimately set the stage for innovative breakthroughs in future commercial automobiles. An engine is typically made of metal and is the single heaviest part in a car. Polimotor 2 aims to develop an engine that weighs 138 to 148 lbs (63-67 kg), or about 90 lbs (41 kg) less than today's standard production engine.

• Solvay to join in research collaboration to develop new materials for emergency applications

The € 3,6 million NSF (National Science Foundation) grant was awarded to the University of Pennsylvania which participates in a research consortium with Solvay, the French CNRS and the Grenoble Innovation for Advanced New Technologies (GIANT). Recognition in the form of this NSF grant is a welcome endorsement of Solvay's collaborative research approach and represents another milestone in the growth of open innovation activity for Solvay in North America.

Sustainable energy

• Solvay Energy Services, CDC Infrastructure and Marubeni join forces in a second innovative energy efficiency project

Solvay and its partners have created a joint venture to finance and operate a cogeneration plant at Solvay group's plant facilities in Lyon (France). This is the second project of its type. Partners now intend to further develop this type of innovative structuring and financing on a larger scale to assist industrial sites in reducing their energy consumption.

• A great future for Solvay products in lithium-ion capacitor technology

The EU-funded collaborative project Energy Caps has continued to deliver great results in 2015. The overall objective of the project is to develop a sustainable and safe lithium-ion capacitor with high specific energy maintaining, high specific power and a long cycle life.

Recupyl, a French SME, set up a recycling process in 2015 that demonstrated this device's low environmental impact. These lithium-ion capacitors also appeared to be the cheapest solution for holding an electric network during the few seconds required to start up a fossil-fuel generator. This kind of hybrid uninterrupted power supply (UPS) is especially vital for hospitals, telecommunications centers, critical production plants, etc. The Spec Chem products (LiTFSI and F1EC) were used in the electrolyte formulation. The PVDF polymer grades of Specialty Polymers were used in the electrode and separator fabrication. According to YUNASKO, LiTFSI is the best lithium salt for Li-ion capacitors because it allows a longer lifetime at high temperatures. YUNASKO assembled several prototypes of the Lithium-ion capacitors. The device provides an energy density similar to that of the lead-acid battery, a charging time of as low as one minute and a number of cycles and a power capability that has been improved by at least a factor of 100.

Eco-processes

• Solvay and Enirgi Chemicals join forces to market SOLVAir solutions for emissions treatment in North America

Solvay and Enirgi Chemicals have created a 50-50 joint venture to speed up the development and availability of sodium bicarbonate based products and solutions to reduce airborne emissions from industries in North America. This will make it possible to improve air quality and limit acid gas emissions, such as sulfur dioxide and trioxide (SOx) and hydrochloric acid (HCl).

• Solvay's Technyl® Force Thrusts the Move4earth™ Project Ahead

The Move4earth™ project is one of several Solvay initiatives supported by the European Commission as part of its LIFE+ program and demonstrates the company's ongoing strong commitment to sustainable development. The project is focused on designing, implementing and validating an innovative recycling process designed to revalue technical textile waste, initially from airbags, into high-quality polyamide 6.6 (PA6.6) grades with reduced environmental impacts. The project also addresses a need for more effective recycling solutions to help minimize large volumes of valuable engineering plastic waste.

• Solvay and partners launch the ecoFluor project to test climate-friendly new technology and reduce emissions

Solvay Special Chem, Texas Instruments, Muegge and Fraunhofer EMFT will combine their technology and know-how to reduce greenhouse gas emissions released by thin film tools used in the semiconductor industry. Using alternative fluorine gas mixture (hexafluoroethane (C₂F₆), tetrafluoromethane (CF₄) and nitrogen trifluoride (NF₃)) can have a meaningful environmental impact considering that the most widely used cleaning gas, nitrogen trifluoride, has a Global Warming Potential (GWP) of 17,200 times that of CO₂ while the proposed alternative has a GWP equal to CO₂.

Renewable chemistry

Solvay helps to promote the development of renewable resources with the ACDV (Association Chimie du Végétal - founded by the Group) and the Energy Transition Institute PIVERT for innovation with plant based derivatives. This is in collaboration with the IAR competitiveness cluster on agro resources and the TWB Toulouse White Biotech demonstrator in France. In Brazil there is a program in place for sugarcane valorization with the National Laboratory of Science and Technology of Bioethanol (CTBE).

• Solvay and L'Oréal team up to promote sustainable practices among guar bean farmers in India

Solvay's initiative and partnership with L'Oréal has many benefits - for farming communities and their environment as well as for demanding industrial applications. The project will help farmers improve the use of water and preserve the soil; it will raise their income and support local communities. Solvay's approach will also reinforce the availability of bio-based guar for industries and allow them to promote their ambitious sustainability goals.

• Solvay and Accsys strengthen their collaboration to accelerate the marketing of sustainable Accoya® wood

Solvay and Accsys Technologies PLC have strengthened their cooperation agreement to accelerate the development and marketing of Accoya®, a high performance wood, ideal for outdoor use and challenging applications thanks to a technology that modifies sustainably-sourced timber through a process called acetylation. Accoya® wood matches or exceeds the durability and dimensional stability of the best tropical hardwoods and has been repeatedly certified for its sustainability.

• Solvay Epicerol® earns Roundtable on Sustainable Biomaterials Certification

The certificate covers the manufacture of bio-based epichlorohydrin (ECH), using Solvay's innovative technology, from vegetable glycerol derived from biodiesel and oleochemical production. ABT is the first bio-based chemical operator in Asia to obtain RSB certification.

Acquisitions

• Solvay completes the acquisition of Ryton® PPS, expanding its range of specialty polymers

Solvay Specialty Polymers has bought two Ryton® PPS resin manufacturing units in Borger, Texas, a pilot plant and R&D laboratories in Bartlesville, Oklahoma, as well as a compounding plant in Kallo-Beveren, Belgium with a total of about 200 employees joining the Group. Solvay will access new business segments with innovative and demanding applications in transportation (in particular automotive), in electronics and in filter bags.

• Solvay Acquired EPIC Polymers' LFT technology

Solvay has acquired EPIC Polymers' long-fiber thermoplastics (LFT) technology to complement its range of high performance lightweighting materials and to enable metal replacement of larger semi-structural automotive parts.

• Solvay has completed the acquisition of Cytec

Solvay has successfully completed the acquisition of Cytec and has started the integration of Cytec's businesses to capture significant business opportunities in advanced lightweighting materials for the aerospace and automotive industries and in specialty chemicals for mining.

Venture Capital & Start-up

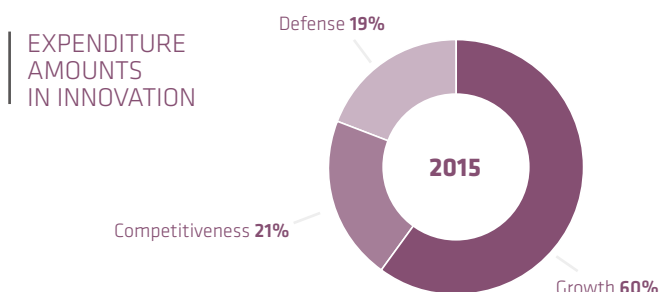
In 2015 Solvay Ventures invested in three new venture funds covering sustainable chemicals and materials:

- The Belgian Innovation Fund initiated by Essenscia, the Belgian chemical industry association. The fund invests in seed-stage companies that are developing technologies for water treatment, waste heat recovery and biomass conversion ...
- Phoenix Venture Partners Fund II (United States) which specializes in advanced materials enabling resources efficiency
- Trans Pacific Technology Fund (Asia) which, in broad terms, targets sustainable chemistry

Our fund-of-funds partners continue to support their portfolio companies dedicated to sustainable chemistry e.g. Avantium (furan chemistry), Green Biologics (bio-butanol), MetGen (enzymes for pulp and paper), Heliocentris and SFC (fuel cells), Genofocus (bio-converted products), Envia and Imprint Energy (new battery chemistries for energy efficiency). The Solvay Ventures team maintains a strong involvement in the Cleantech community by participating as panelists or jury members in venture events such as the Cleantech Forum, the Nordic Venture Forum, BIO (Montreal), World Agritech, etc.

1.3 Innovation main figures

Expenditure amounts in innovation



Research and innovation costs amounted to € 277 million in 2015, increasing by 12% compared to the previous year thanks to the intensified efforts of the major business units. The ratio of research and innovation costs on net sales increased to 2.5%, from 2.3% in 2014.

The global expenditure analysis clearly underlines that innovation projects are widely focused on growth globally, with 60% of total expenses dedicated to projects focused on this strategic purpose.

In anticipation of future needs, a major investment of € 97 million has been dedicated to developing formalized ideas into new innovation project proposals of all kinds. The fact that this investment has been reinforced in comparison to the last few years demonstrates Solvay's willingness to continue nurturing Innovation.

Research & Innovation staff

	2015	2014
Number of persons employed	2,050	1,950

Perimeter: Solvay financial perimeter.

Legend: Employees include research engineers and scientists, technicians, laboratory and pilot operators, and employees dedicated to R&I facility management and R&I support.

Throughout the Group, about 2,050 people work in R&I. Solvay's 15 major R&I centers are located in Europe, Asia, North America and Latin America.

In June 2015 Solvay opened its first fully dedicated Industrial Biotechnology Laboratory (IBL) in Paulinia, Brazil to boost the development of innovations and solutions based on sustainable chemistry from biomass. The fully integrated laboratory in Paulinia will chiefly focus on researching new processes and molecules derived from biomass, which is mostly plant or vegetable based and abundantly available in Brazil with its favorable climate and vast surface. With this laboratory Solvay can further nourish its innovation portfolio, using renewable resources, with tailored solutions to meet sustainability demands from customers in multiple end-markets. Thanks to Brazil's wide variety of biomass, competitive agricultural businesses and biotech expertise, the country has all the required conditions to develop and grow products and solutions based on renewable resources. Current research programs include projects in flavors, fragrances, surfactants, cellulose derivatives and solvents in particular.

Intellectual Property agreements

	2015	2014
Intellectual Property (IP) agreements & cooperation agreements	1,530	1,608

The number of agreements is very important as it highlights the openness of Solvay's innovation strategy.

Innovation output - Patents

	2015	2014	2013
First Patent Filings	235	259	232

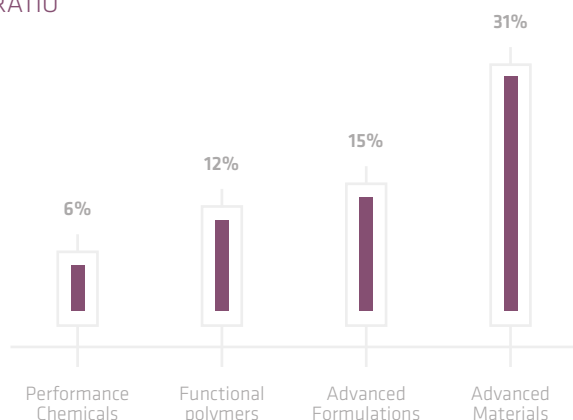
The Intellectual Property strategy is leveraged through strong partnerships between the Intellectual Assets Management Function and both the GBUs and the R&I Function. The number of patent applications filed confirms the Group's strong trend towards patented innovations.

New sales ratios

	2015	2014	2013
New Sales ratios	18%	21%	22%

In 2013 and 2014, Solvay benefited from a new product with a very large turnover in the Performance Chemicals segment that brought this segment to an exceptional level of nearly 20%. In 2015, this product was released from the list of new products, bringing the level of this segment back to a more typical level of 6% of sales.

The return to normality in this segment caused a negative impact on the overall figure of the Solvay Group in 2015. However, that must not obscure the consistently high level of its flagship segment "Advanced Material" to over 30%.

NEW SALES
RATIO

Perimeter: Solvay financial perimeter.

Legend: The new sales ratio includes two components: new commercialized products or services (products manufactured or services sold for the first time) and significantly improved products or services:

- Products modified either significantly or moderately with a new characteristic as perceived by the customer and claimed as such by Solvay;
- Existing products sold thanks to an innovative service which allows either a differentiated offer or a differentiated implementation;
- Existing products sold for a new application or in a new market;
- Existing products from a new or significantly improved process that provides a new usage value for the customer.

The new sales ratio is calculated by adding the current annual sales of these two components (created less than five years ago) to the total annual sales. The date used to measure the age of new products of less than five years old is the date of effective significant commercialization (the date when the new product category reaches an annual sales volume of over € 100,000).

2. ECONOMIC PERFORMANCE

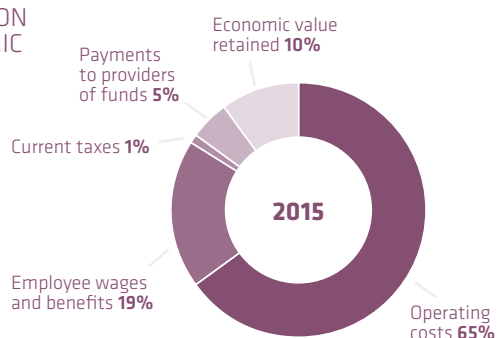
G4-DMA on economic performance

G4-9

An international chemical and advanced materials company, Solvay assists its customers in innovating, developing and delivering high-value, sustainable products and solutions which consume less energy and reduce CO₂ emissions, optimize the use of resources and improve the quality of life. Solvay serves diversified global end markets, including automotive and aerospace, consumer goods and healthcare, energy and environment, electricity and electronics, building and construction as well as industrial applications. Solvay is headquartered in Brussels with about 30,000 employees spread across 53 countries. In 2014, the company posted pro forma net sales of close to € 12 billion, 90% of which was generated from activities where it ranks among the world's top 3 players. Solvay SA (SOLB.BE) is listed on Euronext in Brussels and Paris (Bloomberg: SOLB:BB - Reuters: SOLB.BR).

2.1 Direct economic value generated and distributed

G4-EC1

DISTRIBUTION
OF ECONOMIC
VALUE

Legend: Operating costs excluding salaries and benefits, amortization and depreciation.

2.2 Human capital return on investment

41

2015 Dow Jones Sustainability Index Score Analysis:

Human capital development: the employee development program shows improvement, good program in place; Human Capital Return metric: global metric to quantify benefits of investments: metric changed in our response, not a global program and a different way to quantify response. Human Capital ROI: slight drop because the trend is not improving.

HUMAN CAPITAL RETURN
ON INVESTMENT

	2015	2014	2013	2012
Total Revenues (in € million)	11,047	10,629	10,150	12,830
Total operating expenses, including depreciation, excluding employee related expenses (in € million)	8,097	7,954	7,644	8,642
Total employee-related expenses (salaries + benefits) (in € million)	2,139	1,990	1,947	2,302
Resulting HCRO	1.38	1.34	1.29	1.82

Legend: Human capital return on investment is defined as (total revenues - total operating expenses excluding employee related expenses) / (total employee related expenses)



Paulinia site, Brazil.



4

ENVIRONMENTAL PERFORMANCE

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1. ENVIRONMENTAL MANAGEMENT



Protection of the environment is part of Solvay's Sustainable Development policy and commitment to the International Council of Chemical Association's (ICCA) Responsible Care® Global Charter, re-signed in 2014. Solvay takes part in national responsible-care programs in 19 countries where the Group has significant manufacturing activities. 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.

The following action lines are followed:

1. Ensuring regulatory compliance and controlling the emissions of hazardous substances as the Substance of Very High Concern - (SVHCs).
2. Preventing accidents with environmental consequences.
3. Managing water resources, raw materials and biodiversity in a sustainable way.
4. Pursuing Solvay's sustainability targets.

• Responsibility along the value chain

Screening suppliers for their sustainability performance is also a key aspect that has been developed recently in order to build more sustainable supply chains.

For more details, the reader is referred to the Supply Chain management chapter of this report.

Product stewardship, with its various components, has been under way for a long time to ensure product safety throughout the product life-cycle.

For more details, the reader is referred to the Product responsibility chapter of this report.

domains; occupational safety, process safety, the environment, industrial hygiene, health, product stewardship and transport. It also covers quality management and incorporates the requirements of ISO 9001, ISO 14001, OHSAS 18001, ISO TS 16949. SCMS defines, for every requirement, four maturity levels, from the basic, mandatory level to operational excellence, with level one, corresponding to regulatory compliance.

A more extensive reference system dedicated to product management, the Product Stewardship Management System (PSMS), is being developed.

340 employees trained in 23 sites worldwide

The system is currently in its launch phase. In 2015, training sessions have taken place worldwide in anticipation of the upcoming deployment and audit phases. More than 300 people from the Industrial Family have been trained: quality managers, Global Business Units, Health Safety and Environment managers and site managers, manufacturing heads, site directors and recently Research and Innovation teams.

SCMS will be progressively deployed in 2016. This management system should help sites to get external certifications on their integrated management systems and GBUs on multi-site management systems.

DEPLOYMENT OF SOLVAY'S ENVIRONMENTAL MANAGEMENT SYSTEMS

	2015	2014
Manufacturing sites with management system	90%	82%
Manufacturing sites with management system externally certified	63%	56%

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.

1.1 Solvay's environmental management system

G4-14

Management systems rely on risk analysis, monitoring of performance and compliance, follow-up of the corresponding corrective actions, performance reviews, and improvement plans.

An in-house system compliant with external requirements

The Group tested the new Solvay Care Management System (SCMS) in 2014-2015. The SCMS covers the seven Health Safety and Environment (HSE)

In 2015, 106 manufacturing sites have a standardized Environmental Management System (EMS) in place corresponding to Group standards. By 2018, all industrial sites should have a system in line with Group standard. Currently, 63% of sites have external certification of their environmental management system, while 37% are verified by in-house specialists from the corporate Industrial Function.

Improvement plans

In 2015, 98 manufacturing sites (83%) had an environmental improvement plan under way, with 64 planning significant further reductions of emissions within the next five years.

Reaching the Group target fixed for 2020 (i.e. a 20% reduction in water emissions with eutrophication potential compared to 2012) is under way, with 6% achieved so far. As regards waste, 89 sites have a waste action plan, with 66 planning to further reduce landfill waste as a priority and with set targets for hazardous industrial waste.

Regulatory Compliance

All Solvay industrial sites are required to implement an effective process to check compliance with all applicable laws, regulations and permits, and to document that compliance. In particular, every site must undergo a full HSE regulatory compliance audit at least every five years by external auditors. Compliance in product safety is covered by separate processes.

BEST IN CLASS PLANT IN THAILAND INAUGURATED.

The Solvay Life Saving Rules

In 2015, Solvay inaugurated South-East Asia's largest sodium bicarbonate plant based in Thailand. The objective is to meet growing demand for high-quality products in healthcare, food and other consumer goods markets throughout Asia. With an annual production capacity of 100,000 tons of sodium bicarbonate, the plant benefits from strong synergies in infrastructure, utilities and supply chain. In addition, Solvay's new generation production technology minimizes waste generation, optimizes energy recovery and maximizes yield. Solvay invested € 20 million in this plant, which has the full support of the Board of Investment in Thailand.

2. MATERIALS



G4-DMA on materials

As a large chemical manufacturer, Solvay uses large quantities of raw materials stemming from a range of suppliers and sources: Over 13 million tons were used or purchased in 2015. The majority of mineral raw materials are available on earth in very large quantities. This applies, for example, to calcium carbonate, a key raw material for manufacturing sodium carbonate. The Solvay group also transforms large quantities of petrochemicals and uses large amounts of water. Details about Solvay's water consumption is provided in the Water chapter of this report.

2.1 Bio-sourced raw materials

Solvay has been developing industrial projects based on bio-sourced raw materials for more than 16 years based on wood pulp, bio-ethanol, C12-C14 alcohols, guar split, lauryl alcohol, hydrogenated coconut oil, glycerin, coconut fatty acid, sebacic acid, ...

With its EPICEROL® process which uses glycerin resulting from the production of biodiesel from natural oils, Solvay currently runs one of the world's largest renewables activities in terms of volumes of bio-sourced chemicals. This business is located in Advanced BioChemical Company Limited, a subsidiary of Vinythai Public Company Limited. This company is listed on the Stock Exchange of Thailand in which Solvay controls 59% of the shares.

Solvay's policy on bio-sourced raw materials is:

- to explore and deploy the technical value and long-term competitive potential of bio-sourced renewable raw materials, carefully assessing their acceptability with regard to biodiversity and ecosystem protection;
- wherever relevant, to ensure that bio-sourced raw materials are supplied from sustainable, certified sources.

The Group is willing to utilize bio-sourced raw materials that do not compete with the food chain and are from certified suppliers whenever feasible.

• Supply chain management

Solvay currently does business with a total of over 43,000 suppliers (all purchases included). The share of critical suppliers represents a minimum of 55% of the total Solvay spend. They are identified by the GBUs in collaboration with the Purchasing and Supply Chain Excellence Function.

More details are provided in the Supply chain management chapter of this report.

FOCUS MAIN BIO-SOURCED MATERIALS

Among the main bio-sourced materials used are:

- Glycerin, a by-product of the production of fatty esters from vegetable oils (soybean, palm); it is used as raw material in the manufacture of epichlorohydrin through a new process demonstrating a significantly cleaner path than traditional processes;
- Wood, for the manufacture of cellulose acetate;
- Ethanol, obtained from straw and sugarcane bagasse, used to produce oxygenated solvents for paints and varnishes.
- Fatty acids, from diverse plant origins

For more details about bio-sourced energy which mean energy from biomass, the reader is referred to the Emissions chapter of this report.

2.2 Materials used by weight

G4-EN1

NON-BIOSOURCED AND BIOSOURCED RAW MATERIAL - MATERIAL PURCHASED (1000 TONS)

46

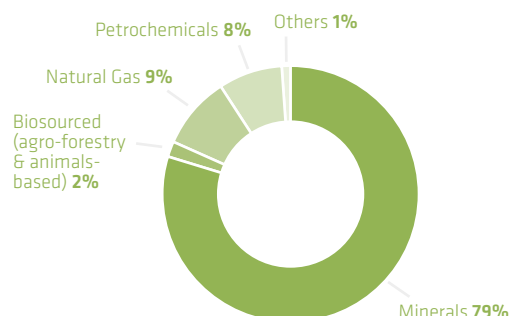
	2015	2014	2013
Minerals	13,600	4,910	4,247
Biosourced products (agro-forestry & animal-based)	400	426	403
Natural Gas	1,500	1,862	1,573
Petrochemicals	1,400	2,625	2,638
Others	250	382	295
Total	17,150	10,205	9,156

Perimeter: All raw materials spending - gas and other raw materials used as energy sources excluded, reported as energy purchases.

FOCUS RESPONSIBLE BIO-SOURCING

Solvay prioritizes responsible purchasing of bio-sourced raw materials which currently account for around 400,000 tons or 2% of raw material usage (11% when excluding mineral raw materials). Solvay promotes certified suppliers and has endeavored to trace raw materials produced from genetically modified crops.

NON BIOSOURCED AND BIOSOURCED RAW MATERIALS



Perimeter: All raw materials spending - gas and other raw materials used as energy sources excluded, reported as energy purchases

Solvay has increased significantly its bio-based raw-material sourcing. This increase is explained by the development of the following product:

- Augeo 191 which is a solvent for coatings sourced from soybean oil;
- Rhodapex 70 NAT which is a surfactant for shampoos and shower gels made from sugarcane or palm kernel oil;
- Technyl eXten® which is a plastic polyamide for automotive applications;
- Kalix which is a high-performance polyamide derived from castor oil.

The development of guar gum for industrial viscosifiers is also a part of this increase.

Bio-sourced raw materials are not only used as an alternative, competitive source of raw materials, but also to exploit additional benefits:

- New chemical functionalities provided by the bio-sourced molecules;
- Alternatives to scarce/costly raw materials;
- Long-term reduction of fossil fuel consumption and the associated greenhouse gas impact of Solvay's activities (cradle-to-gate).

Best practice

• Vegetable glycerin

Solvay promotes the emergence of harmonized certification systems for bio based oils (RED, Fair Trade, Roundtable on Sustainable Biomaterials (RSB), Roundtable on Sustainable Palm Oil (RSPO), Roundtable on Sustainable Soy (RTRS), etc.).

This is the case, for instance, with Epicerol® which is a 100% bio-based epichlorohydrin (ECH) produced by an innovative technology. This is the most sustainable ECH in terms of CO₂ emissions and the process's environmental performance. It is a chemical intermediate for a wide range of industries including epoxy resins. The glycerin used in the Epicerol® process to manufacture epichlorohydrin is made from glycerol that is a by-product of the oleochemical and biodiesel industries, which themselves mainly use vegetable oils from rapeseed, palm and soybean.

• Epicerol® Earns Roundtable on Sustainable Biomaterials Certification

In 2015, Epicerol® received certification from the Roundtable on Sustainable Biomaterials (RSB). The certificate covers the manufacture of bio-based epichlorohydrin (ECH) from glycerol derived from biodiesel and oleochemical production. This is the first bio-based chemical operator in Asia to obtain RSB certification, covering a comprehensive range of environmental and social sustainability parameters.

The RSB is an independent and global multi-stakeholder coalition which works to promote the sustainability of biomaterials. RSB's user-friendly certification scheme is the strongest and most trusted of its kind. It verifies that biomaterials are ethical, sustainable and credibly-sourced. The certification is approved by RSB's members, including leading NGOs and UN agencies. RSB members work across sectors to set global best practice for sustainable biomaterial production.

FOCUS NOVECAR'S SUSTAINABLE SOURCING APPROACH

Solvay's GBU Novecare has a deep-rooted commitment to sustainable sourcing. Internal strategies commit to procuring its oleochemical derivatives from accepted sustainable sources. By 2020, Novecare intends to procure its oleochemicals and derivatives (palm, palm kernel, and coconut) from accepted sustainable sources including RSPO Suppliers. Sustainability is included in Solvay's procurement processes. Novecare's collaboration with key partners continues to drive improved transparency.

In 2015, Novecare achieved mass balance certification for several of its main sites, increasing the possibility of traceable supply chains (mass balance, segregation, etc.) from the mills to the consumer market. This is only a beginning, as Solvay aims to play a part in answering the current challenges collectively faced by the industry today. By 2020, the GBU Novecare aim to achieve full mass balance and/or segregation.

FOCUS SOURCING WOOD PULP FOR CELLULOSE PRODUCTION

In the relationship with its wood-pulp suppliers, Solvay contractually ensures their adherence to international environmental and social standards. It starts from their wood-sourcing and continues through to production of the dissolving wood pulp Solvay buys from them. Consequently, all of these suppliers and their wood contractors have been certified according to standards of the FSC (Forest Stewardship Council), PEFC (Programme for the Endorsement of Forest Certification Schemes) or SFI (Sustainable Forestry Initiative®). This ensures that their sourcing and production comply with the following key principles:

- Adherence to all applicable laws and international treaties;
- Recognition of and respect for the rights of indigenous people, collaborators and forest workers;
- Reduction of the environmental impact of logging activities and maintenance of ecological functions;
- Integrity of the forest and promotion of the restoration and conservation of natural forests.

FOCUS ETHANOL IN LATIN AMERICA FOR COATIS

All suppliers under contract to the GBU Solvay Coatits, which manufactures oxygenated solvents, phenol-based products and derivatives, are members of the industry association UNICA, which co-runs Bonsucro, the Better Sugar Cane Initiative. This is a certification program in the Brazilian sugar cane market which encompasses several sustainability aspects. Contracted suppliers either have, or are obtaining, all the listed certificates (FSSC 22000, OHSAS 18001, ISO 9001 and 14001). In other cases as spot purchases, best efforts are made to buy from companies with the same practices.

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3. ENERGY



G4-DMA on energy

Solvay has set one long-term objective regarding primary energy consumption: to improve the energy efficiency of production processes by 10% by 2020. This will be done through realistic solutions that are compatible with the specific energy requirements of the chemical industry.

Ensuring long-term energy supply is also a permanent concern. Diversifying energy sources and developing alternatives to fossil fuels wherever sustainable in ecological, economic, industrial, and social terms is a strategic goal.

Concrete steps have been taken in the form of large technical investments such as the recent purchases of two cogeneration units, one in Spinetta (Italy) and one in Massa Carrara (Italy) or the construction of the cogeneration unit in Oldbury (United Kingdom).

An externally verified and structured energy reporting system and the response to rating agencies help the Group to align its efforts on the effectiveness of its energy challenges.

3.1 Energy consumption within Solvay



G4-EN3

FUEL CONSUMPTION FROM NON-RENEWABLE SOURCES (IN PETAJOULES LOW HEATING VALUE)

	2015	2014	2013	2012
Solid fuels	49	52	50	49
Liquid fuels	1	< 1	1	1
Gaseous fuels	57	48	50	49
Total	107	100	101	99

Legend: This indicator reflects the primary energy consumption of fossil fuels during a given year related to manufacturing activities of companies currently consolidated (fully or proportionately).

The increase of gaseous fuel consumption with 9 PJ from 2014 to 2015 is linked to the recent purchases of several combined heat and power units.

FUEL CONSUMPTION FROM RENEWABLE FUEL SOURCES (IN PETAJOULES LOW HEATING VALUE)

	2015	2014	2013	2012
Consumption in absolute	5.2	5.8	< 0.1	< 0.1

Legend: This indicator reflects the primary energy consumption of renewable fuels during a given year related to manufacturing activities of companies currently consolidated (fully or proportionately).

In 2013 Solvay built a new biomass-fired cogeneration plant at Brotas in Brazil. In 2015 this new plant was operated close to its nameplate capacity.

ENERGY CONSUMPTION (IN PETAJOULES LOW HEATING VALUE)

	2015	2014	2013	2012
Consumption in absolute	175	179	181	179

Perimeter: Energy consumed by Chemlogic activities is not reported yet. In 2015, the primary energy consumption of the companies in the financial perimeter represents 73% of the total energy consumption of all companies in the operational perimeter.

Legend: This indicator reflects the energy consumption during a given year related to the manufacturing activities of companies currently consolidated (fully or proportionately).

Standards, methodologies, and assumptions used

Solvay's energy reporting is in line with the World Business Council for Sustainable Development (WBCSD) "Guidelines for Accounting & Reporting Corporate GHG Emissions in the Chemical Sector Value Chain".

Energy consumption has three components:

- Primary fuels (coal, natural gas, fuel oil, etc.). The primary fuels are used internally in manufacturing processes (coke in lime kilns, gas in pyrolysis furnaces, etc.) to produce steam, electricity and mechanical energy;
- Purchased steam;
- Purchased electricity.

These three components are converted into primary energy in order to arrive at total energy consumption in petajoules (PJ) low calorific value, using the following conventions:

- Fuels: using the net calorific values;
- Purchased steam (assuming an efficiency of 90%), based on the net calorific value of the fuels used for its generation;
- Purchased electricity (assuming an average efficiency of 39.5% for all types of power production from fossil fuels and 33% for nuclear power), based on net calorific value (source: International Energy Agency).

Source of the conversion factors used

For purchased fossil fuels such as coal, anthracite and natural gas, the energy content was considered equal to the net calorific value of the fuel. The same assumption was made for fuels such as coke, petroleum coke and fuel-oil, even though they are not primary energy sources but secondary energy, being produced in transformation processes (from coal and oil respectively).

The net calorific value of the fuels is determined using data provided by the fuel suppliers or data from specific analytical reports. In the case of sites for which those data are not available, the following standard values are used to convert the quantities of energy vectors expressed in mass or volume unit into energy.

- Solid biomass 8.4 GJNCV/metric ton
- Refuse derived fuel 15.1 GJNCV/metric ton
- Coal 25.1 GJNCV/metric ton
- Petroleum coke 31.5 GJNCV/metric ton
- Anthracite 28.2 GJNCV/metric ton
- Coke 31.5 GJNCV/metric ton
- Natural gas 11.296 kWh (GCV)/m³

N.B.: GJNCV means GJ net calorific value

For purchased steam, the primary energy content is determined with reference to a gas-fired boiler with a global energy efficiency of 90% or a coal-fired boiler (88%) based on the net calorific value. Thus, the primary energy content of steam is equal to 3,222 GJP/tonSTD for steam generated from natural gas and 3,295 GJP/tonSTD for steam generated from coal.

N.B.: GJP means GJ primary energy

Ton STD means steam with a standard enthalpy equal to 2.9 GJ/ton

For purchased electricity, the primary energy content is defined according to how the electricity is produced.

For electricity generated from fuels, determination of the primary energy content of the electricity purchased is based on the worldwide global electricity generation efficiency published by the International Energy Agency (IEA), which is currently 39.5% based on the net calorific value. With a conversion factor of 3.6 GJ/MWh, the primary energy content of electricity is equal to 9,1139 GJP/MWh elec, and is obtained by dividing the secondary energy content of 3.6 GJ/MWh elec by 39.5%, the reference value for power plant efficiency.

For electricity generated from specific renewable energy sources such as hydro, wind, solar or geothermal, there is no direct consumption of fuels. For those generation technologies, the primary energy content is defined by convention of the International Energy Agency.

Hydro, wind or solar electricity

By convention, the “primary” energy content of hydro, wind or solar electricity is defined as the energy value of the electricity itself, assuming an energy efficiency of 100% for the generating device, giving a value of 3.6 GJP/MWh elec.

Geothermal electricity

The “primary” energy content of geothermal electricity is defined as the heat output of the capturing device. In case of missing data on heat consumption, the primary energy content is calculated by assuming an energy efficiency of 10% for the generating device, giving a value of 36 GJP/MWh elec.

Specific case for electricity produced from nuclear sources

The physical energy input to nuclear electricity should, in principle, be defined as the heat released by reactors during the accounting period. In practice, according to a convention set by the International Energy Agency the primary energy equivalent of nuclear electricity is calculated from the gross electricity generation by assuming a 33% conversion efficiency. Based on this assumption, the primary energy content of nuclear electricity is equal to 10,909 GJP/MWh elec.

• Note

According to the greenhouse gas (GHG) protocol, the energy footprint of purchased energy that is resold to a third party without any transformation must not be included in the energy reporting. In that case, the primary energy content of energy purchased and resold is set at 0.

3.2 Energy intensity



G4-EN5

Solvay's 2020 target*

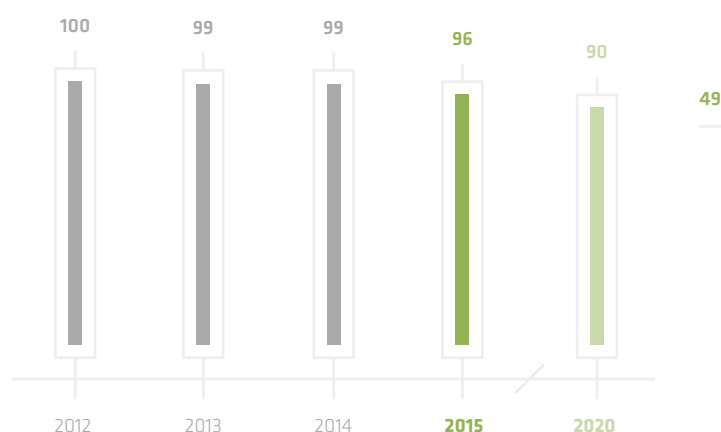
- To reduce the energy consumption by 10% (1.3% per year on average).

* Base 2012 at constant activity perimeter

To achieve this ambitious objective, Solvay will step up its SOLWATT® energy efficiency program, continuously optimize its industrial processes, develop clean technologies and increase the share of renewables in its energy production and supply.

Ensuring long-term energy supply is also a constant concern. Diversifying energy sources and developing alternatives to fossil fuels wherever sustainable in ecological, economic, industrial, and social terms is a strategic goal. Concrete steps have been taken in the form of large technical investments such as the recent purchases of two cogeneration units, one in Spinetta (Italy) and one in Massa Carrara (Italy) or the construction of the cogeneration unit in Oldbury (United Kingdom).

ENERGY EFFICIENCY INDEX BASELINE 100 IN 2012



Legend: Energy index “at constant activity perimeter” reflects the change in energy consumption on a comparable basis after adjusting the historical perimeter to take into account perimeter changes and making adjustments for changes in production volumes from one year to the next.

Solvay's specific metric to calculate the ratio

The following principles are applied when calculating the energy intensity indicator. For an accurate comparison, we calculate what the primary energy consumption would have been if we had produced the same quantities during the reference year 2012 as during the year under consideration with the efficiency of the reference year. We compare the result with the actual primary energy consumption for the year under consideration. The energy intensity indicator expressed in percentage is the ratio between the actual primary energy consumption and the reference primary energy consumption, both expressed in petajoules.

The energy intensity ratio takes into account all forms of energy (fuel, electricity, heating, cooling and steam) and only primary energy consumed within Solvay.

3.3 Reduction of energy consumption



G4-EN6

Compared with the baseline of 2012, the reduction in primary energy consumption amounted to 8,000 TJ in 2015.

The Group has reduced its overall energy intensity by 4% since 2012. Key factors in this progress are the SOLWATT® project (aimed at improving the energy efficiency of manufacturing processes) and the manufacturing excellence approach. For example, in 2015, the Global Business Unit Soda Ash & Derivatives significantly enhanced the energy performances of its world class soda ash factory in Devnya, Bulgaria with its breakthrough competitiveness plan.

Solvay Energy Services optimizes the Solvay group's energy purchases, which amount to € 0.9 billion per year. It also 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. In May 2015 Solvay Energy Services qualified for AFNOR Certification enabling it to perform energy audits on industrial processes.

Another facet of the Solvay Energy Services' mission is to optimize energy production assets. In this context, energy efficiency actions have been undertaken to improve the operation of cogeneration installations (installations that use a single process to generate both thermal energy and electricity simultaneously and very efficiently). In 2015, Solvay Energy Services purchased two cogeneration units in Italy: in Spinetta and in Massa Carrara.

In March 2015, Solvay Energy Services, CDC Infrastructure (a 100% subsidiary of Caisse des Dépôts) and Marubeni Corporation created a second joint venture to finance, upgrade and operate a 42 MW cogeneration plant at Solvay group's plant facilities in Belle Étoile (France). The three partners now intend to further develop this type of innovative structuring and financing on a larger scale to help industrial sites to reduce their energy consumption.

Even though cogeneration is already well deployed within the Group, new cogeneration units such as those in Map Tha Phut (Thailand), Opsiate (Italy) and Porto Marghera (Italy) are also being studied. In 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.

All forms of energy (fuel, electricity, heating cooling and steam) are included in the reductions of energy consumption

4. WATER



G4-DMA on water

Water use and management have been identified as a "High materiality" sustainability issue for Solvay. In some areas seasonal water shortage can impact on local ecosystems and cause increased competition between users. However it should be noted that 95% of Solvay's water intake is returned to the aqueous environment.

The Group's water policy consists of protecting the quality of water resources and limiting the need for fresh water withdrawals as much as possible. The Group's overall progress target encompasses the site specific targets in water scarcity areas. This target focuses on reducing the abstraction of groundwater because such abstraction is not returned to its original environmental source. This target also focuses on reducing the dependency on drinking water still used too often due to the absence of an alternative, lower quality, water source.

• 12 Solvay sites at risk of water shortage

Currently, 12 sites are identified as at risk of water shortage according to standard water-risk screening tools. i.e. They are located in areas where the annual freshwater renewal can drop below 1,000 m³/capita/year.

12 of these sites have suffered water scarcity episodes in recent years and three had to slow down production. In Map Ta Phut (Thailand, 2005) and Rosignano (Italy, 2011/2012), activities have been affected by drought periods and alternative water sources had to be found to ensure operational continuity. In 2014, some production operations involving open water circuits had to be stopped for three weeks at the Paulinia plant (Brazil).

