## **O ALTANA**

Corporate Report 2018

#### Group Profile 2018

#### ALTANA's divisions

Sales by division



Sales by region

1 46.2 % 16.	<u>6 % 2</u>
4 15.3 % 21.	<u>9 %                                   </u>
in € million	2018
1 ВҮК	1,065.6
2 ECKART	382.6
3 ELANTAS	506.6
4 ACTEGA	352.6
Total	2,307.4

37.9% 27.1% 2 1 1.7 % 33.3 % 3 4 in € million 2018 1 Europe 875.0 624.4 2 Americas 3 Asia 769.4 4 Other regions 38.6 2,307.4 Total

#### Key figures at a glance

	2017	2018	$\Delta$ %
in € million			
Sales	2,247.0	2,307.4	3
Earnings before interest, taxes, depreciation and amortization (EBITDA)	470.0	430.6	- 8
EBITDA margin	20.9%	18.7%	
Operating income (EBIT)	335.9	295.8	- 12
EBIT margin	14.9%	12.8%	
Earnings before taxes (EBT)	306.0	264.1	- 14
EBT margin	13.6%	11.4%	
Net income (EAT)	234.6	187.0	-20
EAT margin	10.4%	8.1%	
Research and development expenses	142.5	154.1	8
Capital expenditure on intangible assets and property, plant and equipment	188.0	187.0	- 1
Cash Flow from operating activities	302.3	296.2	- 2
Return on capital employed (ROCE)	11.3%	9.4%	
ALTANA Value Added (AVA)	84.0	37.6	- 55

	Dec. 31, 2017	Dec. 31, 2018	Δ%
in € million			
Total assets	3,147.7	3,221.9	2
Shareholders' equity	2,214.2	2,344.6	6
Net debt (-)/Net financial assets (+) <sup>1</sup>	(78.0)	(95.6)	-23
Headcount <sup>2</sup>	6,186	6,428	4

<sup>1</sup> Comprises cash and cash equivalents, current financial assets, marketable securities, loans granted, debt, and employee benefit obligations. <sup>2</sup> When in the following the term "headcount" or "employees" is used, it refers to all staff members, male, female, or otherwise.

	2017	2018	∆%
WAI 1 (number of occupational accidents with lost work time of one day or more per million working hours)	4.01	3.67	- 8
WAI 2 (number of occupational accidents with lost work time of more than three days per million working hours)	3.06	2.69	- 12
WAI 3 (number of lost work days due to occupational accidents per million working hours)	54.58	36.45	- 33
CO <sub>2</sub> total (Scope 1 + Scope 2) <sup>3</sup> (t)	187,548	193,085	3
CO <sub>2</sub> specific (Scope 1 + Scope 2) <sup>3</sup> (kg CO <sub>2</sub> /€ gross value added)	0.21	0.21	0
$CO_2$ specific (Scope 1 + Scope 2) <sup>3</sup> (kg $CO_2$ /kg finished goods)	0.35	0.34	- 3

<sup>3</sup> Scope1: direct emissions; Scope 2: indirect emissions

Due to rounding, this Corporate Report may contain minor differences between single values, and sums or percentages.

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#### Legal Disclaimer

This Corporate Report is a translation of the Unternehmensbericht. The translation was prepared for convenience only. In case of any discrepancy between the German version and the English translation, the German version shall prevail.

This report contains forward-looking statements, i.e. current estimates or expectations of future events or future results. The statements are based on beliefs of ALTANA as well as assumptions made by and information currently available to ALTANA. Forward-looking statements speak only as of the date they are made. ALTANA does not intend and does not assume any obligation to update forward-looking statements to reflect facts, circumstances or events that have occurred or changed after such statements have been made.



**Management Board** 

Dear Ladies and Gentlemen,

For the ALTANA Group, 2018 showed different dynamics in the course of the year. In the first half of the year, we were able to pick up on the momentum of the strong year 2017 and continue our dynamic growth, which was accompanied by an appealing margin development despite rising raw-materials prices. In the second half of the year, however, the demand became palpably more subdued, primarily due to the significant slow-down of the economy in important markets for us, including the automotive industry, the Middle East, and China. At the same time, we were confronted with substantially growing margin pressure due to the acceleration of raw-materials price increases.

Nevertheless, in 2018 we achieved our growth and sales targets in our divisions and thus for ALTANA as a whole, and we did so although our business environment became more and more challenging in the course of the year. However, our earnings in 2018 lagged behind our strong earnings in the previous year due to declining contribution margins. The EBITDA margin reached our long-term target range of 18 to 20 percent.

Our outlook for 2019 is influenced by a macroeconomic environment characterized by ongoing uncertainty. The geopolitical framework conditions and trade disputes have dampened consumption and investment expectations in many countries. In this environment, ALTANA must set the right priorities in order to remain on the path to sustainable profitable growth even in troubled waters. A look back at 2018 strengthens our conviction that by striking a balance between cost discipline and meaningful investments in our future we can take the right path. Among other things, we made high-level investments in property, plant and equipment by expanding our capacities in the additives segment in Gonzales, USA, and in Shanghai, China. In the period under review, we also made substantial investments that decisively enabled the Israeli company Landa Digital Printing to take further steps on the way to marketing its innovative and revolutionary printing solutions. With our participation in Velox, another startup in the digital printing sector, we also essentially strengthened our network in the field of promising technologies. Moreover, we significantly stepped up expenditure for research and development once again and are making consistent progress in the digitalization of the ALTANA Group.



ALTANA's Management Board from left to right: Stefan Genten, Martin Babilas (Chairman), Dr. Christoph Schlünken We also made significant progress in the implementation of our Keep Changing Agenda. For example, we successfully completed the action field "Take the lead in sustainability." Today, sustainability is becoming increasingly important as a competitive factor. The prerequisite for this is that sustainability is no longer viewed solely as environmental protection but, in keeping with our conviction, as a triad of economy, ecology, and social responsibility. To leverage the opportunities resulting from sustainability for ALTANA, we decisively strengthened the sustainability management at our sites by establishing systematic sustainability criteria in relevant decision-making processes and with the help of many lighthouse projects around the globe. As a result, sustainability is no longer only an ambitious goal for us, but a fixed component of our business and working life. The importance of sustainability in our corporate action is also illustrated by the fact that as a member of the UN Global Compact ALTANA actively supports the objectives of this important initiative for company management.

Our environmental key performance indicators almost all underwent a positive development in the period under review. In terms of key accident figures, ALTANA also improved over the previous year. However, the targets we set ourselves for the reporting year could only be partially achieved. In order to further improve the results, in the future we will make the safety culture a stronger focus of our action.

In the spirit of "We are ALTANA," in 2018 we as the ALTANA Group once again did everything possible to create added value for our customers and employees, for our owner and society as a whole. This is shown by the articles in the magazine section of our corporate report. This time the spectrum of examples ranges from innovative solutions and unique effect pigments for the automotive and consumer goods industry, to investments in sustainable growth at our sites and sophisticated solutions for e-mobility, to systematic talent management concepts and educational mentorships for socially disadvantaged children. They all illustrate our aim to promote cooperation with each other and the interaction of different talents, gifts, and abilities in the best possible way for first-class customer loyalty, innovative top performances, and sustainable solutions. For in the end it is the people at ALTANA who make the difference, and they are therefore the most important recipe for success for our company. It remains of overriding importance for us to find the right mixture of continuity and change, which is necessary for a productive development of the ALTANA Group. In the process, we have every possibility to transform the challenges that lie ahead into new opportunities and possibilities with technological innovations and our unmistakable corporate culture, based on our own financial strength as a company.

We would like to warmly thank our employees for their contribution to the success and development of ALTANA in the 2018 fiscal year. Thanks also go to the members of the Supervisory Board for their constructive accompaniment and their trust in ALTANA's work.

