

GRI CONTENT INDEX



SOLVAY SUPPORTS THE GRI STANDARDS

As member of the GRI Gold Community, Solvay contributes to the GRI's mission and is committed to advancing sustainability reporting. Solvay also joined the Standard Pioneers program to prepare this report according to the GRI Standards. Solvay is also involved in the Corporate Leadership Group on integrated reporting.

This report has been prepared in accordance with the GRI Standards: Core option.



GRI 102: GENERAL DISCLOSURES 2016

ORGANIZATIONAL PROFILE

Disclosure	2016 Annual Integrated Report website	SDG Linkage to GRI Disclosures
102-1 Name of the organization	Summary of financial statements of Solvay SA	
102-2 Activities, brands, products, and services	Who we are	
102-3 Location of headquarters	Summary of financial statements of Solvay SA	
102-4 Location of operations	Summary of financial statements of Solvay SA	
102-5 Ownership and legal form	Summary of financial statements of Solvay SA	
102-6 Markets served	Our markets	
102-7 Scale of the organization	2016 Key figures	
102-8 Information on employees and other workers	Our workforce	SDG 8
102-9 Supply chain	Supply chain management	
102-10 Significant changes to the organization and its supply chain	Note F44 List of companies included in the consolidation scope	
102-11 Precautionary Principle or approach	Health Safety and Environment (HSE) management	
102-12 External initiatives	Voluntary external commitments	
102-13 Membership of associations	Membership of associations	

STRATEGY

Disclosure	2016 Annual Integrated Report website	SDG Linkage to GRI Disclosures
102-14 Statement from senior decision-maker	Interview with the CEO United Nations Global Compact	
102-15 Key impacts, risks, and opportunities	Note S1 Sustainable Portfolio Management	

ETHICS AND INTEGRITY

Disclosure	2016 Annual Integrated Report website	SDG Linkage to GRI Disclosures
102-16 Values, principles, standards, and norms of behavior	A common framework of references	SDG 16
102-17 Mechanisms for advice and concerns about ethics	Anti-corruption	SDG 16

GOVERNANCE

Disclosure	2016 Annual Integrated Report website	SDG Linkage to GRI Disclosures
102-18 Governance structure	An experienced, diversified and proactive Board of Directors An entrepreneurial Executive Committee fostering operational agility Solvay Way, constantly improving how we do business	
102-19 Delegating authority	Solvay Way, constantly improving how we do business	
102-20 Executive-level responsibility for economic, environmental, and social topics	Solvay Way, constantly improving how we do business	
102-21 Consulting stakeholders on economic, environmental, and social topics	Stakeholder engagement External recognition	SDG 16
102-22 Composition of the highest governance body and its committees	An experienced, diversified and proactive Board of Directors An entrepreneurial Executive Committee fostering operational agility Our management bodies	SDG 5 SDG 16
102-23 Chair of the highest governance body	Structure and composition	SDG 16
102-24 Nominating and selecting the highest governance body	An experienced, diversified and proactive Board of Directors Board of Directors - Members Structure and composition Training	SDG 5 SDG 16
102-25 Conflicts of interest	Functioning of the Board of Directors	SDG 16
102-26 Role of highest governance body in setting purpose, values, and strategy	Functioning of the Board of Directors	
102-27 Collective knowledge of highest governance body	Training	SDG 4
102-28 Evaluating the highest governance body's performance	Evaluation	
102-29 Identifying and managing economic, environmental, and social impacts	An experienced, diversified and proactive Board of Directors Board of Directors - Members Sustainable Business Solutions	SDG 16
102-30 Effectiveness of risk management processes	Solvay Way approach and management SPM in key Group processes	
102-31 Review of economic, environmental, and social topics	Solvay Way approach and management	
102-32 Highest governance body's role in sustainability reporting	Materiality analysis	
102-33 Communicating critical concerns	Solvay Way approach and management	
102-35 Remuneration policies	Compensation report	
102-36 Process for determining remuneration	Governance	
102-40 List of stakeholder groups	Stakeholder engagement	
102-41 Collective bargaining agreements	Coverage of employees by collective agreements	SDG 8

STAKEHOLDER ENGAGEMENT

Disclosure	2016 Annual Integrated Report website	SDG Linkage to GRI Disclosures
102-42 Identifying and selecting stakeholders	Solvay Way, constantly improving how we do business	
102-43 Approach to stakeholder engagement	Stakeholder engagement	
102-44 Key topics and concerns raised	Stakeholder engagement	

REPORTING PRINCIPLES

Disclosure	2016 Annual Integrated Report website	SDG Linkage to GRI Disclosures
102-45 Entities included in the consolidated financial statements	Note F44 List of companies included in the consolidation scope	
102-46 Defining report content and topic Boundaries	Reporting principles	
102-47 List of material topics	Materiality analysis	
102-48 Restatements of information	Reporting principles	
102-49 Changes in reporting	Note F44 List of companies included in the consolidation scope	
102-50 Reporting period	2016	
102-51 Date of most recent report	2015	
102-52 Reporting cycle	Annual	
102-53 Contact point for questions regarding the report	Contact	
102-54 Claims of reporting in accordance with the GRI Standards	GRI Content index	
102-55 GRI content index	GRI Content index	
102-56 External assurance	Assurance report of the statutory auditor on a selection of social, environmental and other sustainable development information for the year ended 31 December 2016 Limited assurance report of the statutory auditor on a selection of social, environmental and other sustainable development information for the year ended 31 December 2016 - Disclosed on the Solvay Group Website	

TOPIC SPECIFIC STANDARDS

—○— Moderate —○— High —○— Priority

ECONOMIC

Economic performance

GRI STANDARD	Disclosure	2016 Annual Report online	Reason (s) of omission (s)	Importance	SDG Linkage to GRI Disclosures
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	Our model for creating sustainable value		—○—	
	103-2 The management approach and its components	Our strategy		—○—	SDG 1 SDG 5 SDG 8
	103-3 Evaluation of the management approach	Note S1 Sustainable Portfolio Management		—○—	
GRI 201: Economic performance 2016	201-1 Direct economic value generated and distributed	Direct and economic value generated and distributed		—○—	SDG 2 SDG 5 SDG 7 SDG 8 SDG 9
	201-2 Financial implications and other risks and opportunities due to climate change	Climate change - emerging risk		—○—	SDG 13 SDG 14
	201-3 Defined benefit plan obligations and other retirement plans		Not applicable. Solvay doesn't report the indicator 201-3 at corporate level because it is reported at local level.		
	201-4 Financial assistance received from government		Not applicable. Solvay doesn't report the indicator 201-4 at corporate level because it is reported at local level.		

Indirect economic impacts

GRI STANDARD	Disclosure	2016 Annual Report online	Reason (s) of omission (s)	Importance	SDG Linkage to GRI Disclosures
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	Note S10 Community development management			
	103-2 The management approach and its components	Note S10 Community development management			SDG 1 SDG 5 SDG 8
	103-3 Evaluation of the management approach	Note S10 Community development management			
GRI 203: Indirect economic impacts 2016	203-1 Infrastructure investments and services supported	Note S10 Community development management			SDG 2 SDG 5 SDG 7 SDG 9 SDG 11
	203-2 Significant indirect economic impacts	Note S10 Community development management			SDG 1 SDG 2 SDG 3 SDG 8 SDG 10

Procurement practices

GRI STANDARD	Disclosure	2016 Annual Report online	Reason (s) of omission (s)	Importance	SDG Linkage to GRI Disclosures
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	Supply chain management			
	103-2 The management approach and its components	Supply chain management			SDG 1 SDG 5 SDG 8
	103-3 Evaluation of the management approach	Supply chain management			
GRI 204: Procurement practices 2016	204-1 Proportion of spending on local suppliers	Our suppliers			SDG 12

Anti-corruption

GRI STANDARD	Disclosure	2016 Annual Report online	Reason (s) of omission (s)	Importance	SDG Linkage to GRI Disclosures
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	Note S11 Management of the Legal, Ethics and regulatory framework			
	103-2 The management approach and its components	Anti-corruption			SDG 1 SDG 5 SDG 8
	103-3 Evaluation of the management approach	Anti-corruption			
GRI 205: Anti-corruption 2016	205-1 Operations assessed for risks related to corruption	Anti-corruption			SDG 16
	205-2 Communication and training about anti-corruption policies and procedures	Communication and training			SDG 16
	205-3 Confirmed incidents of corruption and actions taken	Monitoring and evaluation mechanism			SDG 16

Anti-competitive behavior

GRI STANDARD	Disclosure	2016 Annual Report online	Reason (s) of omission (s)	Importance	SDG Linkage to GRI Disclosures
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	Note S11 Management of the Legal, Ethics and regulatory framework			
	103-2 The management approach and its components	Anti-competitive behavior			SDG 1 SDG 5 SDG 8
	103-3 Evaluation of the management approach	Anti-competitive behavior			
GRI 206: Anti-competitive behavior 2016	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Monitoring and evaluation mechanism			SDG 16

ENVIRONMENTAL

Materials

GRI STANDARD	Disclosure	2016 Annual Report online	Reason (s) of omission (s)	Importance	SDG Linkage to GRI Disclosures
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	Raw materials			SDG 12 SDG 13 SDG 14 SDG 15
	103-2 The management approach and its components	Raw materials			SDG 12 SDG 13 SDG 14 SDG 15
	103-3 Evaluation of the management approach	Raw materials			SDG 12 SDG 13 SDG 14 SDG 15
GRI 301: Materials 2016	301-1 Materials used by weight or volume	Main bio-sourced raw materials			SDG 8 SDG 12
	301-2 Recycled input materials used		Not applicable. Solvay doesn't report the indicator 301-2 at corporate level because it is reported at local level.		SDG 8 SDG 12
	301-3 Reclaimed products and their packaging materials	Health and environmental impacts of our products			SDG 8 SDG 12

Energy

GRI STANDARD	Disclosure	2016 Annual Report online	Reason (s) of omission (s)	Importance	SDG Linkage to GRI Disclosures
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	Note S3 Energy management			SDG 12 SDG 13 SDG 14 SDG 15
	103-2 The management approach and its components	Note S3 Energy management			SDG 12 SDG 13 SDG 14 SDG 15
	103-3 Evaluation of the management approach	Note S3 Energy management			SDG 12 SDG 13 SDG 14 SDG 15
GRI 302: Energy 2016	302-1 Energy consumption within the organization	Energy consumption within Solvay			SDG 7 SDG 8 SDG 12 SDG 13
	302-2 Energy consumption outside of the organization	Energy consumption outside Solvay			SDG 7 SDG 8 SDG 12 SDG 13
	302-3 Energy intensity	Energy intensity			SDG 7 SDG 8 SDG 12 SDG 13
	302-4 Reduction of energy consumption	Reduction of energy consumption			SDG 7 SDG 8 SDG 12 SDG 13
	302-5 Reductions in energy requirements of products and services		Not applicable. Solvay doesn't report the indicator 302-5 because priority is given to the consumption under operational control.		SDG 7 SDG 8 SDG 12 SDG 13

Water

GRI STANDARD	Disclosure	2016 Annual Report online	Reason (s) of omission (s)	Importance	SDG Linkage to GRI Disclosures
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	Note S5 Water management			SDG 12 SDG 13 SDG 14 SDG 15
	103-2 The management approach and its components	Note S5 Water management			SDG 12 SDG 13 SDG 14 SDG 15
	103-3 Evaluation of the management approach	Note S5 Water management			SDG 12 SDG 13 SDG 14 SDG 15
GRI 303: Water 2016	303-1 Water withdrawal by source	Note S5 Water management			SDG 6
	303-2 Water sources significantly affected by withdrawal of water		Note applicable. Solvay doesn't report the indicator 303-2 because the Group uses a water tool which gives a global assessment by river basin.		SDG 6
	303-3 Water recycled and reused	Note S5 Water management			SDG 6 SDG 7 SDG 8 SDG 12

Biodiversity

GRI STANDARD	Disclosure	2016 Annual Report online	Reason (s) of omission (s)	Importance	SDG Linkage to GRI Disclosures
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	Biodiversity			SDG 12 SDG 13 SDG 14 SDG 15
	103-2 The management approach and its components	Biodiversity			SDG 12 SDG 13 SDG 14 SDG 15
	103-3 Evaluation of the management approach	Biodiversity			SDG 12 SDG 13 SDG 14 SDG 15
GRI 304: Biodiversity 2016	304-1 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas		Not applicable. Solvay doesn't report the indicator 304-1 at corporate level because it is reported at local level.		SDG 6 SDG 7 SDG 14 SDG 15
	304-2 Significant impacts of activities, products, and services on biodiversity		Not applicable. Solvay doesn't report the indicator 304-2 at corporate level because it is reported at local level.		SDG 6 SDG 7 SDG 14 SDG 15
	304-3 Habitats protected or restored	Management of natural areas			SDG 6 SDG 7 SDG 14 SDG 15
	304-4 IUCN Red List species and national conservation list species with habitats in areas affected by operations		Not applicable. Solvay doesn't report the indicator 304-4 at corporate level because it is reported at local level.		SDG 6 SDG 7 SDG 14 SDG 15

Emissions

GRI STANDARD	Disclosure	2016 Annual Report online	Reason (s) of omission (s)	Importance	SDG Linkage to GRI Disclosures
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	Note S2 Greenhouse gas emission management Note S4 Air quality management			SDG 12 SDG 13 SDG 14 SDG 15
	103-2 The management approach and its components	Note S2 Greenhouse gas emission management Note S4 Air quality management			SDG 12 SDG 13 SDG 14 SDG 15
	103-3 Evaluation of the management approach	Note S2 Greenhouse gas emission management Note S4 Air quality management			SDG 12 SDG 13 SDG 14 SDG 15
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	Direct Greenhouse gas emissions (Scope 1)			SDG 3 SDG 12 SDG 13 SDG 14 SDG 15
	305-2 Energy indirect (Scope 2) GHG emissions	Energy indirect Greenhouse gas emissions (Scope 2)			SDG 3 SDG 12 SDG 13 SDG 14 SDG 15
	305-3 Other indirect (Scope 3) GHG emissions	Other indirect Greenhouse gas emissions (Scope 3)			SDG 3 SDG 12 SDG 13 SDG 14 SDG 15
	305-4 GHG emissions intensity	Greenhouse gas intensity			SDG 13 SDG 14 SDG 15
	305-5 Reduction of GHG emissions	Greenhouse gas intensity			SDG 13 SDG 14 SDG 15
	305-6 Emissions of ozone-depleting substances (ODS)		Not applicable. Solvay doesn't report the indicator 305-6 anymore because priority is given to other indicators.		SDG 3 SDG 12 SDG 13 SDG 14
	305-7 Nitrogen oxides (NO _x), sulfur oxides (SO _x), and other significant air emissions	Note S4 Air quality management			SDG 3 SDG 12 SDG 13 SDG 14 SDG 15

Effluents and waste

GRI STANDARD	Disclosure	2016 Annual Report online	Reason (s) of omission (s)	Importance	SDG Linkage to GRI Disclosures
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	Note S7 Hazardous materials management			SDG 12 SDG 13 SDG 14 SDG 15
	103-2 The management approach and its components	Note S7 Hazardous materials management			SDG 12 SDG 13 SDG 14 SDG 15
	103-3 Evaluation of the management approach	Note S7 Hazardous materials management			SDG 12 SDG 13 SDG 14 SDG 15
GRI 306: Effluents and Waste 2016	306-1 Water discharge by quality and destination	Note S7 Hazardous materials management			SDG 3 SDG 6 SDG 7 SDG 12 SDG 13 SDG 14
	306-2 Waste by type and disposal method	Note S7 Hazardous materials management			SDG 3 SDG 6 SDG 7 SDG 12 SDG 13 SDG 14
	306-3 Significant spills	Note S7 Hazardous materials management			SDG 3 SDG 6 SDG 12 SDG 13 SDG 14 SDG 15
	306-4 Transport of hazardous waste		Not applicable. Solvay doesn't report the indicator 306-4 at corporate level because it is reported at local level.		SDG 3 SDG 12 SDG 13 SDG 14
	306-5 Water bodies affected by water discharges and/or runoff		Not applicable. Solvay doesn't report the indicator 306-5 at corporate level because it is reported at local level.		SDG 6 SDG 7 SDG 12 SDG 13 SDG 14

Environmental compliance

GRI STANDARD	Disclosure	2016 Annual Report online	Reason (s) of omission (s)	Importance	SDG Linkage to GRI Disclosures
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	Note S11 Management of the Legal, Ethics and Regulatory framework			SDG 12 SDG 13 SDG 14 SDG 15
	103-2 The management approach and its components	Note S11 Management of the Legal, Ethics and Regulatory framework			SDG 12 SDG 13 SDG 14 SDG 15
	103-3 Evaluation of the management approach	Note S11 Management of the Legal, Ethics and Regulatory framework			SDG 12 SDG 13 SDG 14 SDG 15
GRI 307: Environmental Compliance 2016	307-1 Non-compliance with environmental laws and regulations	Note S11 Management of the Legal, Ethics and Regulatory framework			SDG 12 SDG 13 SDG 14 SDG 16

Supplier Environmental Assessment





GRI STANDARD	Disclosure	2016 Annual Report online	Reason (s) of omission (s)	Importance	SDG Linkage to GRI Disclosures
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	Our suppliers			SDG 12 SDG 13 SDG 14 SDG 15
	103-2 The management approach and its components	Our suppliers			SDG 12 SDG 13 SDG 14 SDG 15
	103-3 Evaluation of the management approach	Our suppliers			SDG 12 SDG 13 SDG 14 SDG 15
GRI 308: Supplier Environmental Assessment 2016	308-1 New suppliers that were screened using environmental criteria	CSR Supplier assessment and audits			
	308-2 Negative environmental impacts in the supply chain and actions taken	Health and environmental impacts of our products			

SOCIAL








Employment

GRI STANDARD	Disclosure	2016 Annual Report online	Reason (s) of omission (s)	Importance	SDG Linkage to GRI Disclosures
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	Our workforce			
	103-2 The management approach and its components	Our workforce			
	103-3 Evaluation of the management approach	Our workforce			
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	Global staff turnover			SDG 5 SDG 8
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	Employee benefits			SDG 8
	401-3 Parental leave		Not applicable. Solvay doesn't report the indicator 401-3 at corporate level because it is reported at local level.		SDG 5 SDG 8

Labor and management relations

GRI STANDARD	Disclosure	2016 Annual Report online	Reason (s) of omission (s)	Importance	SDG Linkage to GRI Disclosures
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	Note S9 Employee engagement and wellness management			
	103-2 The management approach and its components	Note S9 Employee engagement and wellness management			
	103-3 Evaluation of the management approach	Note S9 Employee engagement and wellness management			
GRI 402: Labor and management relations 2016	402-1 Minimum notice periods regarding operational changes	Minimum notice periods regarding operational changes			SDG 8

Occupational health and safety

GRI STANDARD	Disclosure	2016 Annual Report online	Reason (s) of omission (s)	Importance	SDG Linkage to GRI Disclosures
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	Note S8 Employee health and safety management			
	103-2 The management approach and its components	Note S8 Employee health and safety management			
	103-3 Evaluation of the management approach	Note S8 Employee health and safety management			
GRI 403: Occupational health and safety 2016	403-1 Workers representation in formal joint management-worker health and safety committees	Advanced health surveillance for employees			SDG 8
	403-2 Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	Safety excellence plan			SDG 3 SDG 8
	403-3 Workers with high incidence or high risk of diseases related to their occupation	Occupational diseases			SDG 3 SDG 8
	403-4 Health and safety topics covered in formal agreements with trade unions	IndustriALL Agreement for a responsible dialog			SDG 8

Training and education

GRI STANDARD	Disclosure	2016 Annual Report online	Reason (s) of omission (s)	Importance	SDG Linkage to GRI Disclosures
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	Training and education			
	103-2 The management approach and its components	Training and education			
	103-3 Evaluation of the management approach	Training and education			
GRI 404: Training and education 2016	404-1 Average hours of training per year per employee	2016 training figures			SDG 4 SDG 5 SDG 8
	404-2 Programs for upgrading employee skills and transition assistance programs	Solvay Corporate University			SDG 8
	404-3 Percentage of employees receiving regular performance and career development reviews	2016 Performance, Development and Career Review			SDG 5 SDG 8

Diversity and equal opportunity

GRI STANDARD	Disclosure	2016 Annual Report online	Reason (s) of omission (s)	Importance	SDG Linkage to GRI Disclosures
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	Equal opportunity, Diversity and inclusion			
	103-2 The management approach and its components	Equal opportunity, Diversity and inclusion			
	103-3 Evaluation of the management approach	Equal opportunity, Diversity and inclusion			
GRI 405: Diversity and equal opportunity 2016	405-1 Diversity of governance bodies and employees	Diversity indicators			SDG 5 SDG 8
	405-2 Ratio of basic salary and remuneration of women to men	Equal remuneration for women and men			SDG 5 SDG 8 SDG 10

