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## Sustainability Performance Indicators

The following pages provide an overview of our corporate activities from 2014 to 2017 on the basis of various Group performance indicators, which are grouped into the areas environment, economy, transport, safety, and human resources. The environmental and economic performance indicators and transport figures apply to the period from October 1, 2016, to September 30, 2017. All other indicators refer to the corresponding calendar year.

Companies that belonged to ALTANA for the entire period in which the performance indicators were recorded are included in the performance indicators.

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## Environmental Performance Indicators

We represent the environmental performance indicators both as absolute values and in relation to gross value added (GVA; EBITDA adjusted for personnel cost). The relation to gross value added is used to compensate for growth. Where targets are specified, data related to gross value added are used.

### Emissions

#### CO<sub>2</sub>

	absolute in t	related to GVA	in kg/€
<b>Total (Scope 1 + Scope 2)</b>			
2014 <sup>1,4</sup>	156,158		0.23
2014 <sup>2,4</sup>	219,165		0.30
2015 <sup>1,4</sup>	151,062		0.21
2015 <sup>2,4</sup>	210,858		0.27
2016 <sup>1,4</sup>	146,793		0.18
2016 <sup>2,4</sup>	202,234		0.24
<b>2017<sup>1,3</sup></b>	<b>186,304</b>		<b>0.21</b>
<b>2017<sup>2,3</sup></b>	<b>187,548</b>		<b>0.21</b>
<b>Scope 1</b>			
2014 <sup>2</sup>	91,487		0.12
2015 <sup>2</sup>	93,006		0.12
2016 <sup>2</sup>	83,685		0.10
<b>2017<sup>2</sup></b>	<b>92,207</b>		<b>0.10</b>
<b>Scope 2</b>			
2014 <sup>2,4</sup>	127,679		0.17
2015 <sup>2,4</sup>	117,852		0.15
2016 <sup>2,4</sup>	118,550		0.14
<b>2017<sup>2,3</sup></b>	<b>95,341</b>		<b>0.10</b>
<b>2017<sup>2,4</sup></b>	<b>111,976</b>		<b>0.12</b>

<sup>1</sup> Data excluding the companies acquired in the last 3 years

<sup>2</sup> Data including the companies acquired in the last 3 years

<sup>3</sup> Market based

<sup>4</sup> Location based

Related to the basis year 2007, the specific CO<sub>2</sub> emissions decreased overall by 30 % (for Scope 1 and Scope 2); 0 % (for Scope 1); and by -52 % (for Scope 2). The ALTANA Group's indirect emissions, in other words emissions which arise due to energy requirements related to product transport, business trips, and the purchase of raw materials, will be determined by ALTANA in the coming years (Scope 3).

Scope 1: Emissions from ALTANA's own energy generation (e.g. for heat)

Scope 2: Emissions from third parties due to purchased energy (e.g. electricity)

Scope 3: Emissions from services provided by third parties and purchased service input (e.g. transport)

Market based: Disclosure of Scope 2 based on supplier-specific emission factors

Location based: Disclosure of Scope 2 emissions based on country- and region-specific emission factors (electricity mix)

## Energy Consumption

### Sources of energy

	absolute in MWh	related to GVA	in kWh/€
<b>Oil</b>			
2014	17,731		0.02
2015	10,741		0.01
2016	12,375		0.02
<b>2017</b>	<b>17,576</b>		<b>0.02</b>
<b>Natural gas</b>			
2014	404,130		0.55
2015	418,464		0.53
2016	373,033		0.45
<b>2017</b>	<b>403,142</b>		<b>0.44</b>
<b>Electricity</b>			
2014	258,144		0.35
2015	251,360		0.32
2016	252,805		0.30
<b>2017</b>	<b>253,027</b>		<b>0.28</b>
<b>Steam (not generated internally)</b>			
<b>2017<sup>1</sup></b>	<b>19,923</b>		<b>0.02</b>
<b>District heating (not generated internally)</b>			
<b>2017<sup>1</sup></b>	<b>1,314</b>		<b>&lt;0.01</b>
<b>Compressed air (not generated internally)<sup>2</sup></b>			
<b>2017<sup>1</sup></b>	<b>569</b>		<b>&lt;0.01</b>
<b>Propane gas</b>			
<b>2017<sup>1</sup></b>	<b>532</b>		<b>&lt;0.01</b>
<b>Solar energy (generated and used internally)</b>			
<b>2017<sup>1</sup></b>	<b>958</b>		<b>&lt;0.01</b>
<b>Hydropower (generated internally)</b>			
<b>2017<sup>1</sup></b>	<b>215</b>		<b>&lt;0.01</b>

<sup>1</sup> In accordance with GRI Standards reported for the first time in 2017

<sup>2</sup> Converted into electricity

For 54,090 MWh we have certificates for electricity from renewable sources (Spain and Germany). ALTANA does not use any external cooling. All cooling processes are carried out using water and air.

## Waste

### Hazardous waste

	absolute in t	related to GVA	in g/€
<b>Hazardous waste</b>			
2014 <sup>1</sup>	18,572		27.69
2014 <sup>2</sup>	18,712		25.32
2015 <sup>1</sup>	18,426		25.54
2015 <sup>2</sup>	18,571		23.57
2016 <sup>1</sup>	19,328		23.18
2016 <sup>2</sup>	19,453		23.33
<b>2017<sup>1</sup></b>	<b>19,376</b>		<b>21.40</b>
<b>2017<sup>2</sup></b>	<b>19,390</b>		<b>21.24</b>
<b>For recycling</b>			
2014 <sup>1</sup>	3,449		5.14
2014 <sup>2</sup>	3,597		4.87
2015 <sup>1</sup>	3,290		4.56
2015 <sup>2</sup>	3,418		4.34
2016 <sup>1</sup>	3,974		4.77
2016 <sup>2</sup>	4,091		4.91
<b>2017<sup>1</sup></b>	<b>4,662</b>		<b>5.15</b>
<b>2017<sup>2</sup></b>	<b>4,662</b>		<b>5.11</b>
<b>For thermal use</b>			
2014 <sup>1</sup>	10,714		15.98
2014 <sup>2</sup>	10,718		14.50
2015 <sup>1</sup>	9,690		13.43
2015 <sup>2</sup>	9,700		12.31
2016 <sup>1</sup>	9,488		11.38
2016 <sup>2</sup>	9,494		11.39
<b>2017<sup>1</sup></b>	<b>10,892</b>		<b>12.03</b>
<b>2017<sup>2</sup></b>	<b>10,896</b>		<b>11.94</b>
<b>For disposal</b>			
2014 <sup>1</sup>	4,394		6.55
2014 <sup>2</sup>	4,397		5.95
2015 <sup>1</sup>	5,447		7.55
2015 <sup>2</sup>	5,453		6.92
2016 <sup>1</sup>	5,867		7.04
2016 <sup>2</sup>	5,869		7.04
<b>2017<sup>1</sup></b>	<b>3,822</b>		<b>4.22</b>
<b>2017<sup>2</sup></b>	<b>3,832</b>		<b>4.20</b>

<sup>1</sup> Data excluding the companies acquired in the last 3 years

<sup>2</sup> Data including the companies acquired in the last 3 years

## Non-hazardous waste

	absolute in t	related to GVA	in g/€
<b>Non-hazardous waste</b>			
2014 <sup>1</sup>	5,326		7.94
2014 <sup>2</sup>	9,303		12.59
2015 <sup>1</sup>	6,579		9.12
2015 <sup>2</sup>	10,418		13.22
2016 <sup>1</sup>	5,583		6.70
2016 <sup>2</sup>	8,751		10.49
<b>2017<sup>1</sup></b>	<b>11,665</b>		<b>12.88</b>
<b>2017<sup>2</sup></b>	<b>11,768</b>		<b>12.89</b>
<b>For recycling</b>			
2014 <sup>1</sup>	3,235		4.82
2014 <sup>2</sup>	3,929		5.32
2015 <sup>1</sup>	3,245		4.50
2015 <sup>2</sup>	4,324		5.49
2016 <sup>1</sup>	3,177		3.81
2016 <sup>2</sup>	3,807		4.57
<b>2017<sup>1</sup></b>	<b>5,622</b>		<b>6.21</b>
<b>2017<sup>2</sup></b>	<b>5,622</b>		<b>6.16</b>
<b>For thermal use</b>			
2014 <sup>1</sup>	845		1.26
2014 <sup>2</sup>	848		1.15
2015 <sup>1</sup>	1,077		1.49
2015 <sup>2</sup>	1,080		1.37
2016 <sup>1</sup>	635		0.76
2016 <sup>2</sup>	639		0.77
<b>2017<sup>1</sup></b>	<b>967</b>		<b>1.07</b>
<b>2017<sup>2</sup></b>	<b>1,012</b>		<b>1.11</b>
<b>For disposal</b>			
2014 <sup>1</sup>	2,108		3.14
2014 <sup>2</sup>	4,525		6.12
2015 <sup>1</sup>	2,258		3.13
2015 <sup>2</sup>	5,014		6.36
2016 <sup>1</sup>	1,771		2.12
2016 <sup>2</sup>	4,305		5.16
<b>2017<sup>1</sup></b>	<b>5,076</b>		<b>5.61</b>
<b>2017<sup>2</sup></b>	<b>5,134</b>		<b>5.62</b>