M. Chluin

**Martin Babilas** 

**Stefan Genten** 

M. Anton C. Peulinden

Dr. Christoph Schlünken

- About This Report
- Sustainability Management
- Corporate Governance
- Corporate Bodies and Management
- Report of the Supervisory Board

#### About This Report

#### Corporate Report 2018

The Corporate Report for 2018 encompasses the annual and sustainability reports. With it, the ALTANA Group informs the public, its employees and business partners, as well as public authorities, nongovernmental organizations, and all other interested parties about the Group's development in economic, ecological, and social respects. In addition to the Group Management Report and the Consolidated Financial Statements (condensed version), as well as information on the Group's corporate governance, this report contains a description of ALTANA's understanding of sustainable management and the progress the Group has made in implementing it in the past fiscal year. As a result, this report for 2018 updates the content that was published in the 2017 Corporate Report (published on March 16, 2018). At the same time, it serves as the annual Communication on Progress of Global Compact.

#### The Reporting Period

All financial and human-resource information in the Group Management Report and the Consolidated Financial Statements for 2018 refer to the period from January 1 to December 31.

The reporting period for the environmental key performance indicators changed. They are based on values that were collected between January 1 and December 31, 2018 (previous year: October 1, 2016 to September 30, 2017). As in the previous year, the data on occupational health and safety refer to the period from January 1 to December 31.

#### **Reporting Principles**

In terms of the Group Management Report and the Consolidated Financial Statements, the report adheres to the specifications of the International Financial Reporting Standards (IFRS), as adopted by the EU, and the additional requirements of German commercial law pursuant to section 315 e of the German Commercial Code (HGB). As in the previous years, this was audited and confirmed by an independent auditor. The complete Consolidated Financial Statements including the Notes to the Consolidated Financial Statements are available online at www.altana.com/consolidated\_financial\_statements\_2018.

This corporate report has been prepared in accordance with the GRI Standards: *Comprehensive option*. It is also oriented to the International Integrated Reporting Council's (IIRC) reporting framework. In 2018, ALTANA did not have the key performance indicators based on the standards of the Global Reporting Initiative (GRI) tested by an independent auditor. Detailed information is available online at www.altana.com/facts\_figures\_sustainability\_2018.

Information on the selection of content based on GRI Standards and regarding the definition of sustainability issues important for the ALTANA Group and its stakeholders can be found in the "Sustainability Management" section (page 7 of this report). A detailed list of all criteria based on the GRI Standards that ALTANA provides information about is available online at www.altana.com/facts\_figures\_sustainability\_2018.

This report is available in German and English.

#### Sustainability Management

#### ALTANA's Understanding of Sustainability

ALTANA consistently gears its activities to sustained profitable growth. But we can only achieve economic success in the long run if we also bear in mind ecological and social aspects and anchor them firmly in our company.

Our understanding of sustainability as a triad of economy, ecology, and corporate social responsibility is also reflected in ALTANA's mission:

We provide innovative solutions based on integrated chemical, formulation, and application expertise that make products of daily life better and more sustainable.

Our solutions open up growth or savings potential for our customers and can change entire markets.

As a result, we create value for our customers, employees, shareholder, and society as a whole.

#### The View of Our Stakeholders

As a globally manufacturing specialty chemicals company, ALTANA has diverse stakeholders with whom the Group and its different companies maintain regular contact and exchange. The content and results of these dialogs are among the factors that inform ALTANA's understanding of sustainability.

Among ALTANA's most important stakeholders are its customers, employees, owner, suppliers, other business partners, authorities, associations, and nongovernmental organizations (NGOs), as well as our neighbors at the different sites.

In the year under review, the stakeholder analysis we performed in 2017 was examined and the key sustain-

ability issues were still considered relevant for ALTANA. ALTANA's Environment, Health & Safety (EH&S) and Corporate Communications departments developed with external support a materiality matrix with 13 criteria.

In the matrix, all topics relating to the GRI Standards, existing stakeholder analyses, ALTANA's Keep Changing Agenda for the future, as well as selected best practices in the form of reports and studies were considered.

Throughout the process of developing the materiality matrix, topics were prioritized based on their relevance to stakeholder decisions and the consequences for the ALTANA Group (see graphic on the following page).

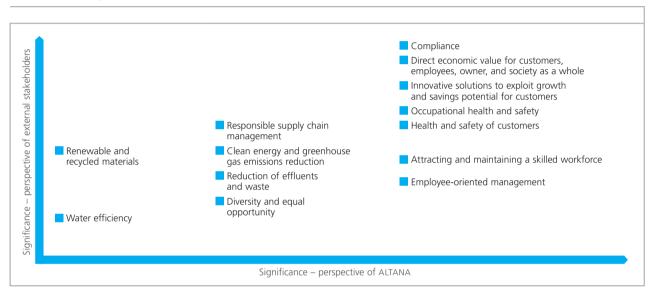
The stakeholders incorporated in the materiality matrix, which were identified based on high relevance, came from the areas of customers, suppliers, NGOs, foundations, politics, and institutions. Internally, EH&S, Corporate Communications, Strategy, Procurement, Research and Development, Finances and Controlling, Engineering, and Sales were incorporated. ALTANA will continue to update the materiality matrix on a regular basis.

#### Objective Evaluation of Sustainability

To be able to measure not only the company's business performance but also its involvement in all areas of sustainability, alongside key performance indicators and certified management systems, ALTANA is using objective external evaluations increasingly. The assessments of the chemical industry rating company EcoVadis play a special role. In 2018, ELANTAS Beck India, ECKART America, and BYK Additives at the Widnes site were evaluated by EcoVadis. As a result, ALTANA continued its successful series of assessments.

EcoVadis, which analyzes environmental aspects, procurement policy, compliance, and working conditions of companies based on the international sustainability guideline ISO 26000, has become one of the world's leading rating

#### **ALTANA Materiality Matrix**



platforms for the chemical industry. More than 20,000 companies are now registered with it.

#### Organization of Sustainability

At ALTANA, the Group's operating companies are responsible for implementing and anchoring sustainability. The individual companies are committed to continually reducing the environmental effects of the Group and to improving safety at the respective sites. Furthermore, the individual sites are required to introduce suitable management systems and have them certified.

Moreover, special, cross-divisional expert platforms exchange information on relevant EH&S topics (for example energy, sustainability performance, and contact with food) and present best-practice models.

#### Sustainable Development Goals

ALTANA has been a member of the UN Global Compact since 2010 and commits to integrating the ten principles into the company and to observing the general goals of the United Nations (see the Communication on Progress of Global Compact on page 110).

At the summit meeting on September 25, 2015, the 193 member states resolved the 2030 Agenda for Sustainable Development. 17 Sustainable Development Goals (SDGs) and a total of 169 targets were defined. The implementation phase began on January 1, 2016, and will end 15 years later in 2030.

In the meantime, many institutions and companies have joined the Sustainable Development Goals initiative and launched programs to reach the objectives. ALTANA supports this United Nations plan, and, in a first step, determined the goals that are most important for the ALTANA Group in a survey. For this purpose, managers and employees were invited to evaluate the importance of the 17 goals for ALTANA now and in the future. Based on this survey, the goals presented on the next page were developed for ALTANA.

Descriptions, objectives, and results of the Sustainable Development Goals defined for ALTANA can be found in the chapters of the 2018 Corporate Report indicated and in the online document "Facts and Figures on Sustainability 2018."

#### CLEAN WATER AND SANITATION 2 ZERO HUNGER GOOD HEALTH AND WELL-BEING QUALITY GENDER NÖ POVERTY 3 5 4 6 8 DECENT WORK AND **9** INDUSTRY, INNOVATION AND INFRASTRUCTURE REDUCED 10 13 CLIMATE 14 LIFE BELOW WATER 15 LIFE ON LANS 16 PEACE, JUSTICE AND STRONG 17 PARTNERSHIPS FOR THE GOALS

#### UN Sustainable Development Goals (SDGs)

#### SDGs with special relevance for ALTANA



#### Occupational Health and Safety

For ALTANA, the health and safety of its employees is a top priority. All of its worldwide sites have established their own safety organization, which includes adherence to all local occupational safety regulations, training measures, as well as recording and evaluating accidents and near accidents. ALTANA uses the

Work Accident Indicator (WAI) as the most important key performance indicator in order to observe the development of occupational safety at all sites and to continually improve it. Further information can be found in the "Health and Safety" chapter, in the accident key performance indicators with the targets, as well as in the Management Approach "Occupational Health and Safety."