Non-discrimination

GRI STANDARD	Disclosure	2016 Annual Report online	Reason (s) of omission (s)	Importance	SDG Linkage to GRI Disclosures
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	Non-discrimination			
	103-2 The management approach and its components	Non-discrimination			
	103-3 Evaluation of the management approach	Non-discrimination			
GRI 406: Non-discrimination 2016	406-1 Incidents of discrimination and corrective actions taken	Incidents of discrimination and corrective actions taken			SDG 5 SDG 8 SDG 16

Freedom of association and collective bargaining

GRI STANDARD	Disclosure	2016 Annual Report online	Reason (s) of omission (s)	Importance	SDG Linkage to GRI Disclosures
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	Our Suppliers			
	103-2 The management approach and its components	Our Suppliers			
	103-3 Evaluation of the management approach	Our Suppliers			
GRI 407: Freedom of association and collective bargaining 2016	407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	CSR Supplier assessment and audits			SDG 8

Child Labor

GRI STANDARD	Disclosure	2016 Annual Report online	Reason (s) of omission (s)	Importance	SDG Linkage to GRI Disclosures
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	Child labor			
	103-2 The management approach and its components	Child labor			
	103-3 Evaluation of the management approach	Child labor			
GRI 408: Child Labor 2016	408-1 Operations and suppliers at significant risk for incidents of child labor	CSR Supplier assessment and audits			SDG 8 SDG 16

Forced or compulsory labor

GRI STANDARD	Disclosure	2016 Annual Report online	Reason (s) of omission (s)	Importance	SDG Linkage to GRI Disclosures
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	Our Suppliers			
	103-2 The management approach and its components	Our Suppliers			
	103-3 Evaluation of the management approach	Our Suppliers			
GRI 409: Forced or compulsory labor 2016	409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor	CSR Supplier assessment and audits			SDG 8

Rights of indigenous peoples

GRI STANDARD	Disclosure	2016 Annual Report online	Reason (s) of omission (s)	Importance	SDG Linkage to GRI Disclosures
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	Indigenous rights			
	103-2 The management approach and its components	Indigenous rights			
	103-3 Evaluation of the management approach	Indigenous rights			
GRI 411: Rights of indigenous peoples 2016	411-1 Incidents of violations involving rights of indigenous peoples	Responsible Purchasing and Sustainable Supply Chain Statement			SDG 2

Human rights assessment

GRI STANDARD	Disclosure	2016 Annual Report online	Reason (s) of omission (s)	Importance	SDG Linkage to GRI Disclosures
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	Policies, management system and monitoring			
	103-2 The management approach and its components	Policies, management system and monitoring			
	103-3 Evaluation of the management approach	Human rights grievance mechanisms			
GRI 412: Human rights assessment 2016	412-1 Operations that have been subject to human rights reviews or impact assessments	Human rights grievance mechanisms			
	412-2 Employee training on human rights policies or procedures	Policies, management system and monitoring			
	412-3 Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	IndustriALL Agreement			

Local communities

GRI STANDARD	Disclosure	2016 Annual Report online	Reason (s) of omission (s)	Importance	SDG Linkage to GRI Disclosures
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	Note S10 Community development management			
	103-2 The management approach and its components	Note S10 Community development management			
	103-3 Evaluation of the management approach	Note S10 Community development management			
GRI 413: Local communities 2016	413-1 Operations with local community engagement, impact assessments, and development programs	Note S10 Community development management			
	413-2 Operations with significant actual and potential negative impacts on local communities	Note S10 Community development management			SDG 1 SDG 2

Supplier social assessment

GRI STANDARD	Disclosure	2016 Annual Report online	Reason (s) of omission (s)	Importance	SDG Linkage to GRI Disclosures
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	Our Suppliers			
	103-2 The management approach and its components	Our Suppliers			
	103-3 Evaluation of the management approach	Our Suppliers			
GRI 414: Supplier social assessment 2016	414-1 New suppliers that were screened using social criteria	CSR Supplier assessment and audits			SDG 5 SDG 8 SDG 16
	414-2 Negative social impacts in the supply chain and actions taken	CSR Supplier assessment and audits			SDG 5 SDG 8 SDG 16

Public policy

GRI STANDARD	Disclosure	2016 Annual Report online	Reason (s) of omission (s)	Importance	SDG Linkage to GRI Disclosures
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	Public policy			
	103-2 The management approach and its components	Public policy			
	103-3 Evaluation of the management approach	Public policy			
GRI 415: Public policy 2016	415-1 Political contributions	Solvay's political contributions			SDG 16

Customer health and safety

GRI STANDARD	Disclosure	2016 Annual Report online	Reason (s) of omission (s)	Importance	SDG Linkage to GRI Disclosures
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	Note S7 Hazardous materials management			
	103-2 The management approach and its components	Note S7 Hazardous materials management			
	103-3 Evaluation of the management approach	Note S7 Hazardous materials management			
GRI 416: Customer health and safety 2016	416-1 Assessment of the health and safety impacts of product and service categories	Health and environmental impacts of our products			
	416-2 Incidents of non-compliance concerning the health and safety impacts of products and services	Health and environmental impacts of our products			SDG 16

Marketing and labeling

GRI STANDARD	Disclosure	2016 Annual Report online	Reason (s) of omission (s)	Importance	SDG Linkage to GRI Disclosures
GRI 103: Management approach 2016	103-1 Explanation of the material topic and its Boundary	Product stewardship			
	103-2 The management approach and its components	Product stewardship			
	103-3 Evaluation of the management approach	Product stewardship			
GRI 417: Marketing and labeling 2016	417-1 Requirements for product and service information and labeling	Managing product safety information			SDG 12 SDG 16
	417-2 Incidents of non-compliance concerning product and service information and labeling		The indicator 417-2 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.		SDG 16
	417-3 Incidents of non-compliance concerning marketing communications	Managing product safety information			

ADDITIONAL NON-GRI DISCLOSURE

Research and innovation management

Soil management

Transport safety management

Animal testing

GENERAL DISCLOSURES

GRI additional figures

General disclosure figures

	Units	2016	2015	2014	2013	2012
Solvay Way indicators						
Employees involved in Solvay Way action plan	%	50	45	30	10	–
Supply chain management						
Suppliers	Number	45,000	43,425	46,000	–	–
Critical suppliers	Number	1,080	1,080	689	–	–
Suppliers assessed via internal evaluation	Number	1,096	1,376	1,049	–	–

Economic figures

	Units	2016	2015	2014	2013	2012
Research and innovation main figures						
Research and innovation staff	Headcount	2,340	2,390	1,950	1,948	1,907
Intellectual Property agreements and cooperation agreements	Number	1,300	1,530	1,608	1,381	1,750
First Patent Filings	Number	240	256	259	232	300
New sales ratios	%	15	18	21	22	23
Sustainable business solutions						
To improve quality of life	%	31	38	–	–	–
For resources preserved and optimized	%	39	30	–	–	–
For energy efficiency	%	20	14	–	–	–
For sustainable mobility	%	8	8	–	–	–
For sustainable housing	%	2	10	–	–	–
Direct economic value generated and distributed						
Revenues	€ million	11,506	11,026	10,393	10,393	12,997
Operating costs	€ million	6,792	7,119	6,524	6,681	8,642
Employee wages and benefits	€ million	2,432	2,139	1,990	1,947	2,302
Payments to providers of capital	€ million	708	537	513	535	457
Payments to governments (deferred taxes not included)	€ million	209	100	270	170	225
Community investments	€ million	7	7	–	–	–
Human capital return on investment						
Total Revenues	€ million	11,403	11,047	10,629	10,150	12,830
Total operating expenses, including depreciation, excluding employee related expenses	€ million	8,094	8,097	7,954	7,644	8,642
Total employee-related expenses (salaries + benefits)	€ million	2,432	2,139	1,990	1,947	2,302
Resulting HCROI	Number	1.36	1.38	1.34	1.29	1.82

Environmental figures

	Units	2016	2015	2014	2013	2012
Energy						
Consumption of non-renewable solid fuels	In Petajoules low heating value	47	49	52	50	49
Consumption of non-renewable liquid fuels	In Petajoules low heating value	2	1	< 1	1	1
Consumption of non-renewable gaseous fuels	In Petajoules low heating value	55	57	48	50	49
Fuel consumption from non renewable sources	In Petajoules low heating value	104	107	100	101	99
Fuel consumption from renewable sources	In Petajoules low heating value	4	5.2	5.8	< 0,1	< 0,1
Electricity purchased for consumption	In Petajoules low heating value	30	40	46.2	–	–
Heating purchased for consumption	In Petajoules low heating value	0	0	0,5	–	–
Cooling purchased for consumption	In Petajoules low heating value	0	0	0	–	–
Steam purchased for consumption	In Petajoules low heating value	22	23	26.02	–	–
Total secondary purchased for consumption	In Petajoules low heating value	53	63	73	–	–
Electricity sold	In Petajoules low heating value	12	11	12	–	–
Heatings old	In Petajoules low heating value	0	0	0	–	–
Cooling sold	In Petajoules low heating value	0	0	0	–	–
Steam sold	In Petajoules low heating value	12	14	8	–	–
Total energy sold	In Petajoules low heating value	23	26	20	–	–
Greenhouse gas emissions						
Carbon dioxide - CO ₂	Mt CO ₂ eq	8.43	8.76	8.7	–	–
Methane - CH ₄	Mt CO ₂ eq	0.81	0.85	0.92	–	–
Nitrous oxide - N ₂ O	Mt CO ₂ eq	0.20	0.27	0.39	–	–
Sulfur hexafluoride - SF ₆	Mt CO ₂ eq	0.05	0.04	0.05	–	–
Hydro fluoro carbons - HFCs	Mt CO ₂ eq	0.05	0.05	0.07	–	–
Per fluoro carbons - PFCs	Mt CO ₂ eq	1.34	1.40	1.26	–	–
Gross location-based indirect Greenhouse gas emissions	Mt CO ₂	2.3	3.0	2.8	–	–
Gross market-based indirect Greenhouse gas emissions	Mt CO ₂	2.5	2.8	2.8	–	–
Downstream transportation and distribution	Mt CO ₂	1.2	1.0	–	–	–
Investments (including Discontinued Operations)	Mt CO ₂	0.8	2.5	–	–	–

	Units	2016	2015	2014	2013	2012
Biodiversity						
Sites with significant natural areas (>2ha)	Number	37	30	24	38	–
Surface managed as "natural area" (rehabilitation, replanting, etc.)	Hectare	3,780	2,160	16,000	65,000	–
Raw materials						
Mineral products	1,000 Metric Tons	3,000	13,600	4,910	4,247	–
Biosourced products (agro-forestry and animal-based)	1,000 Metric Tons	240	400	426	403	–
Natural gas	1,000 Metric Tons	1,410	1,500	1,862	1,573	–
Petrochemicals	1,000 Metric Tons	1,340	1,400	2,625	2,638	–
Other raw materials	1,000 Metric Tons	530	250	382	295	–
Total raw material purchased	1,000 Metric Tons	6,520	17,150	10,205	9,156	–
Health and environmental impacts of our products						
Percentage of turnover generated with product having an Life Cycle Assessment (cradle-to-gate)	%	88	94	88	77	67

Social figures

	Units	2016	2015	2014	2013	2012
Our workforce						
✓ ₂₀₁₆ Total Headcount	Headcount	27,030	26,350	25,909	27,146	–
✓ ₂₀₁₆ Percentage of women	%	23	22	22	20	–
Percentage of permanent staff	%	91	86	96	89	–
✓ ₂₀₁₆ Senior management	Headcount	428	428	428	456	–
✓ ₂₀₁₆ Middle management	Headcount	3,026	2,819	2,731	2,727	–
✓ ₂₀₁₆ Junior management	Headcount	5,348	4,491	4,186	4,126	–
✓ ₂₀₁₆ Non manager	Headcount	18,228	18,612	18,564	19,837	–
✓ ₂₀₁₆ Total hirings	Headcount	1,450	2,555	2,317	1,892	2,062
✓ ₂₀₁₆ Total leaves	Headcount	2,688	2,845	2,342	1,932	2,011
✓ ₂₀₁₆ Total voluntary leaves	Headcount	948	626	672	636	–
Training and education						
✓ ₂₀₁₆ Average of hours of training per employee	Hours	33.7	38.8	32	–	–
Occupational safety						
Medical Treatment Accident Rate for Solvay employees	Accident per million hours worked	0.73	0.69	0.82	0.96	2.67
Medical Treatment Accident Rate for contractors	Accident per million hours worked	0.86	0.94	1.25	1.26	2.43
Injuries	Number	68	66	92	101	–
Total Long-latency occupational diseases	Number	19	21	17	26	–
Total Short/mid-latency occupational diseases	Number	4	9	5	6	–
✓ ₂₀₁₆ Total occupational diseases	Number	23	30	22	32	–
Occupational illness frequency rate (short/mid-latency)	cases per one million hours worked	0.08	0.17	0.09	–	–
Transport safety management						
Accident during transport and distribution	Number	109	117	160	207	–
Animal testing						
Number of vertebrates	Number	11,242	7,434	–	–	–
Number of studies	Number	69	49	–	–	–

United Nations Global Compact



Jean-Pierre Clamadieu

Solvay supports the United Nations Global Compact principles

I am pleased to reaffirm Solvay's support for the ten principles of the UN Global Compact. 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. For Solvay, "Asking more from Chemistry" means responsible success in the way we act, innovate and contribute to society. We believe that operating responsibly is part of our identity. We want to go further. By acting responsibly in our sites, with our people, and with a sustainable product portfolio management, we want to answer societal challenges.

We also support the 17 UN Sustainable Development Goals (SDGs). Through our materiality analysis, we decided to focus on seven of the 17 SDGs which are directly linked to our five sustainable objectives by 2025.

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 Clamadieu

Chairman of the Executive Committee and CEO
March 31st, 2017

A handwritten signature in black ink, consisting of a stylized 'J' and 'P' followed by a horizontal line.

External recognition



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.

Rating agency	Global result	Positioning	Strengths	Areas of improvement
 RobecoSAM - Dow Jones Sustainability Index assessment	Score: 81% Percentile ranking: 81%	14th	Innovation management, Codes of conduct, compliance, corruption & bribery, Impact measurement & valuation	Operational eco-efficiency, Labor practice indicators and human rights, Occupational health and safety
 CDP	Climate change: B - Management Water:	Within the 51% highest scoring companies in the chemical sector	An internal price of carbon is in use, a climate change risk process has been implemented	Targets have not been verified by SBTi
 FTSE4Good	Absolute score: 3.8/5 Solvay included in the FTSE-4Good Index	Score relative to peers: 98%	Within the first decile of the "supersector" companies	Governance Climate change Health and safety Labor standard
 Vigeo	Euronext Vigeo index: World 120 constituent	Solvay's performance is considered to be robust and stable	Environmental strategy Health and safety Energy Product safety Water Accidental pollution Atmospheric emissions	Governance Transportation Green products Community involvement Responsible lobbying
 Oekom	Rating: B- Status: Prime	Classified as Prime. Prime companies ranking among the leaders in their industry	Implementation of a strategy for addressing climate change and related sector-specific risks	No detailed information on substances and product risk assessments

Local awards in Europe

Aubervilliers (France)

- Potier Move for Earth Prize (2016).

Neder Over Hembeek (Belgium)

- “Ecodynamic enterprise” designation (2014-2017)

Lillo (Belgium)

- Kiem project - Leerwerkbedrijf (2016).

Lyon (France)

- Greater Lyon eco-conduct challenge prize (2016);
- JEC Innovation award (2016).

Bollate (Italy)

- WHP (Workplace Health Promotion) ASL / Regione Lombardia (2016);

Solvay (Portugal)

- Elected President of BCSD4 Portugal for 2013 - 2016 in recognition of its commitment to sustainable development (2013).

Local awards in Latin America

Santo Andre Rhodia (Brazil)

- AMCHAM Eco Prize (Soul Eco - biodegradable Pa66 Yarn) (2016);

Local awards in North America

Marietta, Ohio (United States of America)

- 5 years Without a Lost Time Injury (Ohio Bureau of Wage And Compensation) (2016);

Local awards in Asia and Rest of the world

Zhanjiang (China)

- Advanced Collectives of Environmental Protection (2016);
- Advanced Collectives of Charity (2016);
- Champion of Zhangjiagang Emergency Rescue Skill competition (2016);
- Most Loving Donation Enterprise (2016).

Alexandria (Egypt)

- Social sustainability award from the Egyptian industrial federation (2014, 2016);

Panoli (India)

- Certificate of Appreciation for Excellence in HSE Management awarded by the Indian Chemical Council (2016).

Map Ta Phut HPP0 (Thailand)

- Green industry, level 3 (DIW: Department of Industrial Works) (2016).

Solvay Way profile

The Solvay Way approach was deployed in 2013 to involve all our employees in the Group's sustainable development commitments. In 2016, 50% of Solvay employees working in industrial and Research and Innovation sites took part in actions related to Health Safety and Environment (HSE), social, and local community projects. This strong involvement shows that employees are interested in Solvay's sustainable development approach.

50%

of employees involved

19%

improvement in CSR practices

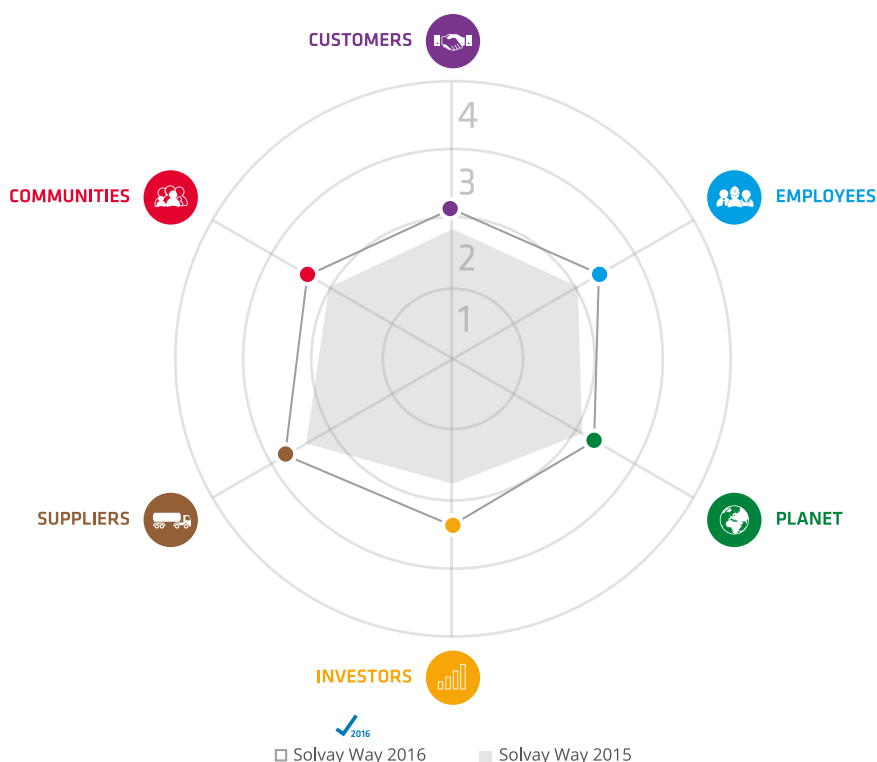
100%

of sites, GBUs and Functions

The Solvay Way gives each Group entity the tools it needs to assess and improve its CSR practices according to a system of four performance levels. In 2016, all GBUs and corporate functions carried out a self-assessment for the 6 stakeholders, involving 148 industrial sites, 7 R&I sites, and the 11 major administrative sites. The Solvay Way spider chart shown below was created using the results of these self-assessments.

The self-assessment process is checked annually by the Internal Audits corporate team. The compliance rate is 90%, which lends credence to the Solvay Way results.

2016 Solvay Way Group profile



The Solvay Way Group profile is determined based on the arithmetic average of Solvay sites, functions and GBUs self-assessments to 54 practices. The criteria of 3 practices (on 54) were changed significantly in 2016, therefore these 3 practices were excluded from 2015 and 2016 group profile to enable a like-to-like comparison. The Customers, Planet and Communities results were impacted by these changes. Composite Materials and Technology Solutions (Cytec legacy) performed the Solvay Way self-assessment for the first time in 2016 but were not included in 2016 Solvay Way group profile.



CUSTOMERS

SPM analysis of Composite Materials Portfolio confirmed that **84%** of their sales are in solutions.



INVESTORS

Solvay issued its **first integrated report**, with a description of the responsible value process.



EMPLOYEES

About **81%** of employees had a formal annual performance and development appraisal.



SUPPLIERS

Solvay sustainability is among the top 5% of chemical suppliers according to Ecovadis.



PLANET

88% of net sales generated with product having an Life Cycle Assessments



COMMUNITIES

€ 7.38 Million budget for Solvay Group donations, sponsorships and own projects.

Supply chain management



Organization

The purchasing and supply chain organization is designed to coordinate the entire network of Purchasing and Supply Chain professionals, who number around 680 and around 2,500 respectively. They are responsible for:

- creating additional value through simple and clear purchasing processes and excellence programs,
- and for organizing a sustainable and timely supply of goods and services to all of Solvay's sites and customers.