• Reporting under the global "Carbon Disclosure Project Water" program

Solvay is one of the companies fully engaged in the worldwide "Carbon Disclosure Project Water" reporting initiative. The CDP water questionnaire provides investors with access to material data, consistently reported, on assessment and

actions that lead to more responsible use of freshwater resources. The CDP water program relies on a detailed, reliable internal reporting system. Importantly, companies' participation in CDP's water program will help to ensure the right to water for current and future generations as explained in the CDP website.

CDP Water has thanked Solvay for disclosing critical water information. Disclosing to CDP supports world corporate commitment to water stewardship.

4.1 Water intake



G4-EN8

Sustainable management in water scarcity locations

Solvay's 2020 target

- To implement sustainable water management at 100% of sites under water scarcity risk.

Particular efforts are being made to reduce freshwater withdrawals where there is a risk to water access either for Solvay or for other needs (domestic, agricultural, industrial or environmental). An internal study found there are currently 12 Solvay sites confronted with water scarcity risk.

DEPLOYMENT OF SUSTAINABLE WATER MANAGEMENT

2015

Sites with detailed water accounting	122
Sites with a confirmed water scarcity risk	12
Sustainable water management in place in sites with a water scarcity risk	4 (33%)

Perimeter: Solvay financial perimeter plus all additional manufacturing sites under operational control.

Water saving programs continue

Sites have programs underway that alleviate water consumption and reduce the dependency of operations on water at times when water is scarce. In particular, there is an action plan:

- to reduce water withdrawal on 20 sites;
- to use a water storage tank on 11 sites;
- to recycle wastewater from external companies' or third parties' wastewater treatment plants on five sites.

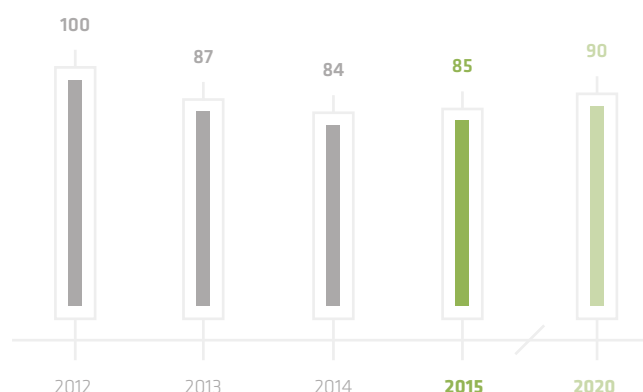
Solvay's 2020 target*

- To reduce by 10% the intake of groundwater and drinking water (1,3% per year).

* Base 2012 at constant activity perimeter

Total water withdrawal by source

WATER CONSUMPTION INDEX BASELINE 100 IN 2012



Legend: This indicator covers groundwater and drinking water abstracted without taking into account restitution after use. Progress is calculated at constant activity perimeter.

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ABSOLUTE INTAKE IN 1,000,000 M³

	2015	2014	2013	2012
Groundwater + drinking water	194.33	186.73	198.39	242.14
Intake of estuary and sea water	70.95	82.31	89.61	132.71
Intake of surface water	342.48	349.41	356.27	378.91
Intake of underground water	179.40	172.18	181.31	223.60
Water intake from auxiliary sources	8.49	8.14	9.71	8.25
Total water intake	616.27	626.76	654.62	762.64

Legend: Water intake = water abstracted from the environmental sources, not corrected for the quantities restituted to the natural environment.

Aquifers and public network

Water management translates into numerous water-saving and recycling programs. By the end of 2013, the achieved performance index for the "sum of drinking and groundwater" intake had already reached the level of the Group's 2020 target. This indicator, which aggregates water intakes from aquifers and from the public network increased by 7.6 Mm³ or 4.1% in 2015, but stands currently at 84.7 % of the 2012 baseline. A new target will be defined in 2016.

Progress was largely due to exceptional events such as temporary or permanent shutdowns of production units or small plants and changing requirements from authorities impacting on the water needs. The overall decrease by 47.8 Mm³ or 19.7% between 2012 and 2015 mainly results from divestment of activities (Chlorovinyls Pole and Eco-Services). Note that drinking water from the public network contributes 7.7% to this water indicator.

The 2015 changes reflect changing groundwater abstractions at individual sites with opposite effects: Higher intakes of groundwater were necessary at Chalampé (France) and Belle-Étoile (France) both due to higher production rates, and at Saint-Fons (France). On the other hand, less groundwater abstraction was necessary at Roussillon (France) and Santo Andre (Brazil).

More structural improvements are expected in the years to come due to water saving programs or business rationalizations (e.g. for the GBU "Silica").

Total water intake

Total water intake decreased by 10.5 mm³ or - 1.7% in 2015. This is the consolidation of many changes in opposite directions, in particular for the GBU Soda-Ash & Derivatives (- 9.66 Mm³), for the GBU Performance Polyamides (+ 8.14 Mm³), for the GBU Special Chemicals (- 2.52 Mm³) and for the GBU Peroxides (- 2.04 Mm³).

The GBU Performance Polyamides determined evolutions via the combined effect of decreases (-4.1 Mm³ at Chalampé (France)) and of increases (+0.7 mm³ at Belle-Étoile (France)). The decrease in Chalampé was mainly made possible because less severe pumping obligations for maintaining a hydraulic barrier have been granted since the end of 2012, while increases in Belle-Étoile resulted from increased production. In addition, reductions by Soda-Ash & Derivatives stem from the shutdown of the Povia (Portugal) plant and the renewed possibility at Rosignano of using surface water from the nearby Santa-Lucia lake which was impossible in 2012 due to an extreme drought. Reductions by the GBU Acetow are due to the shutdown of the Oxadiazon business in Roussillon (France) by 1.7 Mm³ and a production slow-down in Freiburg (Germany) by - 0.46 Mm³.

4.2 Water recycling



WATER RECYCLED
AND REUSED
IN 2015



Legend: recycled = recycled water / total water used.

Most of the sites concerned are equipped with closed-loop cooling systems, which represents a significant part of total water use and of recycling.

Exemplary projects of water management

Water from treated groundwater in Australia

To reduce the use of potable freshwater in the dry region of Banksmeadow (Australia), the Solvay plant has substituted potable city water with non-potable water from the nearby Orica Treatment Plant, which treats contaminated groundwater from the Botany aquifer, for use in various water applications on site. This has more than halved the site's usage of scarce urban water. The use of the treated groundwater, representing 62% of the plant's water use, has required more sophisticated control of treatment chemical levels within the cooling water circuit and changes to the operation of the demineralized water unit. The Orica Treatment Plant has a projected life of over 30 years and consequently provides the Solvay site with a long-term sustainable source of non-potable water.

Monterrey, a Mexican site in a very arid area

The site is located in a very arid zone. Consequently, a municipal wastewater treatment plant water recycling project has been promoted and completed with support from Solvay and other local companies. Today, 90% of the site's total industrial water needs (96,000 m³/yr) are supplied via this recycling project, instead of using groundwater. Water issues must nevertheless continue to be managed very efficiently in this area.

Panoli site (India) brings significant water savings

An industrial scheme has been set up to re-use up to 80% of wastewater from the plant, especially as cooling water makeup and boiler feed water. It has been possible to double the PEEK (Polyether ether ketone) production capacity while stabilizing water consumption. This has necessitated an upgrade of the biological treatment unit, several reverse osmosis units, a multiple effect evaporator, and a hardness abatement unit. The quality of the treated water allows for multiple re-uses. Thanks to a treatment and recycling operation, 35% of water is now taken from contaminated groundwater, instead of using good quality surface water.

Water savings in Vernon (United States)

The region is hydraulically stressed and the plant uses large amounts of water supplied by the city. Wash water recycling was successfully implemented in 2012 and 2013 resulting in a 38% reduction in unit water use compared to the base year of 2010. In 2014, however, the confluence of record production volumes and a new product which was resistant to wash water reuse resulted in water use increasing while still achieving a unit reduction of 27%.

5. BIODIVERSITY



5.1 Management of natural areas

G4-DMA on biodiversity

Solvay is committed to reducing the possible impact on biodiversity that result from its operations and the use of its products. As regards operations, Solvay's strategy is to continue reducing all impacts that could affect biodiversity (air and water emissions, water withdrawals) and to manage natural areas around its sites with the objective of developing biodiversity.

As far as products are concerned, Solvay relies on life-cycle assessment tools:

- for water withdrawals (Water chapter of this report);
- for air emissions (Emissions chapter of this report);
- for water emissions (Water effluents management chapter of this report);
- for impact of products via life-cycle assessments (Products and services chapter of this report).

Sites exploiting large areas, quarries and settling ponds develop adapted plans including large-scale management and rehabilitation programs. In particular, the rehabilitation of limestone quarries and settling ponds (for mineral residues) after shutdown has been a continuous process for several decades.

Solvay also owns and maintains large natural areas that are to a great extent protected from housing or road development. The sites concerned manage these areas in a way that contributes to biodiversity protection. The goal is to have these rehabilitated areas recognized and protected as nature reserves.

Solvay is committed to developing collaboration with NGOs and third parties in order to manage natural areas around its manufacturing operations and fosters collaboration with third parties around its sites, for example by allowing farmers or others to use its land.

5.2 Habitats protected or restored

G4-EN13

NATURAL AREAS MANAGED BY SOLVAY

	2015
Site with significant natural areas (>2ha)	30
Natural areas	4,020 ha
Surface managed as "green natural area" (rehabilitation, plantation, etc.)	2,160 ha
Number of trees replanted	> 180,000

Perimeter: Solvay financial perimeter plus all additional manufacturing sites under operational control.

Nature rehabilitation programs on 25 Solvay sites

Multiannual, often large-scale, rehabilitation of natural areas is ongoing on 25 Solvay sites. In particular, the biological rehabilitation of old dikes and quarries on Solvay land has been under way for decades. 2,000 ha of land are being actively managed, and often replanted with trees. Some of these rehabilitated areas are recognized as nature reserves to be protected.

In addition, Solvay owns and maintains natural land around its sites, where biodiversity is most often protected from housing or road development, and this land acts as a natural buffer.

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6. EMISSIONS



6.1 Solvay's management approach

G4-DMA on emissions

Air quality is managed as one of Solvay's high materiality issues in relation to sustainability. Solvay's activities result in a continuous release of airborne pollutants. In particular, as a large chemical manufacturer, Solvay generates directly or indirectly significant amounts of greenhouse gases (GHG) emissions. Those emissions may contribute to global issues (greenhouse gases, ozone-depleting gases), more regional issues (air acidification, photochemical oxidation formation, etc.) or local issues (dust, especially from power generation).

However, as regards greenhouse gases in particular, it has been shown that overall, the GHG emissions of the chemical industry are offset by the emissions avoided thanks to its products (more efficient cars, insulation, lighting, etc.).

Solvay's policy is to protect the environment by reducing emissions, among other measures, and to pursue the goal of doing no harm to people or the planet. All Solvay industrial sites must deploy Group environmental programs and standards, especially in order to comply with environmental quality standards, to avoid environmental infringements and to control and reduce emissions based on impact assessment.

In addition to controlling emissions of GHG with potential impacts on a global scale, Solvay also controls and improves air quality at local and regional level, working in close cooperation with local stakeholders.

In 2015, a Group approach has been launched to better manage the risk linked to emissions of Substances of Very High Concern (SVHC). Priority actions will be reviewed to implement extended risk control by 2020. In 2016, new targets will be set on standards air quality indicators (NO_x, SO_x, Volatile Organic Compounds).

For further information on SVHC management, the reader is referred to the Product responsibility chapter of this report.

In November 2015, Solvay reviewed its sustainability targets. Solvay has set a new long-term objective regarding greenhouse gas emissions: to reduce its carbon intensity by 40% by 2025.

To achieve this ambitious target, Solvay will step up its SOLWATT® energy and carbon efficiency program. The objective is to continuously optimize its industrial processes, to develop clean technologies and to increase the proportion of renewables in its energy production and supply. Furthermore, as of January 1, 2016, Solvay will apply an internal price for CO₂ emissions at € 25 per ton, to take into account climate challenges in its investment decisions.

Solvay has signed the Low Carbon Technology Partnerships Initiative (LCTPI) led by the World Business Council for Sustainable Development (WBCSD) which aims to accelerate the global move towards a low carbon and sustainable world by providing innovative and breakthrough technologies.

An externally verified and structured greenhouse gas emission reporting system and the response to rating agencies such as the Carbon Disclosure Project helps the Group to align its efforts on the effectiveness of its greenhouse gas challenges.

6.2 Direct greenhouse gas emissions (Scope 1)



G4-EN15

GREENHOUSE GAS EMISSIONS ACCORDING TO KYOTO PROTOCOL

		2015	2014	2013	2012
Direct CO ₂ emissions (scope 1)	Mt CO ₂	8.8	8.7	8.5	8.1
Other greenhouse gases (Kyoto Protocol) emissions (Scope 1)	Mt CO ₂ eq	2.6	2.7	2.7	2.6
TOTAL GREENHOUSE GASES EMISSIONS (SCOPE 1)	Mt CO₂eq	11.4	11.4	11.2	10.7

Perimeter: Direct greenhouse gas emissions from Chemlogix activities are not yet reported. In 2015, the greenhouse gas emission of the companies in the financial perimeter represents 85% 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".

The increase in the direct CO₂ emissions is mainly linked to the buy-back of some cogeneration units and thus the internalization of steam and electricity generation that was previous outsourced.

Standards, methodologies, and assumptions used

Definition of indicators for greenhouse gases

The GHG emissions reported by Solvay correspond to the scope of the Kyoto Protocol and comprise the following compounds/compound families: CO₂/N₂O/CH₄/SF₆/HFCs and PFCs. The impact on climate change, expressed as teq CO₂, is calculated using their respective Global Warming Potential (GWP) as defined by the Intergovernmental Panel on Climate Change (IPCC) and also taking into account:

- for CO₂, the reporting of direct emissions includes 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 direct emissions for each GHG released from Solvay's industrial activities (Scope 1 of the Kyoto Protocol).

Source of the emission factors and Global Warming Potential (GWP) rates used

For CO₂, the emission factors of fossil fuels are based on the carbon content of fuels expressed as t C/TJ NCV and then converted into CO₂ by applying the factor 3.664 t CO₂/t C.

The carbon content of the fuels is determined using data provided by the fuel suppliers or data from specific analytical reports. Where no such data are available for a particular site, the following standard values (expressed in t CO₂/TJNCV) are used to convert the quantities of fuels into CO₂ emissions, assuming an oxidation factor of 100%:

- Natural gas: 56.1
- Lignite: 101
- Petroleum coke: 97
- Anthracite: 98
- Coal: 95
- Biomass/biogas: 0
- Fuel oil: 78
- Coke: 101

For other greenhouse gases, the Global Warming Potential (GWP) rates used to convert physical tons of emissions into tons of CO₂ equivalent are those defined by the IPCC in its fifth Assessment Report (AR5). The following conversion factors were used:

- Methane: 28
- HFC134/134a: 1,300
- CF₄: 6,630
- Nitrous oxide: 265
- HFC143/143a: 4,800
- C₂F₆: 11,100
- HFC23: 12,400
- HFC152a: 138
- SF₆: 23,500
- HFC32: 677
- HFC227ea: 3,350
- HFC125: 3,170
- HFC365mfc: 804

Consolidation approach for emissions (Scope 1)

Reporting is based on the World Business Council for Sustainable Development's Guidance for Accounting & Reporting Corporate GHG Emissions.

In the spirit of evolution towards Integrated Reporting, consolidation rules and treatment of historical figures are based on financial reporting rules.

6.3 Indirect greenhouse gas (GHG) emissions (Scope 2)



G4-EN16

EMISSIONS IN ABSOLUTE (MTCO₂)

	2015	2014	2013	2012
Indirect CO ₂ emissions (Scope 2)	2.8	3.0	3.5	3.7

Perimeter: Indirect greenhouse gas emissions from Chemlog activities are not yet reported.

The decrease in indirect CO₂ emissions is mainly linked to the buyback of some cogeneration units and thus the internalization of steam and electricity generation that was previously outsourced.

For indirect emissions (Scope 2), only CO₂ is taken into account.

Source of the emission factors

The indirect CO₂ emissions are linked with the steam and electricity purchased from third parties (Scope 2 of Kyoto Protocol):

- **For purchased steam**, the CO₂ emissions are either calculated with reference to a gas-fired boiler with a global energy efficiency of 90% or a coal-fired boiler (88%) based on the net calorific value. By assuming a specific CO₂ emission factor for natural gas of 56.1 kg CO₂/GJNCV, or a specific CO₂ emission factor for coal of 95.0 kg CO₂/GJNCV, the CO₂ emissions related to purchased steam are equal to either 181 kgCO₂/t or 313 kg CO₂/t, depending on the fuel used to generate the purchased steam.
- **For purchased electricity**, the CO₂ emissions are calculated either with reference to the CO₂ emission factor (CEF) specified in the supply contract or to the CEF published by the power supplier. Where there is no published CEF for the power supplier, the national CO₂ emission factors for electricity generation are used, as published by IEA in the "CO₂ emissions from fuel combustion" statistics, for all countries except the United State of America. For some states of the USA, the CO₂ emission factors for electricity generation are used, as published by the United States Environmental Protection Agency.

6.4 Other indirect greenhouse gas (GHG) emissions (Scope 3)

G4-EN17

EMISSIONS IN ABSOLUTE (MTCO₂)

	2015	2014	2013	2012
Emissions related to downstream transportation and distribution of products	1.0	0.9	1.1	-
Category 15: Investments (including Discontinued Operations)	2.5	3.6	3.7	4.1

Category 15 of the Greenhouse Gas Protocol includes emissions generated during the operation of non-consolidated investments in the reporting year. Scope 1 and 2 emissions from those investments are reported according to the company's stake.

6.5 Greenhouse gas (GHG) emissions intensity



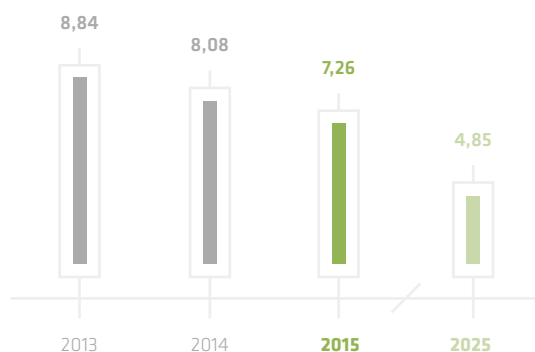
G4-EN18

Solvay's 2025 priority target

- To reduce its greenhouse gas emissions intensity by 40%.

Solvay commits to reduce CO₂ intensity of its operations by 40%, by 2025 that is, its greenhouse gas emissions per added value euro (using the REBITDA as proxy of added value).

GREENHOUSE GAS INTENSITY (IN KG CO₂ EQ. PER € REBITDA)



Perimeter: related to the manufacturing activities of the companies that are currently consolidated (fully or proportionately), Chemlogics excluded. The REBITDA does not take into account C YTEC.

The greenhouse gas intensity indicator takes into account the direct emissions (Scope 1) and the indirect emissions (Scope 2). For Scope 1, all the greenhouse gases from the Kyoto Protocol are included in the calculation, whereas only CO₂ is included for Scope 2.

6.6 Reduction of greenhouse gas (GHG) emissions



G4-EN19

Solvay's former greenhouse gas reduction target was to reduce greenhouse gas emissions by 10% for 2020 at a constant perimeter and volume (base-line 2012). Since 2012, the Group has reduced its GHG emissions by 5% at a constant activity perimeter.

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 has avoided emissions equivalent to 100,000 tons of CO₂ per year since 2011. Since 2012 a portion of the heat from the combustion of the recovered methane has been used in the manufacturing process, bringing additional energy and CO₂ savings;
- in Brazil, Solvay Energy Services has developed and operates a biomass-fired cogeneration unit using sugar cane bagasse.

6.7 Emissions of ozone-depleting substances (ODS)



G4-EN20

EMISSIONS IN ABSOLUTE (TEQ CFC-11)

	2015	2014	2013	2012
Ozone-depleting substances	28.9	40.0	34.3	34.2

Legend: Ozone Depletion: impact indicator quantifying the potential destruction of stratospheric ozone due to the emission of ozone-depleting substances (mainly refrigerants from the HCFC et HFC families).

Emissions of ozone-depleting substances in 2015 were 27.5% lower than in 2014 and 15.3% lower than the 2012 baseline. The change in 2015 is mainly due to much lower emissions of methylchloride at the site of Zhanjiagang Feixiang (China) and of nitrous oxide at Chalampé (France), Onsan (South Korea) and Paulinia (Brazil) due to improved efficiency of N₂O abatement systems. Ceasing to use the R22 refrigerant by several European sites also contributed to reducing emissions.

6.8 NO_x, SO_x, and other significant air emissions



G4-EN21

In addition to site-specific objectives, the Group is pursuing its overall 2020 targets with a view to reducing the emissions of acidifying gases (sulfur oxides, nitrogen oxides) and volatile organics. These key performance indicators are widely adopted around the world in order to track local consequences both for health and the natural environment.

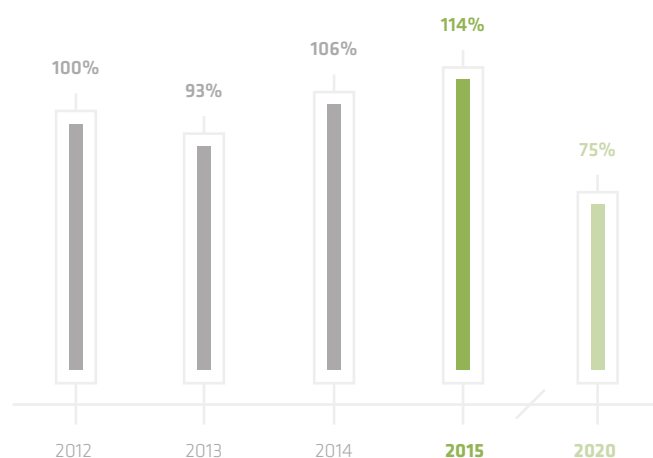
Solvay's 2020 target

- To reduce airborne emissions of substances with an acidification potential (in SO₂ equivalent) by a further 25% (3.1% per year).
- To reduce airborne emissions of substances with a photochemical oxidant formation potential (in NMVOC equivalent) by a further 10% (-1.3% per year).

Performance progress indicators

Acidification

ACIDIFICATION EMISSIONS INDEX BASELINE 100 IN 2012



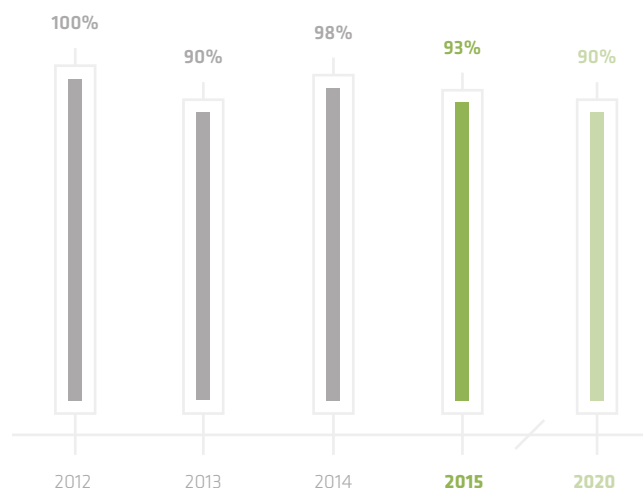
Legend: The acidification index at constant activity perimeter, reflecting acidification emissions according to reCiPe v1.08.

A large part of acidifying emissions stem from energy generation. The acidification impact is 113.8% of the 2012 baseline, against 105.9% of the baseline in 2014. The increase in 2014 is mainly caused by the energy intensive activities of the GBU Soda-Ash & Derivatives with increases in absolute emissions by + 2,557 teq SO₂ (+ 13,4%) while production volumes increased by only 3.9%.

Notwithstanding the recent increases, significant reductions are expected for 2017 and 2018 due to the scheduled start-up of DeSO_x and DeNO_x units on the boilers of Tavaux (France) and Torrelavega (Spain). These projects should allow Solvay to catch up with the projected 2020 target.

Photochemical oxidant formation

PHOTOCHEMICAL OXIDANT FORMATION INDEX BASELINE 100 IN 2012



Legend: Photochemical oxidant formation index at constant activity perimeter, reflecting photochemical oxidant formation emissions according to reCiPe v1.08.

Progress since 2012 (the 2015 index stands at 92.9 % of 2012) is dominated by the contribution of the Soda-Ash & Derivatives business which decreased by - 1518 teq NMVOC (- 14.3 %). So, progress since 2012 is beyond the intermediate target (94.4 %).

By 2020, the index should be brought down to 90 % of the 2012 baseline as several DeNO_x units are planned to start-up by end 2018 with targeted NO_x cuts by around 2000 t/y (equivalent to 2000 teq NMVOC).



A DIVERSIFIED PROGRAM OF ENVIRONMENTAL IMPROVEMENTS AT THE ZHANGJIAGANG SITE (CHINA).

In 2014, innovations enabled the reduction of emissions in the tertiary amine production unit: an innovative acid absorption system and the addition of a control valve on the vent pipe to limit the waste gas flow-rate. This decreased the trimethylamine emissions by a factor of 100. In parallel, a new natural gas boiler replaced an old coal boiler, with lower dust, SO₂ emissions (-12 tons over 3 months) and better control of NO₂ emissions (-4 tons over 3 months). In 2015, another range of improvements was possible:

- An acid scrubber at the dimethylaminopropylamine unit to further reduce odor emissions;
- Additional scrubbing of the amine ether workshop, also for odor emissions;
- A catalyst oxidization facility in the fatty nitril unit to oxidize the VOC to CO₂;
- Waste reduction by a separating catalyst from tertiary residual waste flow (estimated reduction of solid waste by 1,000-1,500 tons per year);
- Further improvement of waste gas in the tertiary amine workshop;
- Water scrubber efficiency improvement leading to reduced H₂SO₄ and NaOH consumption by 60-70%.

Absolute emissions

	2015	2014	2013	2012
Acidification emissions (teq SO ₂)	27,330	25,405	26,848	29,852
Photochemical oxidant formation emissions (teq NMVOC)	19,329	20,360	18,745	19,980
Nitrogen oxides - NO _x (tons NO ₂)	12,270	12,736	11,028	11,548
Sulfur oxides - SO _x (tons SO ₂)	6,594	6,653	10,366	12,023
Non-Methane Volatile Organic Compounds - NMVOC (tons)	6,781	7,158	7,464	7,974
Heavy metals (tons)	4.0	2.1	4.3	4.8
Particulates (tons)	1,645	1,605	1,647	1,490

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.

NMVOC: compounds taken into account are those for which the normal boiling point is inferior or equal to 250 °C. This definition is based on the European Solvent Directive 1999/13EC.

Nitrogen oxides: acidifying gases resulting from combustion processes. Thermal NO (generated from the nitrogen contained in the air used for a combustion process) is generally the biggest contribution. Additional NO can be formed from combustibles containing nitrogen compounds, such as coal.

Sulfur containing combustibles (heavy oils, coal). The sulfur content of natural gas can be neglected.

Dust: particulate materials in gaseous effluents streams.

Heavy metals: emission load to water for the 8 heavy metals belonging to the European E-PRTR list (As, Cd, Cr, Cu, Hg, Ni, Pb and Zn).

Nitrogen oxides (NO_x)

Nitrogen oxide emissions decreased globally by 466 t (- 3.7%) in 2015, due to lower releases at the Brotas power plant, and the soda ash plants in Devnya-Deven (Bulgaria), Rheinberg (Germany) due to lower production rates. In parallel, the cogeneration unit at Torrelavega (Spain) emitted more in 2015. It is planned to equip this unit with a DeNO_x system over the course of 2017.

FOCUS LARGE INVESTMENT TO BETTER CONTROL SO_x EMISSIONS IN DOMBASLE (FRANCE)

The new air treatment installation, aimed at treating the fumes from the power generation of this soda ash plant, have been fully operational since April 2014 after 11 months of construction. Results are impressive for NO_x, SO_x and Dust. The DeNO_x treatment, based on a selective non-catalytic reduction process has reduced emissions by 25% of NO_x. As regards SO₂ emissions, performance obtained in 2014 was confirmed (-70%).

Finally, the most dramatic results were obtained with the new bag filters (DeDUST) coupled with DeSO_x: dust emissions have dropped by 95%.

Sulfur oxides (SO_x)

Sulfur oxide emissions were nearly stable in 2015. In fact, there were rather large reductions in Tavaux (France), Dombasle-sur-Meurthe (France), Devnya-Deven (Bulgaria) and Zhanjiagang Feixiang (China), while emissions increased in Torrelavega (Spain), Devnya-Sodi (Bulgaria) and Rheinberg (Germany).

In Tavaux and Zhanjiagang, reductions resulted from the shutdown of coal boilers, in Devnya due to lower energy production, while in Dombasle reductions were possible in 2015 thanks to the full availability of the desulfurization unit that was implemented in 2014. The increase in Torrelavega (Spain) stems from the unavailability of coal with a low sulfur content due to the political crisis in Ukraine, in which had a similar effect in 2014. In Rheinberg cost-optimizations in the operation of the DeSO_x system led to higher emissions while complying with the operating permit.

Non-Methane Volatile Organic Compounds

The global decrease in the NMVOC indicator (- 376 t compared to 2014 or -5.3%) was due to production slowdowns or shutdowns on several sites of the Acetow, Coatis and Novecare businesses. A small increase took place at the Panoli (India) site following increased production output. In parallel, increases took place at the sites of Green River (US, 178t).

Heavy metals

The measurement of heavy metal emissions to air remains imprecise due to sampling variability and low frequency of measurements at the top of stacks. In comparison to 2014, emissions of heavy metal to air increased by 1.9 t (85%) in 2015. This very important increase is almost entirely due to higher zinc emissions from the power plant in Devnya-Deven (Bulgaria), which can be attributed to the increased use of coal and pet-coke (petroleum coke) this year.

At the same time, lower emissions were obtained at Dombasle-sur-Meurthe (France) thanks to the new bag filter as part of the recently installed gaseous effluent treatment system on the coal boilers. The assessment of emissions of heavy metals to air is part of Solvay's SVHC strategy, which has the objective of mitigating significant risks within the next two years.

Particulates

Emissions of particulate matter ("dust") increased slightly (+ 40 t or + 2.5%) in 2015. This is due to several reasons with opposite effects. The largest increase comes from power generation at Brotas (Brazil) where the sugar cane waste fuel burnt contained higher amounts of sand than usual. At the site of Bangpoo (India) a dirty stack on a hot oil boiler caused increased emissions. Decreases were obtained in Zhanjiagang Feixiang (China) following the shutdown of a coal boiler, and in Dombasle (France) thanks to the bag filter on the new DeSO_x system.

Other air parameters

Many sites have continued to improve other parameters of air quality. Local pollution prevention programs are in place, including those for local nuisances such as dust or odors, with dedicated control programs under way in 70 sites.

7. EFFLUENTS AND WASTE



7.1 Solvay's management approach

G4-DMA on effluents and waste

• Water effluents

Solvay strives for continuous improvement of quality in aqueous effluents, focusing on substances with a significant impact on aquatic fauna and flora. Industrial sites deploy programs regarding aqueous effluents:

- emission control and reduction;
- compliance with environmental quality standards;
- avoiding environmental infringements;
- impact assessment programs and controlling the emissions of hazardous substances (SVHC).

• Hazardous and non-hazardous industrial waste

The Group is willing to reduce industrial waste and in particular hazardous industrial waste and maximum recovery of materials or energy. For waste streams handled by third parties, Solvay's policy is to contract only registered and specialized waste management companies.

Solvay's policy is also to focus on the reduction of industrial waste and especially hazardous industrial waste; to limit landfill of hazardous waste to a minimum, aiming at zero landfill in the long run, by recycling or producing secondary raw materials and to maximize the recovery and recycling of residues whenever technically and economically possible in order to improve resource efficiency (raw materials).

Taking into account technical and economical feasibility, Solvay's manufacturing operations apply the following hierarchy in waste management;

1. By priority and when possible using intrinsically waste-free technologies or source reduction;
2. Recycling and reuse;
3. Material recovery, energy recovery;
4. Treatment before landfilling in absence of any alternative.

Sites promote internal reuse and recycling: regeneration of solvents and oils, recycling of catalysts, recovery of organic chlorinated waste, use of ammonium nitrate byproduct as fertilizer, recycling of silica and silicate sludge in cement production etc.

• Soil contamination

Soil management is vital to Solvay. As with many other industrial companies, Solvay has to manage past soil contaminations from its own or from acquired activities. Environmental legacies are managed so as to control risks for the

underground water. Assessing soil conditions is a key step in order to define and implement the most appropriate treatments in case of soil contamination. Whenever needed, the sites concerned have been investigated.

Solvay policy is to prevent soil contamination; to characterize soil conditions whenever needed in the sites concerned, whether active or closed and to manage the impact of soil or groundwater contamination in the surroundings of the Group's sites.

7.2 Water effluents management



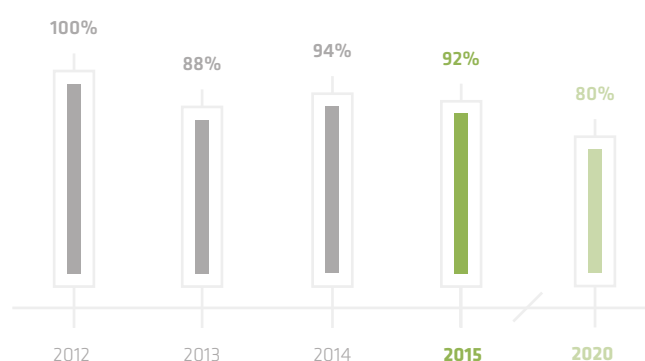
G4-EN22

Solvay's 2020 target

- To reduce water emissions by a further 20% (-2.5% per year) for substances with an eutrophication potential (in PO4 equivalent).

Performance progress indicator

EUTROPHICATION EMISSION INDEX



Legend: Eutrophication emission index at constant activity perimeter according to Method ReCiPe v 1.08 - 2013

The Eutrophication index improved very slightly in 2015 (0.6%) and is 6.3% lower than the reference year 2012. One third of the targeted improvement has been achieved so far.

Absolute emissions

	2015	2014	2013	2012
Eutrophication (tons PO ₄)	3,244	3,301	2,981	3,670
Chemical Oxygen Demand (tons O ₂)	8,852	9,069	9,379	10,501
Nitrogen (tons)	5,333	5,685	5,054	6,326
Phosphor (tons)	264	233	213	256
Heavy metals (tons)	79.0	74.4	76.7	83.8

Legend: The impact category "Eutrophication" is 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.

Eutrophication

In 2015, the absolute eutrophication indicator decreased by 63 teq PO₄ or 1.9%. This is the consequence of higher emissions in total phosphorous (+ 33 t or + 101 teq PO₄), partially compensated by significantly lower total nitrogen releases (-358 t or -150 teq PO₄).

Chemical Oxygen Demand

Emissions to water of substances contributing to the Chemical Oxygen Demand (mainly organic substances) decreased by 217 t (- 2.4%) in 2015. Decreases were due to the following factors:

- in Vernon (United States): lower production rates,
- in Santo-Andre (Brazil) : shutdown of the Novecare business,
- in Baton Rouge (United States) : higher efficiency of the waste water treatment unit.

Nevertheless, emissions were higher at the plants of Alexandria (Egypt), Devnya-Sodi (Bulgaria) and Gorzow (Poland) in 2015.

Nitrogen

Emissions of nitrogen-containing substances, mainly ammonia from soda ash plants, decreased by 358 t or 6.3% in 2015. The plant in Alexandria (Egypt) succeeded in drastically controlling emissions thanks to a new distillation column. A small improvement was also obtained in the soda ash plant of Torrelavega (Spain). In 2015, the soda ash plants of Rosignano (Italy) and Devnya-Sodi (Bulgaria), experienced technical problems in the distillation installations, resulting in increased emissions. Other, smaller increases at the Performance Polyamides platform of Chalampé (France) were caused by increased production volumes.

Phosphorus

Emissions of total phosphorus increased by 31 t (+ 13%) over 2014. This is mainly due to higher releases by the soda ash plants in Rosignano (Italy) and Torrelavega (Spain), both due to a lower quality of the natural limestone used as a raw material this year (higher impurity levels, including phosphorus). In parallel, the Oldbury (United Kingdom) site, closed its Aceto Di-Phosphonic Acid plant and consequently reduced emissions.

Heavy metals

The heavy metals to water index increased by 4.6 t or 6% in 2015. This increase results from higher emissions from the soda ash plant in Rosignano (Italy), lower emissions from the soda ash plant in Torrelavega (Spain) and lower releases of zinc from the specialty polymers plant in Spinetta Marengo (Italy).



MEGA PLANT PEROXIDE ALLOWING MINIMAL IMPACT IN DOWNSTREAM PRODUCTION OF PROPYLENE OXIDE

With a capacity exceeding 300,000 metric tons per year and a planned start up in 2016, the new hydrogen peroxide megaplant being built at Sadara's chemical complex in Jubail Industrial City II will be the first hydrogen peroxide facility in the Saudi Arabia.

The manufactured hydrogen peroxide will supply the propylene oxide plant nearby. The process avoids the generation of by-products such as propylene dichloride and styrene monomer. The environmental benefits of the plant when compared to traditional PO production technology include reduction of wastewater by about 80%, decrease in energy consumption by about 35% and less requirement for physical footprint and infrastructure.

7.3 Total weight of waste by type and disposal method



G4-EN23

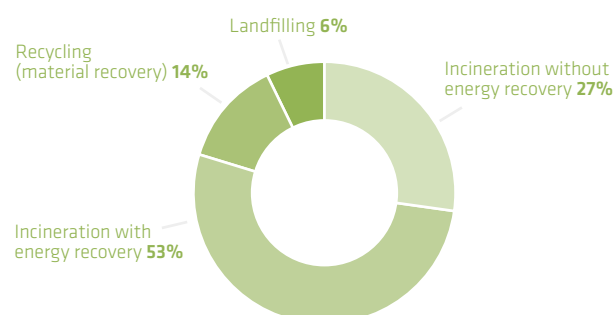
Waste management

89 sites have a waste action plan, with 66 planning to further reduce landfill waste with a priority and targets set for hazardous industrial waste.

Recovery of hazardous waste

The graph below shows the breakdown in 2015 of the different treatment options for hazardous industrial waste. Overall recovery stands at 67% while landfilling represents 6% of the total. In comparison to 2014, material recovery slightly diminished from 17% to 14%.

HAZARDOUS INDUSTRIAL WASTE BREAKDOWN BY DESTINATION



Solvay waste reporting rules

Solvay is focussing on industrial waste, i.e waste from our regular production activities, excluding construction & demolition waste, domestic waste and mining waste which is considered as a special category. The distinction between hazardous and non-hazardous industrial waste is based upon the European Waste Framework Directive 2008/98/EC. For liquid effluents, eliminated batch-wise to external facilities, the weight is expressed as dry matter (water is excluded).

Non-hazardous industrial waste

When it comes to non-hazardous waste, Solvay's high-capacity soda ash plants in particular (almost 5 million tons per year of soda ash manufactured by Solvay in Europe) generate large quantities of non-hazardous mineral inert waste. The composition of this waste, mainly sands and clays, depends on the type of limestone (CaCO_3) used as raw material and includes some metals. Limestone not transformed in the process is also present in the waste as well as limited amounts of calcium sulfate (CaSO_4).