#### **Training and Education**

Our employees are our most important resource. ALTANA therefore promotes their professional development, prepares them for leadership positions, and enables them to participate in the company's economic success in order to retain them in the long term. A special focus is on recruiting young, specialized,

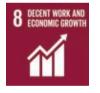
and managerial staff. Further information can be found in the "Human Resources" chapter, in the GRI Content Index, and in the Management Approach "Employee-Oriented Management."



#### **Gender Equality**

Promoting women in leadership positions remains a focus at ALTANA. By founding a number of initiatives, including LEADING WOMEN@ALTANA and Mentoring for Women, ALTANA seeks in the medium term to increase the share of women in leadership positions to the percentage of women among

all the company's employees. Further information can be found in the "Human Resources" chapter, in the Group Management Report, in the human resources key performance indicators, and in the Management Approach "Employee-Oriented Management."



#### Sustainable Economic Growth and Decent Work

Our customers' success is at the center of ALTANA's business activities. We can only be successful in the competitive environment in the long run if we offer our customers added value. We not only aim to secure longterm economic success, but to be sustain-

able in every respect. As a member of the UN Global Compact, ALTANA therefore actively supports the targets of responsible corporate management. Further information can be found in the Group Management Report, in the Communication on Progress of the UN Global Compact, and in the Management Approaches "Strategy," "Compliance," and "Employee-Oriented Management."



#### Innovation: New Products and Technologies

ALTANA's products and services are geared to offering its customers special sustainable solutions and to enable them to gain a competitive advantage. To keep or to extend its position as a leading specialty chemicals company, the ALTANA Group intends to continually

expand its competencies. To achieve this goal, ALTANA steadily grows its product portfolio through its own developments, as well as through acquisitions and cooperation with other companies, universities, and research institutes. Further information can be found in the "Products" and "Innovation and Employees" chapters, as well as in the Management Approach "Innovative Solutions."



#### **Climate Protection Measures**

Ecologically sound economic activity is a key component of ALTANA's corporate strategy. Our goal is to continually reduce the energy consumption and emissions at all of our sites and to use resources efficiently. In addition, ALTANA's products contribute to improving climate protection in the value chain.

ALTANA controls the Group's efficiency regarding energy consumption and the resulting  $CO_2$  emissions with the help of defined performance indicators and defined targets. Further information can be found in the "Environment" and "Products" chapters as well as in the environmental performance indicators with targets in the Management Approaches "Energy" and "Emissions."

#### Corporate Governance

Good corporate governance is a basis for the sustainable success of ALTANA. Even as a company not listed on the stock exchange, ALTANA orients itself to the rules of the German Corporate Governance Code.

At least once a year, the Supervisory and Management Boards deal with the regulations of the German Corporate Governance Code and examine which recommendations and suggestions ALTANA can follow even as a company not listed on the stock exchange and sensibly apply within the company given its shareholder structure.

ALTANA follows, or will follow, the vast majority of the applicable recommendations of the German Corporate Governance Code in the current version of February 7, 2017. This especially applies to the recommendations regarding the cooperation between the Management Board and the Supervisory Board, the cooperation between the Chairman of the Supervisory Board and the Supervisory Board plenum, dealings with conflicts of interest of the Supervisory Board members, the setting up and composition of the committees, as well as matters relating to the audit.

#### Management and Control

The Management Board of ALTANA AG consists of three members, who are appointed by the Supervisory Board for a period of five years. The selection criteria include experience, business and professional expertise, as well as competence in ecology and social responsibility. Considerations regarding diversity also play a role in the selection process. The Management Board members manage the Group independently and are solely committed to the interests of the company. Together with the presidents of the divisions and selected heads of central functional areas, the Management Board forms the Executive Management Team. In regular meetings, this team discusses and analyzes the development of business and important business incidents, as well as plans for the Group's future development and sustainability issues.

The company's Supervisory Board has twelve members. Half of them are employee representatives, elected by Group employees in Germany in accordance with the German Codetermination Act. The remaining six members are elected by the Annual General Meeting. Experience and expertise, as well as independence, are also important criteria in the selection of the members of the Supervisory Board. They are normally elected for a period of five years. The Management Board reports to the Supervisory Board regularly, without delay, and comprehensively on all issues relevant for the company regarding business development, risks, and planning, and discusses ALTANA's strategy with the Supervisory Board. Sustainability issues are also discussed regularly at the Supervisory Board meetings. The Supervisory Board monitors and advises the Management Board in its management activities. The Supervisory Board's tasks also include approving the annual financial statements. Specially defined business decisions of the company, such as major acquisitions and divestments, require the approval of the Supervisory Board, in accordance with a list of transactions that are subject to authorization.

The Supervisory Board formed an Audit Committee, a Human Resources Committee, and a Mediation Committee, legally required in accordance with section 27 (3) of the German Codetermination Act. Each committee consists of two shareholder representatives and two employee representatives. The Chairman of the Human Resources Committee and the Mediation Committee is the Chairman of the Supervisory Board, Dr. Klaus-Jürgen Schmieder. Since the Annual General Meeting on March 15, 2018, Dr. Jens Schulte has been the chairman of the Audit Committee. He has the necessary knowledge and expertise in the fields of accounting and auditing in accordance with the German Stock Corporation Act. There is a D&O liability insurance scheme for members of the Management and Supervisory Boards. The insurance covers personal liability risks in the event that a claim is made against members of the Management and Supervisory Boards while they are performing their activities. The insurance contract stipulates a deductible of ten percent of the damages, but a maximum of one-and-a-half times the amount of the fixed annual compensation of the respective member of the Management or Supervisory Board per insurance year. Further information on the compensation of the Management and Supervisory Boards can be found on page 72 f. of the online Consolidated Financial Statements.

#### Compliance

The trust of our business partners and customers, as well as the public, in the lawful and responsible behavior of the ALTANA Group and its employees is decisive for the success and reputation of the company. Compliance is therefore extremely important for ALTANA.

Since 2008, ALTANA has had a so-called Compliance Management System (CMS). It aims to ensure that its companies abide by the laws, regulations, and internal company rules the non-observance of which can pose considerable risks for the company. The objective of the CMS is therefore to identify the primary risks that can arise through violations of laws and rules, to ensure that the employees are trained regarding the content and meaning of the relevant laws and regulations, and to assure that measures are taken to prevent infringements of laws and internal regulations.

Furthermore, the CMS aims to ensure that the necessary control mechanisms are implemented so that violations of laws and rules can be detected and terminated. The CMS encompasses nine compliance areas, including corruption, antitrust law, environmental protection and safety, human resources, customs and foreign trade, data protection, financial reporting, as well as taxes.

The ALTANA CMS follows the ALTANA structure and is therefore decentralized. The local managing directors and the local management are primarily responsible for making sure that the individual subsidiaries and their employees behave in accordance with the rules. ALTANA AG lives up to its responsibility of ensuring compliance by providing a framework, making competencies and tools available, creating platforms and forums for local authorities, and by taking concrete measures to ensure compliance on the part of the management of subsidiaries or to impose minimum requirements, especially through guidelines that are binding Group-wide.

ALTANA's Code of Conduct, which holds for the entire company, contains binding rules regarding responsible, ethical, and lawful behavior for all staff members. This applies in particular to issues such as corruption, conflicts of interest, antitrust law, environmental protection, and discrimination. Together with the company's Guiding Principles, the Code of Conduct provides orientation for responsible corporate action. The Code of Conduct and the Guiding Principles are published on our website (www.altana.com). Since 2010, ALTANA's employees have been trained with the help of an e-learning program regarding the content of the Code of Conduct and further issues relevant to compliance such as corruption and bribery, as well as competition law issues. In 2018, around 4,200 employees completed the Code of Conduct training program.

Moreover, for each compliance area further specific measures have been developed and implemented to ensure that laws and internal regulations are adhered to. This includes, for example, an IT-assisted system with whose help business partners that support ALTANA AG and its subsidiaries in sales or in their cooperation are examined for potential compliance risks. Another important element to guarantee the effectiveness of the CMS is the work of Internal Audit. For a few years now, compliance programs have been carried out regularly at ALTANA and its subsidiaries.

With the ALTANA Compliance Hotline, ALTANA provides another central means of ensuring compliance. The latter gives employees as well as external third parties the possibility of reporting illegal behavior, if need be, anonymously.