The organization must provide not only the required level of service and safety, but also an optimized total cost of ownership. The purchasing strategy is defined by the Purchasing and Supply Chain Excellence Function, jointly with the 16 GBUs. The strategy can be executed and deployed at a global, regional or local level, whichever best leverages the supplier market structure.

To further maximize the value for the Group and bring the Function closer to the business end, in 2016 the Function implemented a new governance structure, with a Leadership Team focusing on strategy and a newly appointed Management Team focusing on operational execution.

Our Suppliers

45,000

suppliers worldwide

73%

of local suppliers

1,080

critical suppliers

Solvay purchases raw materials to manufacture its 14,000 distinct finished products, technical goods for its production sites, and various kinds of services such as transport, technical maintenance and consultancy. Together, these purchases amount to around € 7.8 billion. Solvay has 45,000 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 have been selected either because they present a risk to the business, social standards, or the

environment, or because Solvay is developing or wishes to develop an innovation in partnership 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 significant long-term improvement in its suppliers' sustainability practices and a positive impact on its supply chain sustainability. The share of critical suppliers represents at least 55% of Solvay's total spend.

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

Zone	Raw Material	Technical Goods and Services	Logistics Packaging	Energy	General Expenses IT and Telecom	Total
Asia Pacific	7.8%	3.2%	1.7%	1.4%	0.8%	14.9%
Europe, Middle East, Africa	17.8%	10.0%	5.9%	9.4%	5.9%	49.0%
Latin America	4.0%	0.9%	1.0%	0.9%	0.7%	7.5%
North America	12.4%	5.5%	4.6%	1.3%	4.7%	28.6%
Total	42%	19.6%	13.3%	12.9%	12.1%	100%

Solvay Way best practices

Our Solvay Way sustainability program is fully embedded in the Solvay Purchasing Processes, and progress is evaluated annually. The main area of improvement is the complete integration of CSR prerequisites into the supplier selection and evaluation process: 90% of buyers now include CSR prerequisites in the selection process, and more than 50% of Solvay's spend is covered by

a CSR approach that includes questionnaires, assessments, and audits. Moreover, complying with CSR requirements is an integral part of buyers' overall performance as assessed in their Performance Development Career Review (PCDR). Buyers are also now taking CSR impacts into account when selecting innovation projects with their strategic suppliers. These projects are developed jointly in collaboration with the suppliers.

Solvay's supplier code of conduct

Since 2015, Solvay has followed a 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.

Solvay considers the values outlined in the Supplier Code of Conduct to be of the utmost importance in guiding its decisions to enter into and/or continue relations with its suppliers. As a result, all written (new and/or re-negotiated) purchase contracts need to make reference to the Solvay Supplier Code of Conduct or a valid alternative. In addition, and notwithstanding the existence or the absence of a written purchase contract, all critical suppliers must subscribe to the principles detailed in the Solvay Supplier Code of Conduct.

To address the absence of written purchase contracts, in the course of 2016 Solvay launched a campaign to ask critical suppliers to provide it with a written statement confirming either;

- their strong commitment to complying with their own code of conduct based on principles consistent with the Solvay Supplier Code of Conduct,
- or their commitment to be guided by the principles of the Solvay Supplier Code of Conduct.

In Europe, the reference to the Solvay Supplier Code of Conduct is also incorporated into the general purchase conditions of every purchase order.

Solvay will continue to pursue implementation of the Supplier Code of Conduct in 2017, in accordance with the above principles. Considering that most written purchase contracts have a duration of two to three years, Solvay estimates that two-thirds of its written purchase contracts currently contain a reference to the Solvay Supplier Code of Conduct.

By the end of 2017, the Solvay Supplier Code of Conduct will be fully deployed.



Solvay has also set up a CSR committee in charge of making decisions about any potential exceptions to the rules and any serious breach of the principles inherent in the Solvay Supplier Code of Conduct. Based on the due diligence performed to date, the Group has terminated its relationship with one transportation supplier whose activities were questionable, and has decided that even though commercial conditions with a particular Japanese supplier are very good, it will not commit to a contract until the supplier agrees to conduct a CSR assessment.

Responsible Purchasing and Sustainable Supply Chain Statement



In 2016, in the spirit of creating stable and reliable relationships with its suppliers based on shared values that safeguard and enhance the environment and social progress, and that promote economic growth, Solvay adopted its Responsible Purchasing and Sustainable Supply Chain Statement. This statement outlines how Solvay will conduct business with its suppliers, what it expects from them, and what they can expect from Solvay. It covers inter alia Solvay's contribution to a circular economy and conflict-free minerals. In 2016, the Statement was approved by all internal stakeholders and published on the Solvay website. The statement will help Solvay to demonstrate to customers its commitment to sustainability.



For example, l'Oreal has asked Solvay's GBU Novicare to demonstrate its RSPO certification (Round Table for Sustainable Palm Oil) and to specify the commitments Solvay is prepared to make in respect of the traceability target dates. As a member of the Roundtable for Sustainable Sourcing of this material, Solvay commits to respecting the interests of indigenous people, including their right to say "no" to operations planned on their lands. Solvay also commits to doing business with supply partners who make similar commitments and work to implement such principles into their operations.

The commitments Solvay makes in this Statement will be embedded in its sourcing strategies.

Every buyer, every visit

During every visit, buyers dedicate part of the discussion to health, safety and the environment, CSR, and innovation. After the visit, the buyer records this discussion in a short meeting report. All reports are consolidated and approved by the buyer's

manager to ensure their quality and to verify that the buyer has a good understanding of what is expected. The manager helps also the buyer identify success stories. A success story is when these discussions and their follow-up have shown a real impact on the sustainability practices of the supplier. Since its introduction, "Every buyer, every visit" has generated more than 2,000 reports, with a sharp acceleration in 2016, when more than 1,800 reports were issued. These figures demonstrate that CSR is being progressively embedded into the buyer's day to day activity. Moreover, eight success stories have been acknowledged, proving the project's pertinence. The reports are progressively being recorded in the new Supplier Relationship Management tool.



IndustriALL agreement

In December 2016 Solvay renewed its global agreement for social and environmental responsibility with IndustriALL Global Union Agreement, and has incorporated the obligations into its activities.

To enforce its commitment to maintaining responsible relations with suppliers and subcontractors and addressing serious violations by suppliers or subcontractors of employee health and safety legislation, environmental protection, or basic human rights, Solvay has developed additional contractual clauses to be incorporated in its standard purchase contracts. These clauses allow it to terminate purchase contracts early if suppliers or subcontractors commit serious violations in the above areas.

Supplier performance evaluation: scope, results and main conclusions

In 2016, 1,096 suppliers were evaluated by means of an internal survey using a scale of 1 to 4. The final score reflects the opinions of the buyer and his or her internal users, weighted 50/50. The outcome was as follows: poor performance (score < 2) - 3 suppliers, fair performance (> 2 score < 3) - 230, good performance (score > 3) - 863. The average score was 3.06.

2016 Supplier performance evaluation by domain and by scope

Row Labels	Energy	Logistics	Packaging	Raw Materials	General Expenses, Information Systems, Information Technology	Technical Goods, Technical Services, Capital Expenditure	Grand Total
Global Business Units	29	2	1	212	1	2	247
Global Domains		3	4		29	6	42
Asia Pacific		32	18		10	43	103
Europe		46	50	8	32	470	606
Latin America		19	2	1	7	22	51
North America		11	5	8	6	17	47
Grand Total	29	113	80	229	85	560	1,096

Supplier Satisfaction survey

Solvay performed an online supplier satisfaction survey in 2016 and invited 590 suppliers to express their opinions. 72% of the invitees responded.

While the overall outcome of the survey showed that our supplier panel has a very high degree of satisfaction (4.5 on a scale of 1 to 5), it also allowed the Group to identify 28 specific cases of dissatisfaction, which it subsequently followed up.

CSR Supplier assessment and audits Together for Sustainability

Together for Sustainability AISBL (TfS) is a member-driven initiative founded in 2011 by major chemical companies, including Solvay. Since then, it has grown to 19 members. TfS develops and implements a global supplier engagement program to assess, audit and improve sustainability practices within the supply chains of the chemical industry. TfS members have two tools at their disposal to evaluate their suppliers' sustainability management: TfS Assessments, conducted via EcoVadis, and TfS audits, on-site inspections conducted by pre-approved audit companies.

The program focuses on the Environment, Labor Practices, Fair Business Practices and Sustainable Procurement. The results are then shared amongst the TfS members, with the supplier's consent. This collaborative approach, central to TfS, increases efficiency for both suppliers and members.



Since the start of the TfS initiative, the sustainability performance of 6,383 suppliers has been rated by the TfS initiative based on EcoVadis assessments, and 724 TfS audits have been conducted by means of the TfS Audit Program.

In 2016, 241 new TfS audits were conducted through the TfS Audit Program, and 1,773 new supplier Assessments were done via EcoVadis.

All TfS members individually decide and identify suppliers that will be invited to participate in an assessment or audit. Suppliers from all purchasing categories and geographical locations can be part of the TfS assessment or audit. 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, out of which the suppliers can choose the one most suitable for them.

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

In 2016, Solvay invited 314 suppliers to participate in TfS assessments or audits; 137 of them completed the assessment and obtained an EcoVadis score. In 2017, Solvay will emphasize setting up corrective action plans based on the results of these assessments and audits.

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, the Group organizes supplier events. In 2016, the TfS supplier event took place in India.

Supplier human rights assessment

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 based on principles similar to the principles of the Solvay Supplier Code of Conduct. All proposed Codes are reviewed prior to contract formalization.

Standardized Solvay CSR-Questionnaire

To complement third party assessments and audits, Solvay uses a CSR questionnaire to evaluate the CSR maturity of its suppliers. In 2016, the Group harmonized the 12 questionnaires it had been using into a "Standardized CSR questionnaire", and the questions are now fully in line with the themes covered by the TfS assessments. A more generic approach, with questions such

as "Does your company have a formalized policy and clear objectives related to reduction of water consumption?", lets us initiate a discussion between buyers and suppliers concerning points of concern.

The standardization has also made it possible to develop an online version of the questionnaire as part of our SRM.

During the pilot phase of the SRM project, 91 CSR questionnaires were completed online. The average score on the questionnaire was 3.3 on a scale of 1 to 4. Only 2 of the 91 registered questionnaires earned a score below 2, requiring corrective action for existing suppliers.

Purchasing and Supply Chain Academies

In 2015, Solvay launched a Purchasing Academy and a Supply Chain Academy to further develop the Group's talents, improving their skill sets and increasing their ability to deliver on more challenging personal objectives, all while building world-class capabilities.

Purchasing Academy

The Academy has designed three learning programs for different aspects of the purchasing experience, with 20 modules. The modules mirror various aspects of the purchasing process to develop and improve the professional skills and expertise of our purchasing job family.

The Academy focuses on training the global Purchasing Family. This group of about 400 people includes all buyers, from Local Procurement Representatives working on sites to global buyers and function management.

Launched in the first quarter of 2015, the Academy has thus far trained 75% of the targeted worldwide population as of the end of 2016, and the roll out will continue in 2017, with programs adapted to use emerging technologies.

Supply Chain Academy

Launched in the third quarter of 2015, the Supply Chain Academy targets around 600 Supply Chain talents worldwide, of which 290 talents from over 14 countries have been trained so far. To date, the Academy has developed and deployed four modules for Supply Chain professionals. The modules focus on actions and experience, and they include sustainable topics, e.g. to optimize the use of alternative non-polluting transportation or to take CO₂ emissions into account.

In 2017, the Supply Chain Academy will develop new virtual classroom modules on internal logistics and incoterms.

As the Function continues to evolve, the Purchasing and Supply Chain Academies will as well. They will continue to provide an excellent means to deliver training on Excellence initiatives and to help integrate new people into the organization. In 2017, the two Academies will merge to form a single Purchasing and Supply Chain Academy, creating more value through synergies and collaboration.

Membership of associations and advocacy

Solvay is committed to maintaining a dialogue with stakeholders and 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 the lowest common denominator), but member companies can still express disagreement in a number of ways, including internal discussion within working groups or publicly differentiating from the position taken by the trade associations.

The list of membership of major 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.

International Council of Chemical Associations (ICCA)

With Jean-Pierre Clamadieu as sponsor of the ICCA's Responsible Care Leadership Group and member of the ICCA Board, Solvay is playing a key role in the Responsible Care Global Charter's revision and in expanding Responsible Care to new regions like China, India and some African countries. Under his supervision, ICCA's Responsible Care Leadership Group has also welcomed China, Vietnam and Croatia as new members. Furthermore, a globally harmonized ICCA approach has been developed for Process Safety Performance reporting, one of the main pillars of Responsible Care. Data collections will begin accordingly in 2017 with optional reporting in 2018/2019 and full scale reporting from 2020.



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. Today the new charter counts 550+ signatures compared to 166 for the former one, of which 90+ of top 100 global chemical companies.

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 Clamadieu 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.

Business Europe

Business Europe is the leading European business trade association. Business Europe and its members campaign for the issues that most influence business performance of European companies, 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.

European Round Table of Industrialists (ERT)

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, competitiveness, social and competition policies. Jean-Pierre Clamadieu chairs the Societal Changes Working Group, whose main focus are aspects related to EU labour force and

education issues (e.g. youth unemployment, skills gap, labour mobility, women in leadership positions). In particular on youth employability, Jean-Pierre Clamadieu has taken a lead role in the Pact for Youth and serves as the spokesman on behalf of ERT members.

World Business Council for Sustainable Development (WBCSD)

Since 2009, Solvay is a very active member of the World Business Council for Sustainable Development (WBCSD), including personal involvement of Jean Pierre Clamadieu, CEO of Solvay, as member of WBCSD Executive Committee and co-chair of the Climate & Energy Cluster Board. Solvay is also involved in several initiatives, such as:

- Actions for worldwide standard for a sustainable portfolio management: Building on its experience and expertise in steering its own product portfolio (SPM) with regards to social and environmental criteria, Solvay participate to the Product Portfolio Steering Framework project. Solvay has a co-chair position. This project aims at developing a set of baseline criteria that are consistent across approaches; and creating more confidence and comparability in the information communicated to customers and stakeholders.
- Actions for sustainable food: Solvay joined the Food Reform for Sustainable and Healthy Food (FReSH) partnership. 3 Business Units are directly involved to develop better business for better food systems. FReSH is a platform for the private sector to achieve this transformation in a safe and pre-competitive space. In cooperation with science, academia, policy-makers and civil society, FReSH will catalyze change across the food systems, taking into account local eating patterns, by focusing on the specific work streams (Developing guidelines on healthy and sustainable diets taking into account social and environmental considerations; Food production adjustment, including formulation and offering to help achieve healthy and sustainable diets ...).
- Actions to support the Sustainable Development Goals (SDGs): Solvay and other chemical companies of WBCSD will select the most relevant SDGs for their sectors, because of the impact chemical companies on their achievement.

The European Chemical Industry Council (Cefic)

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 has been President of Cefic for a two-year term (October 2014 - October 2016). During his two years of Presidency within the framework of the run-up to COP21, Jean-Pierre Clamadieu advocated for global carbon pricing, market-based for industries, which, thanks to gradual cost convergence, would help in

preventing carbon leakage of emissions-generating activities to countries with weaker emission regimes. He also constantly worked 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, environment 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.

American Chemistry Council (ACC)

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.

Brazilian Chemical Industry Association - ABIQUIM

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).

Association of International Chemical Manufacturers (AICM)

Solvay, as a member of AICM 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.

China Petroleum and Chemical Industry Federation (CPCIF)

Solvay works in the framework of CPCIF and together with other Chinese industries to develop international cooperation so as to promote technological advancement and chemical industry upgrading.

ECONOMIC

Research and innovation

Research and Innovation (R&I) policy strongly supports Solvay's ambition to grow profitably while reducing its environmental footprint and increasing the proportion of its revenue that meets the challenges of sustainable development. Global Business Units (GBUs) and Functions are working together in a cross-functional approach to provide customers with significant added-value through 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 influence the main themes of Solvay R&I.

New organization along with new ways of working

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

- A process of innovation excellence to improve efficiency and shorten time to market: this process was launched in 2014 and has been rolled out in all GBUs throughout the Group; it now covers all aspects of the innovation process from ideation and market validation all the way to scale up and intellectual property protection.
- An extended network of open innovation through partnerships with academics, or key market players to maximize efficiency and tap into the creativity and competencies of the outside world.
- Investments in start-ups and venture capital funds that allow Solvay to develop partnerships accelerating developments in strategic areas.

The Group has also dedicated 15% of the total R&I efforts to corporate activities, with the clear intention to maintain a healthy portfolio of breakthrough projects aimed at either building know-how and competencies in emerging technologies or at developing diversification and new business development opportunities through breakthrough innovations.

These projects can be grouped in 6 major scientific areas:

1. **New supramolecular materials:** a new class of materials with the potential to break the traditional technical trade-offs. We will first concentrate on supramolecular polymers, building on key properties of Solvay's unique and broad portfolio of polymers, in order to reach a new class of sustainable properties enabling recycling, self-healing, etc.
2. **Surface modification at nano- or micro-scale:** Within surface technologies, our first focus will be on anti-deposit solutions addressing key unmet needs in market applications, like for example where cleaning might be an issue, affecting the yield of the devices, while avoiding the use of cleaning agents or hazardous chemicals.
3. **Electro-active hybrid formulations:** We intend to enter the new world of hybrid formulations, focusing first on piezoelectric hybrid materials formulations that could find application in sustainable electricity generation – a direct link to clean technologies.
4. **New product trees from functionalized biomolecules:** The aim is to develop special chemicals from bio-based products enabling Solvay growth engines to bring new solutions with a minimal environmental footprint to our customers in their markets.
5. **Sulfide Chemistry:** We want to lead the new chemistry based on sulfur, which has not yet been investigated, because of the huge potential we have identified for this element, and which could bring value to sustainable energy and electronic applications.
6. **Breakthrough eco-processes:** We intend to invent breakthrough process technologies aiming at drastically minimizing the environmental footprint, safety impact and capital expenditure intensity of our plants.

This portfolio of projects offers a good balance in terms of market/technology risks and time horizons. It opens potential opportunities for developing new activities, while also positively impacting several major growth GBUs. This process is combined with Marketing Excellence initiatives, aiming at promoting technology solutions or detecting market unmet needs, bringing impact beyond GBU roadmaps.

Sustainable Innovation Highlights in 2016

Here is a selection of new accomplishments that took place in 2016 confirming GBU's ability to deliver on innovation:

BGI (China) has chosen KetaSpire® for its high-throughput genome sequencer

KetaSpire® is a (polyetheretherketone (PEEK), one of the highest performing thermoplastics, that has been chosen by BGI (China) the world's largest genomics organization for use in its next-generation sequencing platform. Traditionally, glass is used for the flow cell chip holder, but it is fragile and difficult to process. The toughness and injection molding capabilities of KetaSpire® PEEK solved this problem perfectly and also demonstrates excellent biocompatibility, no absorption or interaction with reagents, excellent dimensional stability, enabling highly accurate assembly in the flow cell, flexibility, speed and simplicity. This enabled to turn the sequencer a high-throughput and makes genome sequencing more affordable and accessible for all users.

Airbus has qualified TegraCore™ for its high-performance lightweighting foam

Airbus is implementing on its flagship airplane A350 XWB, TegraCore PPSU foam, which is a high-performance lightweighting material, paving the way for its use on other Airbus aircraft. Following testing by Airbus, TegraCore applications can range from ducting to sandwich components which comply with the most demanding flammability, smoke density, and toxic gas emission (FST) requirements and are superior in impact strength compared with honeycomb cores. TegraCore™ addresses the needs of the aircraft industry to reduce weight and thereby fuel consumption and CO2 emissions but also saves time and costs in production, refurbishments and maintenance.

New Development in Hemodialysis Membrane with Polyethersulfone (PESU)

Solvay Specialty Polymers offers a range of polymers for used in membranes for water purification and hemodialysis applications and is committed to support and accelerate innovation to serve fast growing demand.

Solvay scientists in the R&I Center of Vadodara (India) and Alpharetta (USA) in collaboration with the manufacturing teams of Panoli (India) have leveraged their knowledge in both polysulfone (PSU) and polyethersulfone (PESU), in order to improve their outstanding oxidative, thermal and hydrolytic stabilities, for hemodialysis applications. This resulted in the introduction of a new grade of Veradel® polyethersulfone (PESU) for very demanding hemodialysis membranes, that has received overwhelmingly positive responses from customers, who have already signed long-term supply agreements with Solvay.

Solvay in leadership role for Additive Manufacturing technologies

Solvay is taking the lead in additive manufacturing (AM) technologies, better known as 3D printing, for its high performance polymers, mainly used today in transport, where they help reduce the weight of cars and planes and therefore CO2 emissions.

Additive Manufacturing has emerged as a complementary plastics conversion technology, allowing for more design flexibility, thereby lowering waste, a revolutionary democratization of manufacturing through digitization rather than part transfer.