These materials do not represent any significant environmental or health risk. As their volumes cannot be reduced, they are stored in areas close to Solvay's manufacturing sites. Subsequently these storage areas are rehabilitated with adapted plant species and may become protected natural reserves, due to their biodiversity, in Belgium, France and Italy.

Mining waste

To be noted that the strong decrease of the quantities of mining waste is due to the divestment of the Ojivarongo mining site in Namibia.

Most production residues from mining operations are non-hazardous waste, mainly limestone fines, other minerals accompanying the fluorite and barium strontium ores and oil shale. The non-hazardous mining waste is inert and is generally back-filled in mining cavities. The variability of ore quality has a significant impact on the quantity of mining waste.

Organic chlorinated and fluorinated waste

This type of waste is most often thermally destroyed in Solvay installations with very high environmental performance specifications, generally recovering the waste materials into hydrochloric and hydrofluoric acids to be re-used as secondary raw material. These units (Frankfurt, Porto Marghera, Tavaux) are also able to recover post-use (chloro) fluorocarbon products and SF6 recovered from customers. Policies exist promoting the development of collection schemes for SF6.

FOCUS RECOVERY OF NICKEL FROM INCINERATION EFFLUENTS IN CHALAMPÉ (FRANCE)

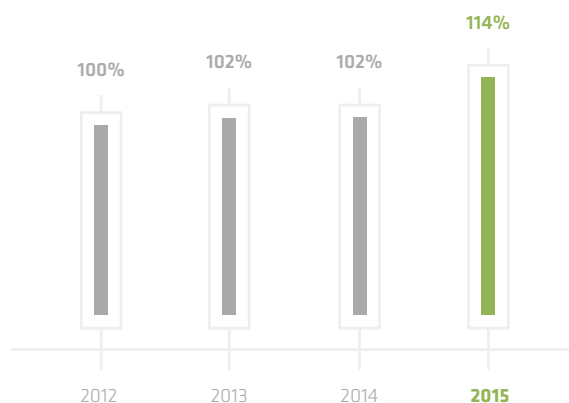
In the past decade, this site has succeeded in increasing the recovery of nickel from its liquid effluents. These effluents result from the washing and quenching of incineration fumes (themselves resulting from the destruction of around 60,000 tons per year of waste containing nickel catalyst residues). This liquid waste is regularly sent to a third party for further treatment. Thanks to a new way of handling the waste flows by both partners, it is now possible to recover most of the nickel present in the liquid effluent, amounting to several hundred tons of nickel recovered per year. In 2014, the full completion of this waste management scheme resulted in an additional reduction of landfilled hazardous waste by 2,250 tons for the Chalampé site. In 2015 however, this recovery route has been limited, leading to more landfill again.

Solvay's 2020 target*

- To further reduce hazardous industrial waste going to landfill by 10%.

** Base 2012 at constant activity perimeter*

LANDFILLED HAZARDOUS INDUSTRIAL WASTE



Legend: Hazardous waste - EU : waste which displays one or more of the hazardous properties listed in Annex III of Directive 2008/98/EC / For countries outside Europe: according to local regulations.

The index at constant activity perimeter for for landfilled hazardous industrial increased to 114% above 2012.

The relative quantity of hazardous industrial waste which was land-filled over 2015 is 114 % in comparison to the 2012 baseline which corresponds to further degradation with respect to 2014 (101.7 %).

The evolution in 2015 is mainly due to the fact that a nickel containing waste from the Chalampé - Butachimie (France) plant, which was alone responsible for 15 % of the hazardous industrial waste from the Group in 2014, was again landfilled instead of being recycled. The loss of this material recovery route was the consequence of a much lower nickel price on international markets. More hazardous industrial waste went to landfill in 2015 (+ 2.26 kt, + 18%). This global increase is the resultant effect of increases for the Specialty Polymers (+ 3696 t) and Performance Polyamides (+ 1343 t) businesses, and improvements for Special Chem (- 699 t) and Soda Ash and Derivatives (- 675t). Smaller improvements or deteriorations took place in other businesses.

Compared to 2012, our landfilled hazardous industrial waste increased by + 3,848 t (+ 36%).

ABSOLUTE VOLUMES (1000 TONS)

	2015	2014	2013	2012
Total non-hazardous industrial waste	1,475	1,644	1,520	1,414
Total hazardous industrial waste	225.4	217.8	214.3	240.7
Landfilled hazardous industrial waste	14.59	12.33	13.28	10.74
Mining waste	576	2,328	2,684	2,599

Legend: Reported figures focus on industrial waste, i.e waste from our regular production activities, excluding construction & demolition waste, domestic waste and mining waste which is considered as a special category. The distinction between hazardous and non-hazardous industrial waste is based upon the European Waste Framework Directive 2008/98/EC. For liquid effluents, eliminated batch-wise to external facilities, the weight is expressed as dry matter (water is excluded).

Non-hazardous industrial waste

The amount of non-hazardous industrial waste produced by the Group decreased by 169kt or 10.3% in 2015. Higher waste volumes were generated in Alexandria (Egypt) due to exceptional maintenance operations, but lower volumes were generated at Green River (US) due to the enhanced use of recycled decahydrate and lower amounts at Devnya (Bulgaria) and Bernburg (Germany) resulting from lower production output this year.

Hazardous industrial waste

Compared to 2014, the amount of hazardous industrial waste increased slightly (+ 7.6 kt or + 3.5 %). Many changes result from variation in production output (in Chalampé (France), Linne Herten (Netherlands), La Rochelle (France), Salindres (France). In La Rochelle reduction were obtained via external recovery and reuse of ammonium nitrate.

7.4 Preventing spills and protecting subsoil



G4-EN24

Solvay's 2020 target

- To prevent accidents with environmental consequences, deploying the Process Safety Management (PSM) approach.
- 100% of our sites have a risk analysis for every production line, that has been updated in the previous five years.

• Process Safety Management (PSM)

All the 125 industrial sites (7 R&I sites excluded) have or are developing an ad hoc Process Safety Management system adapted to their risk level: classified from level 1 (low) to 3 (high), depending on their potential hazards. 96 sites already have a dedicated PSM system, corresponding to their risk level, fully in place, representing 84% of sites compliance level. PSM systems are key to avoiding major accidents.

For more information on PSM are provided in the Process safety, emergency preparedness and response chapter of this report.

Adapted risk analysis

Solvay has developed tiered risk analysis method for processes, adapted to the levels of potential hazard. This encompasses in particular a simplified method for conducting risk analysis on sections of chemical processes with low potential hazards. This method has been successfully implemented for Soda Ash processes with identification of low risks with at least seven sites within Solvay. This achievement is due to the high efficiency of the method.

Since 2014, Solvay classifies and reports all process safety incidents with environmental consequences according to a scale based on various criteria (volume of spills, nature of substances, etc.).

INCIDENTS WITH ENVIRONMENTAL CONSEQUENCES BY SEVERITY

	2015
Medium	54
High	0
Catastrophic	0

Perimeter: Solvay group manufacturing and R&I sites under operational control. The consolidated data for process safety incidents cover 99 sites out of a total of 132 operational sites.

No significant spills at High level occurred in 2015. Reported incidents were mainly due to events that resulted in exceeding the operating permit limits. The incidents resulted with non significant or limited effects restricted to the immediate vicinity of the sites.

Using CEFIC definition of Reportable Process Safety Incidents which also includes events where the release did not reach the natural environment, called "Loss of Primary Containment LoPC", 169 incidents took place in 2015.

The corrective actions and more generally the prevention of accidents are undertaken as an intrinsic part of the site's PSM systems. In application of the PSM practices, lessons stemming from the analysis of all serious or potentially serious process safety incidents have been shared across the Group in a dedicated monthly newsletter distributed in 15 languages.

In order to manage risks on new projects, Solvay has defined intrinsic HSE requirements to be taken into account during the design of installations. A dedicated Group procedure describes how a process safety file for an investment project is drawn up, as part of the overall process for "HSE Reviews and Assessment of Investment Projects".

8. SOIL MANAGEMENT



8.1 Protecting subsoil from contamination



Solvay has continued to manage soil contamination from historical or acquired activities. Soil environmental legacies are managed in order to protect health and the environment, with a long-term vision and at controlled cost.

Solvay's policy aims to prevent soil contamination; to characterize soil conditions whenever needed, in both active and closed sites and to manage soil and/or groundwater contamination in the surroundings. Assessing soil conditions and risk is always taken as a key step in selecting the most appropriate management measures.

ENVIRONMENTAL PROVISIONS

	2015	2014	2013	2012
In € million	723	713	636	800

Legend: the provisions are reviewed on a quarterly basis in accordance with the IFRS norms. The Chemlogics provisions are included.

Solvay manages environmental financial provisions, mainly dedicated to the management of soil contaminations, using a long-term vision. Financial provisions have increased by € 10 million in 2015 compared to 2014. This is mainly due to financial factors (discount and exchange rates) and perimeter changes. The increase from 2013 to 2014 was mainly due to the development of new and ongoing projects, some of which were impacted by a change in regulations.

FOCUS SUCCESSFUL SOIL REMEDIATION: NEW IN SITU TECHNOLOGY IN MULHOUSE (FRANCE)

After 115 years of operation, the site of Dornach near Mulhouse ceased activities in 2007. Over the years, a range of chemicals from organic intermediates for human and animal health, to cosmetic products, crop protectants, etc. have been manufactured there. Groundwater pollution had been detected in the 1980's. Since 1986, a hydraulic containment system has been operating continuously to capture the underground flow of contaminants to prevent them from leaving the site.

Following the closure of operations and after all industrial buildings and equipment were dismantled or demolished, a detailed survey allowed the accurate location of the contaminated "source areas" in the soil at the origin of the groundwater contamination. The best remedial option ("thermally enhanced soil gas extraction") was selected based on a cost benefit analysis. A contaminated "source area" is heated: This volatilizes the contaminant which can then be recovered via a soil gas extraction system and sent to a treatment unit above ground. In 2015, a pilot of 270m² of land (1,300m³ of soil) was successfully operated, thereby demonstrating the efficiency of the technology which will be applied to all "source areas" in the zone concerned (2000m² including the pilot). The objective is to rehabilitate the site for future industrial use.

63

There are two ongoing Research and Innovation projects with universities, research institutes, and other companies:

- In Tavaux (France), the Silphes project on the recovery of water-insoluble chlorinated compounds has delivered result; the pumped contaminants are then destroyed in the site incinerator. The next step will be to evaluate technologies to remediate residual contamination that cannot be removed by pumping.
- Solvay takes part in the collaborative European Nanorem project, on the use of nano-iron particles to chemically reduce contaminants (such as chlorinated solvents or Chromium VI). Interesting results were obtained on chlorinated solvents when tested on one of Solvay site. Nanorem is aimed at taking nanotechnological remediation processes from lab scale to end user applications for the restoration of a clean Environment. It is funded through the European Commission. It focuses on facilitating practical, safe, economic and exploitable nanotechnology for in situ remediation.

Both projects will provide more insight on technological performance, under a variety of conditions thus providing guidance for optimal application.

9. PRODUCTS AND SERVICES



9.1 Environmental impacts of products: Life Cycle Assessments (LCA)

G4-DMA on products and services

Solvay has a strong commitment to hold environmental assessments based on LCA methodologies for all products. Standardized Life Cycle Assessments (LCA) supply a reliable, unbiased image of products' environmental footprint. Solvay applies LCA methodologies according to international standards; Norm ISO 14040, ISO 14044 and ISO 14046.

Understanding these impacts is key to improving and communicating the environmental performance of Solvay's products. These cradle-to-gate LCAs feed Solvay's portfolio sustainability strategic analysis based on the Sustainable Portfolio Management (SPM) tool. They are thus used extensively to assess the business's orientation to sustainability, by assessing the Environmental footprint criteria of the SPM tool.

For more details about SPM is provided in the Sustainable business solutions chapter of this report.

Solvay LCA program

Extensive cradle-to-gate LCAs are established for 94% of products placed on the market by turnover share. The running target is to have cradle-to-gate LCAs also called ecoprofiles for:

- all major products of the business portfolio;
- any product with sustainability-critical characteristics;
- any new project related to product or process.

ENVIRONMENTAL PROVISIONS

	2015	2014	2013	2012
Percentage of turnover generated with product having an LCA (cradle-to-gate)	94%	88%	77%	67%

Perimeter: SPM operational perimeter. Entities are fully consolidated or proportionately consolidated in the case Solvay isn't the sole owner.

FOCUS FIVE DELIVERABLES FOR SOLVAY'S PROGRAM

1. Comprehensive, benchmarkable, overall mappings of the overall environmental impacts related to the manufacturing of Solvay's product portfolio, including raw materials.
2. Customized LCAs to provide data to customers.
3. Assessment of R&I projects towards sustainable solutions and eco-design.
4. Refined LCA methodologies via collaborative programs within the LCA world community.
5. Development of LCA metrics for social aspects.

Assessing the R&I portfolio and other studies

100% of new research & development projects are assessed for environmental impacts. An enriched version of the SPM assessment tool specifically designed for products and applications still under development, benefits from the experience gained during several years in innovation project management. Assessing R&I projects helps to "eco-design" the research portfolio, regarding environmental impacts at the manufacturing stages and regarding the alignment of the project with sustainability megatrends in the market.

As regards full environmental impacts (cradle-to-grave), ad-hoc customized extensive studies are undertaken for and with customers and submitted to peer review. For example, Solvay has completed the calculation of the full environmental footprint of automotive parts made from engineered plastics.

Studies by Solvay's LCA team are reviewed by an independent panel of experts on a regular basis to check consistency with current standards and norms and current practices in the LCA community.

In 2015, Solvay took part in the calculation and publication of a series of LCA studies focused on assessing avoided emissions enabled by chemical products, in compliance with the newly-defined World Business Council for Sustainable Development (WBCSD) guidance. A range of cases were addressed: lightweight car parts, building insulation, energy-efficient lighting and so on.

Solvay takes part in world class LCA platforms

To ensure a high level of internal expertise, Solvay participates in collaborative platforms on LCA methodologies:

- a high level research platform on LCA methodologies: coordinated by Cirai (LCA expertise center based in Polytechnique, Montréal, Canada, supporting the "International Chair on LCA") via a five-year program 2012-2017 with 13 industry partners;
- ACDV: Association Chimie du Végétal in France;
- Plastics Europe: longstanding collaborative work on LCA;
- the platform SCORE LCA: created in March 2012 to promote collaboration between industrial, institutional and scientific actors to foster positive development, shared and recognized at European and international levels of overall environmental quantification methods, particularly the life cycle assessment (LCA);
- World Business Council for Sustainable Development (WBCSD) LCA projects;
- the organization committee for "LCM 2016" and "LCM 2017" international conferences on Life Cycle Management.

A research thesis is currently being funded and steered by Solvay at the University of Bordeaux in the field of recycling processes and how they have to be modeled from a scientifically based LCA point of view. Solvay was also engaged in 2015 in pioneering the definition of social metrics for LCA (S-LCA), in the framework of a WBCSD industrial platform.

Through those participations, Solvay:

- establishes long term collaboration and benefits from world-level expertise;
- engages experts on the evolution of life cycle assessment tools and methodologies and enriches its own sustainability assessment tools (LCA methods, SPM, etc.);
- consolidates internal knowledge on methodologies for social impacts, bio-sourcing, water footprint, and life cycle thinking approaches;
- remains at the forefront of best practices and exchange on cutting edge issues.

FOCUS CLIMATE CHANGE: LIFE CYCLE ASSESSMENT OF CHEMICAL SOLUTIONS BY ICCA

Solvay has taken part in a WBCSD collaborative platform in establishing a high-level guidance on how to calculate emissions of greenhouse gases avoided using a given technical solution. The guidance, established in 2014 by a collaborative team, was published by the ICCA (International Council of Chemical Associations). In applying this guidance, a series of case studies have been submitted to ICCA by chemicals companies in 2015. Solvay contributed with a case study prepared on vehicle lightweighting by replacing metal parts with engineering plastics.

9.2 How Solvay mitigate the impact of environmental impacts of its products

G4-EN27

As a chemical company, Solvay sells products that are most often only a part of the final product. Many actors along the value chains have their role to play in chemicals being transported, stored, used and disposed of safely, both for people and the environment. In this respect, Solvay is active in;

1. establishing ecoprofiles of its products,
2. deploying product stewardship programs,
3. recycling end-of-life products and
4. supplying adequate information to ensure the safe handling and uses of products by the downstream users - a key feature of risk mitigation when dealing with chemicals along the value chains.

9.3 End-of-life product recycling

G4-EN28

Quantitative indicators for end-of-life recycling cannot be established due to the diversity of products, applications and initiatives, and due to the dependency on the many other players in the value chains. Solvay takes part in developing recycling technologies but of course Solvay is usually just one player among a number of others in a given recycling value chain.

A large part of hazardous waste is recycled or recovered as an energy source, most often internally by Solvay. For Solvay's own manufacturing waste, details are provided in the Total weight of waste by type and disposal method chapter of this report.

For renewable raw materials, more details are provided in the Materials chapter of this report.

Solvay's policy is:

- To develop and promote new technological recycling processes: The strategy is to apply its know-how to the development of new or improved technologies;
- To encourage the establishment of waste management schemes involving collection, recovery and recycling of waste at regional and national levels;
- To contribute to the re-use of secondary raw materials (urban mining, industrial ecology, bio-sourcing, etc.), taking into account the overall life-cycle assessments.

Many chemicals manufactured by Solvay are consumed and transformed during their use and can therefore not be recycled. Others are indirectly recycled. For example, Soda ash (sodium carbonate), a significant constituent of glass ($\pm 20\%$), is recycled indirectly via the very efficient glass recycling schemes.

Action for key Solvay products

In 2015, Solvay has continued a range of recycling initiatives. However, in 2015, it should be noted that the decision was taken to terminate the rare earth recycling activity, due to significant price depression in the world market for these materials.

SOLVAir®: recycling residues from acid fumes neutralization by sodium bicarbonate in waste incinerators

The depollution process developed by Solvay in order to neutralize acidic flue gases in waste incinerators is successfully used at many municipal waste incinerators, coal-fired power plants and by other industries in Europe and the USA. In addition, for the past 15 years Solvay has been recycling salt residues recovered from the use of the neutralizing reagent sodium bicarbonate. Solvay now has a 100,000 tons/year recovery capacity for these wastes. The purified sodium chloride brine thus recovered is then recycled in soda-ash manufacture, replacing "virgin" salt. The SOLVAir® service, which takes back the salt residues and purifies them, is performed at installations in France (Resolest®) and Italy (Solval®). Both now have a 50,000 tons capacity, with a recent authorization for capacity extension in Italy.

Solvents made from recycled feedstocks

To manufacture the solvents Rhodiasolv RPDE and Rhodiasolv IRIS, byproducts from the manufacturing of adipic acid and adiponitrile are used as key raw materials. This allows the maximization of the use of petrochemical feedstock/recycling waste streams. These solvents, and derivatives manufactured from them, have grown strongly over the last 2-3 years. They continue to grow in a number of applications. By example, they are used in applications such as industrial cleaning, coatings and agrochemicals where they are replacing solvents such as NMP, acetone, dichloromethane that have come under HSE pressure for health, environment or safety reasons.

Sulfur hexafluoride (SF6)

Solvay Fluor offers a worldwide recycling service for SF6 in Bad Wimpfen (Germany) and in Onsan (South Korea). The United Nations Framework Convention on Climate Change (UNFCCC) has recognized Solvay's SF6 recycling efforts and registered a particular SF6 recovery and reclamation Clean Development Mechanism (CDM) project in South Korea. SF6 is a highly efficient, highly valued insulating gas for medium and high voltage equipment. SF6 serves to simplify the design of switchgears, mainly through size reduction, quietness, and reliable handling and maintenance. As SF6 has a very high Global Warming Potential (GWP), its emissions must be carefully avoided. Thus the Solvay SF6 Re-Use Process – available to all users – is one of the main backbones of industry efforts to avoid emissions of this high GWP gas and convert it to new virgin product exceeding all industry specifications.

Via the Solvay SF6 Re-Use Process it is possible to re-process basically all returned volumes into new, virgin SF6 with only a minor portion still needing be incinerated due to unacceptable contamination levels (less than 1% of returned material). Through the treatment of used SF6 within Solvay's Re-Use Process, emissions of more than ca 18 Mio tons of CO₂ equivalent have been avoided to date.

Recycling of fluorinated/chlorinated hydrocarbons (CFCs, HCFCs, HFCs)

At a high-temperature facility in Frankfurt (Germany), Solvay offers users a recovery service for end-of-use ozone-depleting CFC (chlorofluorocarbon) and HCFC (hydrochlorofluorocarbon) gases, as well as HFCs (hydrofluorocarbons). To prevent releases into the atmosphere, these gases are regulated and emissions should be avoided. To this end, Solvay's unique installation is operated in accordance with the requirements of the European Union Waste Directive in order to produce secondary raw materials (hydrofluoric and hydrochloric acids) that can be recycled in industrial processes. Quantities of CFCs from old refrigerators returned to Solvay's Frankfurt facility have shown a downward trend in recent years. However, the disposal of recovered refrigerants will again supply Solvay's facility with increasing quantities of recovered R22, an HCFC that was brought onto the market in new air-conditioning and refrigeration systems until end of the 1999. In the long term, it is expected that HFCs and their blends from other applications will also increasingly be recovered and recycled, as a legislative proposal is expected to gradually phase down sales of HFCs on the European market.

Recycling technical textile waste

Solvay's Move4earth™ project for recycling technical textile waste from post-industrial sources is well on target. Validation of the technologies has been completed and construction is underway for an industrial-scale facility to become operational in 2016 at the project site in Gorzów, Poland.

The Move4earth™ project is one of several Solvay initiatives supported by the European Commission as part of its LIFE+ program. The project focuses on designing, implementing and validating an innovative recycling process designed to revalue technical textile waste, initially from airbags, into high-quality polyamide 6.6 (PA6.6) grades with reduced environmental impact to complement Solvay Engineering Plastics' Technyl® Force portfolio of engineering polymers.

Termination of rare earth recycling activity

Rare earths consist in 17 nonferrous natural elements present in the earth's crust as ore. Solvay has developed numerous innovations based on rare earths which are at the heart of many everyday applications (flat screens, energy-saving lamps, automotive pollution control, high precision optics...).

The recycling activity was launched in 2011, in a context where the supply of rare earths was deemed strategic and sensitive, due to China's near monopoly and to the high price of these resources. Solvay had therefore developed a novel method to recover rare earths contained in used fluorescent or low-energy lightbulbs.

Yet, since 2013, the end of the China export quota system, and the substitution of phosphor lamps by LED lamps that contain almost no rare earths, significantly depressed prices for rare earths and made recycled materials non competitive vs mined rare earths that are now abundantly available. The termination by the end of the year of both production plants of Saint-Fons and La Rochelle is being considered.

10. TRANSPORT



G4-DMA on transport

The environmental impact of transporting products and materials for Solvay's operations are mainly the potential environmental (and health) consequences of accidents possibly occurring during transportation, as well as greenhouse gases emitted during transportation.

• CO₂ footprint of transport

For the first time we are able to publish the CO₂ footprint on transportation for all of the Solvay group's GBUs. For more details, the reader is referred to the indicator G4-EN17 on page 60.

• Safety

Numerous laws regulate the transport safety and storage of chemicals. Chemical producers work with scores of international, national and local regulators and with transportation partners to ensure reliable delivery and transportation safety. When faced with transportation risks, chemical companies in general and Solvay in particular rely on sophisticated technologies and decades of safety and security expertise to deliver their products safely by barge, pipeline, rail and truck.

In 2015, a total of 117 events during transport and distribution were reported at Group level, with 33 level Medium and 84 level Low accidents. Despite an equivalent number of Medium accidents between 2014 and 2015, it is important to highlight that no level Catastrophic or High severity accidents were reported in 2015.

In 2015, the program to reinforce prevention initiated in 2014 has been pursued, including:

- Selecting logistics service providers: Solvay continued to rely on a variety of schemes to select transporters;
- Developing a global network of Dangerous Goods Safety Advisers (DGSA) in all geographical areas. To select advisers, an internal certification process has been set up based on macro-tasks related to transport safety;
- Reinforcing "Emergency Preparedness and Response" plans in Solvay's plants which also encompasses off-site emergencies related to transport and distribution, including periodic simulations and emergency-response training sessions.

Corrective actions like the lesson-learning events arising from transport accidents have supplemented these preventive actions. Both preventive and corrective actions contribute to reducing the risk incurred by the transport of products linked to Solvay's operations.

10.1 Transport safety management

G4-EN30

ACCIDENT DURING TRANSPORT AND DISTRIBUTION

	2015	2014	2013
Low	84	124	185
Medium	33	33	22
High	0	3	0
Catastrophic	0	0	0
Total	117	160	207

Legend: Since 2013, a new method for reporting transportation accidents was defined for the whole new Group, according to a 4 level scale. Transport accidents reported encompass accidents occurring all along the logistics chain (from the shipping site to customers or to the disposal sites in the case of waste) and for raw materials when Solvay is the charterer. The reported events are the incidents that occurred at Solvay premises or those that have been reported by transporters and third parties to Solvay.

Selection of logistics service providers

Road transport of dangerous goods

For many years, Solvay has been relying on the European Safety and Quality Assessment Systems, run by CEFIC to assess the safety, security, quality and environmental standards of its European logistics service providers (road and rail transport of dangerous goods).

The global qualification process for road transport companies transporting dangerous goods for Solvay, first defined in 2014 for Europe, has been extended in 2015 with the development of similar processes in the North American Zone, the Latin America Zone and the Asia Pacific Zone and for China.

This qualification process is in line with Solvay's "Red Line" for the Supply Chain. This qualification assessment will be used to push for improvement actions by transporters.

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Bulk sea transport of dangerous products (liquids and gas)

Solvay has developed its own rating system, based on Chemical Distribution Institute reports, to select bulk sea transporters. For dry products and container shipments, Solvay relies on the Port State Control system, avoiding ships that have been detained in the past three years. Solvay also uses the European Barge Inspection Scheme for inspecting chemical barges operating on inland waterways in Europe.

At the end of 2015, the percentage of transporters of dangerous goods that had been assessed, reached more than 90%.

Dangerous Goods Safety Advisers (DGSA) Network

In order to help the DGSA candidates to gain, the same level of expertise in all the zones, an e-learning program, based on the macro-tasks concept, was inaugurated in 2015. This e-learning supports the internal certification process. Lesson-learning events are regularly distributed in the network for sharing experience and avoiding the recurrence of the same events elsewhere.

Emergency Response

Mitigating the consequences of accidents is equally important. For worldwide emergency assistance, Solvay continues to rely on the worldwide service Carechem24 and Chemtrec in the United States. This service answers any call anywhere in the world, supplying technical advice in the caller's language 24 hours a day. Phone numbers are displayed in the Safety Data Sheets, on the transport documents and on labelling.

Solvay sites also offer local assistance by contributing to national chemical emergency plans where such plans exist. Such involvement currently covers 12 countries: Austria, Belgium, Finland, France, Germany, Italy, the Netherlands, Spain, Sweden, Thailand, the United Kingdom and the United States.



ON-SITE PRODUCTION OF HYDROGEN PEROXIDE FOR CUSTOMERS LOCATED IN REMOTE AREAS ("myH₂O₂"): SECURITY OF SUPPLY, VALUE CHAIN INTEGRATION, AND AVOIDANCE OF TRANSPORT RISKS

Over a time span of several years, Solvay and its affiliate company Peroxidos do Brasil have developed a technology now marketed under the brand name "myH₂O₂", for on-site production of hydrogen peroxide at customer premises, as an alternative to supplies of merchant product from one of its own production sites.

The myH₂O₂® Satellite Peroxide production units' unique performance for safe, reliable and competitive operation originates from multiple patented innovations in process intensification and in compact, skid-mounted design. The myH₂O₂® Satellite Peroxide production units are particularly suitable for large hydrogen peroxide consumers at remote locations, where they leverage benefits such as security of supply, value chain integration, and avoidance of any transport risks.

Economic and technical feasibility studies have been conducted with several major pulp and paper producers of international caliber in Brazil, Chile and Russia, with whom long-term production and supply agreements are now in their final stages of negotiation.

11. SUPPLIER ENVIRONMENTAL ASSESSMENT

G4-DMA on supplier environmental assessment

Solvay purchases raw materials to manufacture its 14,000 finished products references, technical goods for its production sites as well as several kinds of services like transport, technical maintenance and consultancy worth around € 8 billion. Solvay has 43,425 suppliers worldwide. Nevertheless, 73% of this spend is sourced locally. The suppliers work with Solvay throughout the whole value chain from the delivery of raw materials through production, to logistics services to transporting the finished products to the Group's customers.

11.1 Critical suppliers

G4-EN32

Among its suppliers, Solvay has identified 1,080 "critical suppliers". These suppliers may present a risk for the business, social standards or for the environment, or they have been selected as strategic because Solvay is developing or wishes to develop a partnership in innovation with them. Solvay requires these critical suppliers to pass a third party Corporate Social Responsibility (CSR) assessment and implement an action plan to mitigate risk if the supplier does not meet the Group's standard requirements. By doing so, Solvay expects a long term significant improvement of its suppliers' sustainability practices and a positive impact on its supply chain sustainability. The share of critical suppliers represents a minimum of 55% of the total Solvay spend.

The ambition is to assess all critical suppliers before the end of 2020.

As presented in the Supply Chain management section of this report, through the Together for Sustainability (TfS) initiative, the supplier's sustainability performance is verified using environmental criteria. Since the start of the TfS initiative, the sustainability performance of 4,600 suppliers has been rated.

In addition to external supplier evaluations as in the context of TfS, Solvay also asks for supplier evaluations to be done regularly by internal parties in contact with the supplier. The criteria evaluated are the supplier's CSR performance including environment, innovation capacity, general relationship and supplier competitiveness. In 2015, a total of 1,376 suppliers were evaluated by Solvay.



Asia Industrial Estate site, Rayong, Thailand.



5

SOCIAL PERFORMANCE

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1. LABOR PRACTICES AND DECENT WORK

Solvay's Code of Conduct sets out its commitment to human and labor rights and specifically to provide safe and healthy working conditions for both employees and contractors, to provide equal opportunities, to encourage diversity and to maintain a harassment-free work environment.

Solvay's Code of Conduct is supported by various Human Resources departments that are dedicated to labor issues and, in particular, policies to promote diversity and equal opportunities:

- Career management;
- Job evaluation and job families;
- Compensation and benefits;
- Internal mobility.

Through the IndustriALL Global Union Agreement, Solvay re-confirms its commitment to labor rights and to ensuring that the Group's social standards in the areas of health, safety and environmental protection are respected on all of its sites all over the world. For more detail on the IndustriALL Global Union Agreement, the reader is referred to the Voluntary external commitments chapter of this report.

Internal awareness-raising on human rights takes place through various channels: Code of Conduct, communication on the IndustriALL Global Union Agreement and through the People Model, which gives employees the framework to act as a responsible person. The People Model is a social contract between the Group and its employees and promotes relationships based on dialogue, mutual respect and transparency.

Training on labor principles takes place in various ways, not only through the Group-wide Code of Conduct training but also through more specific management training programs (for example civil treatment for managers). Internal awareness and training on labor principles is also part of the Solvay Way commitments on "Respecting employees' fundamental human rights and guaranteeing their social rights". The integration of labor principles is also tracked and measured through the Solvay Way self-assessment. Every site is required to position its practices and define improvement initiatives. For more details on Solvay Way, the reader is referred to the Sustainability statement chapter of this report.

Solvay has adopted a general policy on reporting irregularities and misconduct. Through the "Speak Up" campaign, Solvay encourages its employees to report their concerns or their ethical dilemmas, with their managers initially or with dedicated internal organizations. Solvay has also installed a Group-wide external reporting line (web and phone based), hosted by a third party, for reporting concerns and seeking advice. For more details on "Speak Up", the reader is referred to the Ethics and integrity chapter of this report.

• Responsibility along the value chain

Key and first-line suppliers are subject to regular assessment and audits as part of the Together for Sustainability Initiatives (TfS). These assessments and audits include Human Rights and Labor Practices. For more details on the TfS initiative, the reader is referred to the Supply chain management chapter of this report.

1.1 Employment

G4-DMA on employment



G4-10

Solvay commits to developing people by offering exciting career paths and challenging opportunities and by building skills for the future. In addition, Solvay is committed to aligning its workforce with the need to implement sound business strategy. Policies and processes have been developed and launched with a view to attracting staff, ensuring they are retained, and fostering development of the Group's workforce.

The subsequent paragraphs provide the basic data on Solvay's employees, covering the present status and its development from year to year. The data indicates how the Group's strategy is transforming its human capital and demonstrates the opportunities the Group offers to its employees.

Data shows that:

- Geographic distribution of personnel is aligned with respective business size;
- Voluntary resignation levels continue to be low;
- Internal mobility is a well-established practice within the Group.

More detailed information on the ways the Group fosters the development of its personnel and how it ensures internal equality, diversity and engagement are given in subsequent sections.

Structure of Solvay's workforce

In this section, key data are given on the structure of the Group's employment base. They cover employment by geographical location, gender and type of work contract. Beyond this scope they expand on age structure, employment level and underlying considerations. This may provide the reader with additional insight into the way in which the Group's workforce is structured and how it manages its human capital.

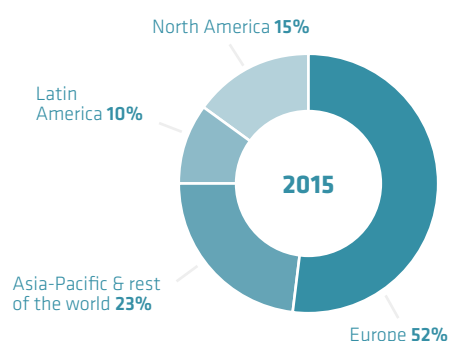
The Solvay Group, headquartered in Brussels, had about 450 more employees at the end of 2015 than one year earlier (an increase of 1,7%). The distribution chart shows that slightly less than half of Solvay's Total full-time employees (FTEs) are employed outside Europe, with about 5,900 in Asia and the rest of the world, and 6,100 in the Americas. The number of FTEs in Europe remained almost unchanged from 2014 to 2015.

SOLVAY'S WORKFORCE BY REGION

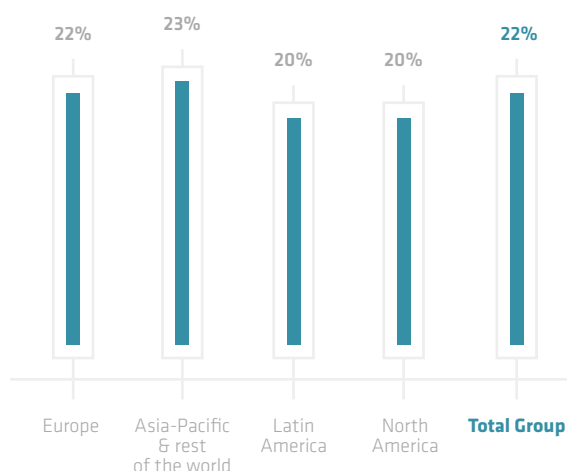
	2015	2014	2013
Europe	13,317	13,439	13,676
Asia-Pacific & rest of the world	5,901	5,954	6,032
Latin America	2,543	3,013	2,992
North America	3,782	3,032	3,394
Total FTE	25,542	25,438	26,093
Total HEADCOUNT	26,350	25,909	27,146

Legend: Main differences between FTE and Headcount is due to proportional consolidation method consolidation.

GEOGRAPHIC DISTRIBUTION OF PERSONNEL



FEMALE BY REGION



The highest percentages of female employees are in Asia.

The Group's global presence covers all business aspects, including commercial, industrial, research and managerial functions (5 of its 13 Global Business Units are managed outside Europe). The employment structure reflects this trend. The Group recruits where it has its activities, in order to capitalize on the capabilities of the local workforce as much as possible. It follows, therefore, that regional distribution of employees is going to become more and more proportionate to the distribution of sales. This helps the Group to ensure societal acceptance of its businesses in the regions.

• Variations in employment

Because of the Group's business model, employment is not subject to significant variations during the year. However, there are activities that function in campaign or project mode where alternative work arrangements provide a better fit with the operational needs and worker interests than traditional employment.

• Contingent Work

A considerable part of the Group's work is performed by individuals who are not under an employment contract with the Solvay group.

Such work is typically found where skills are not specific to the Group's activities and contingent work provides advantages such as higher skill level, lower cost or more flexibility, thus enhancing the flexibility of Group activities. This is mostly the case in high-level consulting, information technology and plant maintenance.

As the contractor is obliged to deliver these services and does not make a commitment based on the number of persons used for the work, we do not consolidate such numbers.

Based on records kept for safety monitoring we estimate that about 30% of the group's total workforce is not under an employment contract with a company of the Solvay group.

SOLVAY'S WORKFORCE BY CONTRACT, WORKING TIME AND GENDER

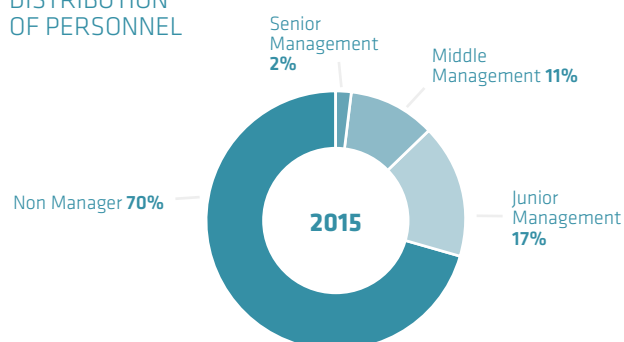
	2015	2014	2013
Total Permanent Full-time	22,768	24,258	23,521
of which women	19%	20%	19%
Total Permanent Part-time	625	602	591
of which women	80%	80%	82%
Total headcount	23,393	24,860	24,112

The number of women in permanent full-time employment is now at about 19%. The large majority of permanent part-time workers are women. Within our workforce, about 4,300 women are working under a permanent full time work arrangement, about 600 part time. The Group is generally amenable to employee requests to offer part-time work wherever business requirements allow such an arrangement. This approach facilitates balancing work and private life and improves Solvay's employer brand, especially towards female candidates.

SOLVAY'S WORKFORCE BY LEVEL

	2015	2014	2013
Senior Management	428	428	456
Middle Management	2,819	2,731	2,727
Junior Management	4,491	4,186	4,126
Non Manager	18,612	18,564	19,837
Total Headcount	26,350	25,909	27,146

GEOGRAPHIC DISTRIBUTION OF PERSONNEL



The graph shows the categorization of the Group's managers according to broad hierarchical levels. Please note that the categories given group together several grades.

Grading

To consolidate its ambition as a global entity, Solvay has introduced tools to measure and compare jobs both internally and externally on a worldwide basis. At the end of 2012, the Group introduced its new global grade scale, which was rolled out in 2013.

The basis for management grading is an evaluation of the manager's position. The criteria used to determine the grade in which each job is classified are based on a method also applied by other companies (Hay).

This system helps the integration of acquisitions and creates a shared language with regard to the hierarchical career development path, as well as offering benchmarking.