Once a year, the Audit Committee receives a written report on compliance that is presented and discussed in a meeting of the committee in addition to the other proceedings. The report gives an overview of the risks identified for each compliance area, as well as already implemented or planned measures to advance the system. The Audit Committee is also informed about compliance violations.

ALTANA joined the UN Global Compact initiative, whose members are voluntarily committed to adhering to social and environmental standards as well as the protection of human rights. By joining Global Compact, ALTANA has not only acknowledged its principles but also shown a general commitment to support and promote overall UN aims.

#### Corporate Bodies and Management

#### The Management Board

Martin Babilas Chairman

Responsibility:

- ELANTAS Division
- ACTEGA Division
- Corporate Development
- Human Resources
- Digital Transformation
- Corporate Communications
- Internal Audit

#### Stefan Genten

Responsibility:

- Controlling
- Accounting
- Corporate Finance/Treasury
- Tax
- Information Technology
- Legal/Patents
- Compliance

Dr. Christoph Schlünken

Responsibility:

- BYK Division
- ECKART Division
- Innovation Management
- Key Account Management
- ALTANA Excellence
- Environment, Health & Safety
- Procurement

#### The Executive Management Team

The Executive Management Team is an advisory body in which strategic and operative issues that are important for ALTANA and the divisions are discussed and deliberated on. In addition to the members of the Management Board, the Executive Management Team includes the four presidents of the divisions as well as selected executives of the company.

(in alphabetical order)

Jörg Bauer Vice President Human Resources

**Dr. Guido Forstbach** President Division ELANTAS

**Dr. Stephan Glander** President Division BYK

Thorsten Kröller President Division ACTEGA

Volker Mansfeld Head of Corporate Development

**Dr. Wolfgang Schütt** President Division ECKART

**Dr. Petra Severit** Chief Technology Officer

#### The Supervisory Board

**Dr. Klaus-Jürgen Schmieder** Chairman

Ulrich Gajewiak<sup>1</sup> Deputy Chairman

Susanne Klatten Deputy Chairwoman

Dr. Anette Brüne<sup>1</sup>

Dr. Monika Engel-Bader

Armin Glashauser<sup>1</sup>

Klaus Koch<sup>1</sup>

Beate Schlaven<sup>1</sup>

**Dr. Jens Schulte** 

Dr. Antonio Trius

Stefan Weis<sup>1</sup>

Dr. Matthias L. Wolfgruber

#### Supervisory Board Committees

The Supervisory Board of ALTANA AG has established the following committees:

#### **Human Resources Committee**

Dr. Klaus-Jürgen Schmieder (Chairman) Ulrich Gajewiak Susanne Klatten Beate Schlaven

Audit Committee Dr. Jens Schulte (Chairman) Armin Glashauser Dr. Antonio Trius Stefan Weis

Mediation Committee (in accordance with section 27 (3) of the German Codetermination Act) Dr. Klaus-Jürgen Schmieder (Chairman) Ulrich Gajewiak Susanne Klatten Klaus Koch

#### Report of the Supervisory Board

The Supervisory Board of ALTANA AG, carrying out the functions stipulated by law and the Articles of Association, closely followed the work of the Management Board again in 2018. The Supervisory Board dealt in depth with the situation and development of the company as well as with various special issues. The Supervisory Board was regularly informed by the Management Board about the respective agenda items through presentations and oral reports in meetings. The Supervisory Board also regularly received additional written reports. Between Supervisory Board meetings, the Chairman of the Management Board informed the Chairman of the Supervisory Board about significant developments and events, and discussed pending or planned decisions with him. The Supervisory Board was involved in all major company decisions.

#### Meetings of the Supervisory Board

In the 2018 fiscal year, the Supervisory Board held four regular meetings and one constitutive meeting. At the meetings, the economic situation and the development perspectives of the ALTANA Group, as well as important business events, were discussed and deliberated on in detail. In addition to regular reporting on ALTANA's sales, earnings, and financial development, the Supervisory Board dealt in depth with the strategy of ALTANA and its individual divisions. Furthermore, the Supervisory Board dealt with ALTANA's Digital Transformation, the Group's IT strategy, as well as personnel development and projects of the ALTANA Institute. The Supervisory Board also accompanied ALTANA's further investments in the Israeli Landa Corporation of 100 million U.S. dollars. At its December meeting, the Supervisory Board dealt extensively with corporate planning for the coming years and with the budget for 2019, which it approved. At the constitutive meeting, which was held following the Ordinary Annual General Meeting in March of 2018, members of the Supervisory Board chairpeople.

#### Meetings of the Committees

The Human Resources Committee met thrice in the year under review. It dealt primarily with issues pertaining to compensation. The Audit Committee met twice in the 2018 fiscal year. In the presence of the auditor as well as members of the Management Board, the Audit Committee discussed the annual financial statements of ALTANA AG and the ALTANA Group. In addition, it dealt with the statutory audit process mandating the auditor, the setting of audit fees, monitoring the auditor's independence, and the approval of non-auditing services of



Dr. Klaus-Jürgen Schmieder, Chairman of the Supervisory Board of ALTANA AG

the auditor. Furthermore, the Audit Committee addressed the identification and monitoring of risks in the Group, the Group's internal auditing activities, as well as ALTANA's Compliance Management System. The Mediation Committee, established in accordance with section 27 (3) of the German Codetermination Act, did not convene in the 2018 fiscal year.

#### **Annual Financial Statements**

The annual financial statements of ALTANA AG, the consolidated financial statements for the year ended December 31, 2018, and the management report of ALTANA AG, as well as the Group management report, were audited by PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft, which was appointed by the Annual General Meeting and engaged by the Audit Committee of the Supervisory Board, and it issued an unqualified audit opinion in each case. The system for early risk recognition set up for the ALTANA Group pursuant to section 91 of the German Stock Corporation Act was audited. The examination revealed that the system is capable of fulfilling its objectives. The financial statement documentation, the Corporate Report, the reports of PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft on the audit of the annual financial statements and the consolidated financial statements, as well as the Management Board's proposal for the distribution of the profit, were made available to all Supervisory Board members. The Audit Committee of the Supervisory Board dealt at length with this documentation. The Supervisory Board plenum inspected the documentation and dealt with it in depth at its balance sheet meeting in the presence of the auditor, who reported on the main results of the examination. The Supervisory Board is in agreement with the findings of the audit. Following its final examination, it has no grounds for objection. At its meeting of March 12, 2019, the Supervisory Board approved the annual financial statements and consolidated financial statements prepared by the Management Board. The annual financial statements are thereby adopted. The Supervisory Board evaluated the Management Board's proposal for the distribution of the profit and is in agreement with its recommendation.

#### Report in Accordance with Section 312 of the German Stock Corporation Act

The Management Board prepared a report in accordance with section 312 of the German Stock Corporation Act on relations with affiliated companies for the 2018 fiscal year. The Supervisory Board inspected this report and found it to be accurate. The auditor issued the following audit opinion:

"On completion of our audit and assessment in accordance with professional standards, we confirm that the factual statements of the report are correct and that the consideration paid by the company for the legal transactions in the report was not inappropriately high."

The Supervisory Board approved the auditor's findings. Following the completion of its own review, the Supervisory Board has no objections to the Management Board's statement at the end of the report.

#### Personnel Changes

With the end of the Ordinary Annual General Meeting of ALTANA AG on March 15, 2018, the tenures on the Supervisory Board of Susanne Klatten, Dr. Lothar Steinebach, and the employee representatives came to an end. Within the framework of the election of employee representatives in the Supervisory Board on January 30, 2018, Dr. Annette Brüne, as well as Ulrich Gajewiak, Armin Glashauser, Klaus Koch, and Stefan Weis, were reappointed as

members of the Supervisory Board. Beate Schlaven was elected as an employee representative in the board for the first time. Olaf Jung departed from the board. The Ordinary Annual General Meeting reappointed Susanne Klatten and appointed Dr. Jens Schulte for the first time as members of the Supervisory Board. The tenure of the newly appointed and reappointed members of the Supervisory Board began with the end of the Annual General Meeting on March 15, 2018. The Supervisory Board reappointed Ulrich Gajewiak and Susanne Klatten as deputy chairman and deputy chairwoman of the Supervisory Board. The Supervisory Board reappointed Ulrich Gajewiak and Susanne Klatten as members of the Human Resources Committee, and appointed Beate Schlaven as a member of said committee for the first time. Dr. Jens Schulte was appointed as Chairman of the Audit Committee, succeeding Dr. Lothar Steinebach. Armin Glashauser and Stefan Weis were reappointed as members of the Audit Committee. The Supervisory Board reappointed Susanne Klatten and Klaus Koch to the Mediation Committee.