Building on established AM facilities in Lyon (France), Solvay has opened new laboratories at its R&I Centers in Alpharetta (USA) and Brussels (Belgium), while creating a powerful network of solution providers across the AM value chain from universities to equipment manufacturers. The expansion of 3D printing capabilities is part of the Solvay global leadership in advanced lightweighting solutions to replace metals.

Polimotor 2 all plastic engine

Solvay has contributed to a 3D part, printed by selective laser sintering (SLS) using Sinterline® Technyl® polyamide 6 (PA6), of the Polimotor 2 all plastic engine, designed and developed by industry pioneer Matti Holtzberg, which aims to leverage advanced polymer technology to develop a four cylinder engine weighing approximately 40kg less than a standard engine. The 3D printed parts will be able to meet the demanding performance requirements for these applications even at elevated temperatures seen on an engine.

Solvay is developing other specialty polymers for AM including AvaSpire® polyaryletherketone (PAEK), KetaSpire® polyetheretherketone (PEEK), and Radel® polyphenylsulfone (PPSU) for Fused Filament Fabrication (FFF), and polyetheretherketoneketone (PEKK) compatible with SLS.

Solvay and Renault Trucks win JEC Innovation Award using thermoplastic composite material to lightweight a completely redesigned structural truck module

This new high performance composite material is based on Solvay Evolite® thermoplastic resin reinforced with continuous glass fiber, enabling the production of a module weighing 25 percent less than a similar metal model, while the number of parts used to assemble was divided by two, thanks to the pooling of the partners' innovations in design, materials and manufacturing. Assembled on a truck, it was tested on front crash, vibration and durability, showing it could meet the industry's strictest safety requirements.

The recent acquisition of Cytec will further boost Solvay's comprehensive expertise in lightweighting materials that are increasingly replacing metal parts or structures enabling airplane and automotive manufacturers to meet ever stricter regulations to reduce fuel consumption and CO₂ emissions of their vehicles. This important recognition awarded by peers acknowledges Solvay's innovation excellence in the field of thermoplastic composites.

2016 Pierre Potier Prize for Move4earth™ : a step further in circular economy

Solvay received in 2016 the Pierre Potier Prize medal in the "Process" category for its Move4earth™ innovation, a reward dedicated to the best sustainable development project. This revolutionary technology enables Solvay to transform technical textile waste, such as the silicone coated fabric used in airbags, into high quality recycled plastics. The continuous process combines mechanical and chemical activation phase, associated with a separation technique based on density.

Supported by the European Commission's 'Life+' program, the Move4earth™ technology is currently in the industrialization phase at the Polish site in Gorzow.

Move4earth™ is an emblematic initiative forming an ecosystem that generates value for all the stakeholders, as the recycled plastics obtained from the process are a good substitute to high performance technical plastics used in automotive, construction, household appliance and leisure industries.

It also provides significant environmental advantages revealed by the Life Cycle Assessment showing a 26% reduction in carbon footprint, 48% savings in non-renewable resources and a 69% decrease in water consumption compared to the standard process.

Every year around the world, the airbag industry produces around 25,000 tons of technical textile waste which turns to 100,000 tons of end-of-life airbags that today have no high performance recycling solution.

New Market Laboratories for Solvay at R&I Center in Shanghai (China)

Solvay has moved to newly renovated laboratories at RIC Shanghai to host its activities in the fields of Agrochemicals, Oil & Gas, Coatings, Industrial Formulations and Amines. With a large laboratory and state-of-the-art lab equipment, the new labs represent an advanced platform in Asia Pacific and, in particular, China.

The new labs have been designed based on collaborative principles where researchers from different markets and competencies co-work in a shared space. It will enable cross-fertilization of technologies between teams as specialty amines, polymers and surfactants are common technological platforms to the 5 markets. The area will host scientists with activities covering the development of innovation projects as well as providing technical support, strengthening the intimacy with customers in Asia, thereby allowing co-location in some key projects.

Solvay internal event: "Inspiring Innovation", a real success that will boost everyone

Solvay's "Inspiring Innovation" event was staged in Brussels in October, gathering for two days 350 researchers and scientists working for the Group all over the world, who came to share their experience and expertise in innovation. This was a very successful event, where top-notch keynote speakers, including the 2016 Nobel Prize in Chemistry winner, Ben Feringa, as well as the pioneer, Bertrand Piccard, inspired the whole community. There was also an innovation awards ceremony to reward great examples of breakthroughs in the company over the last two years, as well as workshops on concrete GBU challenges that benefited from the diverse expertise available during the conference.

Open innovation

At Solvay, we care about working together with our customers, with academia and with other companies or start-ups in order 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 customers and the market.

R&I collaboration

Solvay continued to develop collaborative innovation in 2016

For Europe, Solvay joined the new Belgian cluster Catalisti, for catalyzing innovation and transition in chemistry and plastics. The Axel'One Analysis mutualized platform was approved and launched in Lyon. It offers high-tech equipment and strong competencies for online industrial analysis. The Axel'One Materials platform has initiated new reinforced light materials development projects with the recently integrated composites business. The Axel'One Campus building is in progress and will host the LPSE Lyon Polymer Science and Engineering Pole. The consortium programs are being defined, including two academic partners and seven industrial customers for innovative research on industrial polymers.

In Brazil, collaborative projects on bio-based resources and on natural polymers for plant growth have been approved with public support. In the US, projects have been proposed on process intensification, active coatings, and next generation battery manufacturing. Stronger science and technology links are being developed with Stanford University.

In China, we are developing closer cooperation with Shanghai Technology University. In Korea, the R&I center is collaborating with Ewha University at Seoul and generating projects on new

batteries. The group plans to develop its network of international research labs jointly with the National Scientific Research Center CNRS.

Solvay and CNRS strengthen their historical scientific partnership with renewed agreement

Solvay and the CNRS (France's National Centre for Scientific Research) have renewed their framework agreement for five years, emphasizing the strong ties between science, research and innovation and their historical and strategic partnership of the past 40 years. It includes conducting innovative research, ranging from basic science to market applications to develop, for example, eco-efficient products and processes, formulations for home & personal care, polymer materials for lightweighting in transport, and methods and tools that speed up research.

Since 2006, the collaboration between CNRS researchers, academics and Solvay teams has resulted in more than 110 patents, 450 contracts and nearly 280 shared scientific publications. It has moreover led to the creation of four shared research centers across three continents: the Laboratory of the Future (Bordeaux, France), the Polymers and Advanced Materials Laboratory (Lyon, France), the Eco-efficient Products and Processes Laboratory (Shanghai, China), and the Complex Assemblies of Soft Matter Laboratory (Bristol, Pennsylvania, United States).

Solvay, ArcelorMittal, Evonik and LafargeHolcim investigate trans-sector technological potential to reduce carbon emissions under a new "Low Carbon Technology Partnerships Initiative (LCTPi)".

Solvay, ArcelorMittal, Evonik and LafargeHolcim have formed a new Low Carbon Technology Partnerships Initiative across the steel, cement and chemicals industries that will look at the potential synergies that exist between the manufacturing processes of these three energy intensive sectors, and how these synergies could be harnessed to reducing CO₂ emissions. As a first step, the innovative partnership will produce a study to identify potential ways to valorize industrial off-gases and other by-products from their manufacturing processes to produce goods with a lower carbon footprint than through the fossil path.

Initial findings from the first step already underway suggest that deploying cross-sector carbon capture and reuse opportunities on an industrial scale - something that does not happen today - could reduce up to 3 GT/y or 7% of global anthropogenic CO₂ emissions.

Existing conversion technologies that could be deployed across the three sectors could utilize by-products in the off-gases to create building materials, organic chemicals and fuel. As an example, up to 1-2% (0.4-0.7 Gt/y) of global anthropogenic CO₂ could be reduced with the production of ethanol/methanol alone.

Increased availability and greater access to renewable energy sources would significantly boost net carbon reduction efforts by those three sectors, within a supportive legislative framework, cross sector carbon capture and reuse should also result in job creation (to be further investigated). The study, carried out at European level, is building the ground for similar investigation extended at global level and paves the way for identifying and assessing industrial scale projects on CCU at the interface between the sectors.

Solvay and Petrovietnam sign Memorandum of Understanding to launch innovative and eco-friendly Enhanced Efficiency Fertilizer in Vietnam

Solvay and Petrovietnam Ca Mau Fertilizer Joint Stock Company (PVCFC) have signed a MOU to launch innovative and eco-friendly Enhanced Efficiency Fertilizers that increase crop yield for the

benefit of the farmers while decreasing nitrogen losses in the air, soil and water for the benefit of the environment and climate. This MoU will contribute to increasing the competitiveness of Vietnam agricultural products.

The use of nitrogen containing fertilizer has increased dramatically in recent years to satisfy the world's need for food. The amount of nitrogen supplied is critical to the overall quality and growth of the crops. However from an economic and an environmental point of view, there is a clear need to improve nitrogen use efficiency.

Solvay has developed the proprietary and patented AgRho® N Protect series, a full range of innovative and eco-friendly nitrogen stabilizers based on advanced formulations, which facilitate the incorporation of urease and nitrification inhibitors into granular and liquid fertilizers. These stabilizers limit nitrogen volatilization and leaching, therefore increasing the amount of time the nitrogen remains in the soil and is available to the plant for absorption.

Both parties have been conducting laboratory and field trials on rice, maize, coffee and pome-lo/orange plantations at several locations in Vietnam since 2015.

Venture Capital and Start-Up

Direct Investment

In 2016, Solvay increased the budget for investment to €80 million. Solvay's corporate venturing team has also been expanded to cover geographic areas where start-up activity is well established and growing. Solvay closed an early stage investment in Nohms, Inc., a US start-up developing safer electrolyte for lithium batteries. Batteries are a key component of energy efficiency strategies in consumer, automotive and stationary markets.

Fund-of-Funds

Since inception, Solvay Ventures joined a total of 11 specialized venture funds, which have assembled portfolios totaling 108 start-ups. Of these, 42 companies are developing sustainable

energy technologies (generation, storage, efficiency); 12 are working on bio-based chemicals, and 10 are dedicated to solving health-related issues. For example, in 2016:

- The Belgian Innovation Fund invested in Fytekko (agricultural biostimulants) and Lisam (environmental big data management)
- Phoenix Venture Partners (US) co-invested in Nohms
- DNA Script, a synthetic biology start-up, raised capital from Sofinnova Green Seed Fund
- The TransPacific Technology Fund (Taiwan) invested in Beijing Buding Fangzhou Technology (car refueling optimization consumer service platform) and Rancher Labs (open source software for container logistics optimization)

Partnerships

Besides investment, Solvay Ventures' mission is to intensify business collaboration with start-ups to create mutual strategic value. A recent example is the collaboration with Genofocus (Korea), a supplier of specialty enzymes for water purification.

Community

The Solvay Ventures team maintains close ties to the cleantech community by participating as panelists or jury members in venture events, such as the Cleantech Group meetings, the Nordic Venture Forum, Cleantech Capital Day, etc. Worth noting in 2016, our group sponsored the Cleantech Forum Europe in Lyon and hosted a session dedicated to sustainable materials.

Innovation main figures

This part is providing typical key figures related to research and innovation activities of Solvay.

Expenditure amounts in innovation

In %	2016	2015
Growth	75	60
Competitiveness	13	21
Defense	12	19

Legend: R&I expenses include all expenses, whether related to the support of existing products or production processes or to the development of new products or processes as well as to exploratory projects. These not only include actual labor material costs and outsourced R&I but also infrastructure, depreciation of R&I equipment and intellectual property costs and they are net of R&I tax credits and subsidies. This indicator does not include investments in start-up companies or capital expenditures.

Research and innovation efforts amounted to €350 million in 2016, a slight decrease of 3% compared to the prior year due to the Cytec restatement and R&I corporate halting the OLED project. Some 85% of the Group's R&I investments are directly managed by GBUs.

The ratio of research and innovation cost on net sales increased to 2.8% from 2.5% in 2015.

The global expenditure analysis clearly underlines that innovation projects are widely focused on growth globally, with 75% of total expenses dedicated to projects focused on this strategic purpose.

Expenditure amounts in innovation

In %	2016
Pipe of Innovation Projects	50
Preparation of new projects	28
Customer Supports	12
Plant Support	10

To anticipate the future, a major investment of €84 million (28% of the total R&I budget) has been dedicated to developing formalized ideas into new innovation project proposals of all kinds.

Research & Innovation staff

	2016	2015
Employees include research engineers and scientists, technicians, laboratory and pilot operators, and employees dedicated to R&I facility management and R&I support.	2,340	2,390

Throughout the Group, about 2340 people work in R&I. Solvay's major R&I centers are located in Europe, Asia, North America and Latin America.

The decrease of 2% is due to the combination of the integration of IAM people into Corporate R&I and the divestment of GBU Acetow and Emerging Bio.

Intellectual Property agreements

	2016	2015
Intellectual Property (IP) agreements & cooperation agreements	1,300	1,530

The number of agreements is very important, highlighting the openness of Solvay's innovation strategy. The evolution of the maturity of Solvay in managing co-development projects with partners shows a strong number of NDA type agreements aligned with GBU and Corporate efforts.

Innovation output – Patents

	2016	2015
First Patent Filings	240	256

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.

	2016	2015
New Sales ratios	15%	18%

This 15% ratio combines the high-performing GBU cluster, like "Advanced Materials," reaching 25%, and other clusters, like "Functional Polymers" and "Performance Chemicals," which traditionally have a lower ratio of activities where Solvay is ranked among the Top 3 players owing to Excellence programs.

New Sales ratios – Breakdown by Segments

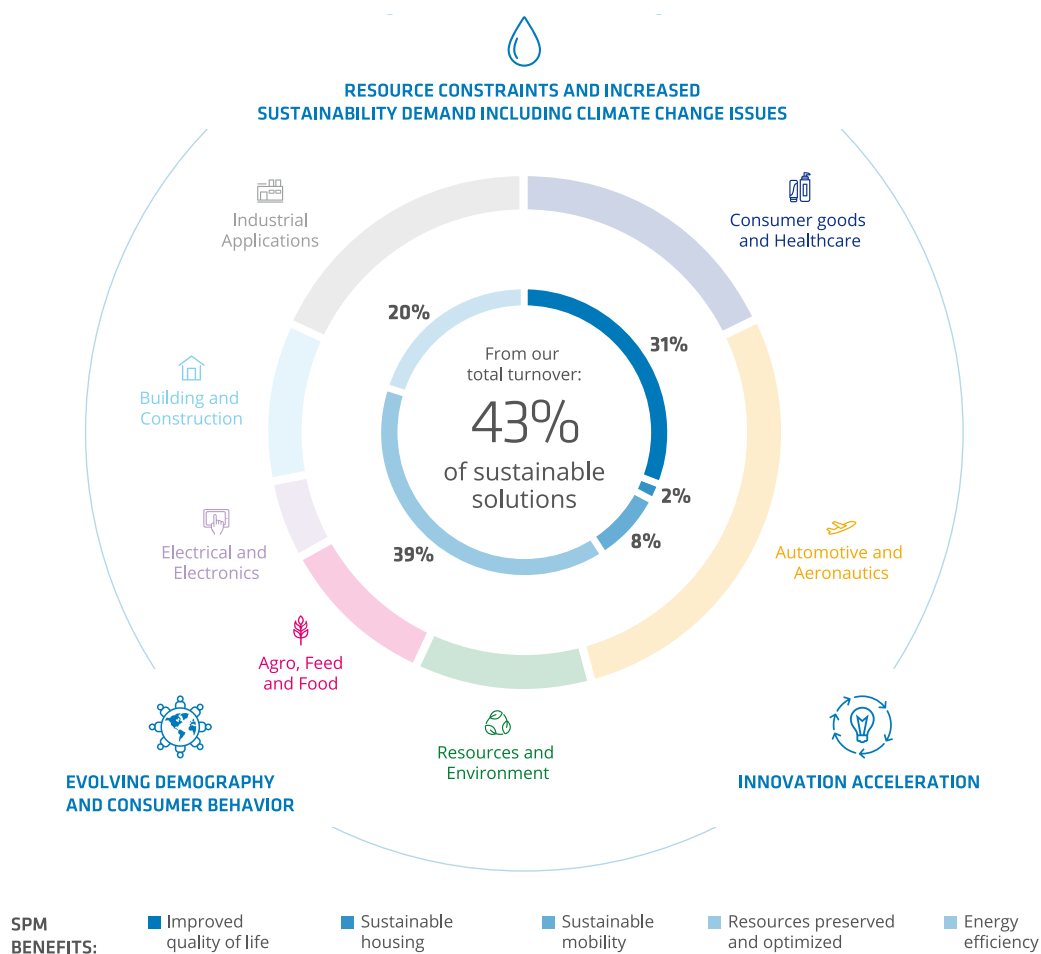
In %	2016
Advanced Materials	25
Advanced Formulations	16
Functional Polymers	6
Performance Chemicals	3

Sustainable solutions

From global megatrends to sustainable business solutions

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.

Resource constraints and increased sustainability demand including climate change issues



Economic performance

Solvay is a multi-specialty chemical company, committed to developing chemistry that addresses key societal challenges. Solvay innovates and partners with customers in diverse global end markets. Its products and solutions are used in planes, cars, smart and medical devices, batteries, in mineral and oil extraction, among many other applications promoting sustainability. Its lightweighting materials enhance cleaner mobility, its formulations optimize the use of resources and its performance chemicals improve air and water quality. Solvay is headquartered in Brussels with around 27,000 employees in 58 countries. Pro forma net sales were € 10.9 billion in 2016, with 90% from activities where Solvay ranks among the world's top three leaders. Solvay SA (SOLB.BE) is listed on Euronext Brussels and Paris (Bloomberg: SOLB.BB - Reuters: SOLB.BR) and in the United States its shares (SOLVY) are traded through a level-1 ADR program.

Direct and economic value generated and distributed



Direct economic value generated and distributed

In € million	2016
Revenues	11,506
Operating costs	6,792
Employee wages and benefits	2,432
Payments to providers of capital	708
Payment to governments (deferred taxes not included)	209
Community investments	7

Human capital return on investment (HCROI)

In € million	2016	2015	2014
Total revenue	11,403	11,047	10,629
Total operating revenues, including depreciation, excluding employee related expenses	8,094	8,097	7,954
Total employee-related expenses (salaries+benefits)	2,432	2,139	1,990
Resulting HCROI	1.36	1.38	1.34

Anti-corruption



Commitments and policies

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 a compliance organization in place under the leadership of the Group General Counsel, which sets out to foster 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

7,000 employees

trained to the Code of Conduct

In 2016, the Ethics & Compliance team initiated an enhanced focus on anti-bribery and anti-corruption, seeking to elevate a culture of compliance and integrity at Solvay. This emphasis was vigorously endorsed by our CEO and the executive committee, and as a result every GBU and Function appointed a Compliance Liaison to articulate the message of compliance throughout his/her entity and encourage participation in renewed training and understanding of the key behaviors required of them as Solvay employees. The specific anticorruption training targets management and other personnel in sensitive positions (sales, procurement, industrial development, etc.), while the remainder of the workforce will continue to receive training on the Code of Conduct, which contains topical training on Solvay's Gifts, Entertainment and Anti-Bribery Policy. Approximately 450 individuals received personal anti-corruption training during the last quarter of 2016. On December 9, 2016, in recognition of International Anti-corruption Day, Solvay's internal news publication included a brief statement from the Head of Ethics & Compliance emphasizing the importance knowing the Group's policies and receiving specific training in this area. Training will continue into 2017.

Ensuring that all employees have exposure to the Code of Conduct training was a priority again in 2016. The Code is available on the Group's website. In 2016 almost 7,000 employees received Code of Conduct training. Web-based training became available in late November and contributed to the overall success of training. Since 2014, the total number of employees trained on the Code of Conduct exceeds 29,000. This includes over 70% of currently active employees, including those in Solvay's most recently acquired businesses as well as those in businesses announced for sale later in 2017.

Monitoring and evaluation mechanism

6 claims

for inappropriate behavior

12 claims

for conflict of interest

8 claims

for fraud

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 2016, Solvay recorded the following claims involving corruption in its work force through Speak Up reports:

Misconduct/Inappropriate Behavior – Corruption

	No Action	Policy Review	Training	Discipline	Termination
Substantiated	0	1	0	2	1
Unsubstantiated	2	0	0	0	0

Conflict of Interest – Corruption

	Policy Review	Training	Discipline	Resignation	Termination
Substantiated	1	1	2	2	4
Unsubstantiated	2	0	0	0	0

Fraud Reporting

	PCards/Credit Cards	Spoof Email Correspondence	IT Security	Phishing
Solvay Internal	1	2	3	1
Third Parties	0	1	0	0

The amount of loss to Solvay totaled € 204,448, of which € 40,000 were recovered and an additional 260 Euros were mitigated. Third parties lost € 25,630 in the fraudulent schemes committed against them in purported business involving Solvay.

Solvay's political contributions

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, on the employee's own time, and at the employee's personal expense.

Anti-competitive behavior



Commitments and policies

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 which stresses the importance of strict adherence to all competition laws. 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 a Competition Law Tool-Kit on its intranet that includes 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 (CTS).