Job Families

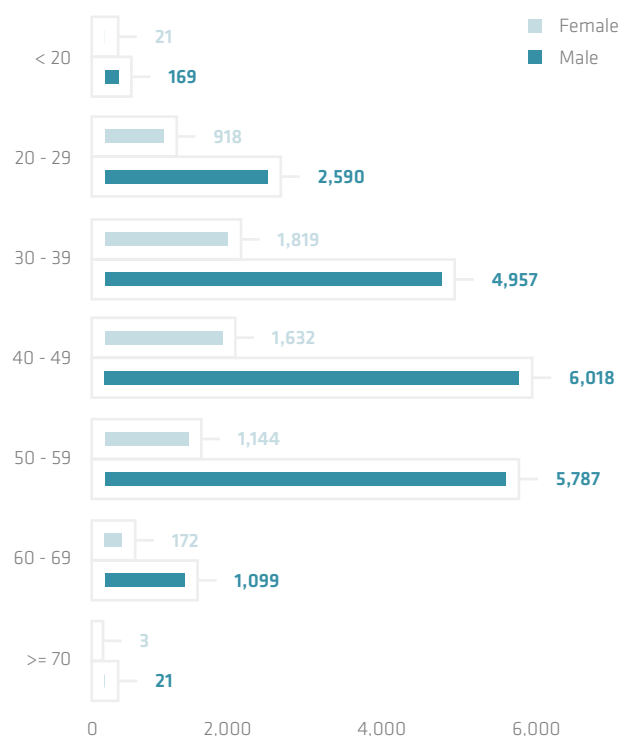
For 90% of managerial functions a single "job family" document is created. This follows a standard format and identifies the mission of the job; the key responsibilities; the expertise and competency requirements, and the job levels with associated key differentiators.

All of these documents are distributed internally. They help managers to communicate the challenges of the job and ensure that all of the Solvay employees covered understand their roles and responsibilities within their current functions, while obtaining visibility on what is required in order to progress in their careers.

A foundation is also laid for other processes such as Workforce Planning, Staffing, Career Management, Performance Management, the reward process, Payroll and Data Management and skill mapping.

All manager positions are covered. The extension of this model to non-managerial positions is envisaged, depending on the particularities and interests of the Group's sites. In line with the Group's business model, by far the majority of positions fall into the industrial domain.

SOLVAY'S WORKFORCE BY AGE



The graph shows the breakdown of the Group's workforce by age range and by gender. This section provides the reader with an interesting insight into the age structure of the workforce.

It appears that the age structure is currently:

- 31% are older than 50;
- 55% are aged between 30 and 50;
- 14% are younger than 30.

Demographic evolution of Solvay employees is recognized as one of the potential barriers to sustainable development within the Group.

Initiatives have been taken at several levels to mitigate the risks arising from such a development:

- Methods for monitoring the situation and detecting critical populations are available to all managers of Group entities. These methods guide management in defining critical skills and roles, starting from the strategic objectives and in simulating the outcome of various scenarios. Guidance is given in developing actions in order to mitigate the risks.
- The Solvay Way process foresees a specific practice to implement a continuous workforce planning process at each site.

On Solvay's initiative, a study was made by the University of Louvain, which canvassed managers older than 50 on their specific expectations of professional life.

Based on a joint initiative by managers and members of the European Works Council (EWC), a set of recommendations was developed which included:

- Improving work-life balance;
- Adjusting (ergonomic) working conditions;
- Implementing strategic learning plans at site level;
- Fostering mobility (geographical and functional) with dedicated learning opportunities;
- Increasing the attraction of young talent (partnership with schools) and improving the image of the Group in the market.

Global staff turnover

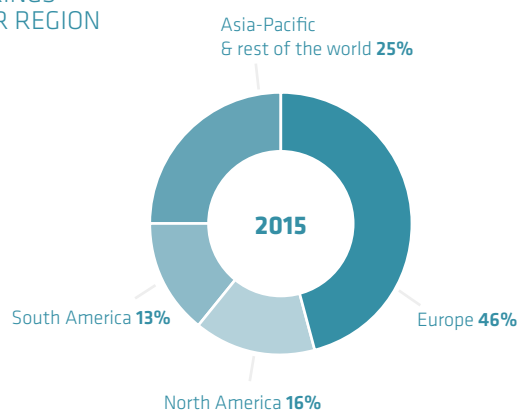


G4-LA1

HIRINGS BY REGION

	2015	2014
Europe	1,174	1,011
Asia-Pacific & Rest of the world	642	634
Latin America	335	450
North America	404	222
Total Headcount	2,555	2,317

HIRINGS PER REGION



The data show the number of external hires per region in the past two years and express this number as a percentage of the total number of employees.

The Group has considerably increased its recruitment efforts in all operating regions. The increase was above average outside Europe. The trend reflects the Group's efforts to employ people close to the business it is developing throughout the world. Thus the figures demonstrate the Group's ability to attract qualified employees in all regions.

The Group has filled its hiring needs in all regions, thereby demonstrating its attractiveness to employees.

HIRINGS BY AGE AND BY GENDER

	2015			
	FEMALE	MALE	TOTAL	% OF TOTAL EMPLOYEES
< 30	504	995	1,499	6%
30 - 49	242	657	899	3%
> = 50	26	131	157	1%
TOTAL HEADCOUNT	772	1,783	2,555	10%
% of total employees	3%	7%	10%	

The above table provides a breakdown of appointments by gender and age range. It shows that the number of female employees working in the up to 50 age range is for the most part higher than today's average.

The age ranges of employees appointed suggest that slightly more than half are younger than 30. The Group also hires people over 50, albeit to a lesser degree; indeed, the over-50 age range is already well represented in the Group so needs can often be filled internally.

Overall, the figures demonstrate the effort being made by the Group to apply inclusive recruitment practices and to make optimum use of the labor and talent available in different regions.

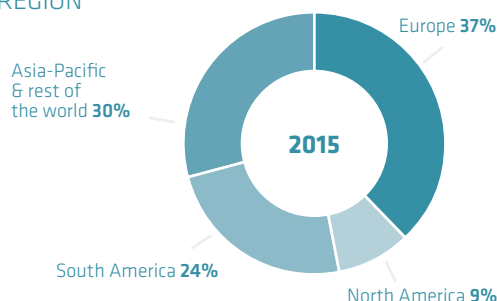
This table shows all of the employees leaving the Group's companies, whether involuntarily (including expiration of contract, redundancies, death, long-term disablement, notice for cause, retirement and other) or voluntarily (resignation).

All leaves

ALL LEAVES BY REGION

	2015	2014
Europe	1,064	917
Asia-Pacific & Rest of the world	858	561
Latin America	676	676
North America	247	188
Total Headcount	2,845	2,342

ALL LEAVES PER REGION



The overall turnover in 2015 increased compared to the previous year. This is essentially due to restructuring. However, it remains within the normal range of "ups and downs" that are experienced as an organization develops. Voluntary resignations, on the other hand, have remained more or less stable (see below).

When considering the number of employees leaving the company according to age and gender the figures do not demonstrate uneven patterns of development. The number of female employee departures are over-proportional in the younger age ranges. So far there is no indication that this might be a sign of incompatibility or inequity in the workforce.

ALL LEAVES BY AGE AND GENDER

	2015			
	FEMALE	MALE	TOTAL	% OF TOTAL EMPLOYEES
< 30	361	621	982	4%
30 - 49	318	652	970	4%
> = 50	161	732	893	3%
TOTAL HEADCOUNT	840	2,005	2,845	11%
% of total employees	3%	8%	11%	

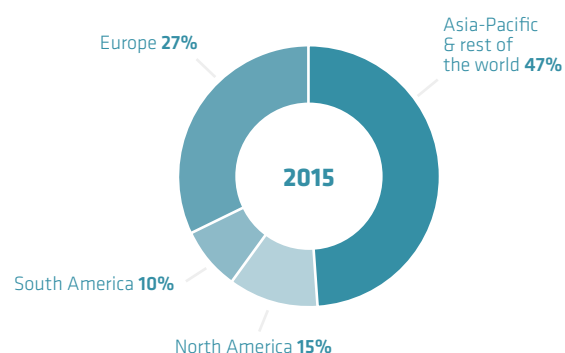
Voluntary resignations was slightly lower in 2015 compared to year before. As a percentage of Solvay's total workforce, the figure remains low, indicating that the Group's retention efforts are successful.

Voluntary leaves

VOLUNTARY LEAVES BY REGION

	2015	2014
Europe	172	160
Asia-Pacific & Rest of the world	294	309
Latin America	64	139
North America	96	64
Total Headcount	626	672

VOLUNTARY LEAVES PER REGION



VOLUNTARY LEAVES BY AGE AND GENDER

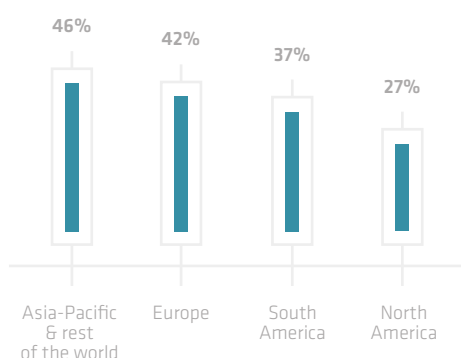
	2015			% OF TOTAL EMPLOYEES
	FEMALE	MALE	TOTAL	
< 30	78	155	233	1%
30 - 49	111	209	320	1%
> = 50	13	60	73	0%
TOTAL HEADCOUNT	202	424	626	2%
% of total employees	1%	2%	2%	

As with overall turnover, the proportion of voluntary resignations by women is higher than the percentage of women in the overall workforce.

Employee mobility

The Group's approach is to ensure that employees can move across functions and countries in order to develop their skills and increase the cross-geographical and/or cross-business exchange of skills.

PERCENTAGE OF OPEN POSITIONS FILLED BY INTERNAL PLACEMENTS BY REGIONS



Internal moves

The figures show a focus on international appointments in and from Asia which corresponds to the increased attention the Group is currently paying to this region.

The Group uses international appointments to foster cross-cultural exchange and to develop the skills needed to work in a global business. This also increases the subsequent employability of individuals and thus the value of Solvay's human capital.

For the individual it may constitute one of the most exciting career experiences a global group can offer. As the cost of appointments is relatively high, the number of expatriations is regularly reviewed and adapted according to business needs.

International mobility

The total number of assignees and their breakdown by home and host Region are given in the following table:

NUMBER OF ASSIGNMENTS IN 2015

	TO EUROPE	TO SOUTH AMERICA	TO ASIA AND OCEANIA	TO NORTH AMERICA	TOTAL MOVES
From Europe	181	7	75	45	308
From South America	23	8	1	11	43
From Asia and Oceania	13	0	16	2	31
From North America	16	0	9	2	27
Total moves	233	15	101	60	409

The figures show a focus on international assignments to and from Asia which corresponds to the attention the Group currently pays to this region.

The Group uses international assignments to foster cross-cultural exchange and to develop the skills needed to work in a global business. This also increases the subsequent employability of individuals and thus the value of Solvay's human capital.

For the individual it may constitute one of the exciting career experiences that a global group can offer. As the cost of assignments is relatively high, the number of expatriations is regularly reviewed and adapted to business needs.

Employees' benefits

G4-LA2

Benefits reflect local market practice and law. Legislation in this field differs from country to country. Benefits for part-time employees are generally on a par with those for full-time staff - prorated for the number of hours worked. At some sites, e.g. in the United States, some of the long-term benefits do not apply to part-time employees. For temporary employees within Europe, benefits are granted according to the same principles as for full-time employees, whereas outside Europe standards may be different.

1.2 Labor and management relations



Solvay's 2025 priority target

- To increase the Engagement Index at 80.

77

Employee engagement and well-being

G4-DMA on labor and management relations

The Group's employees are a main factor in its on-going success. Keeping employee performance at a consistently high level is a crucial prerequisite for the high degree of productivity that is necessary to develop Solvay's activities sustainably and successfully. Employee engagement and well-being has been identified as high materiality issue for Solvay.

Experience shows that engagement is a main driver for employee performance. Solvay thinks that a key element of fostering engagement is regular dialogue between managers and employees of the Group. It is essential to maintain this dialogue with each individual as well as with employee representatives (where in place) and their organizations.

Engagement of Solvay's workforce was assessed using the "Solvay Employee Survey 2015". More than 22,000 employees from all geographical locations, businesses and levels answered a set of standardized questions regarding their views on employment, management and the activities of the Group as a whole. The rate of engagement, which measures the energy devoted to Solvay's success by the workforce, reached 75% in line with industry general reference benchmarks.

Comprehensive initiatives have been launched at a Group level focusing on Personal Development, reward and recognition, inclusive culture and work-life balance.

Social Dialogue

Engagement is also fostered by regular dialogue between the managers of the Group and the employees. It is part of Solvay culture. Solvay considers that maintaining trusting and constructive relations with employees and their representatives forms the basis for such dialogue. This relationship is built on the Group's commitment to respect employees' fundamental human rights and guarantee their social rights. These include the freedom of association and of collective bargaining, including deciding on whether or not to form trade unions, to organize or not to organize. The agreement with IndustriALL formalises the Group's commitment.

Health and safety topics in the IndustriALL agreement

G4-LA8

Several formal agreements have been concluded with trade Unions at different locations of the group, e.g. 12 sites in the United States are covered by Health Care plans based on collective agreements. Two such agreements exist in France. Safety topic is included in the agreement signed with IndustriALL. The specificity of this world agreement lies in the desire of both partners to make it operative in a concrete and dynamic way.

Every year, IndustriALL representatives meet Solvay employees to check on compliance in the field, with two assessment missions taking place at two different sites. One mission measures the results of the Group's safety policy. The second examines the application of the agreement, which, in particular, formally covers the following health and safety aspects:

- Ensuring good working conditions;
- Managing risk as a daily concern;
- Defining demanding internal policies and their stringent application;
- Improving safety performance and regular monitoring of own and contractors' employees;
- Ensuring healthy working conditions for all personnel, regardless of the job they perform and its associated risks.

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.

FOCUS EUROPEAN WORKS COUNCIL (EWC)

A permanent dialogue on sustainability issues has been established for years between Solvay and its European Works Council (EWC). In 2015, the EWC met in a 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. Subject matters receiving particular attention were: Cytec acquisition, evolution of employment in the Group, strategy of the Group and sustainable development issues.

FOCUS EMPLOYEE REPRESENTATION INDICATOR

G4-11

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. In the majority of cases collective agreements are extended to all employees even if not members of a union.

Coverage by collective agreements has decreased to 77% worldwide due to perimeter changes. This indicator was established for 2015 without data about the newly acquired company Cytec. It will be updated in 2016 after the integration of Cytec. These data indicate that freedom of association is ensured within the Group and that its practical application provides mutually agreed working conditions for our employees.

Minimum notice periods regarding operational changes

G4-LA4

In its policy and practice, the Group endeavors to observe a sufficient notice period before implementing organizational changes that may affect employees. These vary according to situation and location. As a general practice, significant operational changes are announced three months before implementation starts and individual decisions are made.

Some of the collective bargaining agreements signed specify notice periods for consultation and negotiation. The Global framework agreement concluded between Solvay and IndustriALL Global union includes a provision for employees and unions (where they exist) to be informed in anticipation of any plans to restructure. In some of the collective bargaining agreements a notice period and provisions for consultation and negotiation may be specified.

1.3 Occupational health and safety

G4-DMA on occupational health and safety

Staff health and safety has been identified as a high materiality issue for Solvay. Accidents affecting employees or third-party individuals at chemical plants may be caused either by explosions, falling objects, falls while working at height or working with mechanical or moving equipment, or through contact with chemicals (hot, corrosive or toxic) leaking from a vessel, pump or pipe. Contractors are particularly exposed to falls while working at height (during construction and maintenance); accidents due to the use of tools and interaction with equipment; and accidents due to non-compliance with work permit procedures.

Occupational health risks may result from exposure to hazardous agents (chemicals, noise, movement) which can potentially lead to disease in the case of chronic exposure. High health and safety standards are an integral part of Solvay's health and safety policy, Code of Conduct and of the IndustriALL Global Union agreement.

• Policy

Solvay's health and safety policy requires that Solvay:

- moves towards zero occupational accidents by promoting best practices and an HSE culture in which all employees share Solvay's commitment to safety;
- achieves a high level of health and physical and psychological well-being among its employees, subcontractors and temporary workers;
- prevents occupational diseases and disability through a high level of risk management and control;
- ensures periodical medical monitoring consistent with local laws and adapted to individual risk profiles.

• Monitoring health and safety

Solvay aims to avoid any accident of any kind occurring to its personnel and contractors working on its sites. The Lost Time Accident Rate (LTAR) is the standard indicator within the chemical industry. With a view to improving monitoring the severity of injuries including less severe accidents, Solvay also monitors the Medical Treatment Accident Rate (MTAR). MTAR is used as an internal performance indicator because it takes into account the actual severity of the accident, independently of the local legal context or the local practices of adapted work, which on the contrary influence the LTAR classification.

Promoting good health relies on a range of indicators: chemical-exposure risk assessments, medical monitoring, monitoring the incidence of occupational diseases, stress/well-being indicators, and biomonitoring indicators. When considering the risk of occupational diseases, Solvay considers that the good health of its personnel encompasses a high degree of physical, mental and social well-being.

• Safety management systems

In 2015, 76 manufacturing sites have a dedicated safety management system (SMS) of OHSAS, VPP or equivalent type: ACC RCMS (Responsible Care Management System) for NA sites. Another 26 use a SCMS management system. The Group policy requires all industrial sites to have such a system in place, in line with Group standards.

The new "Solvay Care Management System" (SCMS) is currently in its launch phase. In 2015, training sessions have taken place worldwide in anticipation of the upcoming deployment and audit phases. More than 300 people from the Industrial Family have been trained.

• Managing health risks along product value chains

Preventing risks for workers must extend along the entire value chain and especially to the end-user, within a framework of multiple complementary regulations and actions. For more detailed information, the reader is referred to Product stewardship in the Product responsibility chapter of this report. The management of substances of concern (SVHCs), in particular, is embodied in Solvay's systems and tools for occupational hygiene, product safety, and Environmental management.

Occupational safety

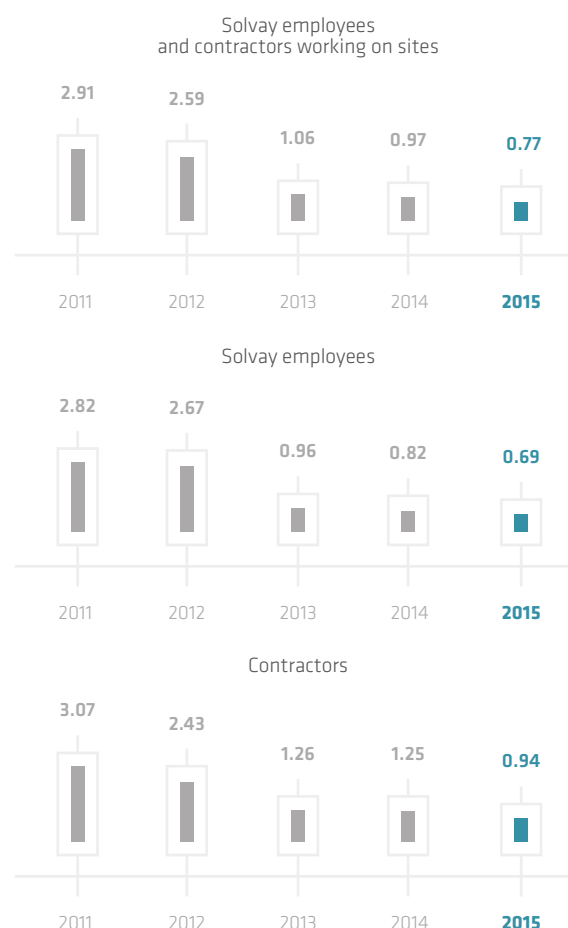
The challenge to improve further

Solvay's 2025 priority target

- To continue improving Solvay's employees' safety by halving the number of accidents recorded on our sites and reaching an MTAR (Medical Treatment Accident Rate) of below 0.5.

Currently, Solvay's safety results rank in the top 25% of the global industry. The Solvay MTAR had decreased by a further 60% between 2012 and 2015. In order to keep its ranking and commit to safety for its employees, Solvay has defined a new safety target. To reach this ambitious objective, Solvay plans to manage safety based on employee involvement with the internal Safety Excellence Program and a continuous improvement plan.

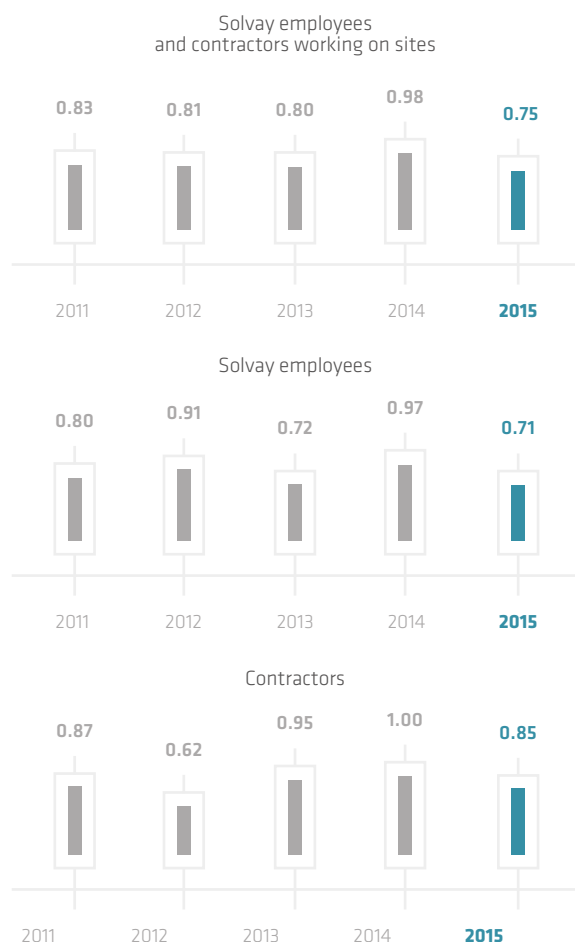
OCCUPATIONAL ACCIDENTS WITH MEDICAL TREATMENT AT GROUP SITES (MTAR)



Legend: Medical Treatment Accident Rate (MTAR) : number of work accidents leading to medical treatment other than first aid per million working hours.

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 site. This represent 202 sites in 2015.

OCCUPATIONAL ACCIDENTS WITH LOST TIME AT GROUP SITES (LTAR)



Legend: Lost Time Accident Rate (LTAR) : number of work accidents with lost time (away from work) more than 1 day per million working hours.

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 site. This represents 202 sites in 2015.

The occupational safety performance for employees and contractors working on the Group's sites has significantly improved in the past four years. The LTAR improved to 0.77 in 2015 compared to 0.97 in 2014.

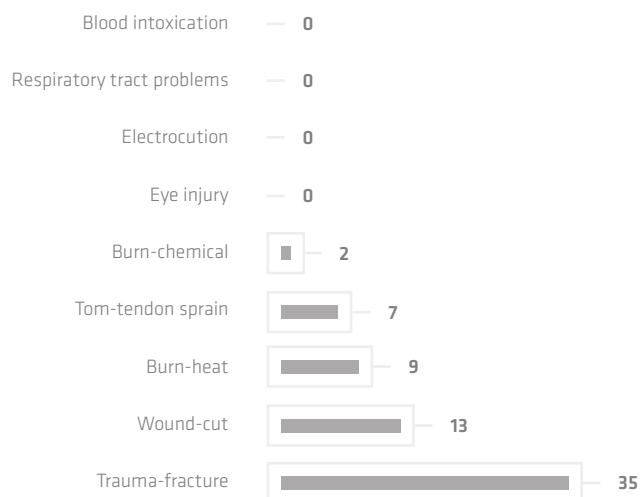
The LTAR improved again in 2015 reaching 0.75. The Group's LTAR performance is better than the industry's performance in general and also better than the chemical industry's track record in particular. The chemical industry is generally recognized as safe with an LTAR of around 4.5 in Europe in recent years for example.

The overall safety performance for the Solvay employees, and the safety performance for only contractors are very close. This reflects the Group's long-lasting commitment to provide safe and healthy working conditions on its sites both for its employees and for contractors. Safety programs usually encompass both categories of workers.

Chemical contact, irreversible and fatal accidents

In particular Solvay succeeded in reducing accidents involving contact with chemicals, from 14 in 2014 to nine accidents in 2015. The number of "accidents with irreversible consequences" remains stable at two in 2015. No fatal accidents have occurred in 2015, compared to two in 2014 and two in 2013.

TYPES OF INJURIES (2015)



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 site. This represents 202 sites in 2015.

NATURE OF INJURIES

	2015	2014	2013
Trauma - fracture	35	47	43
Wound - cut	13	17	17
Burn - heat	9	11	13
Torn tendon - sprain	7	9	15
Burn - chemical	2	5	7
Eye injury	0	1	5
Respiratory tract problem	0	0	1
Blood intoxication	0	1	0
Inflammation	0	0	0
Electrocution	0	1	0
Total	66	92	101

Safety Excellence Plan

Solvay is deploying a new Safety Excellence Plan for GBUs and sites in the 2015-2016 period, which consists of three main themes:

- Clear communication of management expectations;
- Development of Health, Safety and Environment (HSE) roadmaps in the GBUs and their respective sites;
- Development of a safety mindset.

HSE roadmaps allow prioritization and follow-up of the implementation of good safety practices such as: safety days (114 sites in 2015), behavioral safety programs (102 sites), systematic analysis of near misses, the engagement of all managers in promoting safety, modeling exemplary behaviour and visibly implementing safety measures, safety tours, involvement of the entire workforce in all improvement actions, recognition, personal objectives tied to leading indicators, etc.

Solvay Life-Saving Rules

A new Group initiative was launched in 2015 to prevent fatal accidents and accelerate the continuous progress curve. Eight rules have been defined, for the eight main dangerous activities (working at height, on powered systems, traffic, etc.). The Group expects to save lives by requiring strict compliance by everybody and full enforcement by management.

FOCUS PREVENTING FATAL ACCIDENTS WITH 8 SOLVAY LIFE SAVING RULES



- 1. Working at height:** Protect yourself and your tools from falling when working at height.
- 2. Working on powered systems:** Isolate and de-energize mechanical and electrical equipment before starting the work.
- 3. Line breaking:** Obtain authorization before starting to open lines or vessels.
- 4. Working in confined spaces:** Be sure that atmospheric conditions are continuously monitored and a safety attendant is standing by before entering a confined space.
- 5. Working in an explosive atmosphere:** Do not enter any area that has a potentially explosive atmosphere with objects that could generate a spark or ignition.
- 6. Lifting:** Do not stand or move under or in the vicinity of a lifted load.
- 7. Excavation:** Stay out of the line of fire of excavators, trucks and non-stabilized earth.
- 8. Traffic:** Respect the traffic rules.

Leadership safety visits, deployment: 700 visits in 2015

Leadership safety visits bring top managers of GBUs to the sites to engage with operators, instilling a culture of safety at all levels and making management aware of what goes on in the field.

The initiative, which goes back to 2012, involve all members of the GBU Management Teams. This means that every President of the GBU, the Industrial Director, Sales and Marketing Directors are all involved. They bring a mixture of operational expertise and outside perspectives to safety in the field. 700 leadership safety visits took place in 2015. The Management team is coached beforehand on what to look for and how to interact effectively in the field. Visits and identified good practices are recorded. Each GBU or Function Management Team member carries out 4 leadership safety visits per year.

Safety programs addressing human and organizational factors

Solvay's occupational safety policy requires:

- deploying behavioral safety programs in line with the Group's standards at all sites;
- promoting best practice and an HSE culture in which all employees share Solvay's commitment to safety.

SAFETY PROGRAMS FOCUSED ON HUMAN AND ORGANIZATIONAL FACTORS

	2015	%
Sites with behavioral safety program	102	86%
Sites with behavioral safety program including safety dialogue	92	77%

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 site. This represent 202 sites in 2015.

102 sites have behavioral safety programs, of which 77% involve "safety dialogues" with close colleagues and 37% involve safety dialogue by Management. Observation and safety dialogues in the workplace are a cornerstone of Human and Organizational Factors for Safety, aimed at increasing individual risk awareness and compliance with safety rules and creating opportunities for bottom-up exchanges on safety.

FOCUS FIVE-YEAR BEHAVIORAL SAFETY PROGRAM AT MELLE (FRANCE)

A program focused on task observations has been in place at the Melle site, in France, for the last five years. The field action has been conducted by all members of the site management staff. This approach aims to evaluate the behavioral factor in everyday tasks and to correct any behavioral error observed. These field observations are carried out as an opportunity for exchanges and dialogue around concrete problems, including lesson-learning from incidents on other sites, and to demonstrate the visible commitment of the entire site management to the process of continuous improvement on safety. Safety is a daily goal for all employees on the Melle site, regardless of their function.



HAZARD RECOGNITION PROGRAM AT AUGUSTA (UNITED STATES)

In early 2014, Augusta implemented a “Hazard Recognition Program” designed to encourage employees to focus on themselves and identify what could go wrong or how they could get hurt.

It is a proactive approach to reach the goal of zero incidents/accidents. It seeks to improve awareness and ability to recognize hazards in the daily routine. Poor hazard recognition is often a root cause of incidents. If an employee identifies a hazardous condition that can be corrected or removed immediately, then he should remove it or act accordingly. If the employee needs some help or the hazard cannot be removed immediately, the shift supervisor is contacted. He will try to correct, mitigate or, at the very least, barricade/raise awareness of the risk before the employee starts the task. The program is run by the shift supervisors and is specific to the needs of each unit. Each unit has a method of tracking the items that have been identified on pocket cards. Initial results are positive. Near misses were reduced by 20% on average over the last four years; and First Aid incidents were reduced by 45% during the same period.

Rules applied in recording and reporting accident statistics

The reporting process for occupational accidents sets out:

- the classification system for accidents involving people;
- the methodology for accident analysis;
- the reporting rules in place within the Group;
- the rules concerning sharing lessons-learned within the Group. It applies to all sites over which Solvay has operational control. Entities acquired by Solvay must apply this procedure within the quarter following acquisition;
- an accident involving a person or persons is an accident that occurs as a result of an undesired and sudden event and which causes reversible or irreversible physical injury;
- an occupational accident is an accident involving a person that occurs at the workplace and under the authority of the employer.

The following accidents are excluded:

- illness or death due to non-work-related medical causes that occurs at the workplace;
- accidents that occur during paid leave, sick leave, maternity leave, interruption due to a lost-time accident or strikes.

An accident is only considered an occupational accident if it occurs while an employee is working. This presupposes that the “person concerned” is under the authority of his/her employer. An accident that occurs “at a workplace during working hours” is deemed to be a result of work. It is thus considered to be an occupational accident unless it is proven that:

- the cause is not work-related;
- the victim intentionally escaped the employer’s authority (fights, tricks, horseplay, etc.).

Occupational health

Solvay’s 2020 target

- All working units and workstations are controlled and recorded in accordance with Solvay’s new Industrial Hygiene standards for all operational employees.

Perimeter: Solvay financial perimeter and all additional sites under Solvay’s operational control for which the Group manages and monitors safety per-

HEALTH PROTECTION 2012-2020 ROADMAP PROGRESS

	2015	2014	2013
Sites trained to new industrial hygiene standards	102	33	4
Sites with health-monitoring based on individual exposure profiles according to Solvay standards	39	36	36

formance - Solvay employees and contractors working on site. This represents 202 sites in 2015.

Solvay wishes to ensure that medical examinations are based on individual exposure profiles. To do this, Solvay has to provide accurate information on risk exposures as established by industrial hygienists to local teams of medical experts, who are often employed as external contractors. The ultimate aim is for all employees requiring medical surveillance to be monitored by health teams based on their individual risk exposure profiles. As required by Solvay’s health policy, this monitoring should be documented in structured IT systems (such as Medexis OH₂), enabling efficient data management.

OCCUPATIONAL DISEASES RECOGNIZED IN 2015

	ASBESTOS BENIGN PATHOLOGIES	HEARING DISORDERS	MUSCULO- SKELETAL DISORDERS	OTHER NON- CARCINOGENIC DISEASES	ASBESTOS CANCERS	OTHER CARCINOGENIC DISEASES	TOTAL
EMEA	11	3	4	0	8	2	28
North America / Mexico	0	0	0	1	0	0	1
Latin America	0	0	1	0	0	0	1
Asia South Pacific	0	0	0	0	0	0	0
TOTAL	11	3	5	1	8	2	30

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 site. This represent 202 sites in 2015.

Legend: An occupational disease is defined as any disease contracted as a result of exposure to risk factors arising from work activity (International Labor Organization). A "Recognized Occupational Disease" refers to an official decision given by local competent authorities as a result of a formal demand procedure for recognition (and compensation). Recognized occupational diseases are reported within a year of recognition. Recognized occupational diseases, for which the financial consequences are not borne by Solvay, are also included in the reporting.

Occupational diseases profile

The health status of employees and the incidence of occupational diseases reflect their past and present working environment, in particular industrial hygiene conditions. The geographical distribution of recognized occupational diseases is mainly due to the differing regulatory and compensation systems between countries.

Most of the 30 cases recognized in 2015 are linked to exposures that occurred in the past. This applies in particular to reports of cancers and hearing loss which clearly stem from long-term exposure and, in the case of cancer, with long latency periods.

Diseases are mainly asbestos-related and are almost exclusively reported in Europe and, in particular, in France where asbestos-related diseases are reported and recognized by the local authorities systematically. A dedicated Solvay program aimed at identifying the presence of asbestos and removing asbestos materials wherever possible and at preventing exposures in all cases, has been implemented within the Group for many years.

Noise and ergonomic factors remain other causative factors. All but one of the five reported cases were recognized in Europe.

HUMAN BIOMONITORING: A HEALTH EXCELLENCE PROGRAM

Since 2014, a particular focus has been placed on Solvay's "Human Biomonitoring" program (HBM). The aim is to assess the individual employees' exposure to specific chemical agents through specific biomarkers in body fluids (such as urine or blood). It takes into account all exposure routes and conditions for every worker concerned. This facilitates improved monitoring of the efficiency of measures implemented to control exposures. HBM is promoted by Solvay and the European Chemical Industry Council (CEFIC), as well as by a number of national health authorities and agencies. At present, 37 Solvay sites participate in this program, with around 40 different chemical exposures being monitored.

Trends

The number of diseases and trends over year do not reflect current prevention of risk: This is because recognized diseases are most often the consequence of past working conditions and to a great extent depend on recognition systems in the various countries.

In particular, the overall "Occupational Illness Frequency Rate" may provide a general idea of a company's health performance. However, figures and trends are difficult to interpret since they greatly depend on past working conditions, while at the same time, conversely, the denominator, the number of hours worked, corresponds to the current working population. That said, Solvay's Occupational Diseases frequency rate, calculated per 1,000,000 working hours stood at 0.54 in 2015.

Health prevention

Other programs have also been implemented to ensure early detection of work-related health disorders, in particular those linked to exposure to chemical agents, noise and ergonomic stressors, so that corrective measures can be taken as soon as possible.

Well-being

Well-being is a key component of health. The wellness indicator for Solvay's workforce is taken from the "Solvay Engagement Survey 2015". Nine questions selected from the survey of 22,000 employees relate to perceived well-being. Site management teams have been informed of the results and invited to design action plans to foster improvement where needed.

A full section of the Solvay Way framework is dedicated to well-being. It requires that a well-being at work and stress prevention program is set up and implemented.

Well-being depends on work organization and on the supportive supervision and recognition of employees. Line managers have regular contact with employees. Defining tasks and objectives in close dialogue with the line manager is common practice. Annual Performance Development and Career Reviews (PDCRs) and mid-term reviews are now widely deployed, with a completion

rate of 99%, demonstrating the vitality of our feedback culture, now well-established at Group level. This contributes both to engagement and well-being.

For more details about the Annual Performance Development and Career Reviews, the reader is referred to page 88.

A Group Guideline on the Prevention and Management of Stress at Work was issued in 2015. Local programs are deployed to improve well-being at work with a particular focus on organizational factors such as the quality of managerial support and the degree of autonomy employees have in doing their job.

Industrial hygiene program

G4-LA7

Solvay is committed to preventing any risk of occupational disease for people working on its sites. *“Every Solvay worker has to return home at the end of his shift as healthy as he was at the start of his shift”.*

JP Clamadieu, Solvay's CEO.

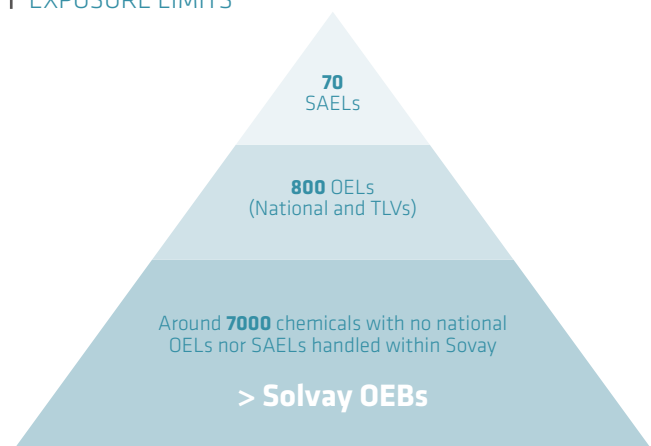
Solvay's 2020 target

- All working units are controlled and recorded in accordance with Solvay's new industrial hygiene standards for all operational employees.

The Solvay industrial Hygiene program is based on four pillars:

1. For all chemicals handled in Solvay's operations, an Occupational Exposure Band must be defined and observed as a minimum, or a voluntary Solvay Acceptable Exposure Limit (SAEL) must be defined and respected in the absence of a recognized official Occupational Exposure Limit (OEL).
2. There must be a consistent and efficient risk assessment process. Critical Task Exposure Screening (CTES) that enables the efficient detection exposure to dangerous agents requiring attention or additional controls
3. Special attention must be paid to Substances of very high concern (SVHC) that have an effect on health or that have the highest identified potential risks of exposure.
4. The use of a worldwide user-friendly industrial hygiene database with embedded corresponding processes and tools (SOCRATES).

OCCUPATIONAL EXPOSURE LIMITS



Solvay Occupational Exposure Bands for industrial hygiene

The Occupational Exposure Band (OEB) system determines a range of acceptable exposure levels to be observed, when neither national Occupational Exposure Limits, nor international Threshold Limit Values (TLVs), nor in-house Solvay Acceptable Exposure Limits are established. OEBs now cover the majority of the chemicals handled in Solvay's operations.

Critical Tasks Exposure Screening

The Critical Tasks Exposure Screening (CTES) tool has been designed by Solvay to allow the efficient screening of all critical exposures to chemicals in the workplace. Assessment or reassessment of all workstations with the CTES tool is a seven-year project to be completed by 2020.

In 2015, 102 sites, located in all zones, have been trained on CTES. The risk assessments form the basis for defining the appropriate control measures, as part of the continuous improvement of working conditions. At the end of 2015, 1,569 working units were identified as requiring CTES and 82 operational sites were identified as requiring deeper risk analysis.

A key feature of CTES is to empower the shop-floor staff to take part in the screening risk assessment, resulting in better "appropriation" of corrective measures by these employees. CTES has been selected as one of the talks at the 2016 Conference of the British Occupational Hygiene Society, one of the top five hygiene associations in the world.

Managing substances of very high concern

The Group is willing to reinforce ad hoc prevention measures for workers potentially exposed to particular risks: a limited number of well-identified "tasks" possibly incurring higher health risks are currently being mapped worldwide. 72% of manufacturing sites have now reviewed their "Health SVHCs" inventory according to the Group's SVHC reference list defined in 2014.

This is carried out as part of Solvay's overall management of Substances of Very High Concern.

Global tool for industrial hygiene management (SOCRATES)

SOCRATES is the Solvay's global tool for industrial hygiene management. Thanks to this tool, the Group will identify and assess all industrial hygiene risks more efficiently, enhance data traceability and empower operating staff. SOCRATE was initiated in 2014 in partnership with seven pilot sites in all geographical zones. The program is ongoing and is to be extended to all sites over the next few years. The objective is that 90% of Solvay operating staff work on a site with an effective SOCRATE tool.