The Supervisory Board would like to express its gratitude to Lothar Steinebach and Olaf Jung for the good and trusting cooperation. The Supervisory Board would also like to thank the members of the Management Board, the company's management, and the Group's employees for their achievements and commitment during the last fiscal year.

Wesel, March 12, 2019

For the Supervisory Board

Man Muieds

Dr. Klaus-Jürgen Schmieder Chairman

### **Creating Added Value at ALTANA**

At ALTANA, we create added value for our customers, employees, owner, and society as a whole through our close proximity to customers, innovative top achievements, and sustainable solutions. To this end, we invest in future technologies, expand in growth markets, establish consistent and global promotion of internal talent, and always have our customers in mind in everything we do. On the following pages you can read how we manage to create added value in concrete cases.

- 22 FROM GLOBAL SUCCESS TO LOCAL GROWTH "The Rising Dragon"
- 26 FROM RESEARCH TO ADDED VALUE "Turning Molecules Around"
- 30 FROM TALENT TO LEADERSHIP "Strengthening Global Thinking"
- FROM INVESTMENT TO EXCELLENCE "Change to Lead"
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- 42 FROM CURIOSITY TO CONFIDENCE "Leon Is Now on the Ball"

## FROM GLOBAL SUCCESS

ALTANA is paving the way for sustainable profitable growth by acquiring business activities, through innovative technologies, and by investing strongly in its core business. Thanks to our excellent financial position, we can implement our growth strategy consistently and successfully. The ALTANA Group has a presence around the globe with 47 manufacturing sites as well as 60 service and research laboratory sites. We currently generate 88 percent of our sales outside of Germany. Accounting for 33 percent of ALTANA's total sales, Asia is one of our biggest regional growth drivers. China now comprises 18 percent of the company's sales, making it the company's second-largest sales market. The ALTANA Group is steadily extending its position in Asia, including at the Tongling site of its biggest business division, BYK, and at BYK's new site at Shanghai Chemical Industry Park.

# TO LOCAL GROWTH



Modern, cosmopolitan, and functional – BYK's new site in Shanghai Chemical Industry Park (SCIP). The 50,000 square meter property has sufficient space for R&D, technical service, logistics, administration, and not least storage space.





### **"THE RISING DRAGON"**

The ALTANA Group is investing substantially in Asia's growth markets. BYK is not only expanding its site in Tongling, but is also establishing a new site in Shanghai Chemical Industry Park. With manufacturing, research and development (R&D), and service right at our customers' sites, we are generating added value for our stakeholders.

From small outposts in Asia to one of the main pillars of the ALTANA Group, today the Asia region is providing key added value for our company, accounting for around a third of our total sales and recording above-average growth rates. The central investment focus is China with the Tongling site of ALTANA's largest division, BYK. In addition, BYK has a new site in Shanghai Chemical Industry Park (SCIP). The name "The Rising Dragon" gives an indication of the strategic importance of the SCIP and

Tongling projects. "With the new site at Shanghai Chemical Industry Park we are extending our leading position in R&D, technical customer service, manufacturing, and logistics, right at our customers' sites in China," says Kreece Zhang, CFO of BYK Additives Shanghai.

The strengthening of production and the supply-chain competence locally, the consistent expansion of the product portfolio to meet the needs of the local market, the enlargement of



Exchanging ideas – Jing Wang, site manager at BYK Tongling, and Kreece Zhang, CFO of BYK Additives (photos in the middle and on the right), work at the Tongling and Shanghai sites. The BYK division is making investments to strengthen its competitive position in China.





local sales teams, and investments in labs in China are bolstering our competitive position. In addition, different functions are being brought together under one roof at the integrated site in Shanghai.

#### **Strengthening China as a Site for Our Business**

"Hence we are meeting our customer's growing requirements regarding innovative strength, product and manufacturing quality, as well as service orientation. Last but not least, the increase in capacity on the part of our local Chinese customers is an important signal reflecting greater customer satisfaction," adds Kreece Zhang.

R&D, application laboratories, technical service, logistics, and administration are concentrated on a piece of property encompassing 50,000 square meters. The new site in Shanghai will be officially inaugurated in April 2019. In a second phase, a new manufacturing site is to be built there starting in 2021. In September 2018, the first sod was turned for the expansion of the Tongling site. "Demand for our additives is so high that we have to swiftly push forward the capacity expansion," says Jing Wang, site manager at BYK Tongling. Among other things, new reaction and dilution vessels are planned, as well as the required factory hall, the expansion of the tank farm, and a new warehouse. The manufacturing capacity is to be quadrupled.

#### **Investment of Almost 50 Million Euros**

"The capacity expansion enables us to offer individual product solutions for the Chinese market," says Jing Wang. "And that's exactly what our customers want. The demand is there. So we can decisively enhance our competitiveness." The new capacities are slated to be ready for operation next year.

The ALTANA Group is creating the prerequisites for further growth in Asia. To this end, we are investing heavily. A total of almost 50 million euros have been allocated for the newly integrated site in Shanghai and to strengthen the Tongling site by expanding the manufacturing facilities there – to give "The Rising Dragon" a sufficient boost.

## FROM RESEARCH

Leading in everything we do – this applies particularly to the ALTANA Group's diverse products. Innovative and sustainable solutions for our customers make an important contribution toward strengthening our competitive position and conserving resources.

The ALTANA Group's products offer customers around the world specialty chemical solutions that make products used in daily life better and more sustainable. This helps boost our customers' competitiveness. The ALTANA Group's innovative strength gives its stakeholders decisive added value. One solution providing the necessary added value is METALURE® Liquid Black, an ECKART effect pigment with unique liveliness and gloss. But the spectacular effect is not the only aspect that is impressive. The product has a wide range of uses in both aqueous and solvent-based coating systems, and, last but not least, improves automobile recyclability in accordance with the new norms.





A unique, highly dramatic effect of METALURE® Liquid Black – made possible by a special elaborate metallization process. After chrome is evaporated on a film and wound on rolls, at the end the metallized layer is reduced to pigment size and then can be added to paints and coatings.





### **"TURNING MOLECULES AROUND"**

ECKART, the effect pigment specialist in the ALTANA Group, has successfully proved its innovativeness with METALURE<sup>®</sup> Liquid Black – and created the necessary added value for our customers.

Complete light absorption makes objects look matte-black. Now ECKART has managed to find the optimal compromise between absorption and metallic reflection. The unique effect pigment METALURE<sup>®</sup> Liquid Black combines a deep black appearance with high metallic gloss.

For the patented effect pigment, ECKART uses chrome, which, coupled with an elaborate metallization process, enables a deep-dark, jet-black mirror effect. "We discovered this highly dramatic effect when we dealt intensively with the question of how to achieve new effects with the smallest pieces of metal and thus expand the color space," says Dieter Prölß, head of Technology and Process Development at ECKART.

#### The Idea: Chrome Instead of Aluminum

Before the invention of METALURE<sup>®</sup> Liquid Black, the PVD (physical vapor deposition) standard pigment portfolio was based on aluminum. The metal is evaporated in semi-transparent layers on a film, removed, and subsequently reduced to the desired pigment size. However, the pigments should not only become more and more brilliant, but also darker for a silvery shine and ever



Testing, testing, testing – this includes checking the chemical resistance (photo bottom left). This is one of the many work steps in product development. Wolfgang Herzing (photo on the right), the group manager at the technology center, and the R&D and product management team examine the metallic effect of the test objects.





thinner. But in using aluminum ECKART came up against a natural physical border, as the metal cannot be evaporated to become as thin as desired.