<sup>1</sup> Data excluding the companies acquired in the last 3 years

<sup>2</sup> Data including the companies acquired in the last 3 years

## Water

### Water consumption

	absolute in m <sup>3</sup>	related to GVA	in l/€
Drinking water (excluding water as raw material)			
2014 <sup>1</sup>	524,373		0.78
2014 <sup>2</sup>	1,368,130		1.85
2015 <sup>1</sup>	511,201		0.71
2015 <sup>2</sup>	1,472,924		1.87
2016 <sup>1</sup>	517,401		0.62
2016 <sup>2</sup>	1,274,327		1.52
<b>2017<sup>1</sup></b>	<b>1,233,377</b>		<b>1.36</b>
<b>2017<sup>2</sup></b>	<b>1,239,617</b>		<b>1.36</b>
Surface water			
2014 <sup>2</sup>	200,932		0.22
2015 <sup>2</sup>	172,397		0.19
2016 <sup>2</sup>	160,460		0.18
<b>2017<sup>2</sup></b>	<b>141,143</b>		<b>0.15</b>
Groundwater			
2014 <sup>2</sup>	981,020		1.07
2015 <sup>2</sup>	841,701		0.92
2016 <sup>2</sup>	783,424		0.86
<b>2017<sup>2</sup></b>	<b>700,536</b>		<b>0.77</b>

<sup>1</sup> Data excluding the companies acquired in the last 3 years

<sup>2</sup> Data including the companies acquired in the last 3 years

Wastewater indirect discharge: 16 tons COD

Wastewater direct discharge: 6 tons COD

(COD = chemical oxygen demand)



## Additional Environmental Performance Indicators

### Inert waste

	in t
2014	7,728
2015	6,559
2016	6,064
<b>2017</b>	<b>6,361</b>

### Waste from demolition projects





	in t
2014	8,059
2015	13,466
2016	3,930
<b>2017</b>	<b>2,320</b>

### Further emissions

	2014	2015	2016	2017
in t				
SO <sub>2</sub>	5.73	4.08	3.85	5.26
NO <sub>x</sub>	61.76	61.71	55.01	60.26
N <sub>2</sub> O <sup>1</sup>	0.19	0.18	0.16	0.18

<sup>1</sup> N<sub>2</sub>O is considered a greenhouse gas. A GWP (Global Warming Potential) conversion factor of 265 (Source: GHG protocol) results in 47.2 tons of CO<sub>2</sub> equivalent for the 2017 reporting period.

### Energy demand

	Related to finished goods	in kWh/t
2014		1,554
2015		1,340
2016		1,238
<b>2017</b>		<b>1,304</b>

All energy sources (within the organization) are considered in this table.

## Economic Performance Indicators

The gross value added used in the table below considers only production sites and is used as a reference figure for the environmental performance indicators. This calculation compensates for the increase and consumption due to growth. Further economic performance indicators are listed, in particular, in the Group Management Report of the Corporate Report.

### Gross value added

in € thousand	
2014	739,083
2015	787,816
2016	833,896
<b>2017</b>	<b>912,790</b>

### Finished goods

in t	
2014	504,927
2015	511,632
2016	516,107
<b>2017</b>	<b>534,815</b>

Raw materials used: 601,859 tons (fossil, renewable, mineral, and metallic raw materials)

## Transport

The figures in the following table show the percentage distribution of finished goods transport routes.

### Transport routes for finished goods

in %	Water	Road	Air	Rail
2014	25.82	73.01	0.74	0.43
2015	26.51	72.55	0.79	0.15
2016	25.69	72.86	0.57	0.88
<b>2017</b>	<b>24.75</b>	<b>73.58</b>	<b>0.81</b>	<b>0.86</b>

## Human Resources Performance Indicators

The percentages in the tables below refer to the number of employees as of December 31, 2017.

### Share of part-time employees

in %		
2014		6.4
2015		7.2
2016		7.3
<b>2017</b>		<b>7.5</b>

### Share of women in management positions (in Germany)

in %		
2014		21.3
2015		21.1
2016		21.5
<b>2017</b>		<b>22.8</b>

### Share of employees with access to company retirement plans or company-funded pension plans

in %		
2014		79.2
2015		78.4
2016		79.9
<b>2017</b>		<b>78.7</b>

### Share of women (in Germany)

		2017
in %		
Employees		30.1
Managerial staff		11.8
Executive Management Team		0
Supervisory Board		25.0

### New employees

2017		
	Number	%
Age group		
under 30 years old	203	3.3
30 to 50 years old	236	3.8
over 50 years old	31	0.5
<b>Total</b>	<b>470</b>	<b>7.6</b>

### Staff turnover

2017		
	Number	%
Age group		
under 30 years old	85	1.4
30 to 50 years old	173	2.8
over 50 years old	138	2.2
<b>Total</b>	<b>396</b>	<b>6.4</b>

2017		
	Number	%
Gender		
male	331	5.4
female	139	2.2
<b>Total</b>	<b>470</b>	<b>7.6</b>

2017		
	Number	%
Gender		
male	302	4.9
female	94	1.5
<b>Total</b>	<b>396</b>	<b>6.4</b>

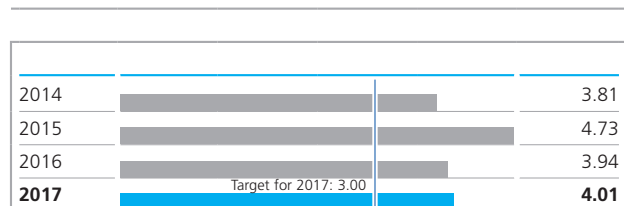
2017		
	Number	%
Region		
Europe	244	3.9
North America	124	2.0
South America	30	0.5
Southeast Asia	19	0.3
China	53	0.9
<b>Total</b>	<b>470</b>	<b>7.6</b>

2017		
	Number	%
Region		
Europe	188	3.0
North America	136	2.2
South America	35	0.6
Southeast Asia	14	0.2
China	23	0.4
<b>Total</b>	<b>396</b>	<b>6.4</b>

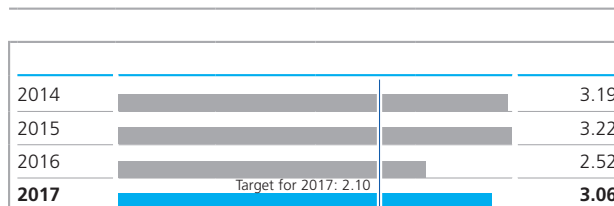
## Safety Performance Indicators

The following figures include both regular employees at ALTANA and contract workers managed by ALTANA.