FOCUS NOVE CARE: NEW “BEST PRACTICES” TO HANDLE SUBSTANCES OF VERY HIGH CONCERN

At Novecare, ethylene oxide (EO) and propylene oxide (PO) are two raw materials handled in and used in more than ten sites. Both are “Health SVHCs” (carcinogenic and mutagenic) in addition they are volatile and have a very low OEL (< 1ppm). Sites are supplied in bulk: The tasks involving most exposure occur during the coupling and decoupling between the tankers and Solvay’s installations.

Because these handling steps are critical, it was felt necessary to exchange experiences and handling methods between sites. As the inherent emissions of these tasks appear not to be consistently controlled via the engineering measures in place, best practice PPE (Personnel Protective Equipment) had to be defined to ensure full risk-control at all times.

Thus, a list of guidelines for the use of PPE that covers the eyes, hands, body, feet and respiratory protection has been established, with precise details on the compatible materials for this PPE.

FOCUS PROGRESS IN “PLEDGE FOR ACCESS TO SAFE WATER, SANITATION AND HYGIENE AT THE WORKPLACE”

Solvay signed the WBCSD’s “Pledge for Access to Safe Water, Sanitation and Hygiene in the Workplace” in 2014. This pledge commits to ensuring access to safe water and sanitation at an appropriate standard, for all employees on all premises.

A survey, involving representatives of sites concerned and the owner of the program, was carried out in 2015 at six main manufacturing sites in China. This survey was based on a detailed self-assessment grid drawn up by WBCSD. Hand-washing practices were identified as the most frequent area for improvement and an educational program is to be defined in 2016 and implemented locally. Other sites will be added to the program where necessary.

At Solvay, the great majority of the knowledge and skills that employees acquire are as follows:

- 70% Learning through experience;
- 20% Learning from others, feedback and coaching;
- 10% Learning through training sessions and self-learning.

Solvay Corporate University’s programs and services provide training opportunities for all employees globally on a wide range of subjects and levels. In order to serve this purpose, Solvay Corporate University is organized as follows:

- **The Leadership & Management Division** aims to develop the competencies of tomorrow’s business leaders and people managers as well as to prepare the transition of individual contributors to managerial roles. Programs range from basic management skills to advanced leadership behaviors, including developmental initiatives to enhance managerial effectiveness and employee engagement;
- **The Academies Division** supports Solvay Professional Families in the achievement of their strategic objectives by working closely in the identification, design and delivery of their required expertise across the world. Academies focus on a learning curriculum that supports the professional development of individuals within the Professional Family as well as providing content that is more transversal in nature. So far, five Academies have been launched and there are plans to launch additional Academies in 2016;
- **Five Zone Learning Teams** supported the deployment of these global initiatives and the transversal soft skills and hard skills within their zones.

Training and education provided by Solvay is integrated with its performance management program. The ultimate objective is to help employees to develop their full potential, performance and employability. Training is a key element in fostering a culture of personal development; individual development plans are discussed during the Performance, Development and Career Review (PDCR) process and the Development and Succession Planning (DSP) meetings.

Solvay’s main challenges in 2015:

- Deployment of Professional Family Academies (see below G4-L09);
- Reinforcement of the Leadership and Management offer (see below G4-L09);
- Diversification of the learning method (see below G4-L09);
- Reinforcement of the culture of feedback and the quality of development discussion (see below G4-LA10);
- Increasing the exposure of our talent (see below G4-LA10).

1.4 Training and education



G4-DMA on training and education

Solvay is committed to endorsing the personal and professional development of its employees. It will empower each employee to grow and to develop their career by fostering a development culture and providing the policies, tools and appropriate actions that will help them to achieve this. The target is to enable every employee to maximize their potential for performance and increase their employability.

Solvay’s ambition by 2020 is to:

- Prepare all managers to identify and recognize the uniqueness of their team members and actively support development of all;
- Enable all talents to develop themselves, through a broad offering (learning, job opportunities, career mobility, etc.);
- Shape the development of future leaders to lead the Group’s transformation.

Ensuring employees' professional development and employability

Solvay's 2020 target

- One week of training per employee per year;
- Training of 100% of our employees to Solvay Way and to the CSR agreement signed with IndustriALL.

The following section reports on training delivered to the Group's employees (including discontinued Solvay operations without Joint Venture). Training hours are recorded per employee category, as well as training investment per person.

Solvay Corporate University

The Solvay Corporate University (SCU) is a virtual learning service offering real and practical learning programs available to all Solvay employees, wherever they are. Development is important not only for the role that employees have today but also for the one they want tomorrow.

2020 Learning ambition:

- Deployment of diverse learning technologies across the Group to transform the way learning happens in Solvay. Solvay plans to increase the leverage of asynchronous eLearning including MOOCs and Skillsoft and introduce a virtual classroom platform;
- Implementation of an Academy for every Professional Family (see below SCU Academies);
- Reinforcement of the role and recognition of internal trainers' community;
- Operational Excellence.

SCU Academies

Academies are structured in domains by functional area to support the Professional Families and functions. The SCU Academies address all of the learning needs within its Professional Family (see examples below).

Across each Professional Family Solvay aim to ensure that each member has the required level of expertise and skill set to help achieve the Group's objectives and quality standards.

In 2015, Solvay focused heavily on the deployment of Commercial, Marketing, Purchasing and Human Resources academies, and began the deployment of the Supply Chain academy. This ensures that Solvay reinforces the expertise to support the achievement of its strategy:

- Commercial Academy: twenty-five programs deployed (373 participants), example: Channel Management and Distribution;
- Marketing Academy: three programs deployed (90 participants), example: Innovation Marketing;
- Purchasing Academy: two programs deployed (150 participants), example: Purchasing Fundamentals;

- Human Resources Academy: three programs deployed (833 participants), example: Observing Behavioral Competencies;
- Supply Chain Academy: one program deployed (99 participants): Basics of Supply Chain.

The SCU course catalog online is large enough to cover all functional areas not yet structured as an academy, such as Health Safety and Environment (HSE), IT, Industrial, Finance, Research, Legal and Procurement.

The functions Research & Innovation, Communication and Industrial (Manufacturing Excellence, HSE) are currently working to set up an academy that will cover all their areas of expertise.

In 2015, to support the Group's ambition regarding the academies, the SCU deployed a Train-the-Trainer program on "Facilitation Essentials: Role as trainer". This increases our capacity to deliver this training internally and minimizes reliance on external vendors. Sessions conducted in Shanghai, Singapore, Sao Paulo, and Brussels generated 20 internal master trainers, who are now ready to deploy this program across Asia, Latin America, and Europe. The objective is to improve the skills of many of the internal trainers, which will contribute to enhanced professional expertise and competencies across the Group.

Global Leadership & Management programs

In 2015 the following global programs were deployed:

- International Management Seminar (Brussels): The Group's talent development program aims to give talented employees experience of senior leadership duties early in their career and to develop the collaborative and cross-cultural capabilities of future leaders by engaging them in active-learning projects on real business challenges. Each seminar is delivered to approximately 80 participants from 15 different countries. This diversity in terms of country is perfectly representative of Solvay's footprint (45% of participants from Europe, 29% from Asia Pacific, 16% from North America, 10 from South America);
- Adaptive Leadership (Brussels and Shanghai): An introduction to leadership style, self-awareness and collaboration for future leaders. The program was delivered to approximately 80 participants;
- Transformational Leadership Program (Brussels): A global senior executive program with a business focus to work on business projects which will have a transformational impact within the business areas. The program develops the leaders' transformational capability, and a culture of empowerment and accountability through feedback, trust and peer-coaching. The program was delivered to approximately 170 participants;
- Management Development Series: An entry-level program to prepare individual contributors for the transition to managerial roles by developing managerial core skills. The content of the program: effective feedback skills, objectives and performance management, coaching and talent management. This program was delivered worldwide in the five zones to approximately 380 participants.

Diversification of learning method

From the end of 2015, a range of programs have been available to all Solvay employees directly through our partner SkillSoft's external platform. This will increase access to learning and in 2016 will improve the current proportions:

DELIVERY
METHOD

	2015
Instructor led	89.5%
On-the-Job Training	6.0%
Virtual Classroom	0.8%
Web-Based Training	3.7%

A range of courses are available to improve day-to-day effectiveness (Excel, PPT, etc.), to acquire or deepen specific expertise (Marketing, Purchasing, Commercial, etc.) or to develop behavioral competencies (impact and influence, collaboration, self-awareness, etc.).

Transversal Zone programs

In 2015 all of the zones received a budget to support transversal initiatives within their zones that are related to front-line management and interpersonal skills. This allowed the zones to organize the training that they considered to be a priority within the Group's subsets.

Business & Technical Skills programs

Sessions relating to technical skills are fully financed by businesses and functions. Consequently, there was a decrease in training as the budget was tightly controlled.

2015 results

These results include all of the training provided in all five zones, including Leadership & Management programs, Academies and local training.

AVERAGE HOURS
OF TRAINING PER YEAR

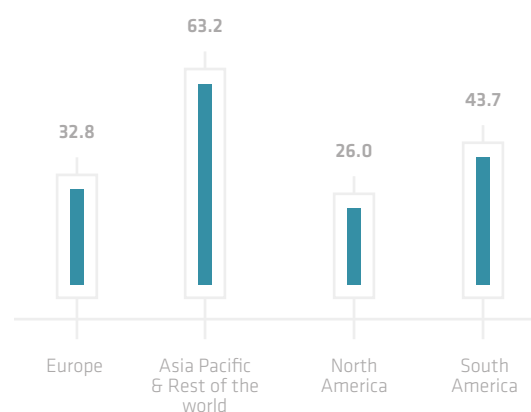
	G4-LA9 2015
Per Employee	38.8
By Gender (Male)	38.6
By Gender (Female)	39.3
Per Employee Category (Senior Managers)	30.1
Per Employee Category (Middle Cadre)	30.1
Per Employee Category (Junior Cadre)	42.8
Per Employee Category (Non Cadre)	39.3

Perimeter: Solvay financial perimeter - total Group employees. For entities proportionally integrated, every hours are included. Chemlogics is excluded (excepted programs conducted at SCU or Zone level).

Legend: In SCU calculations we exclude the "apprentices" employee sub-group, and our headcount basis for calculation is the FTE average numbers for the year.

In 2015, there was an increase in the number of learning hours per employee. The reasons for the increase include the deployment of more Academies (see above G4-L09), the launch of Transformational Leadership Program for Senior Managers and the increase in learning offer at zone level but also an improvement of the quality of training hours tracking in certain sites.

In 2015, there was no significant difference between the genders with regard to the number of learning hours undertaken. There is a higher average for the Junior Cadre, followed by Non-Cadre and Senior Managers, and finally Middle Cadre.

AVERAGE HOURS OF TRAINING
PER EMPLOYEE BY REGION

In 2015, there was a higher average for Asia Pacific and Rest of the world, followed by South America and Europe and finally North America. Asia Pacific and Rest of the world has a highest number of training hours linked to a strong focus on internal training (96.7% of training hours) followed by South America where there is a stronger focus on on-the-job training (17% of training hours).

Solvay's continued focus on Sustainable Development was also reflected in learning activities. During 2015 the Solvay Way initiative, along with other sustainable development topics, accounted for a total of 8,003 hours of training given to 2,489 participants.

Fostering a culture
of personal development

G4-LA10

Solvay is committed to endorsing the personal development of its employees. It will empower each employee to grow and to develop his or her career by fostering a development culture and providing policies, tools and appropriate actions to achieve this. The target is to enable every employee to maximize his or her performance potential and increase their employability.

The culture of development envisioned is characterized by challenges, feedback and benevolence. It is an integral part of the Solvay People and Management Models.

The People Model, which concerns collaborative and collective behavior, is a social contract between the Group and its employees. It promotes relationships based on dialogue, mutual respect and transparency. It also recognizes the importance of constant people development in order to ensure that we have the right competencies and skill sets to develop our businesses.

The Solvay Employee Survey was launched in 2015. The objective is to measure the engagement of Solvay's employees and the factors leading to engagement in order to identify strengths and areas for improvement. About the dimension 'Develop People', 67% favorable answers at Group level: employees feel positive about their job making good use of their skills and the feedback they receive from their manager, but fewer feel supported in personal development.

2020 Talent management and development ambition

The Group is acting on the 2015 Solvay Employee Survey results with the following approaches:

• Talent Review and Development Plan

Manager and employee are having regular development conversations including career evolution. Each employee has a development plan to support them in their current position and to prepare them for their career evolution. Managers are empowered and comfortable in assessing people and are accountable for developing them.

• Leaders and High Potentials Development:

A pool of identified future leaders at different levels of maturity and a differentiated development plan to achieve success profiles. Each High Potential has a specific, extended and accelerated development plan to increase their learning agility, leadership and ability to transform the organization.

• Performance and Succession Management

Performance assessment contributes to the individual and collective development by implementing a reinforced culture of feedback. All successors have a development plan to ensure their fitness and readiness to achieve their target position/profile.

Processes and training

At Group level, an increased focus on People Development will result from the repositioning of Solvay's annual Performance Development & Career Reviews (PDCRs), with one of the three discussions with the manager being focused on long-term development needs and employability.

In 2015, 76% of PDCRs included a development plan as against 72% in 2014.

Training to further develop behavioral competencies:

- Observing Behavioral competencies workshops were delivered to approximately 750 managers in 2015, the deployment will be completed in 2016;
- A specific program was delivered to approximately 70 Co-directors in 2015;
- Since the end of 2015, new eLearning modules (more than 80) are available in several languages for each Solvay behavioral competency through the external platform of our partner SkillSoft;
- Transformational Leadership program (see above G4-L09).

Performance, Development and Career Review

G4-LA11

Solvay recognizes the performance given by each employee and fosters their development.

To help managers to achieve the best results in enhancing performance and in the development of their staff, a tool and a process were developed and implemented in 2013. All cadres have a Performance, Development and Career Review (PDCR) document. The process is supported by an online tool, integrated with other processes such as Compensation and Learning and Talent Management, ensuring the relevance of performance results. For the non-cadre population, similar Performance and Development processes are deployed locally.

Individual contribution is evaluated and feedback is given to the employee by the manager and also by third parties who are invited to provide their

point of view on employee performance and objectives achievement. In this way a continuous process of performance improvement is implemented.

An important focus of this process is on development and career evolution. A particular attention is given to assessing the behavioral competencies and expertise of the employee. The process envisages that manager and employee will agree on a development plan that will be fixed, reviewed and evaluated at defined moments during the year. Discussion on employee career evolution is also part of the process. Employee aspirations and management opinion on possible next career steps are discussed and recorded in the tool.



100% of the managerial population (about 7,700 people) was covered by the 2015 PDCR. This process applies to the entire manager workforce and 9% of non-managerial employees.

This process results in performance assessments as well as planned career development actions and proposals. They will be used in the 2015/2016 Compensation Review and other subsequent HR processes such as training, succession planning and career development.

Beyond its initial scope, the PDCR is also used by about 1,700 non-managerial employees. Further extension of the system is possible but requires willingness on the part of both local management and staff.

Local performance and development tools and processes are available for the population not covered by the PDCR online tool. ISO quality certification requires this type of management and the majority of Solvay's plants are covered.

In 2015, 89% of the Solvay workforce has a formal annual performance and development appraisal.

A new project was launched mid-2015 to ensure that at least once a year each employee has a formal Performance, Development and Career discussion with his/her Manager, with a specific focus on development. The objectives for 2016 are to extend the PDCR to the white-collar workforce (process tool and training) and to design and deploy training and development actions for all, including the blue-collar workforce to support the quality of the Appraisal and Development discussion.

By utilizing these performance and development approaches, Solvay ensures that management attention is given to regularly recognizing performance and to developing the potential of employees. These approaches are also expected to improve dialogue between manager and employee, and to increase the engagement and employability of our human capital; and therefore enhance sustainability in the field of Human Resources management.

Fostering collaboration and qualitative feedback

Increasingly, the growing complexity of the work environment requires collaboration with other personnel, across geographies, businesses and functions. In addition to the achievement of individual objectives, it is also important to identify, foster and recognize collaboration in the workplace.

The first step in preparing for the appraisal discussion is gathering feedback on the employee's achievements and observed behaviors. To promote peer collaboration, a new version of the Third Party Feedback form 2015 contains a specific question related to collaboration with others. Its use is strongly recommended for collecting feedback.

Development and Succession Planning

In 2014 Solvay implemented a new Development and Succession Planning (DSP) process. This is a management meeting where topics related to Succession Planning, Talent Identification and Career Development are discussed and where decisions are prepared and made collectively, taking into account the Group's needs and the cadres' career aspirations and abilities.

The DSP process aims to ensure that the Group has the right people in the right place. To achieve its growth strategy and performance, Solvay encourage transversal moves across Businesses/Functions and zones. The Group aims to identify talents more broadly, taking into consideration personal competencies, expertise and aspirations as well as the Group's needs. The DSP process aims also to identify and develop cadres, with a specific focus on the cadres appointed to Key Positions, on the High Potential pool and on owners of critical expertise.

The DSP meetings are organized according to a yearly cycle starting in March "Vertically" at GBU/Function levels, "Transversely" at Professional Family level to bring in a cross- Business/Functions perspective and provide recommendations into GBU/Function DSP. The final review is realized at GBU/Function levels.

An online tool allows the capture of all of the information related to the talents review and succession planning. Feedback to Managers of cadres about the DSP results related to their teams is done by HR at the end of the cycle.

Talent Days

Talent days are events organized at a regional level where a selection of talents meet with Solvay leaders and HR. It is an opportunity for development and increased visibility outside their respective entities. During these events, talents have scheduled, face-to-face meetings with leaders and Human Resources, giving them the opportunity to present themselves and to clarify their career aspirations.

To harmonize Talent Day objectives, scope, process and timelines, common guidelines were designed in 2015. Participants in the Talent Day should be a part of the High Potential pool identified during the Development and Succession Planning (DSP) meeting.

Provision of transition assistance programs to facilitate continued employability and the management of career aims

Specific training programs designed to help manage career endings - whether through termination of employment or retirement - are not consistently deployed in the Group as a global initiative. In Belgium and France (Tavaux and Chalmépé sites in 2015), there is a set of pre-retirement workshops that are offered to prospective retirees. The workshops are on themes such as change management, financial aspects, time management, legal aspects and health; in order to prepare them for the transition to retirement and to help them develop a new life project.

1.5 Diversity and equal opportunity



G4-DMA on diversity and equal opportunity

In its Code of Conduct, Solvay commits to equal opportunities and encourages diversity at every level of employment. The Group aspires to be truly diverse in terms of age, gender, nationality and culture. Valuing diversity means creating a workplace that respects and includes difference, recognizing the unique contribution that individuals with many types of differences can make and creating a working environment that maximizes the potential of all employees. Through its approach, the Group expects to perform well in its role as employer. It also holds the conviction that its approach will ultimately lead to improved overall performance among its workforce and has therefore made diversity a performance lever.

The Group's Human Resources policies explicitly require the encouragement of diversity in order to strengthen the multi-national, multi-cultural and multi-disciplinary composition of the Group's population. They also require observance of equal opportunities in employment and outlaw discrimination of any kind.

A series of indicators is monitored in relation to diversity, including international postings, gender diversity, fairness in compensation and pay and equality in promotion.

Examples for Solvay action

The willingness to strengthen diversity at all levels has been translated into concrete action. Below are some examples of how diversity issues are addressed:

- Diversity is a top priority point on the HR Management team agenda. All HR processes are currently reviewed and reassessed with respect to this issue;
- The Solvay Way program requires that every site addresses and manages diversity and equal opportunities;
- A large number of country-specific commitments were entered into, for example:
 - Convention Mixité in France;
 - A large session on women's leadership has taken place in Asia;
 - A preliminary "generation contract" agreement has been signed in France between Solvay and trade unions. It commits Solvay, between 2013 and 2015, to increase the number of young people appointed to permanent contracts. With regard to the retention of senior employees, the Company commits to ensuring that at least 13% of the workforce is aged 57 and over.
- The International Management Seminar (IMS) organized for high-potential employees includes a sequence on Inclusive Management which aims to raise diversity-awareness and prepare managers to promote diversity and manage diversely-composed teams;
- The development of a Group framework policy has recently been launched to speed up diversity programs.

Engaging with the European Pact for Youth

High youth unemployment is a burning social issue. More than seven million young people are in neither employment, education or training. More than 4.4 million Europeans are early leavers from education and training. With two million job vacancies unfilled, Europe faces a social risk. The future economic competitiveness of Europe depends on the employability of its younger generations. In the dynamic and complex global economy, companies need people with the right hard and soft skills.

At Solvay, we have been aware of this for a long time. As long ago as 1881, the Group introduced libraries, training colleges for professional instruction and adult education classes which were held in the factories. The Group has also provided financial support for a long list of universities (Brussels, Paris, Nancy, Geneva and Charleroi). And in 1998, Solvay introduced "Foundations for the Future," a rotational development program for new graduates all over the world, to help them expand their horizons (originally in North America; now expanding worldwide).

Objectives of the European Pact for Youth

In line with this legacy, Solvay decided to contribute to the co-writing of the European Pact for Youth. Cooperation between governments, education and business is the key to providing young, talented people with the best opportunities to make the transition from school into professional life and to contribute to economic growth, job creation and social welfare.

Through the Pact, business leaders and the European Commission engage with business, education and youth stakeholders:

1. To reduce the skills gap;
2. To boost youth employability and inclusion;
3. To contribute to EU and national policies on skills for competitiveness and employability.

Building on existing leading initiatives (the European Business Campaign on Skills for Jobs, the Enterprise 2020 Manifesto, the Alliance for YOUth), the Pact aims to create 10,000 business-education partnerships and 100,000 quality apprenticeships, traineeships and entry-level jobs by the end of 2017. It will be part of the project to define indicators and measures to monitor the progress of the project. Under the guidance of CSR Europe and with the support of the EU, a project structure will be created with contributors from the participating organizations.

FOCUS EXAMPLES OF ESTABLISHED INITIATIVES

This initiative is in full pursuit of the Group's founder's engagement in scientific and managerial learning and training (e.g. by founding the Solvay Brussels School of Economics and Management in Brussels in 1903) as well as other activities traditionally and recently undertaken by Solvay.

Developing a culture of business-education partnerships

Apprenticeship programs have been in place in several countries for many years: e.g. in France and Germany. Young employees are trained on the job in different trades that include technical, commercial and administrative roles. In 2013, Solvay and twelve other companies participated in a benchmark study. The study, organized by CSR Europe, was based on the European Quality Charter on Internships & Apprenticeships developed by the European Youth Forum. On a par with one other company, Solvay reached the highest level in the panel.

Alliance for Youth

By participating in the Alliance for YOUth pan-European business-driven movement pledging to improve chances for our young people, Solvay intends to create an umbrella for its existing programs, to leverage Solvay's fight against youth unemployment in Europe, to strengthen Solvay's employer brand regarding social responsibility and to fill Solvay's talent pipeline in an effective and structured manner.

FOCUS SETTING UP A BROADER GRADUATE PROGRAM: FOUNDATION FOR THE FUTURE

In 2015, Solvay extended its "Foundations for the Future" (FFF) program at a worldwide level. The program offers young graduates, in particular engineers, an intensive rotational experience within the company. The program combines training and work allowing participants to experience project management, hands-on field work and advanced analytical problem-solving in different locations and countries. After a period of three to five years, candidates are offered a fixed contract in the Solvay group. As a CSR actor, Solvay wants to recognize the effort made by the young graduates to obtain their degrees and to give them the basis for a brighter future.

Diversity indicators

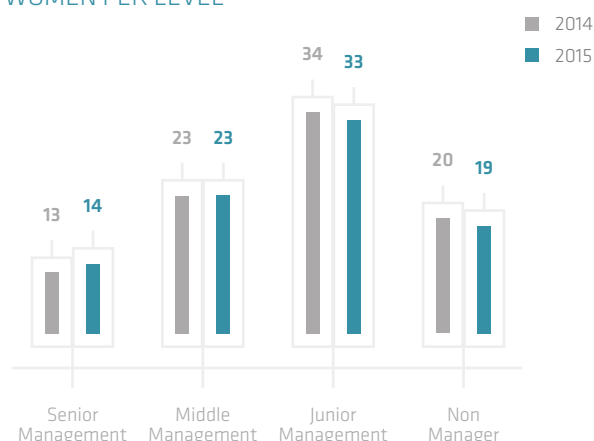
G4-LA12

The composition of governance bodies according to different indicators is provided in the Group's annual report. For more details, the reader is referred to this document.

Below is a breakdown of the Group's employees.

Gender diversity

PERCENTAGE OF WOMEN PER LEVEL



Female employees represented 22% of all employees in 2015. Their presence in the workforce has risen slowly but steadily in recent years.

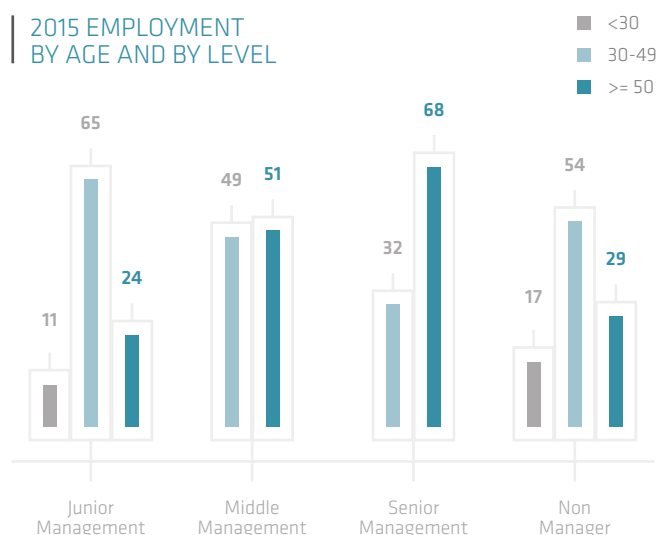
At senior management level, the female population rose by 1% in 2015 to 14%.

Overall, the representation of women in management positions is already higher than in non-managerial jobs, which are predominantly technical, in Solvay's business activities.

In Functions (Human Resources, Finance, Communication, Innovation Center, Research & Technology, SBS), female workers represent about half of the total headcount, whereas the percentage of women in production - by far the largest part of our workforce - remains low.

As the percentage of female new appointments in the younger age ranges is much higher than the percentage of women in the present population, it seems likely that their overall presence in Solvay's workforce will continue to increase.

The following table provides a breakdown by employment level and age range:



1.6 Equal remuneration for women and men

G4-DMA on equal remuneration for women and men

The Group is taking appropriate action to ensure equality in grade and pay as experience and studies reveal that inequality may generate demotivation and jeopardize commitment.

To ensure equality on the career ladder, the Solvay job classification system is based on a single method (Hay) applied to all jobs. This method is also used by many other organizations. The method looks at job characteristics only and the same criteria apply to all types of jobs, regardless of whether they are predominantly held by women (e.g. communication) or by men (e.g. production). Thus the grade of the job does not depend on gender or any other individual attributes of the person.

As all management jobs worldwide are graded according to this system, the grading of the person generally follows the job grade, which in part determines the reference salary and thus the development of the incumbent's remuneration.

Compensation policy

G4-LA13

The Group's Compensation policy for managerial personnel provides a corridor of 80% to 120% of the given grade's reference salary midpoint to ensure salary equality among employees within the Company, and also competitiveness and fairness vis-à-vis the external work market.

The reference salary is defined per grade (see above). The average ratios and average salaries per grade are similar for men and women in the workforce.

The remuneration of non-managerial personnel follows local standards and collective bargaining agreements.

G4-DMA on supplier assessment for labor practices

G4-LA14

Solvay has 43,425 suppliers worldwide. Nevertheless, 73% of this spend is sourced locally. The suppliers work with Solvay throughout the whole value chain from the delivery of raw materials through production, to logistics services to transporting the finished products to the Group's customers.

Among its suppliers, Solvay has identified 1,080 "critical suppliers". These suppliers may present a risk for the business, social standards or for the environment, or they have been selected as strategic because Solvay is developing or wishes to develop a partnership in innovation with them. Solvay requires these critical suppliers to pass a third party Corporate Social Responsibility (CSR) assessment and implement an action plan to mitigate risk if the supplier does not meet the Group's standard requirements. By doing so, Solvay expects a long term significant improvement of its suppliers' sustainability practices and a positive impact on its supply chain sustainability. The share of critical suppliers represents a minimum of 55% of the total Solvay spend. The ambition is to assess all critical suppliers before the end of 2020.

As presented in the Supply Chain management section of this report, through the Together for Sustainability (TfS) initiative, the supplier's sustainability performance is verified using Labor criteria. Since the start of the TfS initiative, the sustainability performance of 4,600 suppliers has been rated. In addition to external supplier evaluations as in the context of TfS, Solvay also asks for supplier evaluations to be done regularly by internal parties in contact with the supplier. The criteria evaluated are the supplier's CSR performance including labor, innovation capacity, general relationship and supplier competitiveness. In 2015, a total of 1,376 suppliers were evaluated by Solvay.

2. HUMAN RIGHTS

2.1 Investment

Commitments, strategies and policies

G4-DMA on investment

Consistent with the United Nations Guiding Principles on Business and Human Rights, Solvay is committed to respecting and supporting human rights with regard to its employees, the communities in which it operates and its business partners, as expressed in the internally recognized standards, including the UN Universal Declaration of Human Rights. In addition to the statement in the Solvay Code of Conduct, Solvay's Executive Committee has adopted a specific policy relating to Human Rights. Solvay's commitment is reaffirmed through the social and environmental responsibility agreement with IndustriALL Global Union. Solvay's Code of Conduct and the IndustriALL Global Union Agreement are publicly available and have been translated into various languages. The policy on Human Rights is available on Solvay's intranet.

The Solvay Human Rights policy emphasizes Solvay's commitment to respecting human rights both within and outside its workforce. Thus, to strengthen its efforts to protect human rights, Solvay entities must embed human rights elements in their risk assessments of business operations and transactions. In addition, regardless of their work function, all employees must promote and respect the protection of human rights with Solvay's suppliers and contractors.

Effective management systems to integrate human rights principles

Respecting employees' fundamental rights and guaranteeing their social rights is one of the Solvay Way Commitments. Each of the sites is responsible for the deployment of this commitment and has to carry out an annual self-assessment.

Every year, IndustriALL Global Union carries out two assessments on Solvay production sites chosen by IndustriALL to verify the correct application of the commitments made by the Group.

Training courses and induction activities are organized to ensure that ethical and compliant conduct is embodied in the way business is done and also to address behavioral risks in certain specific areas. This includes training on Human Rights.

Often as part of the larger Code of Conduct training program and depending on the target audience's function, Solvay employees are trained on various aspects of Solvay's Human Rights policy. For those employees whose work does not involve the selection of vendors and suppliers, emphasis on human rights within Solvay is part of the Ethics and Integrity in the Workplace training. In 2015, special emphasis on human rights within the supply chain has been part of the training given to employees involved in the Purchasing

Function. In 2016, a similar emphasis will be provided during training for new business development managers.

Responsibility and accountability for human rights is shared between various functions and in particular between the functions of Ethics & Compliance, Human Resources and Health, Safety & Environment.

Mechanism for monitoring and evaluating human rights integration

Solvay has a strong dialogue with its employees through various channels of communication: the national employer representative bodies, the European Works Councils and the Solvay Employee Survey (a Group-wide survey carried out every two to three years).

Solvay has adopted a general policy on reporting irregularities and misconduct. Through the "Speak Up" campaign, Solvay encourages its employees to report their concerns or their ethical dilemmas, in the first instance with their managers or with dedicated internal organizations. Solvay has also installed a Group-wide external reporting line (web and phone based), hosted by a third party (EthicsPoint), for reporting concerns and seeking advice. Any concern regarding a breach of human rights is investigated by the Ethics & Compliance function. The Board's Audit Committee oversees the running of Speak Up.

G4-DMA on supplier human rights assessment

G4-HR1 G4-HR10 G4-HR11

Human Rights are an integral part of the Solvay Supplier Code of Conduct and play a role in the assessment and audit of its suppliers through the Together for Sustainability (TfS) initiative. Solvay's Supplier Code of Conduct is available on its website. Critical suppliers contracting with Solvay are required to comply with the requirements of the Solvay Supplier Code of Conduct, or provide proof that they have implemented their own code of conduct that is based on principles similar to the principles of the Solvay Supplier Code of Conduct. All proposed similar Codes are reviewed prior to contract formalization. This policy will be fully implemented in 2016 and Solvay will be poised to perform the necessary gap analyses to assess supply chain human rights compliance.

As part of its due diligence efforts, Solvay has identified around 1,500 "critical suppliers" among the total number of its suppliers. Those suppliers may present a risk for the business, for the society or for the environment, or they have been selected as strategic because Solvay is developing or wishes to develop a partnership in innovation with them. The share of critical suppliers represents a minimum of 55% of the total Solvay spend.

In addition to external supplier evaluations as in the context of TfS, Solvay also asks for supplier evaluations to be done regularly by internal parties in contact with the supplier. The criteria evaluated are the supplier's CSR performance, innovation capacity, general relationship and supplier competitiveness. In 2015, a total of 1,376 suppliers were evaluated by Solvay.

Training on human rights

G4-HR2

Solvay's training on Human Rights is part of its Code of Conduct training. In 2015, Solvay continued training its employee based on the Code. More than 17,000 employees (more than 66% of Solvay's employee base) received between fifteen minutes and one hour of training in 2015, which included the subject of respecting Human Rights as part of ethics and integrity in the workplace consistent with Solvay's Human Rights in Our Business policy.

2.2 Non-discrimination

G4-DMA on non-discrimination

In 2015, Solvay introduced its own internal diversity initiatives that include a work-life balance commitment for its employees and a pledge by management to encourage and support diversity in the workforce and, significantly, in the Group's executive population. For Solvay, diversity relates to experience and personal background (ethnicity, race and religion), gender, geographical origin and age group. A policy of inclusion and diversity will make Solvay more attractive to new talent, bring the organization closer to its clients and mirror the societies in which it operates, all the while giving the Group a true competitive advantage. At the end of 2015, Solvay announced five sustainability goals to be met in 2025, including improvement of the employee engagement index.

Total number of incidents of discrimination and corrective actions taken

G4-HR3

Solvay encourages its employees to Speak Up when behaviors they observe in the workplace are not in line with Solvay's values. The Solvay Ethics Helpline is open to receiving reports of such conduct and records allegations of discrimination under the broad category "Discrimination including Harassment and Retaliation."

In 2015, Solvay received 43 reports of various incidents of alleged ethical misconduct that were recorded on the Solvay Ethics Helpline. Six of those reports alleged discrimination and/or harassment. Of these, one report was substantiated and the individual involved was reprimanded and given remedial training. Her conduct will be monitored by her supervisor and the human resources manager.

In response to an increasing number of allegations of harassment in the workplace in Solvay's Latin American region, Solvay's Compliance Officer for that zone will implement specialized training on anti-harassment for management in 2016.

2.3 Freedom of association and collective bargaining

G4-DMA on freedom of association and collective bargaining

The Group commits to respecting employees' fundamental human rights and to guaranteeing their social rights. These embrace freedom of association and collective bargaining, including the decision whether or not to form trade unions. Both elements are considered to be basic requirements for maintaining the acceptance that Solvay needs from employees and society at large in order to deploy its activities.

Beyond these commitments, the Group strives to maintain trusting and constructive relations with its employees and their representatives. An essential basis for such relations is regular dialogue with employee representatives (when there are such representatives) and their organizations.

Such proactive dialogue is based on the conviction that together everyone can be better-prepared for economic, social and organizational changes. It also fosters the commitment of our employees - a crucial prerequisite for the high degree of productivity that is necessary in order to develop our activities sustainably and successfully.

Actions taken and foreseen

A permanent dialogue on sustainability issues has been established for years between Solvay and its European Works Council (EWC). In 2013, the EWC met four times in plenary session and the EWC Secretariat met 11 times with senior Group management, allowing these representative bodies to be part of the evolution of the Group.

On December 17, 2013, Solvay signed a CSR agreement with IndustriALL Global Union.

This International Framework Agreement enforces Solvay's commitment to respect the ILO standards, the principles of the UN Global Compact, and, significantly, the UN Guiding Principles on Business and Human Rights. Each year, two assessments, including one on safety issues, are performed on a site by IndustriALL representatives in order to monitor correct application of the commitments at a grassroots level. In the Rhodia legacy perimeter, these assessments have already been completed in China, Brazil, the United States and Korea. An annual review was presented to a multi-national body representing the Group's employees (European Works Council).

IndustriALL agreements have been implemented in 2014.

Solvay's critical suppliers

G4-HR4

As part of its due diligence efforts, Solvay is in the process of evaluating its "critical suppliers" for CSR compliance, including in relation to human rights. Part of that evaluation includes the right to exercise freedom of association and collective bargaining. Solvay has identified approximately 1,500 critical suppliers among the total number of its suppliers. These critical suppliers will be evaluated for their human rights compliance in part as a function of their geographic location and their Country Risk Profile provided by ECOVADIS. Solvay's goal is to assess all critical suppliers by the end of 2019.

2.4 Child labor

G4-DMA for child labor

G4-DMA for forced or compulsory labor

Solvay endorses and promotes the principles contained within the Universal Declaration of Human Rights, the Convention on the Rights of the Child, the International Labor Organization (ILO), and the core conventions on Labor Standards. Since 2013 Solvay has had in place a Human Rights in its Business policy which applies to all employees, officers and directors of the Solvay Group, including all of its affiliates, as well as representatives and agents who act on behalf of Solvay. One of the principles of that policy, which finds its foundation in the UN Guiding Principles on Business and Human Rights, is that wherever they are located Solvay employees must not use child labor or forced labor. In addition, Solvay's Supplier Code of Conduct requires its suppliers to commit to the following principles: Suppliers avoid any form of child labor; they shall not employ any worker under the age of 15 or, in those countries subject to developing country exception of the ILO Convention 138, under the age of 14; suppliers allow no employees under the age of 18 to perform hazardous work; suppliers avoid any form of forced or compulsory labor.

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Solvay's critical suppliers

G4-HR5

G4-HR6

In 2015, Solvay began to set out the framework of its due diligence and assessment methodology of its critical suppliers with regard to corporate social responsibility in general and human rights in particular. One criterion to be identified in the assessment of "critical suppliers" is the risk for incidents of child labor, forced labor and young workers exposed to hazardous work. Solvay uses the Country Risk Profile from ECOVADIS to identify countries where our suppliers may present this kind of risk. The "critical suppliers" are evaluated against labor and human rights and health and safety through a third party assessment (TfS or other recognized system). The ambition is to assess all critical suppliers before the end of 2019.

2.5 Indigenous rights

G4-DMA on indigenous rights

Solvay's Code of Conduct stresses the value it places on its employees. Thus, workplace integrity means that all employees are expected to respect the distinctions of the Group's individuality, including the diversity of nationality,

ethnicity and culture present in our various worksites. Solvay provides equal opportunities and encourages diversity at every level of employment. Employees are encouraged to report matters of ethical violations and Code of Conduct aberrations through the Group's Speak Up program. In 2015, there were no reports of discrimination or harassment based on national origin or indigenous status.

2.6 Human rights grievance mechanisms

G4-DMA on human rights grievance mechanisms

Solvay has an established dialogue with its employees through various channels of communication: The national employer representative bodies, the European Works Councils and the Solvay Employee Survey (Group-wide survey carried out every two to three years).