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 2016, this action plan included an intense

training campaign with the deployment of a group-wide antitrust E-learning course, successfully followed by 3800 participants as well as face to face trainings sessions for 280 high-risk individuals.

Internal Audits are carried out on a yearly basis to check effective implementation of the Action Plan.

Legal actions for anti-competitive behavior, anti-trust and monopoly practices and their outcomes

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 against all six defendants is approximately € 240 million (excluding interest). Several questions on the jurisdiction of the Court of Dortmund were raised with 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 and in February 2016 related to perborate activity (Solvay's share of the fines is € 29.6 million and € 3.99 million, respectively). Solvay has filed a claim contesting these administrative fines before the Brazilian Federal Court.

Grievance mechanisms for impacts on society

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.

Grievance mechanisms for all aspects of corporate governance

Solvay's Code of Conduct emphasizes Solvay's commitment to ethics and integrity in the communities in which it operates and stresses the importance for its employees to Speak Up when they suspect unethical conduct in any aspect of Solvay's operations. The following chart shows the types of claims submitted in 2016 through Solvay's Speak Up program.

Speak Up Data for 2016 Cases

Type of Grievance	2016
Misconduct or Inappropriate Behavior	18
Discrimination/Harassment	16
Conflict of Interest	12
Environmental, Health or Safety Law	6
Other	6
Accounting or Auditing	3
Confidentiality/Misappropriation	2
International Trade Compliance	1
Theft	1
Total	65

ENVIRONMENTAL

Health, Safety and Environment (HSE) management

Protecting the environment is part of Solvay's Sustainable Development policy. Management systems rely on risk analysis, monitoring of performance and compliance, follow-up of the corresponding corrective actions, performance reviews, and improvement plans.

Solvay Care Management System (SCMS)

SOLVAY'S OBJECTIVES:

2018

100%

of industrial sites to have a system in line with Group requirements.

66%

of plants internally audited

100

internal auditors

45%

of plants externally certified

In 2014, Solvay decided to build and progressively implement its own management system to adequately manage all HSE risks. The SCMS covers seven Health Safety and Environment (HSE) domains: occupational safety, process safety, the environment, industrial hygiene, occupational health, product stewardship, and transport. The system incorporates the requirements of the:

- ISO 14001 standard (edition 2004),
- OHSAS 18001 standard (edition 2007),
- Solvay group HSE requirements.

SCMS defines four maturity levels for each requirement, from the basic, mandatory level to operational excellence. Level one corresponds to regulatory compliance. This management system is designed to help sites earn external certifications for their integrated management systems and GBUs, for their multi-site management systems. Decisions to apply for external certification are taken site by site, by the local Management. 2017 will be the first year that standard audits and SCMS audits are combined.

	2016
Solvay manufacturing sites	163
... with integrated management systems addressing Health, Safety and Environment	130
... with SCMS	86
... with management systems addressing environment	144
... with specific environmental management systems	44

Legend: Integrated management system: Responsible Care management system for sites in North America, ... etc.
Specific environmental management systems: dedicated system of ISO 14001 or equivalent

Training and education in Health, Safety and Environment

In 2016, Solvay's 26,000 employees received an average of two full days of training specifically dedicated to health, safety and environmental management. Training in health, safety and the environment is primarily organized and carried out at the site level, depending on the local organization.

In addition, dedicated training sessions were organized to support corporate programs in particular for:

- deployment of the Solvay life-saving rules;
- deployment of leadership safety visits by top managers;
- product regulatory compliance, in particular Reach compliance;
- process safety, via the process safety experts network;
- new health, safety and environmental management systems (SCMS);
- progressive deployment of the hygiene tools (SOCRATES, Critical Task Exposure Screening);
- reinforcement of the core competencies of the DGSA (transport safety advisers);
- training of Group auditors and "Manufacturing Excellence" networks on HSE and SCMS requirements.

Energy indicators



Energy consumption within Solvay

Total energy consumption by type of energy carriers

Petajoules low heating value	2016	2015
Non-renewable solid fuels	47	49
Non-renewable liquid fuels	2	1
Non-renewable gaseous fuels	55	57
Total fuel consumption from non-renewable sources	104	107
Total fuel consumption from renewable sources	4	5
Electricity purchased for consumption	30	40
Heating purchased for consumption	0	0
Cooling purchased for consumption	0	0
Steam purchased for consumption	22	23
Total secondary energy purchased for consumption	53	63
Electricity sold	12	11
Heating sold	0	0
Cooling sold	0	0
Steam sold	12	14
Total energy sold	23	26

Scope: This indicator shows the primary energy consumption over a given year related to the manufacturing activities of the companies that are currently consolidated (fully or proportionately).

Legend: The primary energy consumption of the companies in the financial sphere represents 77% of the total primary energy consumption of all companies in the operational sphere.

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.

Energy consumption outside Solvay

		2016	2015
Investments (including Discontinued Operations)	Pjp	57.5	75.9

Greenhouse gas indicators



Direct Greenhouse gas emissions (Scope 1)

Mt CO ₂ eq	2016	2015
Carbon dioxide - CO ₂	8.43	8.76
Methane - CH ₄	0.81	0.85
Nitrous oxide - N ₂ O	0.20	0.27
Sulfur hexafluoride - SF ₆	0.05	0.04
Hydro fluoro carbons - HFCs	0.05	0.05
Per fluoro carbons - PFCs	1.34	1.40

Energy indirect Greenhouse gas emissions (Scope 2)

Mt CO ₂	2016	2015
Gross location-based indirect Greenhouse gas emissions	2.3	3.0
Gross market-based indirect Greenhouse gas emissions	2.5	2.8

Gases included in the calculation: For indirect emissions (Scope 2), only CO₂ is taken into account.

Other indirect Greenhouse gas emissions (Scope 3)

Mt CO ₂	2016	2015
Category 9: Downstream transportation and distribution	1.2	1.0
Category 15: Investments (including discontinued operations)	0.8	2.5

Exemplary projects in water management

Seasonal water variations can impact ecosystems and result in increased competition between uses in some areas. In 2015, an internal study identified 30 of the Group's sites as under potential water shortage according to standard water risk screening tools (i.e. located in areas where the freshwater yearly renewal will drop below 1,000 m³/capita/year). For example, activities in Map Ta Phut (Thailand, 2005) and Rosignano (Italy, 2011/2012) have been affected by drought periods and have had to find alternative water sources to ensure operation continuity. In a more recent crisis, a number of production units with open water circuits had to be stopped for three weeks at the Paulinia plant in Brazil.



Reporting water data under the global "CDP Water" program

Solvay is fully committed to the worldwide "CDP Water" reporting initiative. CDP (the Carbon Disclosure Project) has thanked Solvay for disclosing critical water information. Disclosing this information to CDP (latest report filed in 2016) supports our global corporate commitment to water stewardship and clear water data disclosure. CDP's water program depends on a detailed, reliable internal reporting system.

CDP - Water program: <https://www.cdp.net/water>



Water from treated groundwater in Australia

To reduce its use of potable freshwater in the dry region of Banksmeadow (Australia), the local Solvay plant has replaced 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 cut the site's usage of scarce urban water by more than half. The use of the treated groundwater, which represents 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, Solvay and other local companies promoted and lent their support to help complete a project to recycle water from the municipal

wastewater treatment plant. Today, 80% of the site's total industrial water needs (96,000 m³/year) are supplied via this recycling project, instead of taken from groundwater. Even so, the group must continue to manage water issues very efficiently in this area.

Panoli site (India) brings significant water savings

An industrial scheme was started in 2012 to reuse up to 80% of wastewater from the plant, especially as cooling water makeup and boiler feed water. The plan managed to double its PEEK (Polyether ether ketone) production capacity while stabilizing water consumption. The effort required 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 reuses. Thanks to a treatment and recycling operation, 35% of water is now taken from contaminated groundwater, instead of from 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, the confluence of record production volumes and a new product unsuited to wash water reuse resulted in water use increasing, although the site still achieved a per-unit reduction of 27%.

Water Savings at Vinythai

The steam condensates produced by the Epicerol® plant (Epichlorohydrin) can be valorized by recycling them to a steam supplier. This requires improving the quality of the condensates using a condensates treatment unit to a level that meets the steam supplier's specifications. This unit is mainly composed of heat exchangers, filters, active carbon and a reverse osmosis filtration unit. The unit started up at the end of 2015. It allows the recovery of more than 10 m³/h of water and a 1.5-ton/h reduction in steam consumption.

Research and Innovation for Water Reuse

Water, a key resource for our industrial activity, can be scarce. Furthermore, we can be in competition with public needs or face challenges for efficient usage in some areas. Today, we are developing a project in China on the Zhenjiang industrial site, a multi-BU platform. And to go along with the development of activities at the site, we have initiated action to build an internal benchmark and identify opportunities for water reuse and recycling with the aim of improving specific water intake for H₂O₂ production.

Biodiversity

Solvay sites that cover large areas or have quarries and settling ponds carry out plans that include large-scale management and rehabilitation actions. The group managed over 3,700 ha as green natural areas in 2016, efforts that involved rehabilitation, replanting, and so on. Solvay strives to reduce the potential impact on biodiversity that may result from its operations or the use of its products.



Management of natural areas

Solvay is committed to reducing the possible impact on biodiversity that might result from its operations or 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.

Sites that cover large areas or have quarries and settling ponds develop tailored plans that include large-scale management and rehabilitation programs. In particular, for several decades now, Solvay has been working continuously on the rehabilitation of limestone quarries and settling ponds (for mineral residues) after shutdown.

Solvay owns and maintains large natural areas that are largely protected from housing or road development. The sites in question manage these areas in a way that protects biodiversity, with the ultimate goal of having the rehabilitated areas recognized and protected as nature reserves.

Natural areas managed by Solvay

	2016	2015
Sites with significant natural areas (>2ha)	37	30
Natural areas	5,400 ha	4,020
Surface managed as "natural area" (rehabilitation, replanting, etc.)	3,780 ha	2,160

Nature rehabilitation programs

Around 4,000 ha of land are being managed, and often replanted with trees. Some of these rehabilitated areas are recognized as nature reserves for their protection. 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.

Soil management

Solvay continues 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 a controlled cost.

Solvay's policy aims to prevent soil contamination by:

- characterizing soil conditions whenever needed, at both active and closed sites; and
- managing soil and/or groundwater contamination in the surroundings.

The group systematically assesses soil conditions and risk as a key step in selecting the most appropriate management measures.

Successful soil remediation: new in situ technology in Mulhouse (France)

High levels of industrial and chemical activity for more than 115 years

The Rhodia Mulhouse brownfield site is located on land that has housed high levels of industrial and chemical activity for more than 115 years. The area is around 10 hectares. Rhodia produced organic intermediates for, inter alia, pharmaceuticals, veterinary preparations, cosmetics and crop protection products. Operations ceased in 2007, and the site is earmarked again for industrial or logistical use. In order to make this a reality, facilities have been dismantled and most of the buildings destroyed.

Contaminants

The land has suffered historic soil contamination, which is concentrated in a few areas. The contaminants which need to be treated are semi-volatile, highly persistent, non-degradable and extremely foul-smelling (nitrochlorobenzenes, nitrotoluenes, BTEX - Benzene, Toluene, Ethylbenzene and Xylenes, etc.).

Water pumped at 150 m³/h

The site is currently confined by a hydraulic barrier that stops the contaminants from being carried beyond the site by groundwater. The water is pumped at 150 m³/h and treated with activated carbon to trap the contaminants before being

released into a river. In order to make the brownfield usable for a new industrial purpose, it is essential that the contamination is reduced to a level compatible with the future use. The fact that the site is enclosed within a habitat area adds a further constraint owing to the disturbances the remediation work is liable to cause (noise or olfactory pollution from the excavation of the contaminated soil).

A pilot program to extract 1,500 kg of contaminants

As a result, the group needed an innovative, unconventional technology to get rid of the contaminants. What it found was the Soil Venting Thermal Extraction (SVTE) technique developed by GRS Valtech. In 2015, a pilot program covering 270m² of land (1,300m³ of soil) was successfully executed, and has facilitated the recovery of some 1,500 kg of contaminants, thereby demonstrating the efficiency of the technology, which will be applied to all "source areas" in the zone in question (2,000m² including the pilot area).

Unconventional technology: volatilizing the contaminants

The process uses in situ thermal desorption to treat soil through the extraction and phase change techniques to the contaminants contained therein by bringing the soil matrix temperature to the volatilization point. SVTE treatment consists of heating the soil to a temperature that will raise the vapour pressure of the contaminants sufficiently to remove them through "venting". The contaminants enter the gaseous state in the soil and are then captured by a series of intermediary extraction wells to be treated through a variety of procedures (condensation/incineration of the liquid phase and treatment of residual gas with activated carbon). The surface of the treated soil is insulated to reduced heat loss and prevent rainwater infiltration.

2,000 m² to be treated over a depth of five meters

The land that is still contaminated at the site will be treated over a depth of five meters in several phases, each lasting a period of two months. The nature of the contaminants and the treatment envisaged required an in-depth study of both industrial hygiene and procedure safety (risk of inflammability and explosion). In view of the innovative nature of the technique, the pilot received funding from the local Water authorities.

Environment expenses

Environment expenses have been restructured following recent significant acquisitions. This year, consolidated figures are presented again.

€ 110 million

Environment Operating Expenses

€ 52 million

Environment Capital Expenditures (excluding variable costs savings)

Environment Operating Expenses

Reported operating expenses (OPEX) related to the environment include the following items:

- Estimated personnel costs from any staff working in the environmental field (FTE x average labor cost)
- External expenses for waste treatment
- External expenses for ongoing remediation activities
- Fees paid to consultants to prepare environmental dossiers (impact studies, etc.)
- License fees for specific environmental software packages (compliance, waste, etc.)
- External expenses linked to obtaining or renewing external accreditations (ISO 14001)

- Fees paid to external laboratories for compliance measurements

- Discharge fees paid to local authorities

Environment Capital Expenditures (Capex)

Since 2016, all capital investments are declared and approved within a Group-wide information system and all feature a classification allowing them to be assigned to “environment protection”.

Other project investments that may have an environmental impact (which are categorized as “variable costs savings”) are not included in these Environment Capital Expenditures. Among such variable costs savings, raw materials or energy consumption reduction projects have not been considered as Environment Capital Expenditures.

Raw materials

As a large chemical manufacturer, Solvay uses raw materials from a range of suppliers and sources: it used or purchased over 6.5 million tons in 2016. The largest share consisted of mineral raw materials available on Earth in very large quantities. The Solvay group transforms large quantities of petrochemicals and uses large amounts of water (see dedicated section). Solvay has a new “Responsible Purchasing and Sustainable Supply Chain Statement”, which it defined in 2016.



Bio-sourced raw materials

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

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; and
- 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.

Rationale of usage

Bio-sourced raw materials are 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).

Main bio-sourced raw materials

Among the main bio-sourced materials used are:

- ethanol, obtained from straw and sugarcane bagasse, used to produce oxygenated solvents for paints and varnishes; and
- fatty acids, from diverse plant origins.

Non-biosourced and biosourced raw material - material purchased

1,000 tons	2016	2015	2014
Mineral products	3,000	13,600	4,910
Biosourced products (agro-forestry and animal-based)	240	400	426
Natural gas	1,410	1,500	1,862
Petrochemicals	1,340	1,400	2,625
Other raw materials	530	250	382
Total	6,520	17,150	10,205

Scope: All raw materials spending - gas and other raw materials used as energy excluded.

Changes in 2016 mainly result from Group perimeter changes (exclusion of Acetow (Wood Pulp), of Inovyn (Glycerol), and of Emerging Biochemical).

Conflict-free minerals policy

Solvay supports increased supply chain transparency and sources conflict-free minerals: Solvay is concerned that the trade in tantalum, tin, tungsten and gold - and the metals refined from such minerals (referred to as 3TGs) - mined in certain conflict affected and high risk regions, including but not limited to the Democratic Republic of the Congo and its adjoining countries,

may be contributing to human rights abuses. We pledge to continue working to verify the integrity of our sourcing, and to support the actions of governments, our customers and suppliers toward this end on a global basis. To the extent that our suppliers fail to meet our expectations in this regard, Solvay will take these factors into consideration in future business and sourcing decisions.

Health and environmental impacts of products

As a chemical company, Solvay sells products that are usually only a part of the final product. Many actors along the product value chains play roles in chemicals being transported, stored, used and disposed of in a manner that is safe for both people and the environment.

To assess and mitigate the potentially negative environmental and health impacts of products it puts on the market, Solvay implements:

- A portfolio strategy aimed at reducing hazardous substances in value chains;
- Product stewardship programs that ensure the safe handling and use of products by downstream users;
- Sustainability profiles of products in applications ;
- Product ecoprofiles ;
- End-of-life recycling.



Life Cycle Assessments (LCAs)

88%

of portfolio covered by LCAs

Extensive cradle-to-gate Life Cycle Assessments (LCAs) are established for 88% of products (by turnover share) placed on the market. Last year, the rate reached 94%. This is because several businesses with a high coverage rate last year have left the Group's scope (Acetow, Emerging Biochemicals and Rusvinyll), and newly acquired businesses are just now entering the SPM assessment program (Cytec).

Solvay has made a strong commitment to conduct environmental assessments based on LCA methodologies. Standardized LCAs supply a reliable, unbiased image of a product's environmental footprint. Solvay applies LCA methodologies according to international standards: ISO 14040, ISO 14044 and ISO 14046 norms.

Understanding these impacts is key to improving and communicating on Solvay's products. These cradle-to-gate LCAs feed Solvay's portfolio sustainability assessment, performed using the Sustainable Portfolio Management (SPM) tool. LCAs are used extensively to quantify the environmental footprint criteria of the SPM tool.

Ecoprofiles of products put on the market

In %	2016	2015	2014
Percentage of turnover generated with product having an LCA (cradle-to-gate)	88	94	88

Assessing the Research and Innovation portfolio

Solvay assesses 100% of new research & development projects for environmental impacts. It uses an enriched version of the SPM assessment tool that was specifically designed for products and applications still under development, and that benefits from the experience gained during several years of innovation project management. Assessing R&I projects helps to design the research portfolio with respect to both environmental impacts at the manufacturing stages and the project's alignment with sustainability megatrends in the market.



Ad hoc studies for customers

The Group performs extensive, customized ad hoc studies (full environmental impacts, cradle-to-grave) for and with customers, and submits them to peer review. For example, Solvay has completed a calculation of the full environmental footprint of automotive parts made from engineered plastics.

Taking part in world class LCA platforms

To maintain a high level of expertise, Solvay participates in collaborative platforms:

- High level research on LCA methodologies: Ciraig (LCA expertise center - Polytechnique, Montréal, Canada, supporting the "International Chair on LCA") coordinated the five-year program that ran from 2012-2017 with 13 industry partners; the new 2017-2022 multi partner program is now starting;
- Association Chimie du Végétal in France on bio-sourced materials;
- Plastics Europe: longstanding collaborative work on LCA;
- The SCORE LCA platform: created in March 2012 to promote collaboration between industrial, institutional and scientific actors; and to foster positive developments in overall environmental quantification methods, particularly the life cycle assessment (LCA), to be shared and recognized at the European and international level;
- World Business Council for Sustainable Development (WBCSD) LCA projects;
- The organization committee for "LCM 2015" and "LCM 2017" international conferences on Life Cycle Management;

- The Style (Horizon 2020) collaborative research program , which aims to develop a common, ideal, tool acceptable to several industry sectors (Solvay plays a leading role).

Solvay is currently funding and steering a research thesis 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.

Establishing international LCA guidance on social metrics

Solvay was engaged in pioneering social metrics for LCA (S-LCA) in the framework of the World Business Council for Sustainable Development (WBCSD) industrial platform. The guidance was published in 2016.

Establishing international LCA guidance on avoided greenhouse gas emissions

Solvay is coordinating the revision of the WBCSD/ICCA guidance on how to calculate the emission savings made possible by technical solutions that use chemical products (insulation, energy efficient tires, efficient lighting, etc.). The first version of this guidance, published in 2013, resulted in a series of LCA studies published by ICCA. Solvay contributed a case study on vehicle lightweighting by replacing metal parts with engineered plastics.

Quantifying toxic impacts throughout product lifecycles: a real challenge

In 2016, at BASF's invitation, Solvay and six other stakeholders established a consortium (BASF, Covestro, Deutsche Bauchemie, DSM, IVL, and Kingspan), to develop a method to quantify the overall toxic impact of a product throughout its lifecycle. The quantification will combine the life cycle approach of LCA with quantifiers for products' health hazards (toxic properties of the product) and for risk (exposures).

Such an assessment is intended to be used, along with additional information on toxicity impact as measured via a conventional Life Cycle Assessment (LCA), in the context of Environmental Product Declaration (EPD) and Product Environmental Footprint data (PEF). The EU Commission has expressed interest for a potential PEF application. Stakeholder dialogue about the methodology under development is maintained via industry associations, an ad hoc Scientific Advisory Group, a shadow group in the USA, and other stakeholders (EU Commission, USEtox team, etc.).