An alternative was needed. "We got the idea of trying it with chrome," says Wolfgang Herzing, the group manager at the technology center. The metal chrome is characterized by high chemical stability and its high metallic gloss, known particularly from the automotive sector (on trim, for example).

Chrome is evaporated onto a film reactively in an oxygen atmosphere; the further pigment manufacture occurs analogous to the process of manufacturing PVD aluminum pigments. Since demand for the product is currently increasing, the production capacities were already expanded.

#### **Highly Dramatic Effect**

The patented effect pigment METALURE<sup>®</sup> Liquid Black has a wide range of uses. It can be applied to coat outdoor objects (for instance, automobile bodies) and also has applications in the premium consumer goods segment. For example, it can be

used to coat speedometers in the automotive industry. It is not only the highly dramatic "black metallic effect" that is impressive, but also the color fastness under strong UV light.

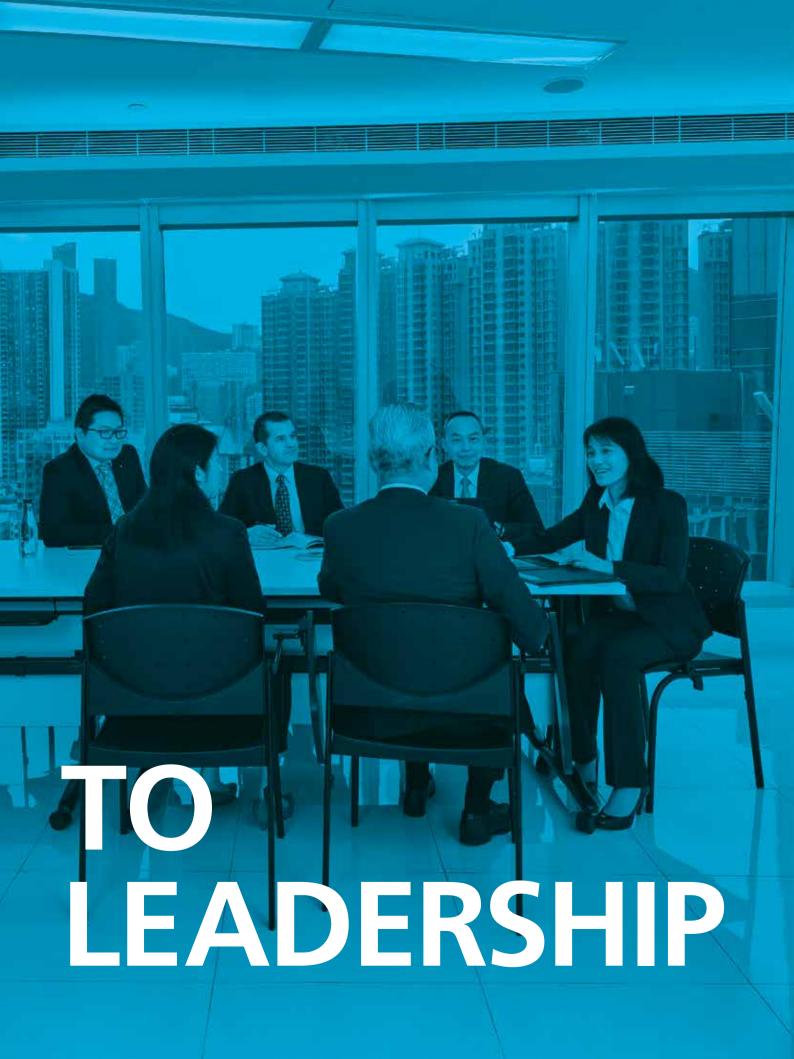
#### Years of Research and Development Work

ECKART did several years of research and development work before the product reached market maturity – or, as Dr. Klaus Greiwe, Product Manager Added Value at ECKART, says: "Turned around molecules." This was possible because the ALTANA Group had allocated the resources needed for many years of research and development.

"The framework conditions are right at ALTANA," says Dr. Klaus Greiwe. In addition, there is entrepreneurial thinking, which includes stamina. Says Wolfgang Herzing: "Despite the considerable efforts we had to make at the beginning, we didn't throw in the towel. With our determination, inventiveness, and persistence we created METALURE® Liquid Black and thus provided our stakeholders with the necessary added value."

## FROM TALENT

The ALTANA Group's employees are its most important resource. In order to ensure the lasting success of our company, we promote their professional development and prepare them for leadership positions. A special focus is on young talent, specialists, and managers. In keeping with the objectives of our Keep Changing Agenda, by 2020 around 70 percent of all of our management positions are to be occupied internally. Also, we aim to further strengthen the internationalization of our management. To achieve these targets, we have developed a systematic talent management concept. At the center of the concept are our employees. They are developed optimally and expediently based on their abilities and interests. ALTANA's integrated human resource development programs are geared to this purpose. They offer employees further training possibilities and the opportunity to enhance their personal development.





Practice and theory – MDP participants experience production close up, for example at the ECKART and ELANTAS plants in Zhuhai, China. They work together on projects right on site.





### **"STRENGTHENING GLOBAL THINKING"**

Motivated and qualified employees are the basis of ALTANA's sustainable growth. The company's pioneering talent management for young staff and managers generates the required added value for our stakeholders with specific human resource development programs.

Project work with colleagues across three continents and three time zones? Project meetings at midnight? "That was a remarkable experience," says Ka Lai (Mandy) Lam. "But a positive one," she adds. The head of Finance, Controlling & Supply Chain Management at ECKART Asia in Hong Kong participated in ALTANA's Management Development Program (MDP) and is impressed by its structure and content. "The intensive program helped me to improve my knowledge and my abilities, to learn new things, and also to find out a lot about myself," says Mandy Lam. During the program, she visited sites of ALTANA's four divisions across the globe. "The personal contact at the sites opened my eyes to the possibilities that exist." She is fascinated by the opportunity to cooperate with people from different cultures.



Hong Kong – MDP participant Mandy Lam talks with her management colleagues at ECKART Asia at the Hong Kong site. She successfully implements the knowledge she gained in the MDP in practice.





#### **Boosting Competitiveness**

In order to work efficiently and successfully in a global company, it is extremely important to establish a worldwide network of good contacts and to gain an understanding of special cultural, professional, and country-specific features. And this is one of the main goals of ALTANA's talent management concept. The MDP is one of the measures geared to young managers who are particularly willing to change. They are prepared for global leadership roles – individually and at the same time specifically for their future tasks.

"To this end, we have to strengthen their global perspective and global thinking and to harness our promotion activities in an integrated yet need-oriented way," explains Anne Gradl, the head of Leadership & Talent Management at ALTANA. Fostering global thinking and working is a special focus of the MDP. Participants complete six modules in a period of 18 months. Annette Lampe, the head of personnel development at ALTANA, explains: "We at ALTANA have to convince young talent of the merits of our company to ensure that we remain competitive in the long run in a globalized world." The talent management approach therefore encompasses a wide range of specific programs for both future and existing managers.

#### Leaving One's Comfort Zone and Going the Extra Mile

The need for managers is high. ALTANA set itself the goal of occupying some 70 percent of its leadership positions internally by 2020. "Suitable candidates for the MDP are personalities with great flexibility, openness, a performance orientation, and a willingness to leave their comfort zone and go the extra mile," stresses Annette Lampe.

The employees also have to want and be able to push forward changes as entrepreneurs. For the human resource development programs are an important investment in ALTANA's leadership culture. "They form the basis of our corporate success. And they enable us to achieve the necessary added value for our stakeholders," says Annette Lampe with conviction.

# FROM INVESTMENT

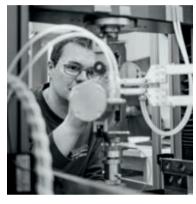
Thanks to our sustainable growth strategy, we at ALTANA create the necessary added value for our stakeholders, our employees, and our customers. We achieve this through our outstanding products and processes in manufacturing as well as research and development. ALTANA offers its customers around the world excellent specialty chemical solutions, which make products used in daily life better and more sustainable. As they have innovative product characteristics, are environmentally friendly, and are safe, they assure our customers the necessary competitive edge. This is made possible by the ALTANA Group's production and research and development at our 47 manufacturing sites and 60 service and research laboratory sites across the globe.