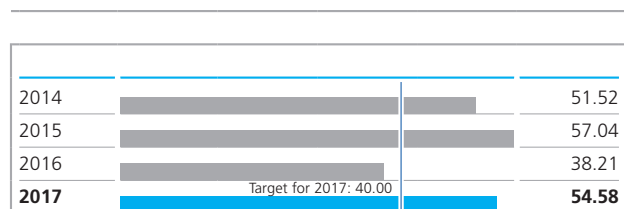
**WAI 1** (number of occupational accidents with lost work time of one day or more per million working hours)



**WAI 2** (number of occupational accidents with lost work time of more than three days per million working hours)

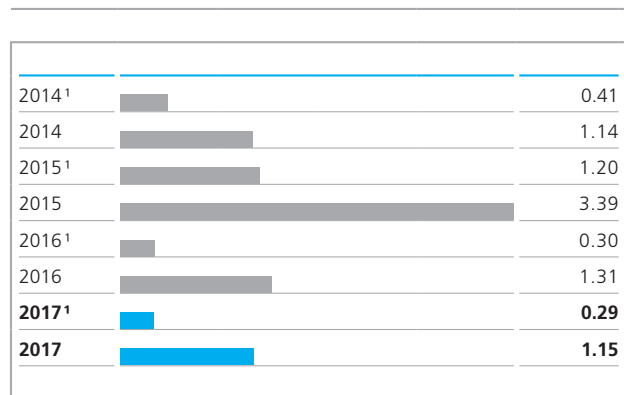


**WAI 3** (number of lost work days due to occupational accidents per million working hours)



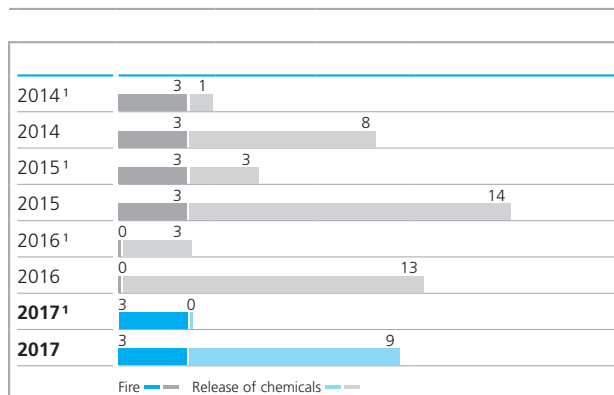
WAI = Work Accident Indicator

**Number of incidents according to Process Safety Incident (PSI)** (related to one million working hours)



<sup>1</sup> According to ALTANA's specific definition of significant incidents (only damage incidents without secondary containment and with environmental impact are considered)

**Number of incidents in absolute terms** (differentiated according to fire and release of chemicals)



<sup>1</sup> According to ALTANA's specific definition of significant incidents (only damage incidents without secondary containment and with environmental impact are considered)

### Accident key figures by region

		Region			
2017		Europe	Asia	North America	South America
WAI 1 <sup>1</sup>	Number of occupational accidents related to 1 million working hours	7.16	0.83	10.01	1.90
WAI 3	Number of lost work days based on occupational accidents related to 1 million working hours	66.88	24.78	47.46	3.81

<sup>1</sup> In this definition, accidents with lost work days and restricted workplaces are meant.

### Types of injuries, by gender and region

	Gender		Region			
	Women	Men	Europe	Asia	North America	South America
Number of accidents	5	66	46	1	23	1
Types of injury in %						
Mechanical impacts	20	12	18	0	0	100
Contact with moving machine parts	0	7	4	0	13	0
Contact with stationary objects	20	14	11	0	22	0
Collision with vehicle/moving machine	0	11	11	0	9	0
Sharp-edged surfaces (e.g. knife)	0	3	4	0	0	0
Ergonomic (muscles, lifting/carrying)	0	11	2	0	26	0
Contact with chemicals/hazardous substances	0	4	7	0	0	0
Eye contact with chemicals/hazardous substances	0	11	15	0	0	0
Stumbling, falling, sliding	20	11	7	0	21	0
Falling from up high (ladder)	0	3	0	0	9	0
Falling from up high (stairs, scaffolding)	0	3	4	0	0	0
Burning/scalding	0	9	13	0	0	0
Falling due to ice or snow	20	1	4	0	0	0
Accident during business trip	20	0	0	100	0	0

# Management Approaches

With the Management Approaches, we discuss how we organize important topics for ALTANA and control their economic, ecological, and social effects.

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## GRI 102 – Strategy

ALTANA views sustainability as a triad consisting of economy, ecology, and social responsibility. We are convinced that we can only be successful in the long term if we have our sights firmly set on all three aspects.

In the following, the goal contents for ecology and social responsibility will be presented. Economic content and risks related to our strategy are discussed in the Corporate Report under “Group Management Report.”

### Ecological Responsibility

ALTANA’s products not only improve application-technology-related qualities of customer’s products and their manufacturing processes, but also have a positive influence on their ecological characteristics. For example, through the use of certain additives water-based coatings can be manufactured, which can significantly reduce the emission of organic solvents. Further examples can be found in the “Products” and “Group Management Report” sections of the Corporate Report.

In the environmental sphere, the company is still pursuing the goal of reducing its CO<sub>2</sub> emissions, drinking-water consumption, and waste volumes in absolute terms and in terms of gross value added and finished products manufactured. To this end, each year we define targets oriented to longer-term developments and check them on a regular basis. The measures derived from them are agreed upon and implemented in the respective companies.

The issue of safety is also very important at ALTANA. Accidents with lost work days are reported by all of the company’s sites worldwide and published in the form of internationally recognized Work Accident Indicators. From these indicators, annual targets are defined and checked on a quarterly basis. At all sites, appropriate measures were implemented to avoid accidents.

So that sustainability aspects can play a role already in decision-making, ALTANA developed and introduced sustainability criteria in important business processes. With predefined checklists, the effects on the environment and people are determined in advance, so that suitable measures can be introduced if necessary. As a result, possible risks are recognized at an early stage and minimized by taking appropriate steps.

To be able to measure not only the company’s business performance but also its engagement in all areas of sustainability, alongside key performance indicators and certified management systems, ALTANA is using external evaluations increasingly. The audits of the rating company EcoVadis and the Together for Sustainability (TfS) initiative of the chemical industry play a special role. EcoVadis and TfS analyze environmental aspects, procurement policies, compliance, and working conditions of companies based on the international sustainability guideline ISO 26000. Both of them have become leading evaluation platforms for the chemical industry worldwide. ALTANA uses the assessments of EcoVadis both at the holding level and for individual sites.

A worldwide network of experts ensures that ALTANA products can be marketed in the relevant countries, today and in the future. To meet global chemical law requirements, ALTANA uses in most companies the EH&S system from SAP, in which all material and toxicological data of raw materials, intermediates, and finished products are managed. On this basis, safety data sheets and finished product labels are created, among other things. For special chemical legislation, for example food contact, experts make product recommendations and support customers.

To improve its energy efficiency, ALTANA examines the manufacturing processes at selected sites. In doing so, ALTANA uses the so-called PINCH method, which systematically analyzes cold and heat flows and uses the results to

recommend energy optimization measures at the respective sites.

ALTANA joined the UN Global Compact initiative, whose members are voluntarily committed in their corporate policy to adhering to social and environmental standards as well as the protection of human rights. In addition, ALTANA signed the Responsible Care Global Charter of the International Council of Chemical Associations (ICCA). Key elements include continual improvement of knowledge about environmental protection, health and safety, as well as the optimization of technologies, processes, and production over their lifecycles to avoiding harming people or the environment.

All of the managing directors of ALTANA's worldwide companies signed a declaration on environmental, health, and safety topics that is oriented to the Responsible Care Global Charter and that includes the precautionary principle for protecting people and the environment.

In order to continue to improve its sustainability record in the future, the UN's Sustainable Development Goals (SDGs) are an important orientation point. In a first survey, the essential areas of interest for ALTANA were identified and will be developed further.

In order to reach the abovementioned targets, ALTANA relies on the Group's decentralized structures, for which the holding company sets the framework. This also includes binding Group policies for environmental protection, health, and safety.

## Organization

The managing directors of the respective companies are responsible for implementing the strategic goals. They have committed themselves among other things to steadily reduc-

ing the environmental effects of the company's business activities.

They are also responsible for anchoring the Environment, Health & Safety (EH&S) department in the company organizationally and for setting up an appropriate reporting system for the centrally provided key performance indicators.

Furthermore, the managing directors are responsible for introducing suitable management systems (ISO 9001 and ISO 14001) at the different sites and having them certified. With the management systems, environmental protection and occupational safety can be practiced on the basis of international guidelines. The respective companies are responsible for teaching employees about environmental and safety issues.

Special, cross-divisional expert platforms continue to enable information to be exchanged about relevant EH&S topics (for example, energy, sustainability performance, and food contact) and best-practice models showing efficient implementations.

## Social Responsibility

As a good corporate citizen, ALTANA supports and sponsors social projects focusing on education, science, and research. To strengthen our local environments and to be a good neighbor, we especially promote initiatives near our sites in Germany and abroad.