Solvay has adopted a general policy on reporting irregularities and misconduct. Through the "Speak Up" campaign, Solvay encourages its employees to report their concerns or their ethical dilemmas, in the first instance with their managers or with dedicated internal organizations. Solvay has also installed a Group-wide external reporting line (web and phone based), hosted by a third party, for reporting concerns and seeking advice. Any concern regarding a breach of human rights is investigated by the Ethics & Compliance function. In keeping with its commitment on transparency, the Speak Up tool is used to report progress on the investigation and is used to communicate the results of investigations directly to the reporters upon conclusion. Posters and an online brochure are available to employees and advertise the web address and toll-free numbers to access this tool in their regions. The Board's Audit Committee oversees the running of Speak Up.

Number of grievances about human rights

G4-HR12

The total number of grievances filed through the Speak Up program in 2015 related to Human Rights may be calculated by looking at the sum of complaints filed under the broad categories "Discrimination, Harassment and Retaliation," certain claims of "Misconduct and Inappropriate Behavior" and under "Violence or Threat." Of the 43 complaints filed in 2015, 17 fell within these three categories. Six of the 17 reports were substantiated upon investigation and were addressed by policy review, training, discipline and/or termination of the offending party. One of the matters was referred for further review outside of Compliance to the Human Resources Department and one case remains open in 2016 as of the date of this report.

3. SOCIETY

3.1 Local communities

Solvay's 2025 priority target

- Double the number of employees involved in a social action from 20% to 40%.

G4-DMA on local communities

Solvay dedicates time and financial resources at a local and a global level that contribute to improving people's living environment through scientific solutions and science education or through solidarity at a local level.

The Group ensures Solvay's entities are integrated within their territories, has open discussions with local communities and aims to contribute to their societal issues and more widely, to offer solutions to society as a whole. This is the Group's sustainability ambition, communicated through Solvay Way to every employee in their day to day work.

Engaging with communities

Local involvement

G4-S01

Through the Solvay Way approach employees are encouraged to take part in projects that contribute to local development. They are involved in diverse projects worldwide that provide indirect and direct added value for the local economy and employment, as well as supporting local associations and initiatives. Solvay Way correspondents and employees manage their societal approach locally, independently choosing and funding initiatives that meet the needs of their surrounding communities.

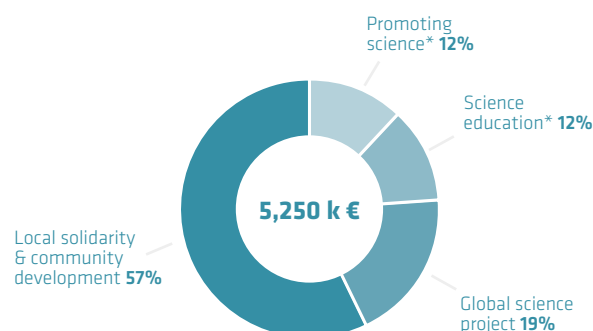
RELATIONSHIPS WITH LOCAL COMMUNITIES

	2015
Sites developing regular contact with significant local stakeholders	72%
Sites with mapping of site stakeholders	94%

Perimeter: Site annual self-assessment (including Ro-I sites): 135 sites

In 2014-2015 there was significant involvement by 20% of employees. This includes engagements towards local communities, including identification of stakeholders and forms of dialogue. It contributes to local economic development through participation in long-term programs (schools, education, improving quality of life). Based on the Solvay Way annual assessment, sites define action plans to improve their integration with local communities.

2015 SOLVAY GROUP DONATIONS, SPONSORSHIPS AND OWN PROJECTS



Legend: * Ernest Solvay Fund

Examples of local initiatives

Currently these activities are not always documented at corporate level, but an internal survey was conducted in 2015 to start referencing Solvay's societal actions. The main findings showed that a large majority of the societal actions benefit people as a result of donating employee's time donating equipment, through financial donations or organized local events. In the Asia and Latin America zones, there are more donations of the employee time, while on European and North American sites there are more financial donations.

FOCUS HELPING ORPHANS IN ZHENJIANG (CHINA)



Zhenjiang Children's Charity House is a place accommodating orphans. Most of them are disabled or have a serious mental disorder, or learning difficulties. Many will stay in the Charity House until they are 18 or 19 years old. They then have to relocate to a Youth Charity House or have to work in the community. A professional team helps them by offering psychological guidance.

Solvay Zhenjiang site volunteered to join the professional team providing assistance, when the children get older and are being prepared to leave. 10 Solvay employees volunteered once a month from January to April 2015 to help the children in the Charity House. Under the guidance of the professional team, they talk to the children who are going to leave the charity house and start work. They participate in a wide range of activities including cooking and gardening.

The aim of the volunteers is to help the young people become accustomed to the outside world. Last year, thanks to the involvement of the professional team and all of the volunteers, two of these young people were able to find a job outside of the Charity House.

FOCUS CONTRIBUTING TO LOCAL DEVELOPMENT IN THE UNITED STATES

A range of activities have taken place across the 40 sites in the United States. In Alpharetta, Georgia, employees participate in "Habitat for Humanity," helping to build homes for low income families. In Houston, Solvay is a major supporter of Junior Achievement, contributing funds and sending an average of about 20 employees per semester to teach six week business-related courses to school children. In Cranbury and many other sites, Solvay employees provide a great deal of support to United Way, a national system of volunteers and contributors to local charities. In addition, Solvay's Chemistry Connection® sends employee volunteers to local schools to give science demonstrations using hands-on experiments.

FOCUS DRIVING SCIENCE EDUCATION FORWARD IN EUROPE (BELGIUM - FRANCE)

Solvay has noticed there is an ongoing issue with the recruitment of scientists for the public sector and industry. Children need to get excited about science again. The Royal Belgian Institute of Natural Sciences has joined forces with Solvay to develop a tool that can reach young people in all parts of the country and renew their interest in science.

XperiLab is a truck in which an entire school class can carry out real experiments. The truck visits schools across Belgium, hosting more than 10,000 young chemists every year. This initiative has been a great success and is already booked up a full year in advance.

Solvay wanted children to understand the key elements of our environment with a view to developing the right mindset to meet future challenges. This concept has been operating successfully for the past five years and is still going strong.

These initiatives, among many others, help build the strong community relationships enjoyed by our sites across the globe.

Contributing to society

Global Involvement

The Group aims to connect its philanthropic efforts in keeping with the Group's areas of expertise and where its products or activities can deliver added value.

In 1923, Solvay created the Ernest Solvay Fund to honor the founder of the Company who had died the year before. Today, the majority of Solvay's corporate philanthropy goes through the Ernest Solvay Fund. This Fund is managed by the independent King Baudouin Foundation.

Solvay concentrates its philanthropic or funding efforts at a corporate level through science promotion; science education; and in some circumstances, support to humanitarian initiatives in reaction to certain disasters and/or where our products or services are of particular value.

Examples of worldwide Group science promotion projects

FOCUS INSPIRING THE CHEMISTS OF THE FUTURE

The Chemistry for the Future Solvay Prize rewards a major scientific discovery that could shape tomorrow's chemistry and aid human progress.

The prize perpetuates the strong support for scientific research that was always given by Ernest Solvay. It is intended to endorse basic research and underline the essential role of chemistry, both as a science and an industry, in helping to solve some of the most pressing issues the world is facing.

The € 300,000 prize is awarded every second years.

In 2015, the Chemistry for the Future Solvay Prize was given to Professor Ben Feringa. Professor Feringa's work on unidirectional molecular motors has opened up a new field of research which, for example, paves the way for the development of new therapeutic and technological applications. Within the next twenty to thirty years, his research is likely to lead to the introduction of nanorobots – microscopic robots that can accurately target specific molecules during therapeutic treatment. It may also enable a new generation of scientists to design artificial muscles or further optimize the storage of information on a molecular scale.

The next Chemistry for the Future Solvay Prize will be awarded in 2017.

FOCUS THE INTERNATIONAL SOLVAY INSTITUTES FOR PHYSICS AND CHEMISTRY

Following the legendary 1911 Conseil Solvay on "Radiation and the Quanta" chaired by Nobel Laureate Hendrik Lorentz, the International Solvay Institute for Physics was founded by Ernest Solvay in 1912. The International Solvay Institute for Chemistry was founded a year later, in 1913. The two Institutes merged in 1970 as the International Solvay Institutes for Physics and Chemistry, founded by Ernest Solvay.

The mission of the Solvay Institutes is to support and develop curiosity-driven research in physics, chemistry and associated fields with the purpose of "enlarging and deepening the understanding of natural phenomena".

The central activity of the Institutes is the periodic organization of the celebrated Solvay Conferences on Physics and Chemistry ("Conseils de Physique Solvay" and "Conseils de Chimie Solvay"). This support for fundamental science is complemented by the organization of open workshops on specific selected topics, international chairs, colloquia and an international doctoral school.

In addition to these activities, the Solvay Institutes also promote the popularization of science through the organization of the annual Solvay public lectures devoted to today's big scientific challenges.



EXAMPLES OF GROUP SCIENCE EDUCATIONAL PROJECTS

- UNISTRA, creation at the University of Strasbourg of “bourses de doctorat d'excellence en chimie”. For 2015, they received more than 50 applications. Amongst them candidates from Imperial College of London, University of Cambridge, Saint Andrews University;
- The Chair for Eco-processes for Sustainable Chemical and Biochemical Engineering at the University of Louvain and the Chair for Technological Innovation at the same university;
- The annual grant to the Queen Elisabeth Medical Foundation (QEMF), which encourages laboratory research and contact between researchers and clinical practitioners, with a particular focus on neurosciences. The QEMF supports 17 university teams throughout Belgium;
- The International IUPAC/Solvay Award for Young Chemists, which will reward five young chemists and researchers from top universities all over the world;
- The “Solvay Awards”, which have been recognizing students from two major universities in Belgium for more than 20 years;
- Solvay is supporting the newly created “Fondation pour l'enseignement”, which aims to develop education in Belgium to bring it more in line with the needs of the business world;
- From 2014, Solvay supports VOCATIO scholarships, which are granted to talented young people to enable them to achieve or start pursuing their dream.

Awards and Recognition (last 4 years)

The Group and its operational entities regularly receive awards and recognition for exemplary management practices.

Group

- **SOLVAY SA:** Award for Best Belgian Sustainability Report in the large organizations category by the Institute of Registered Auditors - Belgium (2015);
- **GBU FIBRAS:** ICIS Awards for Best Product Innovation for “Emana - a polyamide fiber that emits far-infrared radiation” (2014);
- **GBU SODA ASH:**
 - “Innovative company of the year” for the “integrated cycle for systematic collection, evaluation and implementation of innovative ideas of its employees” “Got It” from the Enterprise Europe Network (2015);
 - Pierre Potier Prize for BiForSafe, “An environmentally-friendly, mineral formula insect repellent based on sodium bicarbonate” (2014);
 - Certificate for participation in a project by CSR Bulgaria (2013);
 - Primus Inter Pares Certificate for CSR activities by the Belgium -Bulgaria - Luxembourg Business Club (2013);
 - 3rd place in the “Investor in Knowledge” category at the Bulgarian Forum of Business Leaders (2013).
- **GBU AROMA PERFORMANCE:** ICIS Award for Best Product Innovation (2013);
- **ENGINEERING PLASTICS:**
 - Schneider “Planet and Social Responsibility Award” (2014);
 - Best Supplier of non-metallic raw materials, first among 56 suppliers, from one the major global customers (ElringKlinger) (2013/2014 and 2014/2015).

• SOLVAY EMERGING BIOCHEMICALS

- Epicerol® : JEC Asia Innovation Award for ‘Bio-based ECH for more sustainable epoxy resins’ (2015).

Europe

Belgium

- **BRUSSELS SOLVAY CAMPUS:** “Ecodynamisme” awarded two stars by the IBGE2 for its environmental management (2013);
- **LILLO:** First Responsible Care ® Award in Environment Category from CEFIC (European Chemical Industry Association) for water savings in the Harbor of Antwerp (2014).

Bulgaria

- **CHERNEVO:** Award for best results in “Extraction of Inert Materials” from the Bulgarian Chamber of Mining and Geology (2013);
- **DEVNYA:**
 - Most safe small company (quarry) (2014);
 - Corporate Social Responsibility Award – 1st class Investor in Environment, from the Bulgarian Forum of Business Leaders (2012);
 - Bulgarian Chamber of Commerce and Industry award for maximum value of sales revenue in the Northeastern Planning region in 2012 and 2014.
- **CHIPROVTSI:**
 - Bulgarian Investment Agency “Investor of the Year” for HSE achievements in the sphere of chemistry (2014);
 - Bulgaria Fluorit, awarded as “National Investor 2013” together with 15 other companies in Bulgaria (2013).
- **GORSOW:**
 - Awards for Corporate Social Responsibility (CSR) “Lubuskie Perły Odpowiedzialności Społecznej” for practices benefiting employees, safety and local communities (2013).

Germany

- **BERNBURG:**
 - Health management system - award of the trade union of chemistry (2015).
 - Certified as a High-Quality Apprenticing Company by the Halle Chamber of Industry and Commerce (2014);
 - Award for its SCHULEWIRTSCHAFT school-economy engagement network from the German Federal Minister of Economics (2013).
- **BAD WIMPFEN:** Special certificate from the Baden-Württemberg Chemical Employers' Association for “special training performance”, a “Top Apprentice 2013” prize from the same association, and a best apprentice reward (electronics technician for operating technology) from the Baden-Württemberg Chamber of Industry and Commerce (2013).
- **BAD HOENNINGEN:**
 - Solvay Excellence Award for the “Safety category” (2013);
 - “Landrat Neuwied” for HR: apprenticeship and major employer for the region (2015);

• RHEINBERG

- Apprentice project due energy saving (Druckluftdetektive) from VCI (2015);
- “Compressed Air Detectives” honored by the German Chemical Industry Association (VCI) and the Minister of Economy of North-Rhine Westfalia (NRW) (2013).

- **FREIBURG:** German Compliance Prize (2014).

Italy

• ROSIGNANO SOLVAL

- Prix Développement Durable (2015);

- **BOLLATE:** Award from the Italian chemical industry federation Federchimica (2013);

- **FERRARA:** “Innovazione al Quadrato” award for electricity consumption and cost reduction project (2012);

- **TAVAZZANO:** Accreditation under the healthy work project (2014);

United Kingdom

- **DEER PARK:** For the fifth year, the Gold Award for Safety in Lostock from the Chemical Industries Association (2013);

- **WARRINGTON:** Chemicals Northwest Young Achiever Award for Mark Sullivan (2013);

- **HALIFAX:** Yorkshire Chemical Focus for continuing support (2014);

- **LOSTOCK:** CIA Gold award for no lost time accidents (2014).

Portugal

- **SOLVAY PORTUGAL:** Elected President of BCSD4 Portugal for 2013 - 2016 in recognition of its commitment to sustainable development (2013).

Poland

- **GORZOW:** CSR award in Woyewodship/The most friendly employer (2015)

Spain

• MARTORELL

- “No LTA/MTA Accidents” award from the Organization of the Spanish Chemical Industry for accident-free status in 2012 and 2013 (2014);
- Award for best human resources management from the AEDIPE (Association of Human Resources Managers) (2014).

• BLANES

- Health management system - award from the trade union of chemistry (2015);

• ESCUZAR:

- FREMAP (prevencion de riesgos laborales) award for risk prevention in the workplace (2013, 2014);

• TORRELAVEGA

- Safety Results (1 year MTAR=0) from FEIQUE: The Spanish Chemical Industry Federation;
- “CONCILIA Prize” for how Solvay promotes reconciliation programs aimed at facilitating a work-life balance for Solvay workers from FEIQUE;
- “COOPERA Prize” for the program promoting local opportunities for young people linked to the development of managerial practices and academic visits to plants from FEIQUE;
- “Business partner of the Coorcopar catering service solidarity NGO” (2012).

Latin America

Argentina

- **BAHIA BLANCA:** Special recognition for contributions to the Argentine Chamber of the Chemical and Petrochemical Industry's Environmental Responsible Care ® Program (2013).

Mexico

- **CIUDAD JUAREZ:** One year without a lost time incident. Clean Industry re-certification (2014);

- **MONTERREY:** NA RC Award in Health and Safety category (Visual Management program). Monterrey HSE Google site won the Gapps Contest in the Teamwork category (2014).

Brazil

- **PAULINIA:** Solvay's contribution to water management recognized by Local Basin Agency and Police Agency (2014);

- Site chosen by ONU/OPCW in order to train new OPCW auditors, including Brazilian government representatives involved. (2015);

- **CURITIBA:** JV Peróxidos do Brasil recognized by FM Global as the highest site ranked as HPR (Highly Protected Risk) in the Solvay group and 4th place among the 434 customers of industrial sector (2014);

• GBU FIBRAS:

- The Amni TM Soul Eco polyamide yarn received the ABIQUIM (Brazilian Chemical Industries Association) Technology Award plus an award in the Sustainability Practices category from AMCHAM (2014);
- The Emana TM Denim polyamide yarn received an ICIS Innovation Award in London, England (2014).

- **RHODIA:** Recognized by the Brazilian magazine ÉPOCA NEGÓCIOS 360° magazine (5th place for Corporate Social Responsibility in the chemical and petrochemical sector) and ranked among the 250 best organizations listed (2014);

• SANTO ANDRE RHODIA

- HSE Award for the best practices in the national textile industry from ANIMASEG (2015);
- National and international awards received for launching innovative products (EMANA, AMNI SOUL ECO) (2015);
- Social contribution to the city and the region from the Municipality (2015);
- Contribution to the reduction of water consumption during the intense drought period from the local water agency (2014).

- **GBU SILICA:** Recognized by BORRACHA ATUAL magazine at the Top Rubber Awards, Environment category (2013 and 2014);

- **BROTAS:** Recovery Unit of Recyclable Waste in the city of Brotas (in partnership with the Association of Parents and Friends of Children with Down's Syndrome) (2015);
- **JACAREI:** Award for environmental management from Incheon City on World Environment Day (2014).

North America

USA

- **AUGUSTA, GEORGIA**
 - Safety Award Recognition for participating in United Way Campaign Recognition Event, United Way Project Serve Day, National Veterans History Project, Spirit Creek Middle School Science Trip, Cystic Fibrosis fundraiser and other projects from the American Chemistry Council (ACC) (2012);
 - United Way Support (local campaign, Project Serve, Giving Your Best), Local School Support (Science Fairs, Science Demonstrations), Support local Cystic Fibrosis chapter (2015).
- **ALPHARETTA:** Top 10 companies- United Way Forsyth County (2015);
- **ALORTON:** ACC Responsible Care® Initiative award for the HF (hydrogen fluorides) Transportation Training program (2012);
- **CHICAGO HEIGHTS:** Environmental Preservation Award from Automated Services for going Above and Beyond in the area of Recycling 2012, a Responsible Care® Award for Safety Performance from ACC (2012);
- **MARIETTA, OHIO:** Certificate of Excellence for no occupational injuries from the American Chemistry Council (2012) and Awards for 100% Achievement with no occupational injuries and over 900,000 safe hours worked from the Mid-Ohio Valley Safety Council (2012) - Ohio Bureau of Workers Compensation 100% Awards (no LTAs) and > 1 million hours worked since last LTA;
- **MARSHALTON:** Safety Excellence / responsible care (2015);
- **CHARLESTON:** ACC Responsible Care® Facility Safety Award (2012);
- **GREEN RIVER:** State of Wyoming Mine Inspectors' Safest Underground Mine. No Lost Time Injuries in 2013 (2014);
- **LONGVIEW:** Repeatedly received Responsible Care® awards for excellence in Safety and Environmental performance.

Asia and Rest of the world

China

- **Solvay China:** Recognized by CPCIF and ICCA as "Best Practice Unit" for HSE deployment under the Solvay Way guidelines (2014);
- **LIYANG:**
 - Harmonious Labor-Management Relations Company in Jiangsu Province (2015);
 - Integrity Demonstration Company of Labor Security in Jiangsu Province (2015);
 - AA Enterprise and High-ranking Certification Company authenticated by China Customs (2015);
 - "Good Faith Demonstration Enterprise of Labor Security" from Jiangsu Province (2013);
 - Liyang City Safety award (2013);
 - "Advanced Team of Safety Production" from Changzhou City (2014);
 - "Green Plant" from Changzhou City (2014).

- **QINGDAO:** Three awards from local government:
 - Advanced enterprise for environmental protection (2013);
 - Significant contribution enterprise (2014);
 - Social Fire Safety "firewall": Advanced unit (2012);
 - Production Safety Responsibility: Advanced unit, (2012).
- **QUZHOU**
 - Labor and social security organization level A (2015);
 - Environmental protection demonstration enterprise by Quzhou government (2015);
- **AOTOU:** Recognized by local government for outstanding safety record (2012, 2013).
- **ZHANJIANG:**
 - "Advanced Fire-fighting Company" (2015)
 - "Advanced safety culture enterprise" from Jiangsu Province (2013);
 - One of ten advanced scientific development enterprises (2014);
 - First level among 45 sites in ZJ New Area in the environment assessment by ZJ New Area Park (2014);
 - Awarded "Green Grade" for Environment Protection Credibility by local EPA (of the 37 companies in Zhangjiang, Solvay was the only one to achieve Green level (2014);
 - First-class award for emergency response plan (among 38 companies appraised by Zhenjiang Safety Supervision Bureau) (2014);
 - "Advanced group for safety production" by ZJNA Management Committee (2014).
- **SHANGAI EP**
 - Level AA Enterprise for Harmonious labor relations" from Minghang Government (2013);

Egypt

- **ALEXANDRIA:**
 - Social sustainability from Egyptian industrial federation (2014);
 - Certificate of appreciation in recognition of efforts in sustainable development and corporate responsibility: Chemical security engagement;

India

- **PANOLI SOLVAY:**
 - Safety Excellence from Federation of Indian Chambers of Commerce and Industry (2015);
 - Indian Chemical Council "Excellence in HSE Management" (2012);
 - International Water Association awarded "Winner in Design category" for Waste Water Minimization Project (2012);
 - "Water Resource Management" from Indian Chemical Council (2013);
 - Winner in "Design Category" for waste water minimization, International Water Association (2012);
 - HSE Excellence from Indian Chemical Council award;
- **RASAL**
 - Certificate of Merit for meritorious performance in industrial safety from National Safety Council MAHARASHTRA (2013 and 2014).

• ROHA

- Commended for Longest Accident-Free Period and Lowest Accident Frequency Rate by National Safety Council. Awarded Certificate of Merit by National Safety Council (Maharashtra Chapter) (2014);

• SAVLI RD&T Centre:

- Federation of Indian Industry and Commerce “Safety in Excellence” award (2012).

Russia

• SERPUKHOV

- No. 6 of Occupational Safety rating list of the Moscow region (oblast) (2014);
- Award of the Serpukhov Commercial Chamber for excellent business reputation (2012).

South Korea

• INCHEON:

- Safety excellence manager from KOSHA (2015);
- Environmental conservation award from the Environment Minister (2012);
- Community development award from the city's mayor (2012);
- “Environmentally Excellent Company” award from Incheon city mayor (2014);
- HSE manager commended by city mayor for supporting local environmental conservation (World Environment Day, 2014).

• ONSAN:

- Best supplier 2014 by HICO (2014);
- Award of achieving the target record of Zero Accidents (4 consecutive years of zero accidents) from MOL (Ministry of Labor) (2015);
- Presidential Citation on “Day of Environment”. Awarded by President of Korea (2012);
- No. 1 in Korea by Critical Task Analysis. Awarded by Minister of Employment and Labor (2012);
- Presidential Citation on “Safety and Health Day”. Awarded by President of Korea (2014);
- Citation on “Day of Fire-Fighting”, awarded by Minister of Public Administration and Security (2012);
- Designated as an HSE mentor site, will train other Korean companies. Recognized by MOEL (2013);
- Achieved level “A” in the “Contractor Partnership Program” (organized by KOSHA since 2012) (2014);
- KOSHA certificate for achieving the Zero Accident target (seven successive years with zero accidents since 2008) (2014);
- Achieved “P” level (the best grade) in the PSM scheme (2014). This is Onsan site's fourth consecutive “P” level rating since 2003.

• ONSAN RHODIA

- Citation for energy consumption reduction by Korea Energy Corporation's President (2015);
- Citation for safety and health by Korean President (2014).

Thailand

• MAP TA PHUT PEROXYTHAI:

- Green Star Award for four consecutive years (2012-2015) from Authority and Community audit;
- Green Industrial Level Three (wait for the official award early 2016) from Department of Industry Work (2015);
- Good governance award. (Safety, Health and Environmental) (2015);
- Industrial Estate Authority of Thailand Governance Award (2013);
- Leader of Voluntary Energy Saving Agreement program (2013);
- Ministry of Labor Zero Accident Awards - Silver Level (2013);
- Ministry of Industry Green Industry Certificate, Level Four;
- Thailand Energy Award from Ministry of Energy (2012).

• MAP TA

- Seventh Environment and Safety Governance Award 2014 and “Gold Star - Environment and Safety Governance Award”, Industrial Estate Authority of Thailand (2014);
- Fourth zero accidents award - Silver level from the Ministry of Labor (2014);
- Three years without any lost time accidents (2013).

3.2 Process safety, emergency preparedness and response



G4-S02

Risk-management approach

Solvay's neighbors are protected against risks resulting from its operations by means of site environmental management, prevention of accidental spills and prevention of industrial accidents. Prevention of negative accidental impact on local communities relies on two pillars; prevention of industrial accidents with potential environmental and human consequences, and, environmental management.

Process Safety is an essential and enduring element of Group sustainability, both in terms of protecting people and the environment. 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 Process Safety Incidents (PSI) that have the potential to release hazardous materials or energy into the environment.

In practice the prevention of industrial incidents means:

- implementing a Process Safety Management system at sites according to the risks involved in their processes and in line with local requirements and certifications;
- performing consistent hazard identification and risk analysis for existing, new or modified installations using methods and procedures in line with Group standards and resolving risk situations.

Solvay's 2020 target

- 100% of our sites have a risk analysis for every production line updated in the last five years.

This target aims to ensure the integrity of operating systems and processes at all sites. Regular risk analysis is now undertaken according to a new risk scale. This analysis forms the backbone of risk control. Risk scenarios have been defined using the Group's standardized matrix in order to identify all potential Risk Sheet 1 situations.

Risk Sheet 1 refers to a technically plausible scenario of explosion, fire or loss of containment of hazardous material on a manufacturing or storage facility which is not acceptable for Solvay in terms of the severity of its consequences for people and the environment and its probability of occurrence.

Solving Risk Sheet 1 situations

A key element of Solvay's new process program that is now fully underway is the handling of Risk Sheet 1 situations, as prescribed by Solvay's red line. Red lines are essential Solvay rules that must be respected to the extent that they cover issues which constitute major risks for the Group. Employees or organizations not complying with the red lines are liable to be penalized.

Requirement was fulfilled in 2015, with no Risk Sheet 1 situation remaining at the end of 2015 that was over one year old.

- At the end of 2014, 217 Risk Sheet 1 situations were identified. They were all mitigated during 2015. Most of the 217 Risk Sheet 1 situations concerned one site in China.
- At the end of 2015, 94 Risk Sheet 1 situation were identified. They are to be mitigated in 2016.

Process Safety Management systems (PSM)**Solvay's 2020 target**

- All sites with a process safety management system corresponding to their risk.

**SITES WITH PSM SYSTEMS
CORRESPONDING
TO THEIR RISK LEVEL**

	2015
Sites PSM level 1	85%
Sites PSM level 2	83%
Sites PSM level 3	85%
All sites (PSM level 1, 2, 3)	84%

**ADAPTED RISK ANALYSIS FOR CHEMICAL
PROCESSES WITH LOW POTENTIAL HAZARDS**

Solvay has developed a tiered risk analysis method for processes, adapted to the levels of potential hazard. This encompasses a simplified method for conducting risk analysis on sections of chemical processes with low potential hazards. This simplified method has been successfully implemented for "Soda Ash" processes with identification of low risks in seven sites within Solvay. This achievement is due to the high efficiency of the method, which was thus recognized and implemented by the GBU "Soda Ash and Derivatives".

3.3 Anti-corruption

Commitments and policies**G4-DMA on anti-corruption**

Solvay's Code of Conduct expressly states that the Group prohibits bribery in any form. Solvay and its employees do not use gifts or entertainment to gain competitive advantage. Facilitation payments are not permitted by Solvay. Disguising gifts or entertainment as charitable donations is equally a violation of the Code of Conduct. The Code is supported by a more detailed policy on Gifts, Entertainment and Anti-bribery. Solvay's commitment to zero tolerance of corruption is reconfirmed in the IndustriALL Global Union Agreement. Solvay is a member of Transparency International Belgium.

Effective management systems

Solvay has in place a compliance organization under the leadership of the Group General Counsel which sets out to enhance a Group-wide ethics and compliance-based culture and thereby ensure compliance with applicable laws and regulations and compliance with Solvay's Code of Conduct, values and corporate policies.

Both Solvay's Code of Conduct and the policy on Gifts, Entertainment and Anti-Bribery have been approved by Solvay's Executive Committee. The Code of Conduct is strongly supported by Solvay's management. Both the Code and the policy are widely communicated throughout the organization and all employees are required to participate regularly in a training program on the Code or related policies.

Employees need to obtain prior managerial approval before accepting or giving certain gifts or entertainment. Auditing for corruption or any other form of fraud is part of the duties of Solvay's Internal Audit function.

The Ethics and Compliance organization is also responsible for knowing the law, creating awareness, training employees and developing procedure. Solvay strongly encourages its joint-venture partners to put in place a similar ethics and compliance program, including anti-corruption. Solvay's Supplier Code of Conduct expressly states that suppliers shall not engage in or tolerate any form of corruption, bribery, extortion or fraud. Suppliers shall not offer any gifts or other benefits to Solvay employees that could improperly influence the Solvay employee.

Communication and training

G4-S04

In 2015, as part of its annual Code of Conduct training, more than 17,000 employees received training of between 15 minutes and 1 hour on various topics, including Solvay's Gifts, Entertainment and Anti-Bribery policy and the Group's Gift and Entertainment Tracking System. This number constitutes more than 66% of the Group's total employee population and includes operational and administrative sites in all geographic zones where the Group does business. For 2016, the Group has identified a specific anti-corruption training to be led by the Ethics & Compliance Department targeting management and other personnel in sensitive positions (sales, procurement, industrial development, etc.). A modified training for all other employees will also be offered.

Monitoring and evaluation mechanism

G4-S03 G4-S05

Solvay relies on its workforce to report incidents of corruption about which they become aware or suspicious. Reports made in good faith are encouraged and good faith reporters will not be disciplined even if their allegations turn out to be unsubstantiated. Employees are encouraged to speak with their supervisors, members of management, Human Resources, the Legal Department, Internal Audit and their local Ethics & Compliance Officer should they suspect wrongdoing in the workplace or with suppliers or contractors. The Speak Up tool is available for such purposes 24 hours a day, 365 days a year.

In 2015, Solvay recorded 43 reports on its Ethics Helpline, made through a variety of methods including e-mail, web, phone, mail and walk-in. Of the 43 reports, six (6) claims of corrupt activities were made in the form of reports involving alleged Conflicts of Interest. Of the six reported instances of alleged conflict, two were substantiated in actuality or in appearance, resulting in the termination of one employee and a management change involving the other. The two other claims remain open pending a full investigation. In addition, five other inquiries and disclosures concerning Conflicts of Interest were filed during this same period for which advice, policy review and training were provided.

In addition to its Speak Up program, Solvay is in the process of developing a Group-wide Fraud policy that will govern the investigation and ultimate disciplinary action, including the prosecution of any persons responsible for committing fraud against Solvay. In 2015, Solvay identified 41 instances of fraud attempts against Solvay, all by third parties. Of those, one instance resulted in a non-material loss and upon investigation was found to involve the falsification of financial documents. Policy, process review and training were provided to the part of the organization on which this impacted.

There were no public legal cases regarding corruption brought against Solvay or its employees during the reporting period. There were no incidents identified when contracts with business partners were terminated or not renewed due to violations related to corruption during the reporting period.

3.4 Public policy

GOVERNMENT AND PUBLIC AFFAIRS ADVOCACY STAFF, SOLVAY GROUP

(Full time equivalent)

	2015	2014
Corporate	6	6
Regions	13	12.6

G4-DMA on public policy

To act in all situations in line with the Group's vision, mission and values, to foster the best possible business environment for the Solvay Group, and be recognized as a responsible actor in business and public authorities' / stakeholders' dialogues.

Nineteen Solvay employees are part of the Government and Public Affairs function: six at corporate level and the Government Public Affairs team corresponding to a headcount of thirteen at a national/regional level in Europe, the United States, Asia and Latin America. Their goal is to establish, either directly or indirectly a permanent dialogue and a long-term partnership based on trust and clarity, with public authorities and other relevant stakeholders regarding issues of common concern.

Solvay has direct and indirect contact with policy makers and public officials on issues of relevance to the Group. This includes participation in many trade associations such as the World Business Council for Sustainable Development (WBCSD), the International Council of Chemistry Associations (ICCA), BusinessEurope, the European Round Table of Industrialists (ERT), the American Chemistry Council (ACC) and the European Chemical Industry Council (CEFIC). In October 2014, Solvay CEO Jean-Pierre Clamadieu was elected President of CEFIC. As CEFIC President, within the framework of the run-up to COP21, Jean-Pierre Clamadieu advocated carbon pricing that is market-based and that prevents 'carbon leakage' of emissions-generating activities to countries with weaker emission regimes. He also works constantly to strengthen the credibility of the European Chemical Industry through an open dialogue with stakeholders. Solvay also engages directly with stakeholder consultations and attendance at Parliamentary hearings and debates where relevant.

In 2013 the Government and Public Affairs function issued a binding Group policy on government and public affairs which applies to every member of the Solvay Group. It notably sets a red line for all employees whereby the selection and retention of any public affairs consultant must be carried out with the approval of the Government and Public Affairs function.

In the United States, our employees established the Solvay Employee Political Action Committee (EMPAC), which is a bipartisan and employee-run organization. Solvay EMPAC accepts voluntary contributions from eligible US employees and independently decides which candidate to support.

You will find typical issues in the scope of activities of the Government and Public Affairs function in the table below:

ISSUES	STANCE
Fight Against Climate Change	Contributes to the development of a clear, predictable and sustainable legislative framework for Climate Change policy in the EU and globally in the post 2020 period. Solvay supports a global and ambitious legally binding agreement on climate change within the framework of the UNFCCC which ensures a global level playing field.
Competitiveness of Industry	Contributes to various pieces of legislation developing a sustainable framework for business.
Responsible chemical handling	Solvay CEO sponsorship of the International Council of Chemistry Associations' (ICCA) Responsible Care® program to drive the safe handling of chemicals around the world and across the value chain.
Anticipating emerging issues	A small group of experts from Government & Public Affairs and HSE, called Paracelsus, plays a proactive role in monitoring and anticipating emerging issues in health and the environment to enable the company to take responsible actions and positions on complex issues.
Solvay Export Policy to Sensitive Countries	Solvay's export control system is in place Global Trade Services (GTS) does not prevent the export sales of products that comply with applicable legislation but that might have a negative impact on the reputation of the Group. GPA has proposed a process for sensitive countries to which sales are only allowed after validation by the GBU President.

Solvay's political contributions

G4-S06

The Group does not take part in party political activities nor does it make corporate donations to political parties or candidates. However, the Group will engage in a constructive debate with public authorities on subjects of legitimate interest to Solvay. Only those employees specifically authorized to do so will carry out these activities. In this respect, the Group may support non-governmental organizations.

Solvay respects the freedom of its employees to make their own political decisions. Any personal participation or involvement by an employee in the political process must be on an individual basis, in the employee's own time and at the employee's personal expense.

3.5 Anti-competitive behavior

Commitments and policies

G4-DMA on anti-competitive behavior

Solvay's goal is to conduct business ethically and not to enter into any business arrangements that eliminate or distort competition. Solvay is committed to developing and maintaining a culture of compliance to keep Solvay and its people on the right side of the law. To achieve this goal, Solvay has put in place a Competition Compliance Program which propagates a zero tolerance approach towards competition law infringements. It is based on a formal Competition Law policy and supported by yearly Action Plans.

Competition Law policy

Solvay has a formal Competition Law policy, in which the importance of strict adherence to all competition laws is stressed. This formal Competition Law policy was approved by Solvay's Executive Committee and is published on the intranet to which all Solvay's employees have access. Any violation of this policy may result in disciplinary action, subject to and in conformity with applicable laws.

Solvay has dedicated resources within the Legal Function responsible for the implementation of the Competition Law Compliance Program. They are dedicated to providing competition law advice and guidance as well as deploying effective and recurrent communication and training on competition law related subjects.

As part of its Compliance Program, Solvay provides on its intranet a Competition Law Tool-Kit including up-to-date guidelines on specific areas of competition law, inter alia on dealing with competitors, information exchange in M&A transactions, swaps, price announcements, volume allocation in case of shortage, vertical agreements, rebates and discounts under European law, agency and distribution agreements etc.

To minimize cartel risks, Solvay has put in place a computer-based system that tracks all contacts of relevant employees with competitors through a managerial approval procedure (CCTS). This system has been updated and was re-launched on a global basis in 2015.

Monitoring and evaluation mechanism

To complete the Competition Law Compliance Program, Solvay has a concrete Action Plan designed to mitigate the specific risks identified, that has been in force since 2003 and which is updated on a yearly basis. In 2015, this action plan included the self-assessment procedure whereby all business units were screened in cooperation with their managers on compliance with the rules. As part of the 2015 action plan, high-risk individuals were trained on contact with competitors and the use of the CCTS. In addition, a group-wide e-learning course will be launched aiming at spreading awareness of the rules.

Internal Audits are carried out on a yearly basis to check effective implementation of the Action Plan.

In the course of 2015, one extra person was hired with specific experience in competition law to strengthen the existing competition law team.

Legal actions for anti-competitive behavior, anti-trust and monopoly practices and their outcomes

G4-S07 G4-S08

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. After appeal, the fines amounted to € 139.5 million for Solvay SA and € 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 € 240 million (excluding interest) against all six defendants. Several questions on the jurisdiction of the Court of Dortmund were raised to the European Court of Justice and proceedings before the Court of Dortmund are pending.

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 H₂O₂ activity (Solvay's share of the fines is € 29.6 million). Solvay has filed a claim contesting these administrative fines before the Brazilian Federal Court.

3.6 Grievance mechanisms for impacts on society

G4-DMA on grievance mechanisms for impacts on society

Solvay's Code of Conduct emphasizes Solvay's commitment to ethics and integrity in the communities in which it operates. Training on the Code of Conduct is designed to reach all employees. In 2015, as part of this ongoing

effort, more than 17,000 individuals received training. Part of this training stressed the importance Solvay places on being a good corporate citizen and on making positive contributions to society.

Solvay relies on its employees to support the Code of Conduct in every regard and to be its ambassadors in its sphere of operation and influence. Employees who need clarification about the application of the Code of Conduct, who know of an ethical or compliance issue, or who believe in good faith that non-compliance issues are occurring at Solvay are encouraged to come forward. The Speak Up program is designed to record such reports as they are communicated to members of management, internal experts and through a third-party reporting tool which is operational 24 hours a day, 365 days a year. All reports are investigated as long as sufficient information is provided by the reporter and incidents of retaliation to good faith reporting are not tolerated.

G4-S011

There were no reports made through the Speak Up program that claimed or identified a negative or otherwise unwanted impact on society by Solvay or its representatives.