Prepared for higher growth – with double the amount of product capacities and triple the amount of R&D capacities. This also includes a filling facility (photo on the left), a tensile tester for R&D (photo in the middle), and crown cork inspection.





# "CHANGE TO LEAD"

ACTEGA DS has special solutions for closures and packaging that customers want. As a result, the ALTANA Group creates added value for its stakeholders. Its innovative strength enables high and sustainable growth for ACTEGA DS. In order to become even more innovative, sustainable, and efficient, the company is consistently investing in the expansion of the site.

"Even for me as an experienced production manager, it is extremely fascinating to test new processes during production," says Laurent Bled. This challenge appeals to the production manager at ACTEGA DS in Bremen and motivates him to be fully committed to the company's current large project. The specialist for innovative closure and packaging technologies is investing 20 million euros to expand the site. By 2021, the area for production, research and development (R&D), and storage is to be extended by 8,000 square meters. This will create enough space to double production capacities and triple R&D capacities.

The around 150 employees of ACTEGA DS have ambitious plans. The ALTANA Group's closure and packaging specialist not only intends to defend its position as a globally leading supplier of innovative, sustainable technologies for sophisticated





The foundation is laid – for the 8,000-squaremeter expansion of ACTEGA DS in Bremen. The ALTANA Group is investing around 20 million euros to expand the site. Managing director Wilfried Lassek and his project team have a look at the progress that has been made at the construction site.



and application-oriented solutions, but to extend it. ACTEGA DS is going on the offensive. Apart from the food and beverage industry, it is focusing increasingly on the medical technology and consumer goods sectors. ACTEGA DS wants to grow by up to 10 percent a year in future markets.

#### **Operational Excellence**

"Our claim 'Change to Lead' sums it up," says Wilfried Lassek, the managing director of ACTEGA DS. "Our project is not only a site expansion. We are investing in technological progress in order to improve our competitive position." Optimization of the production processes is a key contributor to the necessary excellence. The use of resource-saving technologies is another. As a consequence, the energy efficiency of the new buildings will be improved decisively.

Due to the consistent implementation of ALTANA's sustainability thinking, moreover, employees will no longer have to engage in difficult physical work such as raw-material preparation in the course of process optimization. Due to investments in additional automation measures in conveyor technology, such physically burdensome work will largely disappear. In parallel, new jobs are created, which makes ACTEGA DS more attractive for specialists.

#### **Digitalization for Greater Customer Satisfaction**

ACTEGA DS is not only improving its production conditions, but also its innovative strength. Due to the expansion of applied R&D, the site will become an innovation center for closure and packaging solutions. In the process, ACTEGA DS will consistently use digitalization to develop new solutions for our customers. "We are creating structures that will enable us to develop individualized solutions with our customers right here," says Wilfried Lassek with conviction. For him one thing is clear: "Digitalization, used properly, will help us achieve the required versatility and flexibility in the face of rapidly changing markets."

# FROM OFFERING SOLUTIONS

The ALTANA Group aims to grow profitably in the long term. We therefore not only gear our entrepreneurial decisions to economic and social necessities, but also consider ecological aspects. This triad of economy, ecology, and corporate social responsibility reflects our understanding of sustainability. Our expertise in chemistry, formulation, and application enables us to develop innovative and environmentally compatible solutions that conserve resources and protect the climate. In addition, we help our customers manufacture with low emissions and energy efficiently and heighten the security of their products. With its innovative and ecologically sound products, the ALTANA Group is one of the most important suppliers on the markets of today and tomorrow. An example is ELANTAS. With its insulation technology solutions, this ALTANA Group division is among the world's leading suppliers for the growing e-mobility market.





E-mobility is the next revolution – and ELANTAS is at the very forefront. The e-mobility team in Hamburg at a meeting and platinum coating testing in the lab.



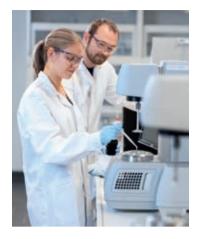
## **"PICKING UP SPEED SUSTAINABLY"**

ELANTAS has more than 100 years of experience and is already one of the leading suppliers of insulation technology in the young e-mobility market. The company's high-performance solutions for motors and power electronics in electric cars offer the necessary added value.

Creating added value through innovative 360-degree solutions with this core competence ELANTAS has become one of the world's leading insulating materials specialists for the electrical and electronics industry. Its innovative insulating technologies have long been standard in sustainable energy solutions such as wind energy, which began its triumphant advance in the early 1990s. "Now with e-mobility we are experiencing the next revolution," says Dr. Christian Przybyla, Chief Technology Officer (CTO) of ELANTAS. "It's incredibly fascinating to be part of the transition, which has only just begun and which will have lasting significance."

#### **High Solution Competence**

ELANTAS can contribute to electromobility with four applications. In addition to temperature- and corona-resistant materials for insulating copper wires for motor constructions, and impregnating resins to strengthen the entire engine, its coating and casting materials can be used to protect electronic components of electric







The core of the electric motor – without the stator it won't work. ELANTAS' Chief Technology Officer (CTO) Dr. Christian Przybyla (photo on the right) talks with colleagues from the global steering committee about product development in the field of e-mobility.



vehicles and charging stations. "The fact that e-mobility is making headway in everyday life enables us to enter a large future market with our products. So we can continue to pick up speed – and especially with sustainable solutions," says Dr. Christian Przybyla. There are currently around 1.5 million electrified vehicles sold worldwide annually, and by 2025 there are expected to be new sales of about 25 million hybrid and electric cars per annum.

Development work on high-performance electric engines is in full steam – and the specialist for insulating materials in the ALTANA Group is cooperating closely with original equipment manufacturers (OEMs). "We are in demand as a solution provider," says the Chief Technology Officer proudly.

#### In Close Proximity to Our Customers Worldwide

In addition, ELANTAS' solutions meet the high sustainability standards of e-mobility: The use of non-hazardous materials, the reduction of solvents, and the development of water-based technologies are the top priorities. "This is possible thanks to our wellpositioned research and development," says Dr. Christian Przybyla. ELANTAS has operational research and development departments at twelve sites globally for solution-driven, customeroriented tasks, as well as four departments for long-term, strategic research. A total of more than 150 employees are working in the field of innovation. Thanks to cooperation between the global teams and the resulting optimal use of knowhow and technology, customers are offered further, important added value.

Its success speaks for itself. ELANTAS' insulation solutions are already an integral part of electric engines of the world's leading manufacturers. By 2025, a market volume of 100,000 tons of different insulating materials is expected for motors, power electronics, batteries, and charging infrastructure in the field of electromobility. Outstanding performance features – besides the high sustainability standards – include the lifetime under strong thermal and electric stress as well as the efficiency in order to reduce the weight of the drive train. Says Dr. Christian Przybyla: "We know the expectations of our customers and are focusing our development activities accordingly."

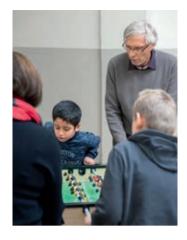
# FROM CURIOSITY

ALTANA practices good corporate citizenship by promoting many small and large social projects relating to education, science, and research. We show that we are a good neighbor by supporting initiatives near our sites in Germany and abroad. People are at the center of ALTANA's activities, both within the company and in our operating environment. We therefore support selected projects carried out by experienced partners from the field of education. The focus is on projects that promote people's understanding of the natural sciences, mathematics, informatics, and technology. As a network partner of the House of Junior Researchers foundation, ALTANA has for many years accompanied two elementary schools and one daycare center in Wesel in order to encourage children and youth to learn about science. ALTANA also supports an "educational coaching" project that individually promotes elementary school children from socially deprived backgrounds.





Mentors from the educational coaching project at GGS Innenstadt elementary school in Wesel talking about the children's development and during afternoon activities with them. Play is also important. Here a game of foosball.



# "LEON IS NOW ON THE BALL"

The mentors of the "educational coaching" project assisted 18 children at GGS Innenstadt elementary school in Wesel and the Klausenhof Academy in 2018. They are convinced that "all children have potential." ALTANA has supported the educational project, which aims to give children more equal opportunity, for more than four years.