The natural sciences, mathematics, informatics, and technology are among the drivers of economic development and social progress around the world. In this context, ALTANA sees itself as having a responsibility to introduce young people to these disciplines at an early stage and to kindle their enthusiasm for them. In cooperation with experienced partners from the education sector, the ALTANA Group



supports concrete projects, often in close proximity to ALTANA's sites. To maximize lasting impact, the company usually promotes these projects over a period of several years.

## Risks

Overall, the risks for ALTANA in the environmental sphere can be regarded as being quite low. Possible risks can arise from the availability of raw materials from fossil sources, marketing limitations due to chemical law requirements, and through rising energy prices. The risks that can arise from the marketing of ALTANA products are also assessed as being low. ALTANA's products are irreversibly integrated in composites (for example, additives and effect pigments in coatings, and wire enamels and overprint varnishes on packaging films), and thus have lower effects on the environment and human health.

In the sphere of human resources, the challenges mainly lie in the fields of "Recruitment of Skilled Workers" and "Demographic Change."

## Opportunities

Today and in the future, ALTANA offers and will offer companies around the world specialty chemicals solutions that make products used in daily life better and more sustainable. We convince our customers with added value and give them a competitive edge through our work. Some solutions improve, for example, the functions of end products and increase their shelf life. Others optimize our customers' value chain in terms of energy and resource consumption. And still others enable our customers to reduce the amount of critical substances in their end products or to replace them with less critical ones. Innovative, environ-

mentally friendly, safely processable products play a key role. They help ALTANA's customers implement their own sustainability concepts. Based on this understanding of sustainability, the Group continuously leverages new fields of business and paves the way for further profitable growth.

The ALTANA Group will continue to extend its good reputation as an attractive employer that offers work topics of exemplary interest, modern work-time models, and diverse further training possibilities. Young up-and-coming talents are promoted through the support of projects in education, science, and research, enabling them to keep developing.

## GRI 201 – Economic Performance

The Management Approach to this topic can be found in the Corporate Report under “Group Management Report” and in the online document “Consolidated Financial Statements.”

## GRI 301 – Materials

In this Management Approach, materials are considered as raw materials that are needed at the production sites to manufacture ALTANA products. Careful usage of raw materials is highly relevant for ALTANA. In addition, we try to use raw materials sustainably in our administrative buildings and laboratories (for example, through the use of environmentally friendly copy paper). More information on the usage of our products can be found in the Group Management Report and in the “Products” chapter, where we report on the opportunities and risks connected with our products.

In the manufacture of its products, ALTANA distinguishes between the following raw-material groups:

- raw materials based on fossil sources,
- raw materials from renewable resources,
- raw materials from non-fossil and non-renewable resources (for example metals and clays), and
- drinking water as a raw material.

Some recycled materials are used for packaging.

Through optimized production methods, raw materials are used to manufacture finished products efficiently in order to keep the amount of byproducts and waste as low as possible. Moreover, ALTANA pursues the aim of using raw materials that have a lower impact on people and the environment. To this end, new formulations/products are developed that do not contain substances classified as hazardous or whose classification is being reduced.

Raw-material suppliers are chosen carefully at ALTANA. All suppliers have to qualify accordingly (for example, through advance sample tests). In some companies, suppliers are required to accept the ten principles of the UN Global Compact as part of their code of conduct for the area of purchasing.

Local suppliers with the same prices and quality as others are favored due to transport links and regulations, or due to duties. To reduce current assets, a smaller storage capacity is sought.

Risks identified in the “Materials” segment relate to the general availability of raw materials, on the one hand, and

to their price development on the other. ALTANA views the supply of raw materials from fossil sources as being secure in the medium term; the development of market prices for raw materials, however, is considered very volatile. On account of political unrest and environmental-policy decisions, short-term bottlenecks can occur, resulting in rapid price increases. ALTANA minimizes these risks through longer-term supply contracts and always tries to qualify several suppliers for one raw material to avoid single-source situations.

If this cannot be realized for technical or economic reasons, longer-term supply contracts are agreed on in these cases too. A further risk is that certain raw materials are not offered on the market, or only to a limited extent, as a result of chemical regulations.

Through prospective analyses of chemicals legislation in the different regions and countries (e. g. REACH in Europe and TSCA in the U.S.), at ALTANA potential bottlenecks are recognized at an early stage and appropriate alternatives developed.

When ALTANA products are used properly, negative effects on people and the environment can be assessed as being low. ALTANA's products are irreversibly integrated into composites (for example, additives and effect pigments in coatings and wire enamels and overprint varnishes on packaging films), and thus have only limited effects on the environment and human health.

ALTANA established a system for recording the different raw-material groups worldwide. ALTANA's manufacturing sites are currently required to report on their raw-material volumes annually. These characteristics are recorded electronically in a globally accessible database. The data are then checked for completeness and plausibility. With this result, the efficient usage of raw materials can be checked and optimized so that the amount of raw materials used, if technically possible, can be processed into products. The key performance indicators are published internally based on sites, divisions, and at the holding level, and discussed with the Management Board and the division presidents. In produc-

tion, ALTANA pursues the goal of processing the raw materials it uses, if technically possible, into products. In the process, we aim to keep the amount of waste and emissions as low as possible. With this volume record, efficient use of raw materials can be checked and optimized.

The operational implementation and maintenance of this system and target achievement are the responsibility of the managing directors at the respective sites. This procedure is specified in a policy and mandatory for everyone involved. Corporate EH&S, in consultation with the Management Board, is responsible for the maintenance of the above-mentioned system and for establishing the framework conditions and targets.

The effectiveness of the system is ensured annually by plausibility checks of key performance indicators (the ratio of raw-material amount to produced amount). Changes in the system are coordinated in advance with the division presidents and approved by the Management Board. Change processes are coordinated and managed by Corporate EH&S.

Further relevant key performance indicators (for example, the absolute development of material costs, the materials cost ratio and price development) are recorded and evaluated by means of defined controlling processes in Corporate Procurement and Finances. The forecast for the coming years is determined together with the Management Board and the division presidents. Changes in the system are coordinated in advance by Corporate Procurement and Finances, in consultation with the division presidents, and approved by the Management Board.

Complaints between the workers in question or other people involved are clarified and discussed immediately. In the case of escalation, further clarification is made at the level of the division presidents and the respective heads of Corporate EH&S, Finances, and Corporate Procurement.

## GRI 302 – Energy

In addition to raw materials, energies for different purposes (heating, cooling, mixing, etc.) are needed to manufacture ALTANA products. The main energy sources for production, laboratories, and administrative buildings are electricity, natural gas, and oil. Thus, ALTANA is part of the value chain with all its effects. The topic of energy as an important production factor is highly relevant for ALTANA.

In comparison with other operations in the chemical industry, ALTANA has relatively low energy needs, expressed in the form of CO<sub>2</sub> emissions related to the volume produced. The ALTANA Group is approximately 30 % below the industry average. Nevertheless, it is important for ALTANA to use energy sources efficiently in order to keep CO<sub>2</sub> emissions as low as possible.

ALTANA believes that it is ensured of a continuous supply of energy sources (oil, natural gas, and electricity) in the medium term. The ALTANA Group's manufacturing sites are located in areas with a well-equipped infrastructure. Short-term interruptions of the electricity supply are compensated for by local generators that operate with diesel motors. ALTANA generally strives to reduce its specific power consumption (MWh in terms of gross value added) and to increase the proportion of energies from regenerative sources (for example solar, wind, and water), in order to minimize its dependence on energy from fossil sources. Some sites have solar or hydraulic power plants and/or cogeneration units.

ALTANA has established a system for recording energy sources worldwide (natural gas, oil, and electricity). The manufacturing sites are asked to report on their consumption of energy sources every year. This key performance indicator is recorded worldwide in a globally accessible database.

The absolute consumption values are converted into CO<sub>2</sub> emissions using corresponding conversion factors. The energy consumption is represented and controlled via the CO<sub>2</sub> emissions calculated. Further proceedings are described in the Management Approach "Emissions."

The operational implementation and maintenance of this system and target achievement are the responsibility of the managing directors at the respective sites. This procedure is specified in a policy and mandatory for everyone involved. Corporate EH&S, in consultation with the Management Board, is responsible for the maintenance of the system and for establishing the framework conditions and targets.