4. PRODUCT RESPONSIBILITY

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4.1 Product stewardship and the management of hazardous materials

Solvay currently manages over 8,400 substances, with over 12,000 product grades marketed as separate grades or in mixed grades. Solvay is committed to ensuring users have a comprehensive understanding of the hazards, risks and impacts related to products, from the production stage until end use.

Hazardous materials management is one of the key sustainability issues for the Group. Regulatory compliance is a fundamental element of hazardous product safety for the customers and more largely the value chains. Solvay's policy requires "to take action and carry out product stewardship programs that contribute to the safe management of hazardous substances throughout their life-cycle during use and disposal, paying particular attention to products involving higher risks".

In addition to the management of all hazardous substances (risk analysis, labelling and product stewardship), Solvay is now implementing a global approach for Substances of Very High Concern (SVHCs).

Product Stewardship programs to manage product risks

Product Stewardship programs focus on ensuring safety across the full product life-cycles. Product stewardship covers the recognition, minimization, control and communication of a product's public and environmental health and safety-related effects along the entire value chain.

The mitigation of environmental impacts, as part of such programs, include everything that ensures the adequate handling and disposal of chemical substances by customers and all activities aiming to promote recycling of end-of-life products.

Product Stewardship is a key component of ICCA's Responsible Care® Global Charter, which was signed by Solvay in 2007 and re-signed in 2014.

Product stewardship is deployed along nine action lines. Dedicated action is taken with regard to Substances of Very High Concern; substances destined for the health, feed and food markets; a number of chemicals with hazardous properties, such as peroxides, which deserve special attention in terms of fire and explosion hazards.

THE 9 AXES OF PRODUCT STEWARDSHIP PROGRAMS

Product knowledge and compliance	1. Comprehensive understanding of products' hazards, risks and impacts related to their whole life cycles	<ul style="list-style-type: none"> Product knowledge and compliance G4-PR1 on page 107. Supplying Product Safety Information - G4-PR3 on page 109.
	2. Environmental life cycle assessments	<ul style="list-style-type: none"> Ecoprofiles of products on page 64.
Manufacturing operations	3. Preventing risks in the workplace	<ul style="list-style-type: none"> Industrial hygiene program G4-LA7 on page 84.
	4. Complying with product technical specifications	<ul style="list-style-type: none"> as part of quality management
Product information	5. Ensuring Safety Data Sheets are sent to customers and revised at least every 3 years	<ul style="list-style-type: none"> Supplying product safety information - G4-PR3 on page 109.
Distribution and use	6. Dedicated product stewardship programs addressing specific products, markets and customers	<ul style="list-style-type: none"> This section Transport
	7. Avoiding accidents and spills during distribution	<ul style="list-style-type: none"> Transport safety on page 67.
Substances of Concern	8. Ensuring dedicated management of "Substances of Very High Concern"	<ul style="list-style-type: none"> Environmental management - page 44. Product safety - G4-PR1 page 107. Occupational hygiene - G4-LA7 page 84. Risk assessment and substitution - G4-PR1 page 107.
Recycling	9. Recycling end-of-life products	<ul style="list-style-type: none"> End-of-life product recycling - G4-EN28 page 65.

FOCUS THE MOST DANGEROUS ACID IN THE WORLD: PREVENTING BURNS

Hydrogen Fluoride (HF) or Hydrofluoric Acid is a precursor to almost all fluorine compounds: pharmaceuticals, refrigerants, herbicides, high-octane gasoline, aluminum, plastics, electrical components, diverse materials such as Algoflon®, fluorescent light bulbs, etc. It is also one of the most dangerous acids. When in contact with humans, it poses a double risk. It attacks the skin surface, resulting in chemical burns and it also permeates the skin, reacting negatively with the blood. In 2012, Hube Global Ltd. a chemical plant in Korea experienced a huge hydrofluoric acid leak resulting in the death of five workers, with 18 seriously affected, 1,500 people were evacuated and 900 admitted to hospital. It also caused the loss of property valued at € 6.4 million.

As a producer of HF, Solvay has long-term experience in handling this chemical safely. Solvay recently published a very practical new set of dedicated safety standards for internal staff that handle this substance. It is also in the process of producing guidelines to be published in 2015 for customers who use it.

The "Best Safety Practices Handbook about AHF loading/unloading facilities" has been submitted to CEFIC (the European Chemical Industry Council).

4.2. Sustainable products and solutions

Solvay continues to deploy its presence in markets where its products serve more sustainable solutions. These solutions should not only be "obvious" ones, such as biodegradable products for soaps and shampoos or renewable-based solvents for paints and coatings, but also more complex solutions that ultimately enable consumers to reduce their energy consumption or the amount of food waste they generate, to limit the impact of aging, or to increase the amount of medical treatment given at home, etc.

Sustainable energy

Additives and binders for batteries

Electric energy storage is a key bottleneck in the production of energy from sun and wind. Increasing storage capacity helps renewable energy to be used in a competitive way. PVDF increasingly tends to be used in Li-ion battery materials (from cathode binders to separators, etc.). High molecular weight Solef® PVDF grade helps to increase power density in lithium batteries (e.g. for electrical cars). By increasing the capacity of the batteries, it helps to reduce the total weight. By increasing the capacity of the batteries, it also helps to limit the discharging rate, therefore increasing their lifetime.

Solef® PVDF (Polyvinylidene fluoride) is used in Alternative Energy as an electrode binder. It guarantees durable adhesion at electrodes and mechanical integrity in the aggressive chemical environment of the battery.

Solef® PVDF is a fluorinated, semi-crystalline thermoplastic. Without any additives, it provides a combination of properties resulting in longer equipment life.

Sustainable chemical solutions for the fast-growing Oil and Gas (O&G) market

The Oil & Gas industry offers challenging applications for most polymeric materials, demanding high-temperature performance, chemical resistance, chemical permeation resistance, toughness and flexibility even at low temperature, excellent electrical insulation and long-term reliability. Solvay provides a wide range of high-performance polymers that meet Oil & Gas critical requirements. Solvay's range of solutions for oil & gas drilling and production include a wide array of products such as gelling agents, friction reducers, emulsion breakers, biocides and scavengers, corrosion inhibitors, and acidizers, all key components of completion or production fluids.

Climate care

Solvay now has a very strong expertise in the development of greenhouse gas emission reduction projects using the mechanisms defined by the Kyoto Protocol, and in the monetization of emission reductions in the main carbon markets worldwide. The Group produces electricity from biomass in Brazil and torrefied biomass in USA (which can substitute coal in power plants). Solvay offers a customized and integrated approach to reducing energy costs and CO₂ footprint.

Renewable materials

High-performance modified wood

Solvay Acetow and Accsys Technologies PLC confirmed an agreement for Accoya®, a high-performance modified wood based on Accsys technology, which converts softwoods and hardwoods into "high technology wood". This modified wood exhibits superior dimensional stability and improved durability when compared with alternative natural, treated and modified woods. Accoya® wood is perfect for external applications, in particular for decking, cladding, siding windows and external doors.

A cellulose acetate bio-plastic manufactured using wood pulp

Solvay Acetow introduced Ocalio™, a cellulose acetate bio-plastic manufactured using wood pulp, an entirely renewable resource obtained from SFI (Sustainable Forestry Initiative) certified forests. This entirely renewable resource does not compete for food resources. Ocalio™ has a bio-based content of 50% at present and has a much lower CO manufacturing footprint compared with conventional plastics. Ocalio™ can be easily molded and is designed for a wide range of consumer goods end-uses such as containers for cosmetics and personal care, electronic devices, toys and mobile phones.

Cleaner environment (Advanced formulations, Advanced materials)

Mixed-Oxide Optalys for Gasoline Depollution (CO+HC+NOx)

Vehicles are major contributors to air pollution. Air pollution refers to the presence of foreign substances in the air that don't belong there, or excessive amounts of certain impurities that wouldn't harm us otherwise. When cars burn gasoline, they emit pollutants. The largest part of combustion gas are not toxic or noxious: nitrogen (N₂), water vapor (H₂O), and carbon dioxide (CO₂), although carbon dioxide is generally recognized as a greenhouse gas that contributes to global warming. Optalys®, Actalys® and other rare-earth based and mixed oxides formulations boost performance of automotive catalytic converters, minimizing CO₂ emissions and making it possible to meet the strictest regulations.

Three-way catalytic (TWC) converters convert toxic pollutants in exhaust gas to less toxic pollutants by catalyzing a redox reaction (oxidation or reduction). These converters combine carbon monoxide (CO) with unburned hydrocarbons (HC) to produce carbon dioxide (CO₂) and water (H₂O) and reduce oxides of nitrogen (NO_x). The washcoat is the carrier for the catalytic materials and is used to disperse them over a large surface area. Aluminum oxide, titanium dioxide, silicon dioxide, mixed oxide of zirconium/cerium or a mixture of silica and alumina can be used. Mixed oxides contribute to the sustainability of the TWC converters by stabilizing precious metals up to 1,100°C).

Water filtration membrane

Filtration membranes increase the local availability of fresh water, since these membranes can be applied in different types of compact solutions. Water Purification by Membrane Filtration is a fast-growing global market: Udel® polysulfone (PSU) consists of a repeating structural unit composed of phenylene units linked by three different chemical groups: isopropylidene, ether,

and sulfone. Udel® polysulfone (PSU) is a rigid, high-strength, semi-tough, transparent plastic that offers higher heat resistance and better hydrolytic stability than polycarbonate (PC). It retains its good mechanical properties when exposed to steam and other sterilization techniques.

It is used in Water Treatment (WT) for water filtration membranes used in fresh water production.

Other developments in sustainable innovation

Innovation Portfolio expanded into two new market segments: fertilizer protection and seed boosting

Solvay Novacare's innovation portfolio for Agrochemicals Specialties has been expanded into two new market segments: fertilizer protection and seed boosting. To protect urea from decomposition into ammoniac, this fertilizer is treated with a formulation containing NBPT (NBUTYLthioPhosphoric Triamide) as the active ingredient. Previously these formulations contained NMP (NMethylPyrrolidone), which is a toxic solvent. In the new formulations we use Solvay's eco-friendly solvents (glycerol derivatives and di-esters), which are non-toxic and biodegradable. Seed boosting technology based on GSB (Germination Seed Boosting) agro-polymers creates a favorable environment for seeds to germinate and promotes root development. This ultimately results in better crop yields, thus providing an answer to one of the megatrends in agriculture: yield improvement.

Safer materials

Peroxides for safe disinfection

In food production, Solvay's range of peroxygen products make food safer to eat and more accessible. In farming, we contribute to a healthy living environment for animals and fish, controlling disease

or eliminating it at source, with low toxicity and low environmentally persistent products. The European Commission recently approved hydrogen peroxide for biocidal uses in Europe. This is the first biocide substance manufactured by Solvay that has been approved by the European Chemicals Agency (ECHA), with peracetic acid also expected to be authorized within the next months. Overall it was realized by the authorities that hydrogen peroxide has a good environmental and toxicological profile. It is not persistent in the environment and degrades to water and oxygen and hydrogen peroxide is not carcinogenic, mutagenic or reprotoxic.

Hydrogen peroxide is used as a disinfectant to control bacteria, as well as fungi and viruses. Its most important biocidal use is in aseptic packaging, which refers to disinfecting food packaging, such as milk, yogurt or juice packs, just before being filled. Furthermore vaporized hydrogen peroxide is used for sterilization and decontamination in the pharmaceutical industry, and empty animal houses can be disinfected with hydrogen peroxide using a spraying method.

More details on sustainable innovation in the Research and innovation management chapter of this report.

4.3 Customer health and safety

Risk management approach

G4-DMA on customer health and safety

Solvay currently manages over 12,000 product grades that are marketed. For all products, Solvay is committed to acquiring and maintaining comprehensive understanding of the hazards, risks and impacts related to products from production stage until end of use.

Controlling product risks extends along entire value chains, within the framework of multiple complementary regulations and processes. Solvay's management of hazardous substances translates into systems and tools for:

- environmental management;
- occupational health and safety;
- occupational hygiene;
- product stewardship.

Regulatory compliance is central

G4-DMA on compliance

Regulatory compliance is a fundamental element of product safety for the customers, and more largely the value chains and the public. Solvay dedicates considerable expertise to strict regulatory compliance regarding product risk assessment, classification and labelling. From a regulatory standpoint, Solvay deploys the new requirements of the Global Harmonized System (GHS) by implementing the "blocks" of requirements defined by each country. Solvay, in particular, is fully in line with the current European requirements (i.e. the Classification, Labelling and Packaging European framework).

All products: complying with the Global Harmonized System

Work is underway to implement the Globally Harmonized System of Classification and Labeling of Chemicals (GHS), a major initiative of the United Nations started in 2003 to progressively harmonize classification and labelling worldwide.

In the European Union, the GHS regulation is applied via the "Classification, Labelling, and Packaging of substances and mixtures" initiative CLP. CLP applies to all of Solvay's substances and mixtures sold in Europe or handled by its personnel. For "individual substances", Safety Data Sheets for CLP-classified products were released on time in accordance with the allocated schedule. The deadline for mixtures was May 2015 and Solvay met it.

The GHS is progressively being adopted by other countries: Brazil for mixtures, United States for individual substances and mixtures. Solvay had to reassess and classify 1,295 substances worldwide before the deadline of May 2015.

Solvay deploys the requirements of GHS by implementing the "blocks" of requirements defined by each country. The principle of "Building Blocks" allows each country to have varied deployment modalities: starting date, transitional period, different editions of GHS.

REACH European regulation

In Europe, Solvay fully complies with Europe's REACH registration agenda so continuing to assess products and providing all necessary safety information to downstream users. In other regions, many Safety Data Sheets sent to customers have already been updated to comply with new GHS requirements in these regions.

Other regulatory frameworks

Adapting to emerging new product regulations in many other countries is under way, in particular the necessary adaptation to cope with emerging (REACH-like) regulations in non-EU countries.



FOOD SAFETY: THE SOLVAY "PROUDLY MADE IN" CONCEPT

As the global reference for food-safe vanillin, Solvay Aroma Performance ensures full traceability, food safety and quality consistency. The "Proudly made in" concept has been created to preserve Solvay's historical expertise, relating to its unrivalled fully integrated production chain. In a single location, Solvay produces its in-house catechol, which is then transformed into guaiacol and finally into in-house vanillin, sold under the Rhovanil® reference brand name.

This unique industrial model provides full traceability with no risk of cross contamination along with a lower manufacturing environmental footprint. This "Proudly made in" concept is undertaken at each plant, i.e. Saint-Fons, France, Baton Rouge, USA and now Zhenjiang, China.

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Management of Substances of Very High Concern:(SVHCs)

G4-PR1

In addition to the management elements in place to protect customers for all substances classified as dangerous (risk analysis, labelling, product stewardship), Solvay is currently implementing a global voluntary approach for so-called "Substances of Very High Concern" put on the market, as part of its overall approach for such substances. The program covers 3 areas : marketed products, occupational health and industrial hygiene in Solvay's operations, Emissions of Solvay's operations in the environment.

The policy regarding SVHCs includes:

- keeping an updated list of all substances of very high concern;
- handling SVHCs under strictly-controlled conditions;
- updating risk studies and where possible substituting SVHCs with safer alternatives.

All teams work on the basis of the new Solvay reference list for SVHCs

A group-wide Solvay reference list for SVHCs was established in 2015. All teams work on this basis. It is built on EU lists, other international legislation and additional substances identified by the internal expertise of toxicologists and ecotoxicologists.

Teams are re-inventorying all situations where SVHCs are handled in Solvay's operations according to the Solvay reference list, including those related to the handling of raw materials. 95 manufacturing sites (78%) have cross-checked their inventory to date.

FOCUS SOLVAY'S SVHC LIST INCLUDES ALL SUBSTANCES THAT ARE:

- Carcinogenic, Mutagenic or Toxic to Reproduction (CMR), that meet the criteria for classification in accordance with the new Regulation on the Global Harmonized System, known as the "GHS" Regulation;
- Persistent, Bioaccumulative and Toxic (PBT) or very Persistent and very Bioaccumulative (vPvB)
- Identified, on a case-by-case basis and through scientific evidence as probably causing serious effects to human health or the environment that is of an equivalent level of concern as those above.

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Risk assessment and management rules

New rules define how SVHCs must be handled in Solvay's industrial operations and how they must be handled by third parties when placed on the market.

As regards Solvay's operations, SVHCs are subject to standardized risk assessments. Non-compliance must be dealt with according to the Group "Management Book" (with "Risk Sheet 1" situations solved within 1 year). The standardized risk assessments and management rules are becoming key management levers for SVHCs, in line with the "Group Management Book".

For substances put on the market, Global Business Units are defining strategies to ensure proactive management of SVHCs, ensuring business continuity while respecting legal duties, Responsible Care[®] commitment and sustainable development.

Solvay's 2020 target

- To complete 100% of risk assessments and analysis of possible safer alternatives when available for marketed products containing SVHCs.

The (2013-2020) program requires all substances concerned placed on the market by Solvay to be assessed: all substances from the SVHC list must be assessed considering both ways to strictly control risks and the technical and economic feasibility of substitutions. All of the substances concerned must be assessed by the end of 2020.

SUBSTANCES OF VERY HIGH CONCERN (SVHCs) PLACED ON THE MARKET⁽¹⁾

NUMBER OF SUBSTANCES (2015, WORLD PERIMETER) ⁽²⁾			
	SVHCs IN PRODUCTS ON THE MARKET	FOR WHICH THE SVHC COME FROM RAW MATERIALS	MANAGEMENT
SVHC (list according to REACH regula- tion - EU Authori- zation process)	6	3	Updating risk studies and assessing substitution alternatives for substances put on the market in Europe and extending risk studies for uses outside of Europe
SVHC (list according to REACH regulation - EU Candidate list) ⁽³⁾	14	7	
All SVHCs (according to REACH criteria)	20	10	
% of SVHCs analysed for safer alternatives (world) ⁽⁴⁾	5%		

⁽¹⁾ **Perimeter:** all Solvay products – except Chemlogics – put on the market, that are either manufactured by Solvay or form part of the composition of the products sold.

⁽²⁾ SVHCs manufactured by or forming part of the composition of products sold by Solvay worldwide, currently in Europe's "Candidate List" or "Authorization list" of the REACH process.

⁽³⁾ The Candidate List includes substances that are also present in the EU restriction process (annex XVII).

⁽⁴⁾ Percentage of products containing SVHCs reviewed for potential substitution or safer alternatives through Solvay internal dossiers.

FOCUS ENDOCRINE DISRUPTOR PFOA: SUBSTITUTION/RESTRICTION

Solvay totally phased-out the use of Perfluorooctanoic Acid (PFOA) in mid-2013 (ahead of the 2015 Stewardship Program deadline). PFOA was substituted with an alternative molecule with an improved toxicological profile. In 2015 the project to increase the new surfactant production capacity was completed.

Solvay initiated its efforts for the reduction of PFOA environmental emissions and product content in 2002, well before voluntarily joining the PFOA Stewardship Program launched by the US EPA in 2006. PFOA was identified as an SVHC under REACH and subject to a restriction process since December 2014 on the grounds of PBT and CMR properties. Solvay has also been active in guiding the decisions of ECHA's relevant committees on thresholds for PFOA in alignment with FluoroCouncil highlighting the socio-economic importance of PFOA-alternative technologies.

PFOA has historically been widely used as a processing aid for the manufacturing of fluoropolymers. Solvay utilized (but never produced) it in its Spinetta Marengo plant (Italy) for the manufacture of certain grades of Polytetrafluoroethylene. PTFE is a synthetic fluoropolymer with numerous applications, thanks to its temperature resistance and coating properties. The main application, consuming about 50% of production, is for wiring in aerospace and computer applications (e.g. hookup wire, coaxial cables). In industrial applications, it is used where a parts need to have a sliding action: plain bearings, gears, slide plates, etc. It is also best known for its use in coating non-stick frying pans.

FOCUS THREE CATEGORIES OF SVHC: BLACK, RED, YELLOW

In order to anticipate the need to substitute some SVHCs (beyond the EU definition, based on international legislation and the internal expertise of toxicologists and eco-toxicologists), three categories (black, red and yellow) are used to characterize the level of risk management:

- **Black list:** SVHCs already undergoing a regulatory process of phasing-out or restriction with a known deadline in at least one given country or zone.
- **Red list:** SVHCs currently included in regulatory lists of SVHCs that 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 their current hazard properties or potential effects.

4.4 Product information

G4-DMA on product and service labeling

Solvay's Product Safety Policy requires:

- to maintain a comprehensive understanding of each product's hazards, risks and impacts related to all life-cycle steps and intended applications;
- to manage product knowledge so as to comply with local requirements on product information while ensuring worldwide consistency;
- to keep all necessary and required information on product safety in order to ensure availability throughout the full life cycle, beyond the commercialization period.

Te Standardized Product Safety Data Sheets (SDS) are sent to customers at first delivery. They are consistently maintained and distributed worldwide for all products to all customers in different languages.

Global Business Units ensure that SDSs are revised at least every three years or every time they have been modified significantly.

Extending shared rules on safety information for hazardous substances

In 2015, a particular focus was placed on finalizing merging the management of product information in both legacies (Solvay and Rhodia), with a common system implemented since September 2015 to ensure:

- Standardized Product Safety Data Sheets, using shared rules and models across the Group;
- product labels are consistent and compliant with regulatory requirements worldwide;
- common regulatory data, toxicological and ecotoxicological data and phrases library.

Centralized product safety information

Product information is managed centrally. Within the framework of evolving legislations, in previous years particular efforts have been devoted to better-understanding the conditions under which products are used so as to detect and record any associated risks.

The success in complying with REACH information requirements and the availability of SDS for all products reflect the generally good level of product knowledge and the efficiency of product data management.

634 REACH EU registrations: better knowledge of substances

G4-PR3

	NUMBER OF SUBSTANCES	SUBSTANCES FOR WHICH SOLVAY IS LEAD OR SOLE REGISTRANT	DOSSIERS SUBMITTED TO EUROPEAN CHEMICALS AGENCY	DOSSIERS ACCEPTED BY ECHA
1st registration (2010) and 2nd registration (2013) phases	328	145	451	100%
3rd Registration phase planned - deadline 2018	306	106	63	21 %

REACH compliance reflects a good knowledge of substances through the collection and organization of reliable and systematic safety information. Since its inception in 2010, Solvay has submitted 514 dossiers for registration, with a 100% success rate. Solvay was lead registrant for 106 substances. On the basis of the knowledge assembled within REACH, the GHS classification of Solvay products has also been updated.

The 3rd REACH registration phase is now ongoing, with 21% of dossiers accepted so far, out of the 300 dossiers planned for 2018. The focus is on substances produced or imported in lower quantities (between one and 100 tons per year). 21% of the planned dossiers have already been accepted, in line with the 2018 target.

In addition, due to the availability of new information, or at the request of ECHA, updates of registration dossiers were submitted in 2015.

Safety summaries: worldwide initiative by the chemical industry

Solvay has now published 130 "GPS Safety Summaries" describing the main feature of products and their potential risks to health and the environment. They cover a significant number of Solvay's high priority, high-volume chemicals in commerce in the EU and North America. As part of a global chemical industry initiative, the safety summaries are available on the ICCA's GPS website (International Council of Chemical Associations) and on Solvay websites.

This is important for providing the largest possible audience with information on risks and how to handle them. The ICCA initiative launched in 2006 is part of its Global Product Strategy (GPS). The GPS Safety Summary is not a legal document, unlike the Safety Data Sheet. However, it is recognized as being an important tool that helps to inform the public as a whole. Another series of products is being worked on.



HYDROGEN PEROXIDE APPROVED AS A DISINFECTANT IN THE EU: A 14-YEAR REGULATORY PROCESS

In 2015, in a landmark decision for Solvay, the EU approved hydrogen peroxide for biocidal use. This is the first biocide manufactured by Solvay to be approved by the European Chemicals Agency (ECHA), with peracetic acid also expected to be authorized within the next few months. The process was long and complex. The first data were submitted by Solvay in 2001. Around the same time, Solvay set up a task force with seven other producers to prepare the full dossier, which was submitted in 2007 and 2008.

A biocide is defined in EU legislation as a chemical substance or micro-organism intended to destroy, deter, render harmless, or exert a controlling effect on any harmful organism by chemical or biological means. Hydrogen peroxide is used as a disinfectant to control bacteria, fungi and viruses. Its most important biocidal use is in aseptic packaging, such as milk, yogurt or juice packs just before being filled. Vaporized hydrogen peroxide is also used for sterilization and decontamination in the pharmaceutical industry.

Results of surveys measuring customer satisfaction

Customer Relationship Management

G4-PR5

Solvay's 2020 target

- Improve Customer Satisfaction to reach a Net Promoter Score of 35%.

Within the framework of our commercial excellence program, a systematic biennial assessment of customer satisfaction and loyalty has been rolled out across the entire Group since 2014.

Several GBUs such as Specialty Polymers, Novecare, Acetow, Silica and Performance Polyamides have already been conducting "Voice of the Customer" surveys for more than four years, with the aim of assessing overall customer satisfaction. These initiatives have triggered action plans supported by close monitoring as well as the implementation of regular follow up sessions with our business partners.

While the methodologies are tailored to each business unit's environment, one single corporate indicator has been selected (NPS: Net Promoter Score) for internal and external benchmarking through consolidation of NPS performance at a Group level.

Although the biennial frequency of the Voice of Customer inquiries is mandatory for all entities, each GBU is empowered to choose the appropriate approach. This ranges from a light survey focusing on a limited number of key accounts to determine the level of satisfaction to an in-depth analysis of customer satisfaction through the distribution of a comprehensive questionnaire covering all aspects of customer experience. The information is gathered either by individual interviews conducted by external advisers or by using an e-survey based on the quality management of the GBU. Those surveys are conducted on either a global or a regional basis.

Each GBU designs its own questionnaire using corporate guidelines but focusing on their specific area of business. A chapter dedicated to sustainable development is included in the study.

	2015	2014
Corporate Net Promoter Score	24	14

In 2014, Solvay published a Group NPS of 14% which was compared to a geographically weighted manufacturing industry benchmark of 25%.

In 2015, the Group's performance improved substantially reaching an NPS of 24%. This was thanks to more robust GBU-driven action plans as well as direct involvement of the Executive Committee in monitoring. The Group launched several initiatives to reinforce our customer intimacy (such as Customer Tech Days: a presentation of all of the group's activities in one specific market) and to foster collaborative innovation.

In parallel with the NPS, a second indicator related to customer loyalty was also put in place (Churn rate: % of Group revenue from customers who had already made a purchase in the preceding year). In 2015, the group achieved a score of 97%, this remained stable from 2014 translating it into a long-lasting relationship based on reliable services and our capacity for innovation. Our aim is to remain above the 95% threshold allowing for some portfolio reshuffling in the frame of our dynamic channel management program.

Finally, the group is also deploying a new, state-of-the-art Customer Relationship Management (CRM) cloud-based system across all GBU's to capture and integrate customer insights better in our major decision-making processes and to foster cross-fertilization.

4.5 Animal testing

Solvay provides innovative products and services, for a wide variety of uses and a large number of users. A proper understanding of products is indispensable to legitimate the Group's activities and to protect users, the personnel and the general public. Society expresses a continuing demand for new, better and safer chemicals and plastics. There is a growing demand for product assessment, hence for testing, with and without using animals. For example, for Asian markets, the demand for animal testing is particularly active due to specific expectations from the general public and politicians.

To comply with existing and new chemical regulations, Solvay has commissioned animal tests in the past 5 years. Some of these substances are also used, but never exclusively, for the manufacturing of cosmetics ingredients. Tests are never carried specifically for cosmetic uses.

Solvay's policy is to apply in each case the "3R principles": (Replacement, Reduction, and Refinement) and to comply with all applicable regulations. When tests are needed, Solvay commits to the greatest care, professionalism, animal welfare and humaneness.

Vertebrate Animal tests

In 2015, Solvay commissioned tests required by regulation, trying every time to minimize the number of animal tests. In terms of number of animals, there is the regulation for chemicals is less demanding than what is required from the pharmaceutical sector to test the efficacy of drugs. This results for Solvay in comparatively much fewer tests than in the pharmaceutical sector.

ANIMAL TESTS COMMISSIONED BY SOLVAY IN 2015

	NUMBER OF TESTS (ON VERTEBRATES)	NUMBER OF VERTEBRATES
Tests to address requests from:		
European authorities	24	6,701
American authorities (North or Latin)	1	210
Tests to verify toxicity, define classification and usage recommendations	24	523
Total	49	7,434

In 2015, 51% of tests carried out on behalf of Solvay (representing 93% of the vertebrate animals) addressed specific requests from authorities, especially European authorities while the remainder (7% of vertebrate animals) were used to address more generic product-related questions.

Solvay did not commission studies on dogs, cats, pigs or non-human primates. In total, 7434 vertebrate animals (60% rats, 2% mice, 2% guinea pigs, 17% rabbits and 19% fish) were used. Relative to 2014, the total number of vertebrate animals used showed a significant increase, i.e. a doubling from 3695 to 7343. The same proportions of rats, mice and guinea pigs were used whereas the proportion of rabbits had increased from 1 to 17% and the proportion of fish decreased from 31 to 19%. The increase use of vertebrate animals was completely attributable to studies addressing specific requests from authorities. The number vertebrates used in studies addressing product information needs to ensure safe use and correct classification remained constant (553 in 2014 vs 523 in 2015).

Compliance

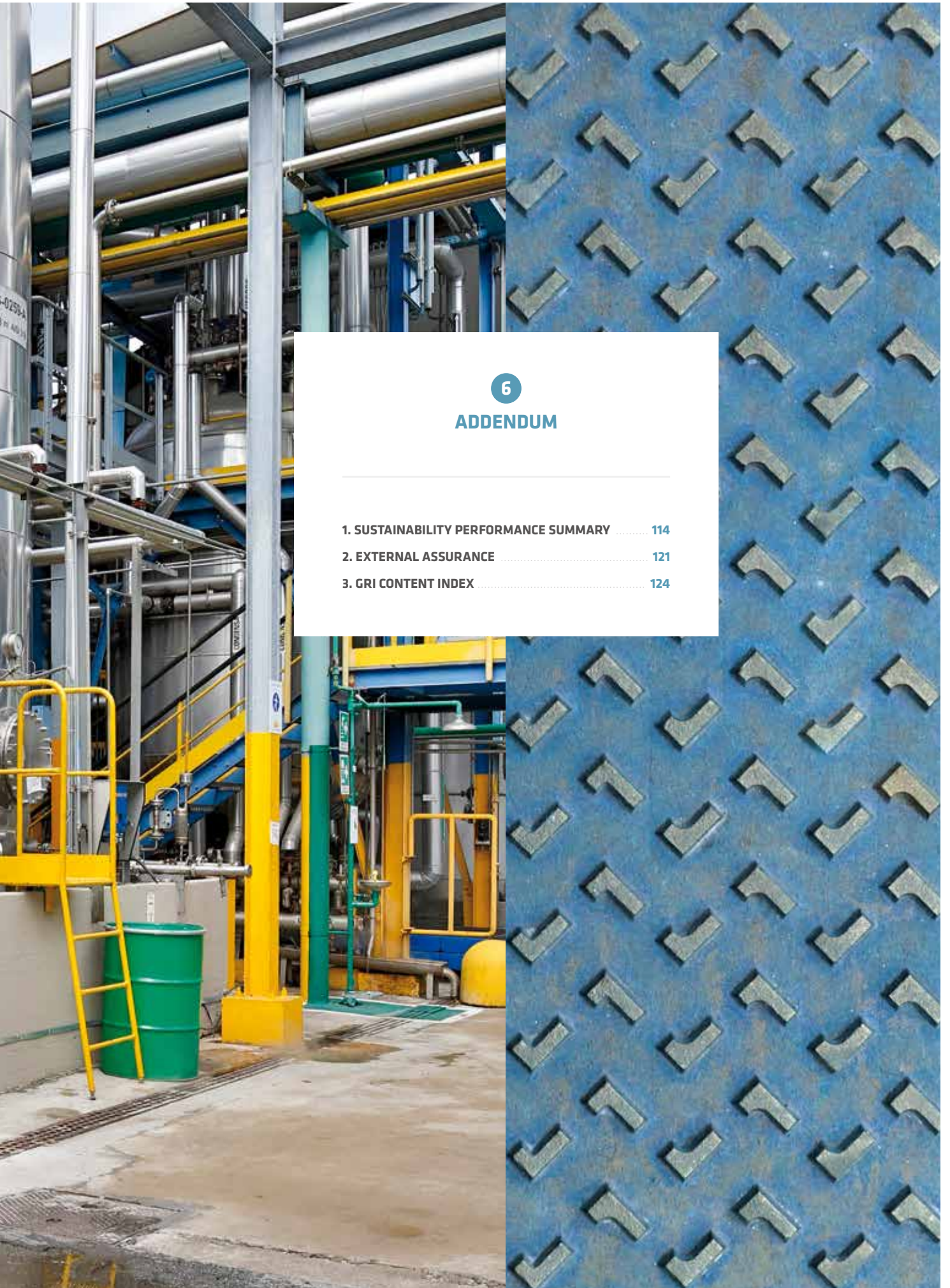
All studies were subject to an ethical assessment. For a responsible and humane use of laboratory animals, Solvay has for long a detailed and dedicated policy on animal use based on the 3Rs. All studies comply with international standards (OECD-guidelines), and care was given to avoid duplication by simultaneously addressing the requirements of several countries or regulations. The Solvay Animal Care and Use Standard was updated in 2015, and will be implemented in 2016.

FOCUS TESTING IN THE FRAMEWORK OF REACH

Solvay adheres to the objective as outlined in the REACH regulation, i.e. promoting non-animal testing and the replacement, reduction and refinement of animal testing. For a responsible and humane use of laboratory animals, Solvay has for a long time had a policy on animal use. In 2015, most vertebrate animals (90%) were used in the framework of the REACH Regulation.



Ospiate site, Italy.