SOCIAL

Our workforce



Solvay commits to personal and professional growth 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 needs of implementing a sound business strategy. The Group has developed and launched policies and processes with a view to attracting and retaining staff, and to fostering development of the Group's workforce.

The data offer proof that the Group's strategy is transforming its human capital and offering real opportunities to its employees.

Data show that:

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

29,354

Total headcount (all active employees)

27,030

Headcount at financial results perimeter

26,887

Full-Time Equivalent (active employees)

Solvay's workforce by region

	2016	2015
Europe	13,030	14,124
Percentage of women	23%	22%
Percentage of permanent staff	97%	94%
Asia-Pacific & rest of the world	5,229	5,901
Percentage of women	24%	23%
Percentage of permanent staff	62%	63%
North America	6,424	3,782
Percentage of women	20%	20%
Percentage of permanent staff	100%	100%
Latin America	2,347	2,543
Percentage of women	21%	20%
Percentage of permanent staff	100%	100%
Total Headcount	27,030	26,350
Percentage of women	23%	22%
Percentage of permanent staff	91%	86%

Solvay favors direct permanent contracts within the company, considering its skill requirements. This principle is enshrined in the IndustriALL Global Union Agreement. Therefore, the number of temporary contracts or short-term contracts is quite low. Note that apprentices and trainees are usually recruited on short-term contracts. The percentage of permanent staff in Asia is lower than in other regions; this is because under Chinese labor laws, the short-term contract is standard until employees reach at least nine years of seniority. In North America and Latin America, the labor market is organized through permanent contracts.

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. 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 the regional distribution of employees is going to become more and more proportionate to the distribution of sales. This helps the Group to ensure the societal acceptance of its businesses in the regions where it operates.

Variations in employment

Because of the Group's business model, employment does not fluctuate significantly 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 on site

A significant 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, enhancing the flexibility of Group activities. This is mostly the case in high-level consulting, information technology, plant maintenance, security, facilities and catering.

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 on-site workforce is not under an employment contract with a company of the Solvay group.

Solvay's workforce by contract and by gender

	2016	2015
Permanent contract	24,710	23,393
<i>of which women</i>	22%	21%
Temporary contract	2,320	2,957
<i>of which women</i>	27%	26%
Total headcount	27,030	26,350

91% of Solvay's employment contracts are permanent (9% short-term contracts). The proportion of women in permanent employment is about the same as the proportion of women in the company (22% vs 23%). Nevertheless, women occupy a significant share of the temporary contracts (27% vs 23%).

Solvay's workforce by employment type

	2016	2015
Full-time contract	26,460	25,712
<i>of which women</i>	20%	20%
Part-time contract	570	638
<i>of which women</i>	80%	79%
Total headcount	27,030	26,350

The vast majority of Solvay's employees are full time (98%). Among part-time employees, women represent a large majority (80%).

Solvay's workforce by level

	2016	2015
Senior manager	428	428
Middle managers	3,026	2,819
Junior manager	5,348	4,491
Non managerial	18,228	18,612
Grand Total	27,030	26,350

Since Solvay has a strong industrial footprint, 67% of employees are not managerial staff, but rather operators in plants.

2% of employees are senior managers, which is a very reasonable ratio.

Global staff turnover

Hirings

By region

Headcount	2016	2015
Asia and rest of the world	348	642
Europe	638	1,174
North America	353	404
Latin America	111	335
Total	1,450	2,555

Despite an uncertain economic environment in 2016, Solvay did a significant amount of external recruitment. The reduction of external recruitment was attributable to an increased effort on internal mobility.

By gender

Headcount	2016	2015
Male	949	1,783
Female	501	772
Total	1,450	2,555

It should be noted that the share of women among new hires (34%) is higher than the percentage of women in the company (23%).

By age

Headcount	2016	2015
< 30	647	1,499
30 - 49	692	899
> 49	111	157
Total	1,450	2,555

While the reduction in recruitment in 2016 affected mainly young people, as expected, the majority of the recruits fall into the youngest categories. It is worth noting that there was a significant influx of seniors among the new recruits (8% in 2016 vs 6% in 2015).

All leaves

By region

Headcount	2016	2015
Europe	1,091	1,064
Asia-Pacific and rest of the world	775	858
Latin America	247	676
North America	575	247
Total	2,688	1,534

The total number of leaves per region reflects efforts to adapt the sizing of the Group, mainly for portfolio or business reasons (Europe, North America), with very few redundancies..

By gender

Headcount	2016	2015
Male	2,011	2,005
Female	677	840
Total	2,688	2,845

The proportion of females leaving (25%) is about the same as their proportion in the company (23%).

By age

Headcount	2016	2015
< 30	550	982
30 - 49	994	970
> 49	1,144	893
Total	2,688	2,845

Restructuring typically has a more substantial impact on the senior population.

Voluntary Leaves

By region

Headcount	2016	2015
Europe	394	172
Asia-Pacific and rest of the world	334	294
Latin America	33	64
North America	187	96
Total	948	626

The number of voluntary leaves remains low (3.5%), despite an increase in 2016. The increase in North America was mainly due to the acquisition of Cytec.

By gender

Headcount	2016	2015
Male	654	424
Female	294	202
Total	948	626

In 2016, the proportion of women leaving the company voluntarily, mainly for personal reasons, did not change materially compared with 2015.

By age

Headcount	2016	2015
< 30	273	233
30 - 49	450	320
> 49	225	73
Total	948	626

Despite the increase in voluntary leaves, the number of young employees leaving voluntarily remained the same, which is positive.

Employee mobility

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

Internal moves

Of 3,364 filled positions and 57 % of mobilities are filled internally in Solvay. This percentage is the result of an active internal mobility made of: clear priority given to internal moves versus external recruitment, transparency with job posting of the empty positions, a priority period of 15 days for internal candidates before considering any external recruitment, the freedom of employees to candidate to a job after 3 years in a job without management approval.

Employee benefits

Benefits reflect local market practice and laws. 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. In exceptional, at some sites, e.g. in the United States, not all long-term benefits apply to part-time employees.

For temporary employees in Europe, benefits are generally granted according to the same principles as for full-time employees, whereas standards can differ outside Europe.

Equal opportunity, Diversity and inclusion

Through its Code of Conduct and Group Diversity and Inclusion Policy, Solvay commits to equal opportunities and encourages diversity at every level of employment in the company. The Group aims for recognition as a truly diverse and inclusive organization. Solvay defines diversity as all of the ways in which individuals are different, whether visible or not. Valuing diversity means creating a workplace that respects and includes difference, recognizing the unique contributions that many different types of individuals can make and creating a working environment that maximizes the potential of all employees. The Group sees this approach as a way to enhance its performance in its role as employer. It is convinced that its approach will ultimately lead improve the overall performance of its workforce, and has therefore made diversity a performance lever.



Main actions in 2016

The Group's Human Resources policies explicitly require diversity to be encouraged, and they promote the development of an inclusive culture. They require equal opportunities in employment and outlaw discrimination of any kind.

At the Group level, Solvay focused its main actions in 2016 on three areas :

- Raising awareness to promote employee engagement in Solvay's Diversity and Inclusion commitment and expectations (e.g. Diversity and Inclusion workshops, engagement survey, etc.);
- Fostering an inclusive culture by developing competencies, behaviours and working practices (training on unconscious bias, women in leadership, and flexible work arrangements);
- Reviewing HR processes to embed Diversity and Inclusion guiding principles in recruitment, talent management (e.g. mentoring, coaching, etc.), and succession planning.

In addition, to reflect Solvay's business objectives and the cultural context in which it operates, business and local leaders have set up specific objectives and initiatives to foster diversity and inclusion.

Diversity indicators

Gender diversity by employee category

	2016
Senior management	428
Percentage of women	14%
Percentage under 30 years old	0%
Percentage between 30-49 years old	31%
Percentage 50 years old and older	69%
Middle management	3,026
Percentage of women	23%
Percentage under 30 years old	0%
Percentage between 30-49 years old	49%
Percentage 50 years old and older	51%
Junior management	5,348
Percentage of women	33%
Percentage under 30 years old	11%
Percentage between 30-49 years old	63%
Percentage 50 years old and older	26%
Non managerial	18,228
Percentage of women	20%
Percentage under 30 years old	14%
Percentage between 30-49 years old	56%
Percentage 50 years old and older	30%

Solvay's commitment covers every dimension of diversity, whether visible or not. Among its many goals, Solvay hopes to improve the gender mix at all levels of the organisation, and continues to work towards its target of women holding at least 20% of senior management positions in 2020.

Solvay's workforce by age

	2016
Under 30 years old	3,242
Between 30-49 years old	15,107
50 years old and older	8,681
Total headcount	27,030

According to the above table, the age structure is currently:

- 32% older than 50;
- 56% aged between 30 and 49; and;
- 12% younger than 30.

Demographic trends among Solvay employees are recognized as a potential barrier to sustainable development within the Group. As a result, Solvay is taking initiatives at several levels to mitigate the risks arising from such developments.



A joint initiative by managers and members of the European Works Council (EWC) has developed a set of recommendations that include:

- Improving work-life balance;
- Adjusting (ergonomic) working conditions;
- Implementing strategic learning plans at the site level;
- Fostering mobility (geographical and functional), with dedicated learning opportunities;
- Increasing efforts to attract young talent (e.g. through partnerships with schools) and improving the Group's image on the job market.

Engaging with the European Pact for Youth

High youth unemployment is an urgent social issue. More than 7 million young people are neither employed, nor studying, nor training. More than 4.4 million Europeans leave education and training before graduation. With 2 million job vacancies unfilled, Europe faces a serious social risk. The future economic competitiveness of Europe depends on the employability of its younger generations. In today's dynamic and complex global economy, companies need people with the right hard and soft skills.

At Solvay, we have long been aware of this. As far back as 1881, the Group built libraries, founded training colleges for professional instruction, and held adult education classes in its factories. The Group has 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 around the world, to help them expand their horizons. The program originated in North America and is now expanding worldwide.

Objectives of the European Pact for Youth

In keeping with this legacy, Solvay decided to help co-author 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, where they can 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 to:

1. Reduce the skills gap;
2. Boost youth employability and inclusion; and

3. Contribute to EU and national policies on skills for competitiveness and employability.

Building on the current leading initiatives in this area (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. The project will define indicators and metrics to monitor progress. Under the guidance of CSR Europe and with the support of the EU, participating organizations will work together to create a project structure.

Solvay has set up its first transnational apprenticeship at two Group sites in France and Germany. The uniqueness of Solvay's "Erasmus professional" program is that it is designed for young future workers or technicians that are still pursuing their education. This program will be developed in Belgium and Italy next year.

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.

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.

Foundation for the future

20

participants hired

56

participants

Since 2015, Solvay has extended its “Foundations for the Future” (FFF) program worldwide. The program was started more than ten years ago in the US. The program offers young graduates, in particular engineers and marketing graduates, an intensive rotating 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 three to five years, candidates are offered a permanent contract in the Solvay group. Solvay wants to recognize the effort made by young graduates to obtain their degrees and to give them the foundation for a brighter future.

Equal remuneration for women and men

The Group is taking appropriate action to ensure gender equality in grade and pay, as experience and studies both reveal that inequality can be demotivating and jeopardize commitment.

Job classification method

To ensure equality on the career ladder, the Solvay job classification system applies a single method (Hay) to all jobs. Many other organizations use this method. 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). The grade of the job does not depend on gender or any other individual attributes.

All management jobs worldwide are graded according to this system. The employee's grade generally matches the job grade, which partly determines the reference salary and the trajectory of the incumbent's remuneration.

Compensation policy

The Group Compensation policy for managerial personnel provides a corridor of 80% to 120% around the midpoint of the given grade's reference salary to ensure salary equality among employees within the Company, as well as competitiveness and fairness vis-a-vis the external job market.

The reference salary is defined by the job grade (see above). The average ratios and average salaries for each grade are similar for men and women in the workforce. The remuneration of non-managerial personnel is set in accordance with local standards and collective bargaining agreements.

In 2014, Solvay signed a three-year agreement with all of the unions in France covering the equal treatment between women and men. In the scope of this agreement, each year the company provides the Unions with a detailed report comparing the situation of women and men in terms of salary, training, promotion, and working conditions. This report shows no wage discrimination at Solvay. One of the actions taken as part of this agreement has been to verify that women are receiving at least the budgeted salary increase and the average individual bonus in their category in the year following a pregnancy.

Training and education

Solvay is committed to endorsing the personal and professional development of its employees. The Group's ambition is to enable every employee to maximize their potential for performance and increase their employability. Each employee is empowered to grow and to develop their career, while Solvay pledges to foster a development culture and provide policies and tools that help everyone succeed.



Culture of development

At Solvay knowledge, skills and behaviors are acquired through diverse types of developmental actions: through experience, from others (feedback and coaching), through training sessions and self-learning. The Group envisions a culture of development characterized by challenges, feedback and trust. This is an integral part of the Solvay People and Management Models.

The training and education provided by Solvay is integrated with its performance management program. Individual development plans are discussed with employees during their Performance, Development and Career Review (PDCR) and in Development and Succession Planning (DSP) meetings.

2016 Performance, Development and Career Review

Solvay developed and implemented a process in 2013 to help managers enhance performance and develop their teams. The process is supported by an online tool, integrated with other processes such as Compensation and Talent Management, ensuring the relevance of performance results. All managerial staff have an annual Performance, Development and Career Review (PDCR) document online.

An important focus of this process is on development and career management:

- assessment of the employee's behavioral competencies and expertise;
- agreement on a development plan;
- discussion of the employee's aspirations and possible next career steps.

This process results in performance assessments, as well as career planning actions and proposals, which will be used in the 2016/2017 Compensation Review and other subsequent HR processes such as training, succession planning and career development.



In 2016, approximately 81% of the Solvay employees had a formal annual performance and development appraisal.

41% of Solvay employees were covered by the 2016 online Performance, Development and Career Review (PDCR) :

- 100% of the managerial population (about 9,250 people)
- 14% of the non-managerial population

The PDCR process applies to the entire managerial population. Beyond its initial scope, the PDCR is also used by about 2,870 non-managerial employees. Local performance and development tools and processes are available for the population not covered by the PDCR online tool.

Fostering a culture of personal development

Solvay is committed to ensure that each employee has a formal Performance, Development and Career discussion with his/her Manager at least once a year, with a specific focus on development.

In 2016, the PDCR cycle was adapted to ensure that one of the three discussions in the cycle was repositioned to focus on long-term development needs and employability. In addition of this initiative, a project was launched to progressively extend the PDCR to more non-managerial employees. This requires a willingness on the part of both local management and employee representatives: around 4,750 non-managerial employees will be covered by the PDCR in 2017.

87%

of online PDCR with a Development plan

Solvay aims at increasing the quality of the Appraisal and Development discussion by deploying training and development actions for all employees. 2016 Training sessions aimed at further developing behavioral competencies included:

- The deployment of Observing Behavioral competencies workshops, which was completed in 2016 (790 managers);
- More than 80 eLearning modules, which are available in several languages for each Solvay behavioral competency through the eLearning external platform;
- 6 new eLearning modules to allow managers and employees to lead Appraisal and Development discussions more confidently (3,520 participants).

Solvay wants to foster collaboration and qualitative feedback. The workplace environment is growing increasingly complex, requiring collaboration across geographies, businesses and functions. In addition to recognizing individual achievement, the Group works on identifying, fostering and recognizing collaboration in the workplace. It can do so by gathering feedback - strongly recommended - on employee achievements and observed behaviors, and by providing access to the Performance, Development and Career Review (PDCR) online to reinforce the role of other parties like Functional, Project or Previous Managers.

By utilizing these performance and development approaches, Solvay ensures that management regularly recognizes performance and develops the potential of employees. These approaches are expected to improve qualitative dialogue between manager and employee and increase staff engagement and employability, and therefore enhance sustainability in the field of Human Resources management.

2016 Development and Succession Planning

In 2014, Solvay implemented a new Development and Succession Planning (DSP) process for executives. This is a management meeting where topics related to Succession Planning, Talent Identification and Career Development are discussed and where decisions are made collectively.

Solvay encourages employees to rotate across Businesses/ Functions and zones, taking into consideration personal competencies, expertise and aspirations as well as the Group's needs.

The DSP process aims to ensure the Group has the right people at the right place to achieve its growth strategy and performance goals by:

- identifying and developing talents, with a specific focus on the High Potentials and owners of critical expertise;
- securing the succession planning for key positions and key professional pipelines; and
- encouraging cross-functional moves across Businesses / Functions and Regions.

The DSP meetings are organized according to a yearly cycle so as to ensure succession planning across entities.

93%

of managers reviewed

Except GBUs Technology Solutions and Composite materials

Since mid-2016, the managers have had access to an online display of the DSP results related to their teams so that they can have deeper development discussions during the PDCR campaign.

Talent Days

Talent days are events organized at the regional level where selected talents meet with Solvay leaders and Human Resources. It is an opportunity for development and increased visibility outside their respective entities. During these events, talents have scheduled face-to-face meetings with Solvay leaders and Human Resources, giving them the opportunity to present themselves and to clarify their career aspirations.

In 2016, 80 selected talents participated in a Talent Day in Europe, Asia and South America.

To harmonize Talent Day objectives, scope, processes and timelines, Solvay publishes common guidelines - designed in 2015 - and a calendar on its intranet.

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 France, pre-retirement workshops were offered to prospective retirees in 2016. The workshops focused on themes such as change management, financial planning, time management, legal aspects and health. The aim of these events was to prepare departing employees for the transition to retirement and to help them develop a new life project.

Solvay Corporate University

Solvay Corporate University programs and services provide training opportunities for all employees globally on a wide range of subjects and levels. Solvay Corporate University is organized as follows:

- The Leadership & Management Division aims to enhance the managerial effectiveness and competencies of tomorrow's business leaders and team managers through programs ranging from basic management skills to advanced leadership behaviors;
- The Academies Division helps Solvay Professional Families achieve their strategic objectives by working closely to identify, design and deliver the expertise they require around the world. Academies focus on a learning curriculum that supports the professional development of individuals within the Professional Family, and provide more cross-functional content. So far, Solvay has launched six Academies, and there are plans to launch additional Academies in 2017;

2016 Solvay Corporate University offerings

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

Global Leadership & Management programs



In 2016, more than 1,600 people managers from 30 different countries and across the different management paths participated in the leadership and management programs that Solvay held at the corporate or zone level.

- Management Development Series: delivered in the four zones to support the transition from individual contributor to a managerial role
- Agile Leadership Program: to help managers better influence and increase the agility to team performance in an uncertain and complex world
- Transformational Leadership Program: to shape a 'One Solvay' culture with executives who have a shared approach around open-mindedness, collaboration, trust and empowerment

- Four Zone Learning Teams support the deployment of the global initiatives and manage training needs related to soft and hard skills within their zones.

SOLVAY'S OBJECTIVES:

2020

One week

of training per employee per year on average

- International Management Seminar: an accelerated and experiential journey around strategic challenges, helping young leaders develop cross-business perspectives, collaboration and inclusiveness

Academies

Academies are structured in domains by functional area to support the Professional Families. The SCU Academies address all of the learning needs within the Professional Families. Across each Professional Family, Solvay aim to ensure that each member has the required level of expertise and skill set they need to help achieve the Group's objectives and quality standards.

Solvay continued to deploy the existing academies (Commercial, Marketing, Purchasing and Human Resources) and made progress on the deployment of a Supply Chain Academy.

41

learning programs

11

new learning programs

2,190

participants

Solvay launched a Transversal Academy to provide consistent and effective solutions across the Group for cross-functional soft needs, and began the work of creating Industrial, Research & Innovation, Communication and Finance Academies. The Solvay Corporate University course catalog, available online, is large enough to cover all of the functional areas not yet structured as an academy.

Cross-functional Zone programs

In 2016, all of the zones received a budget to support cross-functional initiatives within their zones that are related to front-line management and interpersonal skills. This allowed the zones to organize training in the areas that they considered to be a priority within the Group's subsets.

Examples:

- Supervisory program to develop management skills and competencies of first line managers and drive results (96 participants) in two major countries (Brazil and France)
- Woman Leadership program (63 participants) in two zones.

2016 training figures

Training hours and investments are recorded. These results below include all of the training provided in all four zones, including Leadership & Management programs, Academies and local training.

Average hours of training

Hours	2016
By men	33.7
By women	33.8
Per Senior Managers	22.8
Per Middle Managers	31.9
Per Junior Managers	37.8
Per Non Managerial	33.1
Per Employee	33.7

Legend: In Solvay Corporate University calculations, we exclude the "apprentices" employee sub-group, and the headcount basis for our calculation is the average number of FTE for the year

Scope: all sites (including Cytec in 2016) under Solvay's operational control for which the Group manages and monitors training.

In 2016, there was a decrease in the average number of learning hours per employee (33.7 instead of 38,8 hours) There was a significant difference for the Senior Managers, who completed a

round of global training on such topics as Observing Behavioral Competencies, Strategic Partnerships, and Transformational Leadership.