Complaints between the workers in question or other people involved are clarified and discussed immediately. In the case of escalation, further clarification is made at the level of the division presidents and the head of Corporate EH&S.

The effectiveness of the system is examined periodically in the form of a variance analysis based on the key performance indicators determined. Changes in the system are coordinated in advance with the division presidents and approved by the Management Board. Change processes are coordinated and managed by Corporate EH&S.

When investments are made and in acquisition processes, energy consumption criteria are recorded and considered based on the criteria described above.

## GRI 303 – Water

In the manufacturing processes of the ALTANA Group, water is mainly used for cooling purposes, for washing processes, and as a raw material. Therefore, water is an essential production and usage factor and thus is highly relevant for ALTANA. In addition to the manufacturing sites, this applies to the Group's laboratories and administrative buildings (sanitary water).

The availability of water differs widely in different parts of the world. Some ALTANA sites are located in very water-rich areas (for example Finland), while other production sites are found in regions where there is a scarcity of water (such as India). According to current information, water extraction on the part of ALTANA manufacturing sites has no negative effects on the local drinking water supply. Overall, ALTANA believes that it is assured of sufficient water of appropriate quality. ALTANA mainly uses locally available drinking water. At some sites, the water needed is extracted from rivers and treated. As a result, even in regions with a scant drinking water supply the amount of water needed for production is ensured.

The sources of water that the ALTANA Group is responsible for (ground and surface water) are considered separately (ensuring the amount and quality of the water; biodiversity) and set up in accordance with the relevant legal specifications. Periodically, operations are checked regarding both quantity and quality.

ALTANA's objective is to reduce the amount of water it uses – in absolute terms and in terms of production volume and gross value added – through technical measures, among others. This is achieved in particular through the realization of closed-loop cooling systems and by avoiding water-intensive process steps.

ALTANA established a system for recording its water consumption worldwide (drinking water, surface water, ground water). ALTANA does not use other kinds of water (including rainwater and wastewater of third parties) to manufacture products and thus does not collect data on it.

At some sites, rainwater is used to water green areas. The manufacturing sites are required to report on their water consumption annually. These key performance indicators are aggregated electronically in a globally accessible database. For purposes of comparison, not only the absolute values but also the standardized values, in terms of gross value added and the volume manufactured, are represented (specific water consumption). These data are checked for completeness and plausibility. The key performance indicators are published internally in detail based on sites and divisions, and at the holding level, and discussed with the Management Board and the division presidents.

Each year, targets are defined for the specific water consumption of ALTANA and the respective divisions. Target achievement is a component of the variable compensation of specified managers. The goal of this procedure is to ensure that water consumption is reduced. The operational implementation and maintenance of this system and target achievement are the responsibility of the managing directors at the respective sites. This procedure is specified in a policy and mandatory for everyone involved. Corporate EH&S, in consultation with the Management Board, is responsible for the maintenance of the system and for establishing the framework conditions and targets.

Complaints between the workers in question or other people involved are clarified and discussed immediately. In the case of escalation, further clarification is made at the level of the division presidents and the head of Corporate EH&S.

The effectiveness of the system is examined periodically in the form of a variance analysis based on the key performance indicators determined. Changes in the system are coordinated in advance with the division presidents and approved by the Management Board. Change processes are coordinated and managed by the Corporate EH&S department.

## GRI 305 – Emissions

When investments are made and in acquisition processes, water consumption criteria are recorded and considered.

The examination is carried out based on predefined checklists with the aim of determining the water consumption in advance and introducing appropriate action if necessary.

Chemical manufacturing processes generate emissions. They mainly affect production sites. ALTANA aims to reduce local employees' exposure to emissions as well as the emissions discharged into the environment, and thus to minimize their harmful effects (such as respiratory illnesses, global warming, the depletion of the ozone layer, and acid rain). In a broader sense, ALTANA regards "noise" as an emission. To identify sources of noise, ALTANA regularly measures noise levels and implements appropriate measures to reduce the noise (such as housing for motors, fans, mufflers, etc.). In defined areas, employees are required to wear ear protection. The legally required thresholds in the respective countries are adhered to. Therefore, this issue is highly relevant for ALTANA.

The release of gases (for example, carbon dioxide, nitrogen oxide, and volatile solvents) and dust, above all from production sites, into the environment is minimized by means of suitable technical measures (such as filtration and catalytic afterburning). There is the risk that such systems will abruptly fail and substances will be released into the environment. Periodic checks of the functionality of these systems and suitable monitoring (for example, with sensors) guarantee that these facilities function perfectly and continuously. Should the emission control fail, production is stopped promptly or adapted accordingly. Employee exposure is also minimized by means of closed loops. Due to these measures, ALTANA evaluates the potential effects on people and the environment as being low.

ALTANA established a system for recording energy consumption worldwide (primary and secondary energies). The manufacturing sites are required to report the energy consumption annually. The consumption values are initially entered into a globally accessible database, are checked for completeness and plausibility, and are then converted using a factor into THG emissions (for example, CO<sub>2</sub> and N<sub>2</sub>O) as well as SO<sub>x</sub> and NO<sub>x</sub> emissions. The conversion factors

for electricity come from the International Energy Agency (IEA), and the conversion factors for other primary energies (such as oil and natural gas) come from the International Panel of Climate Change (IPCC) database. For purposes of comparison, not only the absolute values but also the standardized values are represented, related to gross value added and also to the volume produced (specific CO<sub>2</sub> emissions). The key performance indicators are aggregated in detail based on sites and divisions, and at the holding level, published internally, and discussed with the Management Board and the division presidents. Each year, targets for specific O<sub>2</sub> emissions are defined for ALTANA as a whole and the respective divisions. Target achievement is part of the variable compensation of specified managers. The overall objective for the period from 2007 to 2020 is a specific CO<sub>2</sub> reduction of 30 % for the ALTANA Group as a whole. In addition, Volatile Organic Compounds (VOC), ozone-depleting substances, and other emissions are recorded and evaluated.

The operational implementation and maintenance of this system and target achievement are the responsibility of the managing directors at the respective sites. This procedure is specified in a policy and mandatory for everyone involved. Corporate EH&S, in consultation with the Management Board, is responsible for the maintenance of the system and for establishing the framework conditions and targets.

The effectiveness of the system is examined periodically in the form of a target-performance comparison based on the key performance indicators determined. Changes in the system are coordinated in advance with the division presidents and approved by the Management Board. Change processes are coordinated and managed by the Corporate EH&S department.

Complaints between the workers in question or other people involved are clarified and discussed immediately.

In the case of escalation, further clarification is made at the level of the division presidents and the head of Corporate EH&S.

For selected projects, ALTANA carried out lifecycle assessments based on defined ISO standards. In the process, the CO<sub>2</sub> emissions and among others the ozone-depleting properties of the products were calculated. The data were recorded and evaluated using the software GABI, and the results were published in the form of standardized Environmental Product Declarations (EPDs). Finally, TÜV Rheinland validated and certified the overall results regarding the products selected.

One goal of the lifecycle assessment is to determine the product carbon footprint, in other words the carbon balance of the different products. In further steps, ALTANA intends to develop products with a reduced CO<sub>2</sub> footprint.

When investments are made and in acquisition processes, the emissions are recorded based on the criteria described above and taken into account in the decision-making process.

## GRI 306 – Effluents and Waste

Chemical manufacturing processes generate effluents and waste. These mainly affect production sites. ALTANA aims to reduce the amount of waste and wastewater it produces, thus minimizing the harmful effects on people and the environment (for example, landfill and water pollution). Therefore, this issue is highly relevant for ALTANA.

Chemically contaminated wastewater is treated in accordance with legal requirements either internally (for example in wastewater treatment plants) or externally (for example, through combustion). All other wastewater is discharged into the local sewage system in accordance with legal requirements, which also regulate the volume and quality of the wastewater. To avoid posing risks to the environment through wastewater, chemically contaminated water is channeled into separate sewers. In addition, regular samples are tested and measurements are taken continually. The chemically contaminated wastewater is cleaned locally in (biological) clarifying basins or carried in tankers for disposal. With these measures, contamination of the environment is normally ruled out.