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ADDENDUM

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1. SUSTAINABILITY SUMMARY

	UNITS	2025 TARGETS	2020 TARGETS	2015	2014	2013	2012
Employees involved in Solvay Way action plan	%	-	-	45	30	10	-
Sustainable business solutions							
Product portfolio assessed	%	-	-	88	79	65	-
Sustainable solutions	%	50	-	33	25	19	-
Neutral	%	-	-	39	39	34	-
Not evaluated	%	-	-	12	21	35	-
Challenges	%	-	-	16	15	12	-
Supply chain management							
Number of suppliers	Number	-	-	43,425	46,000	-	-
Number of critical suppliers	Number	-	-	1,080	689	-	-
Number of suppliers assessed via internal evaluation	Number	-	-	1,376	1,049	-	-

	UNITS	2025 TARGETS	2020 TARGETS	2015	2014	2013	2012
Innovation main figures							
Expenditure amounts in innovation - Growth	%	-	-	60	66	-	-
Expenditure amounts in innovation - Competitiveness	%	-	-	21	17	-	-
Expenditure amounts in innovation - Defense	%	-	-	19	17	-	-
Research & Innovation staff	Number	-	-	2,050	1,950	1,948	1,907
Intellectual Property agreements	Number	-	-	1,530	1,608	1,381	1,750
First patent filings	Number	-	-	235	259	232	300
New sales ratios	%	-	-	18	21	22	23
Direct economic value generated and distributed							
Operating costs	%	-	-	65	63	64	-
Employee wages and benefits	%	-	-	19	19	20	-
Current taxes	%	-	-	1	3	2	-
Payments to providers of funds	%	-	-	5	5	5	-
Economic value retained	%	-	-	10	11	9	-
Human capital return on investment (HCROI)							
Total Revenues	€ million	-	-	11,047	10,629	10,150	12,830
Total operating expenses, including depreciation, excluding employee related expenses	€ million	-	-	8,097	7,954	7,644	8,642
Total employee-related expenses (salaries + benefits)	€ million	-	-	2,139	1,990	1,947	2,302
Resulting HCROI	Number	-	-	1.38	1.34	1.29	1.82

	UNITS	2025 TARGETS	2020 TARGETS	2015	2014	2013	2012
Environmental management							
Manufacturing sites with management system	%	-	-	90	82	77	-
Manufacturing sites with management system externally certified	%	-	-	63	56	-	-
Materials							
Minerals	1000 Tons	-	-	13,600	4,910	4,247	-
Biosourced products	1000 Tons	-	-	400	426	403	-
Natural gas	1000 Tons	-	-	1,500	1,862	1,573	-
Petrochemicals	1000 Tons	-	-	1,400	2,625	2,638	-
Other	1000 Tons	-	-	250	382	295	-
Total raw material purchased	1000 Tons	-	-	17,150	10,205	9,156	-
Energy							
Consumption of solid fuels	In Petajoules low heating value	-	-	49	52	50	49
Consumption of liquid fuels	In Petajoules low heating value	-	-	1	< 1	1	1
Consumption of gaseous fuels	In Petajoules low heating value	-	-	57	48	50	49
Fuel consumption from non renewable sources	In Petajoules low heating value	-	-	107	100	101	99
Fuel consumption from renewable sources	In Petajoules low heating value	-	-	5.2	5.8	< 0,1	< 0,1
Energy consumption	In Petajoules low heating value	-	-	175	179	181	179
Energy efficiency index	%	-	90	96	99	99	100
Water							
Total water intake	1,000,000 m ³	-	-	616.27	626.76	654.62	762.64
Intake of underground water	1,000,000 m ³	-	-	179.40	172.18	181.31	223.60
Intake of estuary and sea water	1,000,000 m ³	-	-	70.95	82.31	89.61	132.71
Intake of surface water	1,000,000 m ³	-	-	342.48	349.41	356.27	378.91
Intake of groundwater + drinking water	1,000,000 m ³	-	-	194.33	186.73	198.39	242.14
Intake of auxiliary sources	1,000,000 m ³	-	-	8.49	8.14	9.71	8.25
Water consumption index	%	-	90	85	84	87	100
Sites with detailed water balance accounting	Number	-	-	122	79	-	-
Sites for which the water scarcity risk was confirmed	Number	-	-	12	13	-	-
Sites with water scarcity risk and a sustainable water management	%	-	100	33	31	-	-
Recycled water	%	-	-	62	62	-	-
Water intake	%	-	-	38	38	-	-

	UNITS	2025 TARGETS	2020 TARGETS	2015	2014	2013	2012
Biodiversity							
Sites with significant natural areas	Number	-	-	30	24	38	-
Surface managed as natural area	Hectare	-	-	2,160	16,000	18,630	-
Trees replanted	Number	-	-	> 180,000	> 170,000	65,000	-
Emissions							
Greenhouse gas intensity	Kg CO ₂ eq. per EUR REBITDA	4.85	-	7.26	8.08	8.84	7.12
Direct CO ₂ Emissions (Scope 1)	Mt CO ₂ eq.	-	-	8.8	8.7	8.5	8.1
Other greenhouse gases emissions (Scope 1) according to Kyoto protocol	Mt CO ₂ eq.	-	-	2.6	2.7	2.7	2.6
Total greenhouse gas emissions (Scope 1)	Mt CO ₂ eq.	-	-	11.4	11.4	11.2	10.7
Indirect CO ₂ emissions (Scope 2)	Mt CO ₂ eq.	-	-	2.8	3.0	3.5	3.7
Emissions related to downstream transportation and distribution of product (Scope 3)	Mt CO ₂ eq.	-	-	1.0	0.9	1.1	-
Investments including discontinued operations (Scope 3)	Mt CO ₂ eq.	-	-	2.5	3.6	3.7	4.1
Emissions of ozone-depleting substances (ODS)	Teq CFC -11	-	-	28.9	40	34.3	34.2
Acidification emissions in absolute	Teq SO ₂	-	-	27,330	25,405	26,848	29,852
Acidification emissions index	%	-	75	114	106	93	100
Photochemical oxidant formation in absolute	Teq NMVOC	-	-	19,329	20,360	18,745	19,980
Photochemical oxidant formation index	%	-	90	93	98	90	100
Nitrogen oxides - NO _x	Tons NO ₂	-	-	12,270	12,736	11,028	11,548
Sulfur oxides - SO _x	Tons SO ₂	-	-	6,594	6,653	10,336	12,023
Non methanic volatile organic compounds (NMVOC)	Tons	-	-	6,781	7,158	7,464	7,974
Particulates	Tons	-	-	1,645	1,605	1,647	1,490
Heavy metals	Tons	-	-	4.0	2.1	4.3	4.8
Water effluents							
Eutrophication Index	%	-	80	92	94	88	100
Eutrophication	Tons PO ₄	-	-	3,243	3,301	2,981	3,670
Chemical oxygen demand	Tons O ₂	-	-	8,852	9,069	9,379	10,501
Nitrogen	Tons	-	-	5,333	5,685	5,054	6,326
Phosphorus	Tons	-	-	264	233	213	256
Heavy metals	Tons	-	-	79.0	74.4	76.7	83.8

	UNITS	2025 TARGETS	2020 TARGETS	2015	2014	2013	2012
Waste generation							
Total non hazardous industrial waste	1000 tons	-	-	1,475	1,644	1,520	1,414
Total hazardous industrial waste	1000 tons	-	-	225,4	217,8	214,3	240,7
Landfilled hazardous industrial wastes	1000 tons	-	-	14.59	12.33	13.28	10.74
Landfilled hazardous industrial wastes index	%	-	90	114	102	102	100
Mining waste	Tons			576	2,328	2,684	2,599
Incineration of hazardous industrial waste with energy recovery	%	-	-	53	51	50	-
Incineration of hazardous industrial waste without energy recovery	%	-	-	27	28	29	-
Recycling of hazardous industrial waste	%	-	-	14	15	15	-
Landfilling of hazardous industrial waste	%	-	-	6	6	6	-
Process safety							
Medium incidents	Number	-	-	54	53	-	-
High incidents	Number	-	0	0	2	4	0
Catastrophic incidents	Number	-	0	0	0	0	1
Soil management							
Environmental provision	€ Million	-	-	723	713	636	800
Products and services							
Turnover generated with product having an Life Cycle Analysis (Cradle-to-gate)	%	-	-	94	88	77	67
Transport safety management							
Total accidents during transport and distribution	Number	-	-	117	160	207	-

	UNITS	2025 TARGETS	2020 TARGETS	2015	2014	2013	2012
LABOR PRACTICES AND DECENT WORK							
Solvay's workforce by region							
Total employees	Headcount	-	-	26,350	25,909	27,146	-
<i>of which women</i>	%	-	-	22	22	20	-
Employees in Europe	Headcount	-	-	14,124	13,880	-	-
<i>of which women</i>	%	-	-	22	21	-	-
Employees in Asia Pacific and Rest of the world	Headcount	-	-	5,901	5,983	-	-
<i>of which women</i>	%	-	-	23	24	-	-
Employees in North America	Headcount	-	-	3,782	3,033	-	-
<i>of which women</i>	%	-	-	20	20	-	-
Employees in Latin America	Headcount	-	-	2,543	3,013	-	-
<i>of which women</i>	%	-	-	20	23	-	-



	UNITS	2025 TARGETS	2020 TARGETS	2015	2014	2013	2012
LABOR PRACTICES AND DECENT WORK							
Solvay's workforce by contract, working time and gender							
Permanent employees	Headcount	-	-	23,393	24,860	24,112	-
Permanent full-time employees	Headcount	-	-	22,768	24,258	23,521	-
Permanent full-time women	Percentage	-	-	19	20	19	-
Permanent part-time employees	Headcount	-	-	625	602	591	-
Permanent part-time women	Percentage	-	-	80	80	82	-
Solvay's workforce by level							
Senior management	Headcount	-	-	428	428	456	-
Middle management	Headcount	-	-	2,819	2,731	2,727	-
Junior management	Headcount	-	-	4,491	4,186	4,126	-
Non manager	Headcount	-	-	18,612	18,564	19,837	-
Solvay's workforce by age							
Employees younger than 30	%	-	-	14	14	-	-
Employees aged between 30 and 49	%	-	-	55	55	-	-
Employees older than 50	%	-	-	31	31	-	-
Total hirings	Headcount	-	-	2,555	2,317	1,892	2,062
Total leaves	Headcount	-	-	2,845	2,342	1,932	2,011
Total voluntary leaves	Headcount	-	-	626	672	636	-
Occupational health and safety							
Rate of accidents with medical treatment with or without lost time (MTAR) - Employees, contractors and temporary workers	Accident per million hours worked	0,5	-	0.77	0.97	1.06	2.59
Rate of accidents with lost time (LTAR) - Employees, contractors and temporary workers	Accident per million hours worked	-	-	0.75	0.98	0.80	0.81
Accidents involving contact with chemicals	Number	-	-	9	14	26	-
Accidents with irreversible consequences	Number	-	-	2	8	-	-
Injuries	Number	-	-	66	92	101	-
Fatal accidents	Number	-	-	0	2	2	0
Safety excellence plan							
Sites with behavioral safety program	%	-	-	86	88	85	-
Sites with behavioral safety program including safety dialogue	%	-	-	77	77	78	-
Sites with health monitoring based on individual exposure profiles according to Solvay standard	Number	-	-	39	36	36	-
Sites trained to new hygiene standards	Number	-	-	102	33	4	-
Number of occupational diseases	Number	-	-	30	19	30	-



	UNITS	2025 TARGETS	2020 TARGETS	2015	2014	2013	2012
LABOR PRACTICES AND DECENT WORK							
Training and education							
Average of hours of training per employee	Hours	-	-	38.8	32	-	-
Average of hours of training per male employee	Hours	-	-	38.6	31.8	-	-
Average of hours of training per female employee	Hours	-	-	39.3	32.8	-	-
Average of hours of training per senior manager employee	Hours	-	-	30.1	22	-	-
Average of hours of training per middle cadre employee	Hours	-	-	30.1	32.3	-	-
Average of hours of training per junior cadre employee	Hours	-	-	42.8	36.9	-	-
Average of hours of training per non cadre	Hours	-	-	39.3	31.2	-	-
Diversity and equal opportunity							
Female in senior management	%	-	-	14	13	13	12
Female in middle management	%	-	-	23	23	21	18
Female in junior management	%	-	-	33	34	33	31
Female non manager	%	-	-	19	20	19	18
Employees older than 50 in senior management	%	-	-	68	66	-	-
Employees older than 50 in middle management	%	-	-	51	49	-	-
Employees older than 50 in junior management	%	-	-	24	24	-	-
Employees older than 50 non manager	%	-	-	29	30	-	-
Employees aged between 30 and 49 in senior management	%	-	-	32	34	-	-
Employees aged between 30 and 49 in middle management	%	-	-	49	51	-	-
Employees aged between 30 and 49 in junior management	%	-	-	65	65	-	-
Employees aged between 30 and 49 non manager	%	-	-	54	54	-	-
Employees younger than 30 in senior management	%	-	-	0	0	-	-
Employees younger than 30 in middle management	%	-	-	0	0	-	-
Employees younger than 30 in junior management	%	-	-	11	11	-	-
Employees younger than 30 non manager	%	-	-	17	16	-	-
HUMAN RIGHTS							
Freedom of association and collective bargaining							
Coverage by collective agreement	%	-	-	77	82.2	85	85
SOCIETY							
Local communities							
Solvay Group donations, sponsorship and own projects	k €	-	-	5,250	-	-	-
Employees involved in societal actions	%	40	-	20	-	-	-




	UNITS	2025 TARGETS	2020 TARGETS	2015	2014	2013	2012
SOCIETY							
Process safety							
Sites with process safety management corresponding to their risk	%	-	100	84	-	-	-
Percentage of concerned product lines having a risk analysis updated in the last five years	%	-	100	69	64	58	
Sites with Risk sheet 1 situations resolved within one year	%	-	-	100	100	100	-
Risk sheet 1 situations at the end of the year	Number	-	-	94	217	11	111
Risk sheet 1 situations resolved at the end of the year	Number	-	-	232	23	111	111
Public policy							
Corporate government and public affairs advocacy staff	Full time equivalent	-	-	6	6	5	5,5
Government and public affairs advocacy staff in regions	Full time equivalent	-	-	13	12,6	11	12
PRODUCT RESPONSIBILITY							
Customer health and safety							
Substance of very high concern present in product put on the market according to REACH regulation - EU Authorization process	Number	-	-	6	8	6	-
Substance of very high concern present in product put on the market for which this presence is due to raw materials according to REACH regulation - EU Authorization process	Number	-	-	3	6	10	-
Substance of very high concern present in product put on the market according to REACH regulation - EU Candidate list	Number	-	-	14	17	17	-
Substance of very high concern present in product put on the market for which this presence is due to raw materials according to REACH regulation - EU Candidate list	Number	-	-	7	12	29	-
All substance of very high concern according to reach criteria present in products put on the market	Number	-	-	20	25	23	-
All substance of very high concern according to reach criteria present in products put on the market for which this presence is due to raw materials	Number	-	-	10	18	39	-
Substance of very high concern reviewed for potential substitution	%	-	100	5	0	0	-
Customer satisfaction							
Net promoter score	%	-	35	21	14	-	-

2. EXTERNAL ASSURANCE

G4-33

Solvay SA/NV


Limited assurance report of the Statutory Auditor on a selection of social, environmental and other sustainable development information for the year ended 31 December 2015

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 chapters "Sustainability Statement", "Environmental Performance", "Social Performance" of Solvay Complementary Annual Report on Sustainable Development informations for the year ended 31 December 2015 (the "Complementary Annual Report"), identified by the symbol .

Responsibility of the Company


This selection of information (the "Information") extracted from the Complementary Annual Report 2015 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 the Complementary 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  in the Complementary 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) 3000². 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  in the Complementary Annual Report does not contain any material errors that would call into question its preparation, in all material respects, in accordance with the Reporting Framework. A higher level of assurance would have required more extensive procedures.

We performed the following procedures:

- We have 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.
- We have determined the nature and scope of our tests and procedures based on the nature and importance of the Information with respect to the characteristics of Solvay Group, the human resources and environmental challenges of its activities, its sustainability strategy, as well as on industry best practices.

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¹ **Sections covered:** "Employment" (G4-10, G4-LA1), "Labor and management relations" (G4-LA8), "Occupational health and safety" (G4-LA6), "Training and education" (G4-LA9), "Diversity and equal opportunity" (G4-LA12), "Process safety, emergency preparedness and response", "Solvay Way, our way of doing business" (G4-35, G4-36), "Solvay Way profile in 2015", "Results of the SPM analysis" (G4-2), "Energy consumption within Solvay" (G4-EN3), "Energy intensity" (G4-EN5), "Reduction of energy consumption" (G4-EN6), "Water intake" (G4-EN8), "Direct greenhouse gas emissions (Scope 1)" (G4-EN15), "Indirect greenhouse gas (GHG) emissions (Scope 2)" (G4-EN16), "Greenhouse gas (GHG) emissions intensity" (G4-EN18), "Reduction of greenhouse gas (GHG) emissions" (G4-EN19), "Emissions of ozone-depleting substances (ODS)" (G4-EN20), "NOX, SOX, and other significant air emissions" (G4-EN21), "Water effluents management" (G4-EN22), "Total weight of waste by type and disposal method" (G4-EN23), "Preventing spills and protecting subsoil" (G4-EN24), "Protecting subsoil from contamination"

² ISAE 3000 – Assurance engagements other than audits or reviews of historical information

- Regarding the Information that we considered to be the most material³:

- 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 selected⁴ based on their activity, their contribution to consolidated indicators, their location and a preliminary 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.

- For the remaining Information, we assessed its consistency based on our understanding of Solvay Group.

We believe that the sampling methods and sample sizes we have used, based on our professional judgement, are sufficient to provide a basis for our limited assurance conclusion; a higher level of assurance would have required us to carry out more extensive procedures. Due to the use of sampling techniques and other limitations inherent to information and internal control systems, the risk of not detecting a material misstatement in the Information cannot be totally eliminated.

³ Social information: Employment by region (FTE and Headcount), Distribution of employees by hierarchical level, Distribution of employees by age, Hirings per region, Percentage of women per level, Percentage of female employees per region (total headcount), *International mobility*, Percentage of women per management level, Percentage of female employees (total headcount), *All leaves*, *Voluntary leaves*, Rate of accidents with lost time (LTAR) - Employees, contractors and temporary workers, Rate of accidents with medical treatment with or without lost time (MTAR) - Employees, contractors and temporary workers, Number of fatal accidents, *Occupational diseases*, Average hours of training per year per employee

Environmental information: *Greenhouse gas intensity*, Direct CO₂ emissions (Scope 1), Other greenhouse gases emissions (Scope 1) according to the Kyoto protocol, Indirect CO₂ emissions (Scope 2), Energy consumption, *Fuel consumption from renewable fuel sources*, *Fuel consumption from non-renewable sources*, *Energy efficiency index*, Acidification emissions in absolute, *Acidification emissions index*, Photochemical oxidant formation in absolute, *Photochemical oxidant formation index*, Nitrogen oxides, Sulfur oxides, Non-Methane Volatile Organic Compounds (NMVOC), *Heavy metals (to air)*, Particulates, Ozone-depleting substances, Eutrophication, *Eutrophication Emission Index*, Chemical Oxygen Demand, Nitrogen, Phosphorus, Heavy metals (to water), Total water intake, *Water consumption index*, Intake of groundwater + drinking water, Sites for which the water scarcity risk was confirmed, Sites with water scarcity risk and a sustainable water management, Total non-hazardous industrial waste, Total hazardous industrial waste, Landfilled Industrial Hazardous waste, *Hazardous industrial waste breakdown by destination*, *Landfilled Hazardous Industrial waste index*, *Mining waste*, Substance of very high concern reviewed for potential substitution

Process safety: *Incidents with environmental consequences by severity*, Sites with Risk Sheet 1 situations resolved within one year, Risk Sheet 1 situation at the end of the year, Risk Sheet 1 situation resolved during the year, *Percentage of concerned product lines having a risk analysis updated in the last five years*

Sustainable business solutions: Product portfolio assessed (% of turnover), % of sustainable solutions

Environmental accidents and remediation: Environmental provision

Employee engagement and wellness: Coverage by collective agreement

Note: the indicators presented in italic above have been audited for the first time this year

⁴ *Tavaux (France), Rosignano (Italy), Green River (United States), Augusta (United States), Paulinia (Brazil), Torrelavega (Spain), Liyang (China), Zhangjiagang Feixiang (China), Chalampé (France) for COD, underground water consumption, Nitrogen, and Hazardous industrial waste only, Spinetta Marengo (Italy) for CF4 and R22 emissions only.*

Qualifications

The indicators “Average of hours of training per employee” and “Number of occupational diseases” comprise a significant risk of error due to the lack of maturity of the reporting process and the incompleteness of the reported data.

We observed a significant risk on the indicators “Acidification emissions index”, “Photochemical oxidant formation index”, “Eutrophication Emission Index”, “Water consumption index”, “Landfilled Industrial Hazardous waste index” due to the lack of controls on the production volumes used for their calculation.

We also identified a significant risk of overstatement of the indicator “Percentage of concerned product lines having a risk analysis updated in the last five years”, as the result is only based on sites’ self-declarations, without further controls.

Conclusion

On the basis of the procedures performed by us, except for matters described above, nothing came to our attention that causes us to believe that the Information identified by the symbol as included in Solvay Group Complementary Annual Report for the year ended 31 December 2015, is not prepared, in all material respects, in accordance with the Reporting Framework.

Observations

Without calling into question the conclusions of our work, expressed hereinabove, we would like to draw attention to the facts that:

- as explained in the section “Social and environmental consolidation scope”, the entity Chemlogics, acquired in 2013, has not been included in the reporting perimeter for the indicators related to environment, energy and GHG emissions;
- as explained in the section “NOX, SOX, and other significant air emissions”, the measurement frequency of “Heavy metals” emissions (to air) follows legal requirements; it can however be very low in some cases, which negatively impacts the representativeness of the measurement results.

Diegem, 29 March 2016
The Statutory Auditor

DELOITTE

Bedrijfsrevisoren
Reviseurs d'Entreprises

BV o.v.v.e. CVBA / SC s.f.d. SCRL

Represented by Eric Nys



3. GRI CONTENT INDEX

G4-32

SOLVAY SUPPORTS THE GLOBAL REPORTING INITIATIVE (G4) AS A BEST PRACTICE STANDARDS AND INTERNATIONAL GUIDELINES FOR THE SUSTAINABILITY REPORTING. THIS REPORT IS PUBLISHED IN ACCORDANCE WITH THE GRI GUIDELINES OF THE CORE OPTION. AS GRI ORGANIZATIONAL STAKEHOLDER, SOLVAY CONTRIBUTES TO THE GRI'S MISSION AND IS COMMITTED TO ADVANCING SUSTAINABILITY REPORTING. THE TABLE BELOW DESCRIBES THE LINK BETWEEN THIS REPORT, THE ANNUAL REPORT, THE UNITED NATIONS GLOBAL COMPACT PRINCIPLES, THE SUSTAINABLE DEVELOPMENT GOALS AND THE G4, THE LATEST VERSION OF THE GRI FRAMEWORK. UNDER THE GRI CONTENT INDEX SERVICE, THE GRI HAS VERIFIED THE ACCURACY OF THE GRI CONTENT INDEX OF THIS REPORT.



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GENERAL STANDARD DISCLOSURES

General standard disclosures	Page numbers in this report	Page numbers in the Annual Report	Title	Global Compact requirement	Sustainable Development Goals
STRATEGY AND ANALYSIS					
G4-1	-	pp. 10-11	Statement from the most senior decision-maker of the organisation about relevance of sustainability to the organisation and its strategy	19	-
G4-2	p. 22	-	Description of key impacts, risks and opportunities	19	-
IDENTIFIED MATERIAL ASPECTS AND BOUNDARIES					
G4-3	p. 133	-	Company name	-	-
G4-4	-	pp. 22-27	Principal brands, products, and services	-	-
G4-5	p. 133	-	Location of headquarter	-	-
G4-6	-	pp. 202-213	Countries where the company is established	-	-
G4-7	-	pp. 31-32	Nature of ownership and legal form	-	-
G4-8	-	pp. 22-27	Markets served with geographic breakdown	-	-
G4-9	p. 41	-	Scale of the organization	-	-
G4-10	p. 72	-	Employment by contract type, worktime and gender	Principle 6	8
G4-11	p. 78	-	Percentage of employees covered by collective bargaining agreements	Principle 3	8
G4-12	p. 29	-	Organization's supply chain	-	-
G4-13	-	pp. 202-213	Significant changes in the reporting period	-	-
G4-14	p. 44	-	Position regarding the precautionary principle and its application	-	-
G4-15	-	pp. 27-28	Adherence to charters, principles and other external initiatives	-	-
G4-16	p. 28	-	Membership of associations, including trade bodies	-	-

General standard disclosures	Page numbers in this report	Page numbers in the Annual Report	Title	Global Compact requirement	Sustainable Development Goals
IDENTIFIED MATERIAL ASPECTS AND BOUNDARIES					
G4-17	-	pp. 202-213	All entities included in the organization's consolidated statements	-	-
G4-18	p. 8	-	Process for defining report content, aspect boundaries and GRI principles	-	-
G4-19	p. 9	-	Material Aspects identified in the process for defining report content	-	-
G4-20	p. 9	-	Boundaries of material aspect within the organization	-	-
G4-21	p. 9	-	Boundaries of material aspect outside the organization	-	-
G4-22	p. 8	-	Explanation of the consequences of any changes in the boundaries of the report	-	-
G4-23	p. 8	-	Consequences of the changes in the scope and aspect in boundaries	-	-
STAKEHOLDER ENGAGEMENT					
G4-24	p. 11	-	Stakeholders group considered	21	-
G4-25	p. 11	-	Basis for identification of stakeholders	21	-
G4-26	p. 11	-	Approaches to dialogue with the stakeholders	21	-
G4-27	p. 11	-	Stakeholders' concerns	21	-
REPORT PROFILE					
G4-28	2015	2015	Reporting period for the information provided	-	-
G4-29	2014	2014	Date of most recent previous report	-	-
G4-30	Annual	Annual	Reporting cycle	-	-
G4-31	p. 133	-	Contact persons	-	-
G4-32	p. 124	-	Table identifying the location of the Standard disclosures in the report and External Assurance report	-	-
G4-33	p. 121	-	External validation	-	-
GOVERNANCE					
G4-34	-	pp. 16-18	Governance structure	1 and 20	-
G4-35	p. 17	-	Process for delegating authority for economic, environmental and social topics from the highest governance body to senior executives and other employees.	1 and 20	-
G4-36	p. 17	-	The positions with responsibility for economic, environmental and social topics report directly to the highest governance body.	1 and 20	-
G4-37	p. 11	-	Processes for consultation between stakeholders and the highest governance body on economic, environmental and social topics	1 and 20	16
G4-38	-	pp. 16-18	Composition of the highest governance body and its committees	1 and 20	5; 16
G4-39	-	p. 38	The Chair of the highest governance body is also an executive officer	1 and 20	16
G4-40	-	pp. 37-41	Nomination and selection processes for the highest governance body and its committees	1 and 20	5; 16
G4-41	-	pp. 37-41	Processes for the highest governance body to ensure conflicts of interest are avoided and managed.	1, 2 and 20	16
G4-42	p. 19	-	The highest governance body's and senior executives' roles in the development, approval, and updating of the organization's purpose, value or mission statements, strategies, policies, and goals related to economic, environmental and social impacts.	1 and 20	-
G4-43	p. 19	-	The measures taken to develop and enhance the highest governance body's collective knowledge of economic, environmental and social topics.	1 and 20	4
G4-44	p. 19	-	Evaluation of the highest governance body's performance with respect to governance of economic environmental and social topics	1 and 20	-
G4-45	p. 19	-	The highest governance body's role in the identification and management of economic, environmental and social impacts, risks, and opportunities.	1 and 20	16

General standard disclosures	Page numbers in this report	Page numbers in the Annual Report	Title	Global Compact requirement	Sustainable Development Goals
→ GOVERNANCE					
G4-46	p. 19	-	The highest governance body's role in reviewing the effectiveness of the organization's risk management processes for economic, environmental and social topics.	1 and 20	16
G4-47	p. 19	-	The frequency of the highest governance body's review of economic, environmental and social impacts, risks, and opportunities.	1 and 20	-
G4-48	p. 19	-	The highest committee or position that formally reviews and approves the organization's sustainability report and ensures that all material Aspects are covered.	1 and 20	-
G4-49	p. 19	-	Process for communicating critical concerns to the highest governance body.	1 and 20	-
G4-51	-	pp. 57-58	The remuneration policies for the highest governance body and senior executives	1 and 20	-
G4-52	-	pp. 57-58	The process for determining remuneration	1 and 20	-
ETHICS AND INTEGRITY					
G4-56	p. 32	-	Organization's values principles, standards and norms of behavior such as codes of conduct and code of ethics	Principle 10	16
G4-57	p. 33	-	Internal and external mechanisms for seeking advice on ethical and lawful behavior, and matters related to organizational integrity such as helplines or advices lines.	Principle 11	16
G4-58	p. 33	-	Internal and external mechanisms for reporting concerns about unethical or unlawful behavior, and matters related to organizational integrity, such as escalation through line management, whistleblowing mechanisms or hotlines.	Principle 12	16

SPECIFIC STANDARD DISCLOSURES

ECONOMIC

DMA and Indicators	Page numbers in this report	Page numbers in the Annual Report	Omissions	Title	Global Compact requirement	Sustainable Development Goals
ECONOMIC PERFORMANCE						
G4-DMA	p. 41	-		Generic Disclosures on Management Approach	-	-
G4-EC1	p. 41	-		Direct economic value generated and distributed	-	2; 5; 7; 9
G4-EC2	p. 22	-		Financial implications, risks and opportunities due to climate change	Principle 7	13
G4-EC3	-	-	Not applicable. Solvay doesn't report the indicator G4-EC3 at corporate level because it is reported at local level.	Coverage of the organization's defined benefit plan obligations	-	-
G4-EC4	-	-	Not applicable. Solvay doesn't report the indicator G4-EC4 at corporate level because it is reported at local level.	Financial assistance received from government	-	-

SPECIFIC STANDARD DISCLOSURES

ENVIRONMENTAL

DMA and Indicators	Page numbers in this report	Page numbers in the Annual Report	Omissions	Title	Global Compact requirement	Sustainable Development Goals
MATERIALS						
G4-DMA	p. 45	-	-	Generic Disclosures on Management Approach	Principle 7 and 8	-
G4-EN1	p. 46	-	-	Materials used by weight or volume	Principle 7 and 8	8 ; 12
G4-EN2	-	-	Not applicable. Solvay doesn't report the indicator G4-EN2 at corporate level because it is reported at local level.	Percentage of materials used that are recycled input materials	Principle 7 and 8	8 ; 12
ENERGY						
G4-DMA	p. 47	-	-	Generic Disclosures on Management Approach	Principle 7 and 8	-
G4-EN3	p. 48	-	-	Energy consumption within the organization	Principle 7 and 8	7; 8; 12; 13
G4-EN4	-	-	Not applicable. Solvay doesn't report the indicator G4-EN4 because the priority is given to the consumption under our operational control.	Energy consumption outside of the organization	Principle 8	7; 8; 12; 13
G4-EN5	p. 49	-	-	Energy Intensity	Principle 8	7; 8; 12; 13
G4-EN6	p. 50	-	-	Reduction of energy Consumption	Principle 8 and 9	7; 8; 12; 13
G4-EN7	-	-	Not applicable. Solvay doesn't report the indicator G4-EN7 because the priority is given to the consumption under our operational control.	Reductions in energy requirements of products and services	Principle 8 and 9	7; 8; 12; 13
WATER						
G4-DMA	p. 50	-	-	Generic Disclosures on Management Approach	Principle 7 and 8	-
G4-EN8	p. 51	-	-	Total water withdrawal by source	Principle 7 and 8	6
G4-EN9	-	-	Not applicable. Solvay doesn't report the indicator G4-EN9 because Solvay uses a water tool which gives a global assessment by river basin.	Water sources significantly affected by withdrawal of water	Principle 8	6
G4-EN10	p. 52	-	-	Percentage and total volume of water recycled and reused	Principle 8	6; 8; 12
BIODIVERSITY						
G4-DMA	p. 53	-	-	Generic Disclosures on Management Approach	Principle 7 and 8	-
G4-EN11	-	-	Not applicable. Solvay doesn't report the indicator G4-EN11 at corporate level because it is reported at local level.	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Principle 8	6; 14; 15
G4-EN12	-	-	Not applicable. Solvay doesn't report the indicator G4-EN12 at corporate level because it is reported at local level.	Description of significant impacts of activities, products, and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas	Principle 8	6; 14; 15
G4-EN13	p. 53	-	-	Habitats protected or restored	Principle 8	6; 14; 15
G4-EN14	-	-	Not applicable. Solvay doesn't report the indicator G4-EN14 at corporate level because it is reported at local level.	Total number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk	Principle 8	6; 14; 15

DMA and Indicators	Page numbers in this report	Page numbers in the Annual Report	Omissions	Title	Global Compact requirement	Sustainable Development Goals
EMISSIONS						
G4-DMA	p. 54	-	-	Generic Disclosures on Management Approach	Principle 7 and 8	-
G4-EN15	p. 54	-	-	Direct Greenhouse Gas Emissions (Scope 1)	Principle 7 and 8	3; 12; 13; 14; 15
G4-EN16	p. 55	-	-	Energy indirect Greenhouse Gas emissions (Scope 2)	Principle 7 and 8	3; 12; 13; 14; 15
G4-EN17	p. 56	-	-	Other indirect greenhouse gas (GHG) emissions (Scope 3)	Principle 7 and 8	3; 12; 13; 14; 15
G4-EN18	p. 56	-	-	Greenhouse Gas Emissions Intensity	Principle 8	13; 14; 15
G4-EN19	p. 56	-	-	Reduction of Greenhouse Gas Emissions	Principle 8 and 9	13; 14; 15
G4-EN20	p. 56	-	-	Emissions of ozone-depleting Substance (ODS)	Principle 7 and 8	3; 12; 13; 14; 15
G4-EN21	p. 57	-	-	NOx, SOx, And other significant air emissions	Principle 7 and 8	3; 12; 13; 14; 15
EFFLUENTS AND WASTE						
G4-DMA	p. 59	-	-	Generic Disclosures on Management Approach	Principle 7 and 8	-
G4-EN22	p. 59	-	-	Total water discharge by quality and by destination	Principle 8	3; 6; 12; 14
G4-EN23	p. 60	-	-	Total weight of waste by type and disposal method	Principle 8	3; 6; 12
G4-EN24	p. 62	-	-	Total number and volume of significant spills	Principle 8	3; 6; 12; 14; 15
G4-EN25	-	-	Not applicable. Solvay doesn't report the indicator G4-EN25 at corporate level because it is reported at local level.	Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Base I Convention 2 Annex I, II, III, and VIII, and percentage of transported waste shipped internationally	Principle 8	3; 12
G4-EN26	-	-	Not applicable. Solvay doesn't report the indicator G4-EN26 at corporate level because it is reported at local level.	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the organization's discharges of water and runoff	Principle 8	6; 14; 15
PRODUCTS AND SERVICES						
G4-DMA	p. 64	-	-	Generic Disclosures on Management Approach	Principle 7, 8 and 9	-
G4-EN27	p. 65	-	-	Extent of impact mitigation of environmental impacts and services	Principle 7, 8 and 9	6; 8; 12; 13; 14; 15
G4-EN28	p. 65	-	-	Percentage of products sold and their packaging materials that are reclaimed by category	Principle 8	8; 12
TRANSPORT						
G4-DMA	p. 67	-	-	Generic Disclosures on Management Approach	Principle 8	-
G4-EN30	p. 67	-	-	Significant environmental impacts of transporting products and other goods and materials for the organization's operations, and transporting members of the workforce	Principle 8	11; 12; 13
SUPPLIER ENVIRONMENTAL ASSESSMENT						
G4-DMA	p. 68	-	-	Generic Disclosures on Management Approach	Principle 8	-
G4-EN32	p. 68	-	-	Percentage of new suppliers that were screened using environmental criteria	Principle 8	-
G4-EN33	p. 31	-	-	Significant actual and potential negative environmental impacts in the supply chain and actions taken	Principle 8	-

SPECIFIC STANDARD DISCLOSURES

SOCIAL

LABOR PRACTICES AND DECENT WORK

DMA and Indicators	Page numbers in this report	Page numbers in the Annual Report	Omissions	Title	Global Compact requirement	Sustainable Development Goals
EMPLOYMENT						
G4-DMA	p. 72	-	-	Generic Disclosures on Management Approach	-	-
G4-LA1	p. 75	-	-	Total number and rates of new employee hires and employee turnover by age group, gender and region	Principle 6	5; 8
G4-LA2	p. 77	-	-	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by significant locations of operation	-	8
G4-LA3	-	-	Not applicable. Solvay doesn't report the indicator G4-LA3 at corporate level because it is reported at local level.	Return to work and retention rates after parental leave, by gender	Principle 6	5; 8
LABOR AND MANAGEMENT RELATIONS						
G4-DMA	p. 77	-	-	Generic Disclosures on Management Approach	-	-
G4-LA4	p. 78	-	-	Minimum notice periods regarding operational changes, including whether these are specified in collective agreements	Principle 3	8
OCCUPATIONAL HEALTH AND SAFETY						
G4-DMA	p. 78	-	-	Generic Disclosures on Management Approach	-	-
G4-LA5	-	-	Not applicable. Solvay doesn't report the indicator G4-LA5 at corporate level because it is reported at local level.	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs	-	8
G4-LA6	p. 79	-	-	Rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender	-	3; 8
G4-LA7	p. 84	-	-	Workers with high incidence or high risk of diseases related to their occupation	-	3; 8
G4-LA8	p. 78	-	-	Health and safety topics covered in formal agreements with trade unions	-	8
TRAINING AND EDUCATION						
G4-DMA	p. 85	-	-	Generic Disclosures on Management Approach	-	-
G4-LA9	p. 87	-	-	Average hours of training per year per employee by gender, and by employee category	Principle 6	4; 5; 8
G4-LA10	p. 87	-	-	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	-	8
G4-LA11	p. 88	-	-	Percentage of employees receiving regular performance and career development reviews, by gender and by employee category	Principle 6	5; 8

DMA and Indicators	Page numbers in this report	Page numbers in the Annual Report	Omissions	Title	Global Compact requirement	Sustainable Development Goals
DIVERSITY AND EQUAL OPPORTUNITY						
G4-DMA	p. 89	-	-	Generic Disclosures on Management Approach	-	-
G4-LA12	p. 90	-	-	Indicator of diversity	Principle 6	5; 8
EQUAL REMUNERATION FOR WOMEN AND MEN						
G4-DMA	p. 91	-	-	Generic Disclosures on Management Approach	-	-
G4-LA13	p. 91	-	-	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation	Principle 6	5; 8; 10
SUPPLIER ASSESSMENT FOR LABOR PRACTICES						
G4-DMA	p. 91	-	-	Generic Disclosures on Management Approach	-	-
G4-LA14	p. 91	-	-	Percentage of new suppliers that were screened using labor practices criteria	-	5; 8; 16
G4-LA15	p. 31	-	-	Significant actual and potential negative impacts for labor practices in the supply chain and actions taken	-	5; 8; 16

HUMAN RIGHTS

DMA and Indicators	Page numbers in this report	Page numbers in the Annual Report	Omissions	Title	Global Compact requirement	Sustainable Development Goals
INVESTMENT						
G4-DMA	p. 92	-	-	Generic Disclosures on Management Approach	-	-
G4-HR1	p. 92	-	-	Total number and percentage of significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	Principle 2	-
G4-HR2	p. 93	-	-	Total hours of employee training on human rights policies or procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained	Principle 1	-
NON-DISCRIMINATION						
G4-DMA	p. 93	-	-	Generic Disclosures on Management Approach	-	-
G4-HR3	p. 93	-	-	Total number of incidents of discrimination and corrective actions taken	-	5; 8; 16
FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING						
G4-DMA	p. 93	-	-	Generic Disclosures on Management Approach	Criteria 3 to 5	-
G4-HR4	p. 94	-	-	Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and measures taken to support these rights.	Principle 3	8
CHILD LABOR						
G4-DMA	p. 94	-	-	Generic Disclosures on Management Approach	Principle 5	-
G4-HR5	p. 94	-	-	Operations and suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor	Principle 5	8; 16
FORCED OR COMPULSORY LABOR						
G4-DMA	p. 94	-	-	Generic Disclosures on Management Approach	Principle 4	-
G4-HR6	p. 94	-	-	Operations and suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor	Principle 4	8

DMA and Indicators	Page numbers in this report	Page numbers in the Annual Report	Omissions	Title	Global Compact requirement	Sustainable Development Goals
INDIGENOUS RIGHTS						
G4-DMA	p. 94	-	-	Generic Disclosures on Management Approach	-	-
G4-HR8	-	-	The indicator G4-HR8 is currently unavailable. New reporting systems are being put in place. We expect to be able to report in a year or two.	Total number and percentage of operations that have been subject to human rights reviews or impact assessments	Principle 1	2
SUPPLIER HUMAN RIGHTS ASSESSMENT						
G4-DMA	p. 92	-	-	Generic Disclosures on Management Approach	Criteria 3 to 5	-
G4-HR10	p. 92	-	-	Percentage of new suppliers that were screened using human rights criteria	Principle 2	-
G4-HR11	p. 92	-	-	Significant actual and potential negative human rights impacts in the supply chain and actions taken	Principle 2	-
HUMAN RIGHTS GRIEVANCE MECHANISMS						
G4-DMA	p. 94	-	-	Generic Disclosures on Management Approach	Criteria 3 to 5	-
G4-HR12	p. 94	-	-	Number of grievances about human rights impacts filed, addressed, and resolved through formal grievance mechanisms	Principle 1	16

SOCIETY

DMA and Indicators	Page numbers in this report	Page numbers in the Annual Report	Omissions	Title	Global Compact requirement	Sustainable Development Goals
LOCAL COMMUNITIES						
G4-DMA	p. 95	-	-	Generic Disclosures on Management Approach	Criteria 12 to 14	-
G4-S01	p. 95	-	-	Percentage of operations with implemented local community engagement, impact assessments, and development programs	Principle 1	-
G4-S02	p. 100	-	-	Operations with significant actual or potential negative impacts on local communities	Principle 1	1; 2
ANTI-CORRUPTION						
G4-DMA	p. 101	-	-	Generic Disclosures on Management Approach	Criteria 12 to 14	-
G4-S03	p. 102	-	-	Total number and percentage of operations assessed for risks related to corruption and the significant risks identified	Principle 10	16
G4-S04	p. 102	-	-	Communication and training on anti-corruption policies and procedures	Principle 10	16
G4-S05	p. 102	-	-	Confirmed incidents of corruption and actions taken	Principle 10	16
PUBLIC POLICY						
G4-DMA	p. 102	-	-	Generic Disclosures on Management Approach	Criteria 12 to 14	-
G4-S06	p. 103	-	-	Total value of political contributions by country and recipient/beneficiary	Principle 10	16
ANTI-COMPETITIVE BEHAVIOR						
G4-DMA	p. 103	-	-	Generic Disclosures on Management Approach	Criteria 12 to 14	-
G4-S07	p. 103	-	-	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes	-	16
COMPLIANCE						
G4-DMA	p. 107	-	-	Generic Disclosures on Management Approach	-	-
G4-S08	p. 103	-	-	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	-	16

DMA and Indicators	Page numbers in this report	Page numbers in the Annual Report	Omissions	Title	Global Compact requirement	Sustainable Development Goals
GRIEVANCE MECHANISMS FOR IMPACTS ON SOCIETY						
G4-DMA	p. 104	-	-	Generic Disclosures on Management Approach	Criteria 12 to 14	-
G4-S011	p. 104	-	-	Number of grievances about impacts on society filed, addressed, and resolved through formal grievance mechanisms	-	16

PRODUCT RESPONSIBILITY

DMA and Indicators	Page numbers in this report	Page numbers in the Annual Report	Omissions	Title	Global Compact requirement	Sustainable Development Goals
CUSTOMER HEALTH AND SAFETY						
G4-DMA	p. 107	-	-	Generic Disclosures on Management Approach	-	-
G4-PR1	p. 107	-	-	Percentage of significant product and service categories for which health and safety impacts are assessed for improvement	-	-
G4-PR2	-	-	The indicator G4-PR2 is not available because Solvay report it at local level and there is no worldwide indicator.	Total number of incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services during their life cycle, by type of outcomes	-	16
PRODUCT AND SERVICE LABELING						
G4-DMA	p. 109	-	-	Generic Disclosures on Management Approach	-	-
G4-PR3	p. 109	-	-	Type of product and service information required by the organization's procedures for product and service information and labeling, and percentage of significant product and service categories subject to such information requirements	-	12
G4-PR4	-	-	The indicator G4-PR4 is not applicable because Solvay has no worldwide indicator but a centralized system for systematic regulatory monitoring which informs business managers about key regulatory changes.	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes	-	16
G4-PR5	p. 110	-	-	Results of surveys measuring customer satisfaction	-	-

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