Average hours of training by region

Hours	2016
Europe	29.2
Asia Pacific and Rest of the world	45.3
North America	28.0
South America	47.9

Scope: all sites (including Cytec in 2016) under Solvay's operational control for which the Group manages and monitors training.

There has been a better appropriation of the learning system, ensuring correct inputs.

- The number of hours decreased in Europe and in Asia. In Asia, training hours this year are closer to the Group average. The year 2015 was exceptional, with several new investments that generated additional training hours for new hires.

- For the other two zones, Latin America and North America, there was an increase in hours linked to the deployment of new programs and greater efficiency in tracking hours.

Delivery methods

In %	2016
Instructor led	86.4
Digital learning	9.7
On-the-job training	3.9

In line with the learning strategy, there was a specific focus in 2016 on diversifying delivery methods.

- Adoption of an eLearning external platform: 2,600 users.
- Custom internal eLearning: more than 200 modules available, with more than 100 launched in 2016.
- Exploration of virtual classroom and new digital technologies, such as serious games.

Human rights

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.

Policies, management systems and monitoring Commitments, strategies and policies

In addition to the statement to this effect 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. 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 each year on Solvay production sites chosen by IndustriALL to verify that the Group is adequately fulfilling its commitments. Training courses and induction activities are organized to ensure that ethical and compliant conduct is embedded in the way business is done and 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. In 2016, special emphasis on diversity and inclusion, a subset of Human Rights, was provided for new and existing employees. 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 maintains a strong dialogue with its employees through various communication channels: the national employer representative bodies, the Solvay Global Forum, the European Works Councils and the Solvay Employee Survey (a Group-wide survey carried out every year). 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 created 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.

In 2017, Solvay will engage in a formal risk assessment of its operations with respect to actual and potential Human Rights impacts. Through the efforts of a dedicated steering committee and project team, working under the advice of a third-party consultant, Solvay expects to adopt a plan to enhance its systems and internal policy compliance to ensure the respect of Human Rights at its facilities, whereby potential human rights violations are effectively prevented and mitigated, and actual impacts, if any, are remediated.

Training on human rights

Solvay's training on Human Rights is part of its Code of Conduct training. In 2016, more than 6,900 employees received between fifteen minutes and one hour of training on the Solvay Code of Conduct. The 2016 training included the specific subject of diversity and inclusion as a subset of the general topic of Human Rights, ethics and integrity in the workplace offered in the 2015 training. Over the past two years, almost 24,000 employees have received training on the subject of Human Rights. Of Solvay's active headcount, the total number trained is almost 70% of the workforce.

Human rights grievance mechanisms

Through the "Speak Up" program, any concern regarding a breach of human rights is investigated by the Ethics & Compliance function. In keeping with its commitment to 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

10

Total Claims Alleged

8

Total Claims Closed

In addition to claims of discrimination and harassment in the workplace, the Solvay Ethics Helpline records reports involving claims of Misconduct and Inappropriate Behavior in the workplace. Those reports were investigated and resolved as follows:

	No Action	Policy Review	Training	Discipline	Termination
Substantiated	0	1	2	2	0
Unsubstantiated	1	2	0	0	0

Finally, the area of Human Rights includes providing a safe and healthy workplace. Solvay received a total of six reported incidents of alleged Environmental Health and Safety violations. Five of those reports were fully investigated and can be summarized as follows:

	No Action	Policy Review	Training	Discipline	Termination
Substantiated	0	0	1	0	0
Unsubstantiated	3	1	0	0	0

One claim remains open and under investigation.

Indigenous rights

Solvay's Code of Conduct stresses the value it places on its employees. 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 2016, there were no reports of discrimination or harassment based on national origin or indigenous status.



In late 2016, Solvay issued a Palm Oil and Palm Kernel Oil Sustainable Sourcing Statement, which codifies Solvay's commitment to sustainable practices in its plans and operations for the manufacture and sale of palm oil and palm kernel oil chemical derivatives. As a member of the Roundtable for Sustainable Sourcing of this material, Solvay commits to respecting the interests of indigenous people, including their right to say "no" to operations planned on their lands. Solvay commits to doing business with supply partners who make similar commitments and work to implement such principles into their operations.

Child 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 policy addressing "Human Rights in Our Business" 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 is based on the UN Guiding

Principles on Business and Human Rights, is that no matter where 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; and suppliers avoid any form of forced or compulsory labor.

Non-discrimination



In 2015, Solvay introduced its own internal diversity initiatives, which include a work-life balance commitment for its employees and a management pledge 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 by 2025, including improvement of the employee engagement index.

Given the importance of employee engagement to the Group and in order to measure progress towards its 2025 goals, the Group decided to launch a modified "pulse" survey of its general populace on an annual basis. Targeting the same population but substantially shorter in length, this survey seeks to measure the current "pulse" of the organization with respect to employee engagement at the Group and entity levels. The 20-question survey was launched in November 2016.

Incidents of discrimination and corrective actions taken

16

Total Claims Alleged

13

Total Claims Closed

Solvay encourages its employees to Speak Up when they observe behavior in the workplace that is not in line with Solvay's values. The Solvay Ethics Helpline is open to receive reports of such conduct and records allegations of discrimination under the broad category "Discrimination including Harassment and Retaliation."

The 2016 data collected from the Solvay Ethics Helpline show:

Discrimination and/or Harassment, including Retaliation

	No Action	Policy Review	Training	Discipline	Termination
Substantiated	0	0	2	3	1
Unsubstantiated	5	2	0	0	0

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 implemented specialized anti-harassment training for management in 2016 and completed training of 191 managers on this topic.

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.

19

employees in GPA

Nineteen Solvay employees are part of the Government and Public Affairs (GPA) 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 for 2 years. As CEFIC President, within the framework of the run-up to COP21, Jean-Pierre Clamadieu advocated for global carbon pricing, market-based for industries, which, thanks to gradual cost convergence, would help in preventing 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 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.

The typical issues in the scope of activities of the Government and Public Affairs function are the following:

- **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 UN Framework Convention on Climate Change (UNFCCC) which ensures a global level playing field.
- **Competitiveness:** 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.
- Solvay export policy to sensitive countries: Solvay's export control system is in place Global Trade Services 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. GOA has proposed a process for sensitive country to which sales are only allowed after validation by the GBU President.

Solvay's political contributions



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.

Occupational safety

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

Occupational accidents with Medical treatment at Group sites (MTAR)

	2016	2015
Medical Treatment Accident Rate for Solvay employees	0.73	0.67
Medical Treatment Accident Rate for contractors	0.86	0.94

Scope: all sites (including Cytec in 2016) Solvay's operational control for which the Group manages and monitors safety performance. This represents 235 incl. manufacturing, R&I, administrative and closed sites - Solvay employees and contractors working on sites.

Efforts to promote good health rely 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 excellence plan

76 sites

with a dedicated safety management system

1,580

leadership safety visits in 2016

146 sites

with a behavioral safety program

Clear management expectations

The Leadership Safety visits Initiative, launched in 2012, is well established. Every GBU or Function Management Team member is committed to carrying out four site visits per year. New members of the management teams are coached beforehand on what to look for and how to effectively interact with people on the shopfloor. During visits, top management team members convey Solvay's safety values to employees. The main goals of the visits are:

- to engage everyone in safety dialogue: assessing employees' risk awareness and identifying barriers to work safety;

- to react immediately if an unsafe situation is observed, especially regarding deviations from the Solvay Life Saving Rules.

Focus on human and organizational factors

146 sites have behavioral safety programs, of which 80% involve "safety dialogues" between peers, and 42%, between Managers and operators. Observations 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.

Safety mindset

134 sites

with safety leadership training for site management team

87 sites

with all managers trained in safety leadership

Solvay is putting a growing focus on the quality of day to day safety exchanges between Management and employees at the site level. Safety Climate Assessment consists in measuring employees' shared perceptions of the importance given to safety on the site. The purpose is to identify leadership actions for the site Management can carry out that have the power to change employee mindsets and behaviors.

Safety Climate Assessments follow a specific methodology and are carried out by trained experts. Pilot programs are running in collaboration with different academic researchers. The ultimate objective is to improve the safety climate, which determines our safety performance and can be seen as a leading indicator. Ahead of these assessments, safety leadership training is already being carried out at 134 sites.



Life saving Rules initiative launched in 2015

The Group initiative, launched in 2015 to prevent fatal accidents and accelerate the continuous progress curve, is based on eight rules, one for each of the eight main dangerous activities (working at height, on powered systems, traffic, etc.). The Group requires strict compliance by every individual and full enforcement by management to save lives.

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 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 all traffic rules.

Occupational accidents: Nature of injuries

	2016
Trauma - fracture	31
Wound - cut	16
Burn - heat	9
Torn tendon - sprain	9
Burn - chemical	2
Eye injury	1
Respiratory tract problem	0
Blood intoxication	0
Inflammation	0
Electrocution	0
Total	68

Scope: all sites (including Cytec in 2016) Solvay's operational control for which the Group manages and monitors safety performance. This represents 235 incl. manufacturing, R&I, administrative and closed sites - Solvay employees and contractors working on sites.

Almost half of the injuries that occurred in 2016 involved hands/fingers. In 2017, Prevention of hand injuries will be further addressed by sharing best practices. An awareness training package will highlight the relevance of hand protection, will provide accident statistics and detailed descriptions of accidents

illustrated with pictures, and will emphasize prevention measures. Special attention will be paid to observing Solvay's Life Saving Rules, since 10 out of the 28 Hand/Finger injuries involve deviations from these rules.

Risk awareness: critical task analysis

Preventing accidents starts with identifying and objectively prioritizing the hazards and associated risks at every workplace, in order to reinforce risk prevention measures where necessary. For more objective risk assessments, Solvay developed a new methodology for occupational risk prioritization at the workplace (Critical Risks Analysis) in 2015. It has already been deployed at around 45 sites. The target is to cover all tasks at all sites by 2020.

In 2016 a tool has been devised to help users assess these otherwise very subjective matters, and to ensure consistency over time and across different risks assessment scopes. The tool's unique features include:

- severity calculations based on measurable physical values or equipment types;
- tables of factors:
 - that increase the probability of accident occurrence (e.g. lack of lighting);
 - for protective measures that decrease the severity of consequences;
 - for preventive measures that decrease the probability of accident occurrence.

The “Golden Manneken PIS” challenge

To promote good practices at sites and lend a bit of fun to safety efforts, every other year the Special Chem GBU organizes a safety challenge called the “Golden Manneken PIS. “Personally Involved in Safety” offers opportunities to share, highlight and reward best safety initiatives and practices at the GBU’s sites.

There are five categories: Management Involvement; Best Improvement achieved in 2015; Local Employees HSE Reward; Best Safety Video or Presentation; and Best Safety Day.

Employees at all of the GBU’s sites got into the spirit this year, resulting in more than 60 submissions. The best were rewarded with Golden, Silver and Brass Manneken PIS. The initiative has proven popular at all the sites and leaves a funny, visual reminder throughout the year in the form of the statues handed out as awards.

The initiative challenges sites to improving their performance and earn an award at the next challenge."

Manneken= Man: each of us who is Personally Involved in Safety = PIS.

Industrial hygiene

SOLVAY'S OBJECTIVE:

2020

100%

of risks managed in compliance with the new Solvay standards for industrial hygiene.

Strong Industrial Hygiene program, with a special focus on SVHC

To control potential exposure to chemicals, Solvay's 2020 target is for all risk assessments at the workplace to be completed and managed using the new Solvay standards for industrial hygiene. Focusing particularly on Substances of Very High Concern, the Industrial Hygiene program encompasses:

- comprehensive chemicals inventories at every operational site, with a special focus on the substances of very high concern that have a detrimental impact on health;
- relevant, standardized and effective screening of potential risk of overexposure to chemicals: the CTES (Critical Tasks Exposure Screening tool) is used to quickly spot situations where exposure to chemicals requires special attention and additional control measures;

- detailed risk assessment for identified potentially critical situations and for all potential exposures to Solvay SVHC substances;
- deployment of the new Solvay tool (SOCRATES) giving wide and easy Intranet access to all methods, tools and databases.

The Group is reinforcing ad hoc prevention measures for workers potentially exposed to particular risks: a limited number of well-identified "operations" possibly incurring higher health risks due to SVHC handling conditions are being mapped worldwide.

At end-2016, 126 (77%) manufacturing sites had fully reviewed their SVHC inventory according to the Group's SVHC reference list.

Solvay Occupational Exposure Bands for industrial hygiene

Solvay's Occupational Exposure Band (OEB) system determines the acceptable exposure levels to be observed, when there are no established national Occupational Exposure Limits, or international Threshold Limit Values (TLVs), or in-house Solvay Acceptable Exposure Limits. This system is very relevant, as nearly 90% of our chemicals have no TLV or SAEL (Solvay Acceptable Exposure Limits are internal exposure limits dedicated to our most important products). This OEB system also gives a simple, quick and easy to understand hazard ranking from the least hazardous to the most hazardous.

8,500

chemicals with internal Occupational Exposure Band

1,400

chemicals with Solvay's Occupational Exposure Band

70

chemical with Solvay Acceptable Exposure Limits

Critical Tasks Exposure Screening

3,900

workers covered

Solvay designed the Critical Tasks Exposure Screening (CTES) tool to efficiently pre-screen all critical exposures to chemicals at the workplace. It plans to complete a seven-year project to assess or reassess all workstations with the CTES tool by 2020. At the end of 2016, 3,900 working units had been identified as requiring CTES, and 80 operational sites had been identified as requiring more detailed analysis. A key feature of CTES is empowering shop-floor staff to take part, resulting in better "appropriation" of corrective measures by these employees.

Global tool for industrial hygiene management (SOCRATES)

SOCRATES is Solvay's global IT tool for industrial hygiene management. The Group uses this application to more efficiently identify and assess all industrial hygiene risks, enhance data traceability and empower operating staff. Developed between

2014 and mid-2015, this application was tested at eight pilot sites during summer 2015. In 2016, 18 new sites were trained, and 1,500 workers already have a chemical assessment in the new tool.

Solvay's pledge for access to sanitation at the workplace

Access to good sanitary hygiene conditions is a basic, but key requirement to allowing good individual hygiene and health protection at work: handwashing, safe drinking water, and access to adequate sanitary facilities are all integral elements of occupational hygiene and preventive health. This is why Solvay has adhered to WBCSD's "Pledge for Access to Safe Water, Sanitation and Hygiene in the Workplace" since 2014.

The "pledge for Access to Safe Water, Sanitation and Hygiene at the Workplace" means, in practice:

- Availability of sufficient, safe, acceptable, and physically accessible drinking water for personnel and contractors on-site;

- Accessibility of water for washing and personal hygiene, and for medical first aid;
- Appropriate handwashing behaviors;
- Managing and reporting water-related diseases;
- Privacy for toilets.

A first assessment in 2015 focussed on six main manufacturing sites in China, based the self-assessment grid drawn up by WBCSD. Handwashing practices were identified as the most frequent area for improvement at these sites, and an locally-implemented educational program took place in 2016 regarding hand-washing and sanitation.

Continuing the program at Indian sites

Building on earlier efforts, all manufacturing sites in India have been integrated into the program, and assessed according to WBCSD's selected requirements. The program identified areas

for improvement: safe access to drinking water, and sanitation and hygiene (toilet/urinal provisions, safety, lighting/ventilation, design and maintenance). By the end of 2016, all sites had resolved the identified issues and now ensure water, sanitation and hygiene at the workplace.

Physical conditions at the workplace: temperature, ventilation, humidity

As part of its yearly Solvay Employees Survey, Solvay assesses whether physical working conditions at workplaces are adequate, as a factor of well-being at work. The questionnaire covers temperature, ventilation, and humidity. The percentage of favorable answers in the last three surveys (participation > 80% of overall Solvay population) is on the rise. Corrective measures are decided locally if unsatisfactory situations are discovered.

Solvay employee survey: Ventilation, temperature, space of work

	2016	2015
"Where I work, the physical working conditions are satisfactory e.g. ventilation, temperature, space of work" (% of favourable answers)	71%	67%

Scope: voluntary survey - participation > 80% of overall Solvay population



Assessing the working environment at Solvay headquarters

The Group thoroughly assessed the environmental comfort at our Solvay Campus in Neder-over-Heembeek (Brussels, Belgium) using two different approaches

- First, a self-administrated questionnaire was sent to all employees exploring well-being at work, including 12 physical factors such: temperature, draughts, surface cleanliness, air quality, lighting, space occupation, noise, etc. Results were used to prioritize corrective actions.
- Second, in response to changing seasonal weather conditions, temperature measurements were taken in the workplace to evaluate whether the conditions were satisfactory for employees.

Health management

Over 80 occupational physicians provide advanced, risk-based medical surveillance for workers. This means supplying local medical teams with a rich set of tools, and with dedicated medical protocols. Solvay began rolling out a dedicated application for its hygiene teams worldwide in 2006. Two years later, it was interfaced with a new application intended for all medical teams. This allows combining comprehensive hygiene and medical surveillance data at the site level. Another significant move has been the well-being program with many actions at the site level.



Boosting Medical Coordination in the North America and Asia Pacific zones

Solvay has had efficient medical networks for years in Europe and South America. As a consequence of its ambition to strengthen its activities in North America and Asia, Solvay has created new organizations to help fulfil that ambition. We have appointed a medical coordinator for the North America zone in charge of ensuring the implementation of Solvay health practices. In addition, in Asia, we used a new mapping of the occupational health services of the various Solvay sites to identify inconsistencies and areas where we need to adapt or make new contracts. To make its medical services more consistent and effective, Solvay has recently appointed national Medical "Officers" for the main Asian countries: China, India and Thailand. The robust new regional organization, developed in 2016 for China, will ensure that high-level Solvay practices are consistently deployed, in close connection with Chinese requirements. Similar approaches are currently being developed in India and Thailand.

Occupational disease monitoring

For decades, Solvay has put in place worldwide occupational disease monitoring standards and a strong industrial hygiene program focused on a comprehensive assessment of compliance with occupational hygiene standards. The self-imposed goal is for medical surveillance, most often ensured by external medical services, to meet Solvay's evolving standards. In particular, Solvay's advanced policy requires that the periodic medical surveillance of every employee is increasingly adapted to individual health risk profiles, with a particular attention to SVHC, noise and safety sensitive jobs.

In 2016, responsibility for the program was assigned to the Head of Group Industrial Relations and Social Innovation. Subsequently, a corporate committee for well-being at work was created in October 2016. The committee brings together Human Resources, Health Safety and Environment, Sustainable development, occupational physicians and psychologists.

While the concept of well-being at work is much broader, the first step focused on reassessing current practices on stress prevention and management within the Group, by means of a survey conducted by questionnaire in late 2016. 135 sites took part, representing a headcount of more than 27,000 employees.

Well-being at work: a fresh start in 2016

Solvay has had dedicated Group guidelines on stress prevention and management since 2014, and has embedded well-being into the requirements of the Solvay Care Management System (SCMS).

Good practices at Solvay sites for stress prevention and management

Four key practices are in place at more than 50% of our sites, namely:

- individual local medical care: access to a physician or nurse;
- visible commitment of top management (according to the survey);
- employee access to a psychiatric expert (internal or external);
- employee access to an individual emergency response by phone (e.g. Employee Assistance Program).

Other good practices are applied on more of a case-by-case basis, representing between 20% and 50% of sites, and present opportunities for further deployment:

- dedicated multidisciplinary committees involving worker representatives;
- awareness campaigns for employees and training sessions for managers;
- assessments of the level and sources of stress;
- implementation of corresponding practical actions;
- monitoring with indicators.

Advanced risk-based medical surveillance for workers

Solvay's advanced policy requires the increasing adaptation of every employee's periodic medical surveillance to individual health risk profiles, with a particular attention paid to SVHC, noise and safety sensitive jobs.

Solvay has recently devised practical rules to make it easier for occupational physicians to use its industrial hygiene data. They allow the Group to screen and prioritize which exposure data to transmit to the medical team for surveillance that is tailored to individual risk profiles according to Solvay recommendations. These practical rules combine the hazardous agent properties and exposure data, such as exposure intensity and frequency.

130 Solvay Medical protocols

Dedicated in-house "medical protocols" specific to Solvay allow ad hoc medical examinations of workers potentially exposed to chemicals and other hazards that are specific to Solvay activities. Non-chemical risks covered by such medical protocols include: noise, ergonomics, Legionella, video display units, vibrations, forklift driving, etc. Solvay protocols are based on the latest scientific information, expert recommendations, regulatory requirements and best practice. The Group makes them available via information systems to facilitate their use by health teams. For selected substances, when appropriate, bio-monitoring is applied.



Supporting return to work

Health teams aim to promote and accompany the reintegration of employees after leave due to sickness or injury. Medical teams and site managers are encouraged to create a site-level process that allows these employees to adapt to working conditions, taking into account health teams' advice. This process includes an interdisciplinary (manager, HR, occupational health) dialogue to determine the work accommodations that may be necessary.