The waste produced by ALTANA is divided into two main groups: hazardous and non-hazardous waste. The waste in each of the abovementioned categories is further differentiated, recorded, and represented: waste for recycling, waste for thermal use (internally and externally), and waste for disposal. ALTANA aims to reduce the amount of waste it produces both in absolute terms and in terms of tonnage and gross value added. If waste cannot be avoided for technical reasons, ALTANA pursues the goal of recycling waste, or using it thermally, and only lastly disposing of it. In addition to the two main groups, at a few sites there is also inert waste (such as waste rock) and demolition waste. Waste is usually collected by specialized companies and disposed of properly in accordance with local legal (environmental) requirements. The remaining risk is that the disposal company might not dispose of the waste properly and thus might possibly endanger the environment. To prevent this from hap-

pening, ALTANA works with qualified disposal companies and in most countries ensures proper disposal through a return receipt system.

A further environmental risk is that chemicals will leak out. Raw materials, intermediates, and finished products can spill mostly due to leaky pumps or leakage in pipes or valves. In especially hazardous areas, leak-proof retention basins were installed, preventing the soil and groundwater from being contaminated. Warehouses usually have leakage protection (realized most easily through elevation). Environmentally critical liquids are stored in open or half-open areas on stable ground with an impermeable coating. Thus, when chemicals leak out soil and groundwater contamination is prevented.

In the event that chemicals do leak out, ALTANA records this, evaluates it centrally, and for German sites reports the leakage to the Germany Chemical Industry Association (VCI). In other countries, reports are issued to the authorities based on the rules that are valid there. This procedure is defined in a policy and mandatory for everyone involved.

Due to the processes and measures described above, ALTANA regards the potential effects on people and the environment as being low.

ALTANA established a system for recording waste worldwide (hazardous and non-hazardous waste). The manufacturing sites are required to report the amount of waste annually based on the categories described above. These key performance indicators are recorded electronically in a globally accessible database. For purposes of comparison, not only the absolute values but also the standardized values are represented in terms of gross value added and the amount of waste produced (specific waste volumes). These data are then checked for completeness and plausibility.

The key performance indicators are aggregated in detail based on sites and divisions, and at the holding level, published internally, and discussed with the Management Board and the division presidents.



## GRI 308 – Responsible Supply Chain Management

Each year, targets are defined regarding the specific waste volume (hazardous, non-hazardous, as well as the total amount and disposal) for the entire ALTANA Group and the respective divisions. Target achievement is a component of the variable compensation of the specified managers. The goal of this procedure is to ensure that the amount of waste is reduced. In the field of wastewater, the so-called chemical oxygen demand (COD) for direct and indirect discharges is recorded.

The operational implementation and maintenance of this system and target achievement are the responsibility of the managing directors at the respective sites. This procedure is specified in a policy and mandatory for everyone involved. Corporate EH&S, in consultation with the Management Board, is responsible for the maintenance of the system and for establishing the framework conditions and targets.

Complaints between the workers in question or other people involved are clarified and discussed immediately. In the case of escalation, further clarification is made at the level of the division presidents and the head of Corporate EH&S.

The effectiveness of the system is examined periodically in the form of a target-performance comparison based on the key performance indicators determined. Changes in the system are coordinated in advance with the division presidents and approved by the Management Board. Change processes are coordinated and managed by the Corporate EH&S department.

When investments are made and during acquisition processes, the amount of waste and wastewater is recorded based on the criteria described above and taken into account in the decision-making process. The examination is carried out based on predefined checklists with the goal of determining the amount of waste and wastewater in advance and taking appropriate measures if necessary.

ALTANA develops, produces, and sells high-quality innovative specialty chemical products worldwide. To manufacture these products, standard raw materials as well as special substances and preparations are needed. To avoid overextending the depth of value creation, close cooperation with our suppliers and research departments is important.

We obtain a large part of our raw materials from suppliers that are relatively high up in the crude oil-based, chemical value chain. Exceptions are metallic raw materials such as aluminum and copper as well as clay minerals.

Our companies get the raw materials needed to manufacture our products from a circle of more than 4,200 suppliers, which do not change much from year to year. Approximately 1,700 companies supply a number of Group sites worldwide. Of the approximately 2,500 companies that supply only regionally, 55 % come from Europe, 29 % from Asia, 26 % from North America, and 3 % from South America. With this global network the individual companies, together with ALTANA's Global Procurement department, ensure that dependencies and bottlenecks can be avoided as much as possible.

Suppliers are selected and specified based on a defined process. Contracts are prepared only with suppliers that can comply with specifications and have the necessary availability. In some companies, supplier agreements are a prerequisite for this step. These agreements cover commercial aspects (price, availability, and delivery reliability) as well as social responsibility parameters on the part of our suppliers. They include the ten principles of the UN Global Compact as part of the code of conduct.

ALTANA's Global Purchasing Network consists of purchasers from all of our divisions. It contributes to ALTANA's value by continually and sustainably helping to improve the company's general purchasing power, by building sustainable supplier relationships, and by optimizing all processes relevant to procurement. The members of the Purchasing Network are required to adhere to a defined code of conduct.

## GRI 403 – Occupational Health and Safety

It describes dealings with our suppliers (corruption and corruptibility, gender neutrality, equal opportunity).

The ALTANA Purchasing Network combines the know-how and experience of all members of the Group with the aim of procuring all worldwide raw materials, materials, systems and equipment, as well as services that are needed to give ALTANA a competitive edge.

To minimize risks (for example, to avoid child labor, corruption, human-rights violations, and negative environmental influences), the ALTANA Group resolved to carry out sustainability checks with suppliers. To this end, ALTANA uses the EcoVadis system, which is established in the industry. The assessments based on EcoVadis encompass the fields of environment, social issues, bribery/corruption, and supplier management.

Complaints between the workers in question or other people involved are clarified and discussed immediately. In the case of escalation, further clarification is made at the level of the division presidents and the head of Corporate EH&S or the division heads of Procurement.

Our employees are our most important asset. It is anchored in our Guiding Principles that it is ALTANA's corporate duty to protect the environment and all employees and to guarantee staff safety. Occupational health and safety at the workplace are very important at ALTANA. Employees' health and safety are ensured by means of various measures. This not only has a positive effect on productivity, but also reduces costs that arise from long lost work time. At many sites, health-promotion campaigns are offered, including sports offers, health examinations, and psychological advising. All employees worldwide (including temporary workers and contractors) are required to have an understanding of safety. Therefore, the topic is highly relevant for ALTANA.

Lost work time resulting from illness or accidents has negative effects on the company's productivity. Colleagues generally take over the work as an additional task or the work is postponed. There is the risk that the tasks will be completed late, which can be disadvantageous for the company. Another risk is possible long-term consequences of illnesses and accidents. If an employee cannot regain the full capability to work, this not only has negative consequences for the employee, but also for the company.

All of our sites worldwide have established their own safety organization, which is responsible for adhering to all local health and safety regulations, for training measures, as well as for recording and evaluating accidents and "near misses." Within the framework of this safety organization, all accidents have to be recorded immediately and emergency measures must be considered. Within 48 hours, an accident has to be reported to a defined circle of people, including the division president, the Management Board, and Corporate EH&S. Furthermore, a root cause analysis has to be carried out for all accidents and appropriate measures have to be implemented. This procedure is defined in a policy and mandatory for all employees.

To record accidents with lost work time, ALTANA has implemented a system that is valid worldwide. Currently, all

sites (production, laboratories, administration, and sales offices) of the ALTANA Group are asked to record accidents on a quarterly basis.

These accidents are documented electronically in a globally accessible database. Based on this documentation, ALTANA determines specific key figures, so-called Work Accident Indicators (WAI).

Definition of WAI 1, 2 and 3:

- WAI 1: Number of occupational accidents with lost work time of one day or more per million working hours
- WAI 2: Number of occupational accidents with lost work time of more than three days per million working hours
- WAI 3: Number of lost work days due to occupational accidents per million working hours

Commuting accidents are not included in the WAI key performance indicators. The other WAI key performance indicators refer to accidents with contractors, cases of death, and accidents followed by restricted workplaces.

The key performance indicators are aggregated in detail based on sites and divisions, and at the holding level, published internally, and discussed with the Management Board and the division presidents. For the key performance indicators WAI 1, 2, and 3 annual targets are agreed upon as ALTANA considers these key figures especially relevant for control. This system serves to improve the company's safety culture. Target achievement is a component of the variable compensation of specified managers. Specific projects are carried out in the categories Technical Measures, Organizational Measures, and Behavior-based Measures. The operational implementation and compliance with this system and target achievement are the responsibility of the managing directors at the respective sites, with support from the responsible EH&S experts. The Corporate EH&S department, in consultation with the Management Board, is responsible for maintaining ALTANA's key performance indicator system and for defining framework conditions and targets.

The effectiveness of ALTANA's key performance indicator system is examined periodically in the form of a target-performance comparison based on the key performance indicators determined. Changes in the system are coordinated in advance with the division presidents and approved by the Management Board. Change processes are coordinated and managed by the Corporate EH&S department.

Complaints between the workers in question or other people involved are clarified and discussed immediately. In the case of escalation, further clarification is made at the level of the division presidents and the head of Corporate EH&S.

When new investments are made and during acquisition processes, aspects related to health protection and safety are considered from the very beginning. The review is carried out on the basis of predefined checklists with the aim of recognizing potential safety risks in advance and introducing appropriate measures if necessary.

## GRI 417 – Marketing and Labeling

Safety data sheets and product labels (e. g. for finished products) are required to market chemical products. The creation of safety data sheets is based on defined regulations and regulated uniformly worldwide as far as possible (GHS: Global Harmonized System). After a product is delivered for the first time, after 12 months, or when major changes are made, customers automatically receive a safety data sheet in their national language and based on national requirements. It is absolutely essential that ALTANA adhere to global requirements, and therefore the issue is highly relevant for ALTANA. High-quality safety data sheets ensure that handling of chemical substances (transport and use) is transparent for customers and users and thus guarantees safe use.

In terms of product information and labeling, there is the risk that no or erroneous safety data sheets, or finished product labels, will be created and used. Through the use of EH&S or comparable systems, a defined work process ensures that products can only be delivered after the safety data sheets or finished product labels are examined and approved. Checks based on the dual control principle ensure that all information in the safety data sheets and finished products labels is correct. In addition, new basic data are regularly incorporated into the system, ensuring that the data are always up to date. Experts in the respective countries become aware of potential legislative changes at an early stage and introduce appropriate measures promptly. This procedure guarantees that the products can be marketed in all relevant countries and regions. No or inadequate information on the respective product can lead both internally and externally with customers to negative effects on human health and the environment. In serious cases, there can be fine proceedings.

At many ALTANA sites, environmentally and safety relevant data are recorded and managed centrally in the SAP EH&S system. Sites without an SAP connection have their own comparable systems. The basic data (toxicological and eco-

toxicological) for chemical substances come from external sources. With so-called expert rules, the labels and classifications are determined in accordance with the product composition. From these data, safety data sheets and finished product labels, as well as transport papers and special reports, are created. The EH&S expert platform Data Management Regulatory Affairs, together with IT, ensures that the SAP EH&S system functions properly and supports the sites with its own systems to guarantee disturbance-free operation. The respective business units are responsible for correct and complete data entry.

To recognize and implement changes in the legal situation in a timely manner, ALTANA uses a worldwide information portal that publishes new features and changes at regular intervals. Furthermore, ALTANA takes part in national (VCI) and international (CEFIC, AICM, ACA) work groups to stay up to date and to be able to introduce appropriate measures in time. For special application areas, ALTANA publishes, in addition to the abovementioned legislative changes, further documents on products (for example, regarding food contact), as well as information on the regulatory status in different countries. Specific questions asked by customers regarding regulations are answered and clarified by experts at ALTANA.

Internal complaints between workers or other people involved are clarified and discussed immediately. In the case of external complaints (for example customers or authorities), the complaints are clarified with regulatory experts.

A number of measures ensure that the system is effective. Aside from the dual-control principle discussed above, feedback from customers and checks by authorities contribute to the efficacy of the system.

Changes in the system are coordinated in advance with the division presidents and approved by the Management Board. Change processes are coordinated and managed by Corporate EH&S.

## Employee-Oriented Management

During acquisitions and when research and development projects are launched, chemicals legislation aspects are considered from the very beginning. The examination is based on predefined checklists with the aim of recognizing potential risks in the area of chemicals legislation and introducing appropriate measures if necessary.

### **GRI 401 Employment**

### **GRI 404 Training and Education**

### **GRI 405 Diversity and Equal Opportunity**

### **GRI 406 Non-discrimination**

Our employees are our most important asset. Therefore, ALTANA promotes their professional development, prepares them for positions of leadership, and enables its staff to participate in the company's success to motivate them to stay with the company on a long-term basis. The some 6,200 men and women working for ALTANA companies worldwide have above-average qualifications and commitment. Our four central values of openness and trust, appreciation and empowerment to act – defined in ALTANA's Guiding Principles – characterize our culture of interaction. Therefore, this issue is highly relevant for ALTANA.

With its Keep Changing Agenda for the future, ALTANA has defined new milestones for the Group's human-resources strategy, among other things. This includes, for example, the objective of occupying 70 % of the company's worldwide management positions internally by 2020. Currently, when positions are vacant, we always check to see which internal candidates are qualified. Human-resource heads and managers reach agreements about whom to select. The willingness of employees to switch between divisions has also increased steadily in recent years. At present, the different human-resources processes are analyzed and optimized worldwide. In Asia, Europe, and America, several projects were launched that will be finalized in the years to come. In the future, the Development Programs (DPs) lasting several months for up-and-coming managers will be offered only in English. The Management Development Programs (MDPs) that have already been implemented will be developed further and carried out. For the Six Sigma area (ALTANA Excellence), regular training programs will be offered corresponding to Green and Black Belts.

ALTANA offers its employees further training opportunities, promotes their professional development in targeted

ways, and supports their health with special preventive measures. This strengthens our attractiveness as an employer. These basic principles apply to all employees worldwide. With the ALTANA Management Challenge (AMC), the Group created a globally uniform assessment instrument for selecting future executives. The basis for the one-day assessment with practical business simulations and role play was developed in Germany and subsequently adapted to the respective regional conditions by local experts.

To promote the professional development of employees, ALTANA relies on regular specially developed dialogs for all staff members. This includes the progress dialog that the disciplinary superiors carry out personally with each employee at least once a year. The aim of the dialog is to assess the employees' performance and forms the basis for target-achievement with the staff and for identifying further training measures. Target agreements with or without effects on the remuneration of the employee in question lead to a target achievement dialog that supplements the mandatory progress dialog for all employees. The superiors also carry out this dialog at least once a year with the employees. The three dialog elements together constitute the ALTANA "Compass Dialog."

ALTANA also offers all of its employees worldwide further training programs. In Germany, for example, there is a comprehensive further training catalog with topics such as management training, conflict and communication training, and training for self-organization and time management.

Superordinate operational services are regulated in Group works council agreements and include pension schemes, lifetime working time accounts, an employee suggestion scheme, and health management.

With its Keep Changing Agenda, ALTANA has also set itself the goal of increasing the number of women in leadership positions. To this end, ALTANA founded the LEADING WOMEN@ ALTANA and Women Mentoring initiatives,

among others. And they have been successful: The number of women in leadership positions in Germany has already increased. The progress in terms of the key performance indicators is reviewed periodically. Despite the efforts to steadily increase the quota of women at ALTANA, all applicants are given equal opportunities. We continually evaluate measures that help us have a convincing overall offer as an employer and make an effort to maintain internationalism and cultural diversity, and to avoid unequal treatment (for example, when it comes to filling management positions and choosing participants for management training based on regionally specific criteria). Due to demographic change and the resulting lack of specialist workers, we pay particular attention to the recruitment of young employees, specialists, and managers. ALTANA sees possible risks of disadvantages to applicants and discrimination against employees. Furthermore, the topic of child labor is a risk that was recorded in HR.

To minimize the aforementioned risks ALTANA initiated some measures: The General Equal Treatment Act (AGG), which is published on the Intranet, applies to all ALTANA employees. The AGG prohibits people from being disadvantaged due to race or ethnic origins, gender, religion or worldview, a disability, age, or sexual identity.

Moreover, all employees of the ALTANA Group have to adhere to a code of conduct. In performing his or her work, each employee must:

- behave in accordance with the law and the principles of ethics,
- be loyal towards his/her company and the ALTANA Group,
- act professionally, fairly and reliably in all business relations,
- treat all employees, customers and business partners fairly, politely, and respectfully,
- reasonably consider the interests of customers and business partners, the authorities, the public and the environment,

- respect and observe other cultures and cultural boundary conditions,
- refrain from any form of discrimination,
- handle any risks responsibly and transparently.