Medical surveillance of workers: completion on target

At the Group level, 80% of sites have completed medical surveillance for $\geq 90\%$ of their workers, and 90% of sites have completed the effort for $> 70\%$ of their workers.

While this level of participation is satisfying overall, the sites (employees, managers, medical teams) will be encouraged to improve it, mainly in Europe, Middle East and Asia.

These medical visits include "Advanced Health Monitoring", consisting in risk-related medical surveillance adapted to Solvay's new standardized industrial hygiene assessments. This ongoing effort has covered 23% of sites so far.

Occupational diseases

The health status of employees and the incidence of Occupational Diseases (ODs) both reflect past and present working environments and industrial hygiene conditions. Recognized Occupational Diseases are classified in two categories: long-latency and short/mid-latency. The downward trend over the last four years will have to be confirmed in the coming years. The variability due to the small number of ODs.

	2016	2015
Occupational illness frequency rate (short/mid-latency)	0.08	0.17

Legend: The Occupational Illness Frequency Rate (OIFR) is the number of recognized short/mid-latency Occupational diseases cases per one million hours worked.

Scope: Solvay financial perimeter and all sites under Solvay's operational control for which the Group manages and monitors safety performance, excluding ex-Cytec sites – Solvay employees working on site. The figures were consolidated on Dec. 31, 2016; some of them may have changed compared to data displayed in previous reports because any new information received from our sites is taken into account systematically for the sake of transparency, even if they are related to events that had arisen in the previous years.

Long and short/mid-latency recognized occupational diseases

	2016	2015
Long-latency occupational diseases (Asbestos benign dis., Asbestos cancers, Other cancers)		
<i>In Europe</i>	19	21
<i>In the rest of the world</i>	0	0
Total Long-latency occupational diseases	19	21
Short/mid-latency occupational diseases (Hearing disorders, Musculoskeletal diseases, Other non-carcinogenic dis)		
<i>In Europe</i>	2	7
<i>In the rest of the world</i>	2	2
Total Short/mid-latency occupational diseases	4	9
Total occupational diseases	23	30

Legend: Long-latency Occupational diseases are work-related cancers or other diseases that can arise several decades after exposure. They are usually linked to exposures in the remote past that are no longer prevailing today. Short/mid-latency Occupational diseases are non-carcinogenic diseases which appear a few months or years after the occupational exposure to a causal agent (e.g. noise, ergonomic stressors, chemicals, etc.).

Scope: Solvay financial perimeter and all sites under Solvay's operational control for which the Group manages and monitors safety performance, excluding ex-Cytec sites – Solvay employees working on site. The figures were consolidated on Dec. 31, 2016; some of them may have changed compared to data displayed in previous reports because any new information received from our sites is taken into account systematically for the sake of transparency, even if they are related to events that had arisen in the previous years.

Fostering occupational disease detection

Local health teams are encouraged to give attention to any event concerning Occupational Disease cases, beyond those recognized by authorities, and to report them. This includes the early observation of health impairments possibly linked to working conditions, as well as the tracking of reported cases (ongoing procedures for recognition) or cases which might have been recognized without Solvay being informed.

Health promotion and awareness

Sites implement evidence-based actions for health promotion that are not specifically to with potential risks at work. These actions are adapted to local contexts and issues. Evidence-based practices are those that can be scientifically explained and have been proven to work.

The main health awareness programs focus on addiction prevention in general, anti-smoking programs, nutrition campaigns, prevention of cardiovascular diseases, maternity care programs, and seasonal flu vaccination.

Globally, seasonal flu vaccination is very widely deployed, and the rest of the health promotion programs cited above are implemented in 30-40% of the sites.

Beyond occupational risks: Sites with general health awareness and prevention programs

Number of sites with	2016
Addiction programs	40
Anti-smoking program	48
Nutrition camp.	47
Cardiovasc. d. camp.	50
Maternity care prog.	34
Seas. flu vaccin.	93
Other prev. camp.	55



International Travellers' health best practices

Solvay's preventive approach regarding travel health risks is visibly communicated to all employees via Solvay's Travel Policy. Indeed, travelling can negatively impact health, or at least require preventive measures. Solvay seeks to ensure medical surveillance for travelers, consistent with local regulations, Group standards, best practices and the latest scientific knowledge:

- Periodic medical visits are recommended for all frequent travelers to evaluate health status and give recommendations.
- Pre-travel medical visits are recommended for destinations known to have the risk of infectious disease, for travel with a duration > 4 hours, and for the crossing of several time zones. Medical recommendations are made to alleviate jet lag and/or other possible sleeping problems. In Lyon and Brussels, where there are large percentages of travelers, the practice is well established. Vaccines and advice are provided before departure. The service is similar to that of an on-site "travel clinic".

In addition, Solvay has contracted an Assistance Service that provides all business travelers with 24/7 access to world-class medical and security services via a single provider. One call puts them in touch with doctors, nurses, logistics co-ordinators and security teams.

Emergency preparedness and response

All Solvay sites must define and implement an Emergency Preparedness and Response plan in line with the Group standard, including periodical simulations and emergency response training sessions.

In 2016, Solvay appointed a new dedicated Group Security Director, as recent events have stressed the need to focus on security. Crisis events are sudden or unusual events, that have the likely or perceived to potential affect Solvay's employees, its customers or shareholders, the general public, the environment or any other stakeholder, and that requiring specific and timely action from Solvay.

51

Events reported as potential crisis

Emergency preparedness at the site level

66

sites with major risk

The Solvay Care Management system requires:

- assessments of the most likely emergency situations;
- emergency response plans which must be communicated;
- informing external emergency response teams;
- organization of the rescue/response teams including first aid;
- internal procedures and medical first aid protocols for each site's specific hazards (e.g. acute chemical intoxications);
- testing of the Group Crisis Alert procedure at least yearly.

Crisis alert and response at the Group and Business level

The Group has a dedicated policy for crisis management that details the rules and principles to follow to ensure an efficient and effective crisis management process throughout the global organization, from preparation to resolution. It covers five activities; crisis preparedness, crisis alert, crisis operational management, crisis communication and crisis debriefing.

A network of Crisis Preparedness Coordinators (CPCs) is in place. Appointed at the business level, each CPC is in charge of several missions, ranging from ensuring media preparedness for potential spokespersons to organizing simulations, including testing the official corporate alert procedure.

The policy is supported by procedures, standards and guidelines for implementation. Crisis Alert has its own procedure, the key aspects of which are to:

- rapidly and roughly characterize the nature of a crisis and its main potential or real consequences for the Group, regardless of whether it originated inside or outside the premises of the Group;
- disseminate the information to the Executive Committee and relevant Functions in a reliable and timely manner, suited to the nature and potential severity of the crisis;
- ensure, in the early moments as a crisis is developing, that the entities being affected (sites, GBUs, Functions or Zones) take the appropriate actions (e.g. according to their emergency plans, the setup of a crisis cell) to control and resolve the crisis.

Transport safety management

In 2016, the Group continued to pursue the program to reinforce preventive actions it initiated in the last two years. These actions, combined with corrective actions after accidents and an efficient emergency response, have helped Solvay manage the risk of having a catastrophic accident during transport.

Preventive Actions

The global selection process for the transport of dangerous goods is a part of the Solvay's "Red Line" for the Supply Chain: "Only Solvay's approved logistics service providers, those listed in the purchasing supplier list, may be used." The selection process for dangerous goods mainly addresses road transport, which is the predominant transport mode, and bulk sea transport.

- **Road transport:** Health, Safety and Environment qualification procedures have been adopted in each zone, relying on existing schemes, such as the Safety Quality Assessment System in Europe or the Road Safety Quality Assessment System in Asia Pacific/China.
- **Bulk sea transport of dangerous products:** Solvay has developed its own system for rating bulk sea transporters based on Chemical Distribution Institute reports. 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.
- **Barge transport:** In the Europe, Middle East and Asia zone, Solvay also relies on the European Barge Inspection Scheme for inspecting chemical barges operating on inland waterways in Europe.

Assessing transporters of Dangerous Goods for Safety

99%

of transported volumes assessed

Solvay assesses the safety management of its transporters, and includes safety requirements in contracts with logistics providers. This complements the selection process and makes it possible to cross-check the efficiency of the selection process described above. The Group plans to reach 100% coverage for both aspects at the end of 2017.

Dangerous Goods Safety Advisers Network

Transport safety is supported by a global network of Dangerous Goods Safety Advisers (DGSA) in all geographical areas. Solvay has set up an internal certification process for DGSAs based on nine macro-tasks related to transport safety. For each macro-task, an e-learning course is now available online on the Solvay intranet. To be recognized as a DGSA, a candidate must take all of the e-learning courses and pass the tests at the end of each course.

Corrective actions

All Transport Safety Incidents with severity Catastrophic or High according to the Solvay reporting scale must be described and explained in a Transport Safety bulletin. Transport Safety experts select additional topics for these bulletins with the aim of covering issues that are applicable to the majority of our industrial sites. These Transport Safety bulletins are distributed throughout the Group, in 15 languages, and the accidents must be analyzed by the organizations at the sites and in the Supply Chains.

Accidents during transport and distribution according to severity

	2016	2015
Low	81	84
Medium	27	33
High	1	0
Catastrophic	0	0
Total	109	117

Reported transport accidents encompass accidents occurring all along the logistics chain from the shipping site to the customer's site, or to the disposal site in the case of waste. The reported

events are the incidents that occurred on Solvay premises or those that have been reported by transporters and third parties to Solvay.

Worldwide emergency assistance

Mitigating the consequences of transport incidents is equally important. For worldwide emergency assistance, Solvay continues to rely on the worldwide services of Carechem24 (and Chemtrec in the US). 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 on Safety Data Sheets, transport documents and labeling.

Within their areas, Solvay sites offer assistance via national chemical emergency plans, where such plans exist. Such involvement currently covers the following 12 countries: Austria, Belgium, Finland, France, Germany, Italy, the Netherlands, Spain, Sweden, Thailand, the United Kingdom and the USA.

Product stewardship

The Group is in the midst of adapting to emerging new product regulations in many countries, in particular to cope with emerging (REACH-like) regulations in non-EU countries. During 2016, Solvay implemented important changes to its Safety Data sheets to reflect important regulatory changes in Canada, Turkey, Mexico, Japan, China, and Europe (adoption of Seveso III), and of course the 6th revision of the Global Harmonized System. All products comply with the new Global Harmonized System. Solvay continues to deploy its global voluntary approach for the 300 Substances of Very High Concern (SVHC), defined in 2014.



Regulatory compliance is central

Solvay dedicates considerable expertise to strict regulatory compliance regarding product risk assessment, classification and labelling. From a regulatory standpoint, Solvay follows and deploys the new requirements of the Global Harmonized System (GHS), and implements the GHS by each country. Regulatory compliance is a fundamental element of product safety for customers and - more broadly - value chains and the public.

All products comply with the Global Harmonized System

In 2015, the sixth revised edition of the Global Harmonized System was published. Continuous follow-up and implementation work is underway to implement these revisions, as the Global Harmonized System classification criteria and labelling rules are periodically reviewed at the UN level.

The Globally Harmonized System of Classification and Labeling of Chemicals (GHS) is a major initiative of the United Nations which started in 2003, to be implemented worldwide, country by country. For example, in the European Union, the GHS system is applied via the "Classification, Labelling, and Packaging of substances and mixtures", or CLP regulation.

In May 2016, the EU 8th Adaptation to Technical Progress of the CLP Regulation implemented the fifth revised edition of GHS. CLP applies to all Solvay substances and mixtures sold in Europe and to substances and mixtures handled by its personnel.

Compliance with Europe's REACH regulation

In Europe, Solvay fully complies with the REACH agenda for product registrations. REACH is an advanced framework regulation that requires companies to have a good knowledge of substances through the collection and organization of reliable and systematic safety information, including uses and risks incurred along the value chains.

Solvay's success in complying with REACH reflects its generally good level of product knowledge and efficient product data management.

Since the framework's inception in 2010, Solvay has submitted 606 dossiers for registration, with a 100% success rate. Solvay is lead registrant for 264 substances. Based on the knowledge assembled in the context of REACH, Solvay has updated the GHS classification of its products.

The 3rd REACH registration phase is now ongoing, with 46% of dossiers accepted so far, and material progress on 65%, out of the 338 dossiers planned for 2018. The focus is on substances produced or imported in lower quantities (between one and 100 tons per year). In addition, the Group submitted updated registration dossiers in 2016 as new information became available, or at the request of ECHA.

Solvay continues to pursue ongoing adaptation to emerging new product regulations in many other countries, in particular the adaptation necessary to cope with emerging (REACH-like) regulations in non-EU countries.

Managing product safety information

The Solvay Product Safety Database is constantly maintained and updated with the aim of ensuring compliance with specificities in multiple countries and respecting local requirements.

Solvay's Product Safety Policy requires:

- maintaining a comprehensive understanding the hazards, risks and impacts of every product, at each step in its life cycle, and for every intended application;
- managing product knowledge so as to comply with local requirements on product information while ensuring worldwide consistency;
- keeping all necessary and required information on product safety in order to ensure availability throughout the full life cycle, beyond the commercialization period.

Safety data sheets

Safety Data Sheets (SDS) are sent to customers with the first delivery and whenever an SDS has been significantly modified, as required by applicable local regulations. If no specific regulation exists in a country, Solvay commits to providing at least an SDS compliant with the latest revision of the GHS UN regulation, in

English, Spanish or French, depending on the region. SDS are consistently maintained and distributed worldwide for all products to all customers in the appropriate languages. Global Business Units (GBU) ensure that SDS are revised at least every three years, for all products they put on the market.

During 2016, the Group made important changes to the format of Safety Data Sheets for several countries as a consequence of important regulatory changes, in particular:

- implementation of GHS by Canada,
- end of the transition period for Turkey,
- change to the 5th version of Global Harmonized System by Mexico,
- reform of ISHL in Japan, official classifications by China,
- adoption of Seveso III in Europe, and
- an update for the 6th revision of GHS.

Animal testing

Solvay has advanced management of animal testing, with central monitoring of every trial. The Group added a unique feature in 2016, reactivating the Solvay Animal Care and Use Committee, which involves external experts and supervises all animal testing activities commissioned by Solvay. This dedicated corporate committee is in charge of monitoring studies' compliance with Solvay's standards, including ethical compliance. All studies carried out in 2016 were subject to an ethical assessment.

Solvay provides innovative products for a wide variety of uses and a large number of users. A proper understanding of products is indispensable to legitimize the Group's activities and to protect

users, 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, by authorities and the public, and hence for testing, with and without using animals.

Tests on vertebrates

To comply with existing and future chemical regulations, Solvay continued to commission animal tests in 2016. When tests are needed, Solvay commits to the greatest care, professionalism, animal welfare and humaneness.

In 2016, 81% of tests carried out on behalf of Solvay (representing 98% of vertebrate animal testing) addressed specific requests from authorities, especially European authorities, while the remaining 2% of vertebrate animal testing was used to address questions related to the hazard profile of a specific commercial product or grade.

2016 Animal testing

	Number of studies	Number of vertebrates
Registration obligations (EU, China)	56	11,002
Tests to verify toxicity, and to define classification and usage recommendations	13	240
Total	69	11,242

In total, 11,242 vertebrate animals (80% rats, 4% mice, 1% guinea pigs, 9% rabbits and 6% fish) were used in 2016. Solvay has not commissioned studies on dogs, cats, pigs or non-human primates in the last five years. Relative to 2015, the total number of vertebrate animals used increased significantly, by 3,808 animals. The proportion of studies requiring rats and mice increased, whereas there was a decrease (relative and absolute) in the use of guinea pigs, rabbits and fish. The increased use of vertebrate animals is completely attributable to studies addressing specific requests from authorities, especially reprotoxicity studies. The number of vertebrates used for studies clarifying the safety profile of a product, but not specifically demanded by authorities, was at its lowest level since 2013.



No tests for cosmetic uses

Tests for Solvay are never carried specifically for cosmetic uses. Some of the tested substances in Solvay's portfolio are used for the manufacturing of cosmetics ingredients, but never exclusively. No specific testing for cosmetic uses is carried out. Solvay's policy is to apply the "3R principles" to every case (Replacement, Reduction, and Refinement) and to comply with all applicable regulations.

Substance-based testing for multiple applications

Typically, tests are carried out once, on individual substances. Those substances are then mixed, used and/or sold by Solvay for the manufacture of a wide variety of final products and applications.

Limiting the number of studies required in the framework of EU regulation

Solvay adheres to the objective outlined in Europe's REACH regulation, i.e. promoting non-animal testing and the replacement, reduction and refinement of animal testing.

In 2016, 90% of vertebrate animals tested were used in the framework of the REACH Regulation. 33% of studies were carried out via consortia, i.e. sharing results between several companies and thereby proportionally limiting the number of necessary studies and animals.

Ethical Compliance

All studies reported by Solvay were subject to an ethical assessment. Solvay centrally monitors all of its trials. All studies were performed by laboratories accredited by AAALAC. This worldwide quality standard for laboratories ensures responsible and humane treatment of laboratory animals. Solvay has long had a detailed and dedicated policy on animal use based on the 3Rs. All studies comply with international standards (e.g. OECD guidelines), and care is taken to avoid duplication by simultaneously addressing the requirements of several countries or regulations at once.

LIMITED ASSURANCE REPORT OF THE STATUTORY AUDITOR ON A SELECTION OF SOCIAL, ENVIRONMENTAL AND OTHER SUSTAINABLE DEVELOPMENT INFORMATION FOR THE YEAR ENDED 31 DECEMBER 2016 – DISCLOSED ON THE SOLVAY GROUP WEBSITE

Pursuant to your request and in our capacity of Statutory Auditor of Solvay SA / NV, we hereby present you our assurance report on a selection of social, environmental and other sustainable development information disclosed in the GRI Content Index section of the Solvay Group website for the year ended 31 December 2016 (the “2016 Annual Integrated Report website”) and listed in the Appendix. The selected information can be accessed from the following link: <http://annualreports.solvay.com/2016/en/extra-financial-statements/gri-content-index.html>.

Responsibility of the Company

This selection of information (the “Information”) published on the 2016 Annual Integrated Report website 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 on the 2016 Annual Integrated Report website.

Responsibility of the Statutory Auditor

It is our responsibility, based on the procedures performed by us, to express a “Limited assurance” for the Information listed in the Appendix.

We conducted our procedures in accordance with the international standard as defined in ISAE (International Standard on Assurance Engagements) 3000 (Revised)⁽¹⁾. 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 Accountants (“IFAC”).

It is not our responsibility to update the present report should Solvay update the selected Information listed in the Appendix of our report, nor to implement any follow-up of the potential modifications of the said Information that Solvay could decide to undertake on the 2016 Annual Integrated Report website.

Nature and scope of procedures

We have carried out 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.
- For the entity in charge of their consolidation, as well as for the controlled entities, we have designed analytical procedures and verified, using sampling techniques, the calculations as well as the consolidation of this information.
- At the sites that we have selected⁽²⁾ 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.

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.

(1) ISAE 3000 (Revised) – Assurance engagements other than audits or reviews of historical information

(2) Map Ta Phut (VNT), Dombasle, Bad Wimpfen, Chalampé Rhodia, Spinetta-Marengo, Marietta – Ohio, Santo-Andre – Rhodia, Greenriver, Panoli (Solvay), Torrelavega.

Qualifications

The indicator “Average of hours of training per employee” comprise a significant risk of error due to the lack of maturity of the reporting process and the incompleteness of the reported data.

The indicator “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.

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 selected by Solvay, in Appendix of this document is not prepared, in all material respects, in accordance with the Reporting Framework.

Zaventem, 30 March 2017

The statutory auditor

DELOITTE Bedrijfsrevisoren / Reviseurs d'Entreprises

BV o.v.v.e. CVBA / SC s.f.d. SCRL

Represented by Michel Denayer



Deloitte Bedrijfsrevisoren / Reviseurs d'Entreprises

Burgerlijke vennootschap onder de vorm van een coöperatieve vennootschap met beperkte aansprakelijkheid /

Société civile sous forme d'une société coopérative à responsabilité limitée

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Appendix : The information

This selection of information (the "Information") extracted from the "2016 Annual Integrated Report website" <http://annualreports.solvay.com/2016/en/extra-financial-statements/gri-content-index.html> on 30 March 2017 has been prepared under the responsibility of Solvay Group management:

	Units	2016
Our workforce		
Total Headcount	Headcount	27,030
Percentage of women	%	23
Senior management	Headcount	428
Middle management	Headcount	3,026
Junior management	Headcount	5,348
Non manager	Headcount	18,228
Total hirings	Headcount	1,450
Total leaves	Headcount	2,688
Total voluntary leaves	Headcount	948
Training and education		
Average of hours of training per employee	Hours per employee	33.7
Occupational safety		
Total occupational diseases	Number	23
Solvay Way Group profile		
Customers	Index (0 to 4)	2.16
Employees	Index (0 to 4)	2.45
Planet	Index (0 to 4)	2.37
Investors	Index (0 to 4)	2.40
Suppliers	Index (0 to 4)	2.77
Communities	Index (0 to 4)	2.40