The ALTANA Compliance Hotline gives employees the opportunity to supply evidence of illegal conduct, if need be, anonymously and independently of hierarchy.

The individual companies report annually to Corporate HR on the following issues: child labor, social security law and tax law, illegal employment, discrimination against applicants and employees, private misuse of emails and the Internet, violations of data protection laws, violations of the private sphere of employees, and violations of the participatory rights of employees (for example, freedom of assembly and the right to negotiate collectively in accordance with local legal regulations and practices). Thus possible incidents are identified and measures initiated to avoid them.

The target groups of interest to ALTANA recruiting communicate primarily via the Internet and mobile end devices. ALTANA therefore added new functions and applications to the career portal on the Group's website. The pages were optimized for mobile devices such as tablets and smartphones and the overall navigation was improved. Thanks to interfaces with career networks including LinkedIn and XING, applicants can now directly load their profile onto their ALTANA application form. Further measures include a regular presence at university events and job fairs, as well as local contact with associations and federations.

With these measures, ALTANA has made the application process as simple and efficient as possible and at the same time laid the basis for integrated processing of applications and the resulting communication.

ALTANA also cooperates with universities in efforts to recruit young talent. Every year, ALTANA funds 20 students majoring in natural sciences, business, or IT. Apart from financial support, they are given the opportunity to do internships at ALTANA or to complete their degree thesis at one

of the Group's sites. Seminars and workshops round off the wide-ranging mentoring program for the scholarship holders. At an annual meeting at the Group headquarters in March, they have the opportunity to meet and exchange ideas with each other and with mentors about projects and application areas.

ALTANA also continues to cooperate with the Hochschule Niederrhein and the Rhine-Waal University, which are located near the Group's headquarters.

To develop established processes further, there is a new project in the ALTANA Group that in the future will enable us to measure the efficiency of processes through key performance indicators. This system will be expanded in the years to come. The effectiveness will be ensured by queries, reports, and talks with the division presidents and the Management Board. Changes in the system are coordinated in advance with the division presidents and approved by the Management Board. Change processes are coordinated and managed by Corporate HR.

Complaints between the workers in question or other people involved are clarified and discussed immediately. In the case of escalation, further clarification is made at the level of the division presidents and the head of Corporate HR.

## Compliance

### **GRI 205 Anti-corruption**

### **GRI 206 Anti-competitive Behavior**

### **GRI 307 Environmental Compliance**

### **GRI 416 Customer Health and Safety**

### **GRI 419 Socioeconomic Compliance**

The main elements of compliance can be found in the Corporate Governance chapter, the Group Management Report, and the Report of the Supervisory Board in our Corporate Report. The following remarks on compliance concern EH&S and chemical regulations. These areas have a decentralized structure at ALTANA.

The local managing directors and the local management, as well as responsible local specialists, primarily bear responsibility for ensuring that their company and its employees comply with valid laws and regulations. It is therefore generally the task of the local management to decide how to ensure compliance in keeping with corporate responsibility in every single company.

The Corporate EH&S department is responsible for ensuring compliance by providing a framework, supporting local measures, making expertise available, creating platforms and forums for those responsible at local level, as well as calling for measures to ensure the compliance of the management of the subsidiaries or setting minimum requirements, especially through policies that are binding Group wide.

For the operational implementation and for ensuring compliance, ALTANA companies are required to implement management systems in accordance with different ISO standards (for example, ISO 9001 and ISO 14001).

Safety-related and environmentally relevant data on ALTANA products are recorded systematically and documented in structured form on a safety data sheet. This document is made available to all customers in the respective national languages, enabling them to access all safety-related and environmentally relevant information (see also Management Approach GRI 417, "Marketing and Labeling").

In the fields of EH&S and chemical regulations, it is primarily the authorities at the respective sites who check to ensure that the legal requirements are adhered to. Beyond the legal framework, in the field of sustainability ALTANA has audits and assessments carried out by independent third parties at ALTANA sites and at suppliers' sites (for example EcoVadis and Tfs). Regarding violations and fines in the area of environment and socioeconomic compliance, anti-competitive behavior, and customer health and safety, ALTANA conducts an annual survey with the respective companies, evaluates it, and reports on it in its annual compliance report and Corporate Report.

Changes in the system are coordinated in advance by the division presidents and approved by the Management Board. Change processes are coordinated and managed by the Internal Audit, Legal, and EH&S departments.

In the area of EH&S, risks can arise particularly through non-adherence to laws and regulations or from internal guidelines. In such cases, incidents such as fire, explosion, or release of chemicals can occur that can lead to a loss of production. These material and possibly even personal damages can result in criminal or fine proceedings, as well as image damage and marketing restrictions.

Complaints between the workers in question or other people involved are clarified and discussed immediately. In the case of escalation, further clarification is made at the level of the division presidents and the heads of Internal Audit, Legal, and EH&S.

Particularly when acquisitions are made, compliance aspects are taken into account from the very beginning. The review is based on predefined checklists with the aim of recognizing potential safety risks in advance and introducing appropriate measures if necessary.



## Innovative Solutions to Exploit Growth or Savings Potential for Customers

ALTANA provides innovative solutions based on integrated chemical, formulation, and application expertise that make products of daily life better and more sustainable. ALTANA expands its product portfolio through its own developments, as well as through acquisitions and cooperative ventures with other companies, universities, and scientific institutes. ALTANA's operating sales growth is very strongly influenced by the introduction of new products onto the market. Therefore, this issue is highly relevant for ALTANA.

At ALTANA, innovation is not restricted to research and development but encompasses all processes in the company. Each employee is called upon to seek and realize improvements in his or her respective area of responsibility.

ALTANA's products and services are geared to offering customers special, sustainable solutions and giving them a competitive edge. Our customers recognize us as specialists and we are usually integrated in their product development process at an early stage. To be able to maintain or further consolidate our position as one of the leading specialty chemicals companies, we have to steadily grow our competencies and continuously expand our own product portfolio.

In the Group's divisional research and development facilities, our product portfolio is steadily developed further. In addition to the further development of products and solutions in current markets, the development of new products for new markets is a focal point. To be able to tap into new fields of business, we identify the needs of our customers and incorporate them in the development of new solutions.

To interlink the Group's diversified knowhow and competencies across industries and technologies, selected research and development projects are initiated and coordinated centrally at the Group level. Via external networks and close cooperation with universities and research institutes, external impetus is absorbed and the possibility of using it in the Group is examined.

The basis of our innovative strength is a worldwide research and development network encompassing more than 1,000 employees. The continued high share of research and development expenses in sales of more than 6 % is yet another expression of ALTANA's innovation focus.

In all four business divisions, new products are developed in accordance with the so-called Stage-Gate process. This includes the phases of brainstorming, feasibility study, laboratory development, and transfer to production. When the project is launched, the product requirements including sustainability criteria are defined.

At the transitions to the different phases, the products are systematically reviewed by a defined circle of experts (for example, research head and division president). On the basis of the progress of the project and market expectations, corresponding priorities are established. This is the basis for deciding whether projects are continued or terminated. In addition, in recent years the Design for Six Sigma (DfSS) method has been introduced, which systematically considers customer needs in the product development process and thus minimizes undesirable developments. The parameters of projects are recorded electronically and evaluated internally in the division. New product and technology developments are carried out in the form of projects with the responsible project managers.

The costs and timetable are regularly reviewed and appropriate measures may be introduced. The goal of this procedure is to introduce new products on the market that meet the requirements of ALTANA's customers within the agreed time and cost plans.

The effectiveness of research and development processes is accompanied by innovation controlling and examined regularly at review meetings. At these meetings, all current and recently completed projects are presented, discussed, and evaluated. This process is supported by defined key performance indicators (such as number of projects, projected market expectations, technical risk, and market risk).

In addition, top projects are presented regularly in the ALTANA Innovation Council.

Changes in the system are coordinated in advance by the division presidents and approved by the Management Board. Change processes are coordinated and managed by the respective research head in cooperation with Corporate Innovation.

Complaints between the workers in question or other people involved are clarified and discussed immediately. In the case of escalation, further clarification is made at the level of the division presidents and the head of Corporate Innovation.

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