The time had come. After six months of listening, accompaniment, and cautious approaches Leon\* finally let the mentor touch his hand. "It was a great moment for both of us," says Marianne Podszun. Because now it was clear that the necessary trust had been built. This takes a long time and requires a great deal of care and attention. Marianne Podszun is one of 18 volunteer mentors who are taking part in the "educational coaching" project at GGS Innenstadt elementary school in Wesel. The mentors are currently supporting the development of 18 children, starting in second grade, through so-called educational coaching. The children, who come from socially deprived backgrounds, are promoted and challenged in keeping with their interests and abilities.

#### Mentors Encourage and Challenge the Children

Eleven-year-old Leon is one of them. Shy and looking down, he stood in front of Marianne Podszun for the first time three

Play and fun – a mentor assisting a child as she reads in the school library and on the way to extracurricular activities outside of school, including playing music, riding a bike, and swimming. The motto of project manager Hildegard Derksen (photo at the bottom right) is: "All children have potential."







years ago. Playing with cloth and hand puppets, she learned about what he likes. Leon likes to go for walks. And since his mentor taught him how to ride a bike, he loves that too. They cycled together along the Rhine. She'll never forget when Leon asked her with big eyes whether it was really the Rhine.

#### You Can't Build Trust Without Empathy

Leon was not the only one who was alone with his neediness. His parents were too. His father lent a helping hand, seeing an opportunity for his son. He said that Leon liked to play the drums. His mentor subsequently organized a visit to a music school – and the boy learned that it's worth sticking with something, not giving up if something doesn't work out immediately. "You have to have discipline if you want to achieve something. Leon is now on the ball," says the mentor proudly. He not only started learning kickboxing, but also does his homework alone now after initially receiving help.

Not only the children but also the mentors have to be on the ball. "Going on an outing sounds easy. But you need a lot of

patience, experience, and empathy. That's very important," says Hildegard Derksen, a socio-educational expert and project coordinator at the Klausenhof Academy. If the mentors didn't have the ability to listen, to understand the children's gestures and facial expressions and behavior, and to empathize with the kids, they wouldn't be able to build a relationship with them. It is a responsible task, especially since the volunteer mentors are not therapists or family helpers, but usually retirees who practiced all kinds of professions.

You feel the volunteer work is worthwhile when you see the children seeking out intimacy and role models, says mentor Monika Ebling. "At the end of the day, you don't leave the results with the children at the school. And the encouraging and nice moments of support for the children motivate you again and again," she adds. The mentors not only receive training, qualifications, and further training, but also meet regularly to discuss their experiences and to get advice from Hildegard Derksen and the other mentors. Says Monika Ebling: "We get help just like the children do."

## **Group Management Report**

For ALTANA, 2018 had different dynamics in the course of the year. While the first half of the year was characterized by ongoing dynamic growth, the demand situation in the second half of the year was increasingly subdued. In addition, accelerated raw-materials prices led to a significantly higher materials cost ratio in the course of the year and thus to a decline in earnings. Nevertheless, we reached our growth targets overall in the 2018 fiscal year and the profitability was within our strategic target range. At the same time, we invested unabatedly in further sustainable profitable growth and pushed forward our strategic growth initiatives.

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### **Group Basics**

#### Organization and Legal Structure

The ALTANA Group is a global supplier of specialized chemical products and related services for different branches of industry and application fields. In the 2018 fiscal year, the Group's 63 consolidated subsidiaries and associated companies achieved sales of approximately  $\leq 2.3$  billion. The ALTANA Group employs about 6,400 people.

ALTANA's activities are grouped into four divisions, each of which has its own management and organizational structure. The divisions and the Group companies assigned to them are decentralized and empowered to largely make market-, location-, and product-related decisions themselves. The divisions are active worldwide and have their own production sites and sales offices as well as research and development laboratories in the regional markets that are important for them.

ALTANA AG, headquartered in Wesel, is a stock corporation in accordance with German law. As the ALTANA Group's managing company, it assumes strategic control of the Group and the divisions. ALTANA AG is led by the Management Board, whose members act on their own responsibility and are solely committed to the interests of the company. The Management Board's activities are monitored by the Supervisory Board, whose members also advise the Management Board. More information on ALTANA AG's management and control system is provided in the Corporate Governance section of this report.

All of the shares in ALTANA AG are held by SKion GmbH, Bad Homburg v. d. H., Germany, an investment company owned by Susanne Klatten.

The decentralized organizational structure combines the individual operating units' ability to act swiftly and cater to the needs of markets and customers with the advantages of a financially strong and internationally active group. The organization is designed to adapt flexibly to changed market conditions and a volatile economic environment. In addition, new activities can be integrated into the organization in a short time.

#### **Business Activity and Divisions**

As a globally active specialty chemicals group, ALTANA focuses its core activities on sophisticated markets and customers who need individual solutions.

A significant share of the ALTANA Group's product and service portfolio encompasses input materials for the production of coatings, printing inks, and plastics. In addition, ALTANA manufactures printing inks and coatings for special applications, insulating resins for the electrical and electronics industries, sealants for packaging, and measuring and testing instruments.

#### Activities of the Divisions

#### BYK

The BYK division is one of the leading international suppliers of special-purpose ingredients, so-called additives, used in coatings and paints, plastics, gas and oil exploration, and other industrial applications. The division's products, most of which are used in only very small amounts, have a decisive influence on the properties of their customers' end products or enable customers to improve their manufacturing and industrial processes.

Wetting and dispersing additives, one of the division's main product groups, help improve the distribution of pigments and filling materials, and enable them to function better, for example in coatings and plastics. With the help of defoamers and air-release additives, foaming is prevented during the manufacture of coatings and paints as well as in end customers' applications. Surface additives are used to produce special properties such as shiny, matte or especially smooth surfaces. Rheology additives improve, for examBusiness divisions and product portfolio

	<b>()</b> A	LTANA	
С вук	C ECKART	C ELANTAS	C ACTEGA
Paint additives	Coatings	Wire enamels	Closures
Plastics additives	Graphic arts	Electrical	Flexible packaging
Industrial applications	Cosmetics and personal care	Electronic	Labels
Exploration technology oil/gas	Plastics industry	Engineering materials	Paper-based packaging
Measuring and testing instruments	Functional applications		Publication and commercial
			Rigid packaging
			Specialty consumer goods

ple, the flow behavior of coatings and plastics. The division also manufactures measuring and testing instruments that are used to determine surface properties, color shades, and optical effects.

BYK-Chemie GmbH, based in Wesel, is the management company of the division. In addition, it is the division's biggest production and development site for additives and the ALTANA Group company with the highest sales. BYK also produces at other sites in Germany, the Netherlands, Great Britain, as well as in China and the U.S. All of the measuring and testing instruments are manufactured at a site in southern Germany (Geretsried).

The division sells its products under the brands BYK (additives) and BYK-Gardner (instruments), primarily to customers in the coatings, printing inks, and plastics industries. Due to its comprehensive portfolio, BYK is a system supplier and partner of coatings manufacturers and plastics processors in particular. On the basis of its great problem-solving expertise, BYK has also attained an important market position in many other industrial application fields in recent years.

The division markets its products in the important regions via its own companies and branches. In addition, a dense network of dealers and agents markets its products worldwide. BYK generates the highest share of its sales in Europe, followed by Asia and the Americas. In terms of countries, the U.S. makes the largest contribution to sales, followed by China and Germany.

BYK continually expands and supplements its product portfolio. To gear its innovation activities closely to the needs of the markets, the division has its own network of development laboratories, which cooperate closely with customers in the respective regions. At the same time, new fields of application are continually tapped for existing or new products.

#### ECKART

ALTANA concentrates the development, production, and sale of effect pigments in the ECKART division. Customers use these products to achieve visual and functional effects, primarily in coatings, plastics, printing inks, cosmetics, and construction materials. The principal raw materials are aluminum, copper, and zinc. Aside from metallic effect pigments, other pigments are offered based on artificial substrates. The division's portfolio is supplemented by effect printing inks and services.

Aluminum-based effect pigments comprise the largest part of ECKART's business. Customers use them particularly to achieve silver metallic effects, for example, for car paints or on graphic arts products. Aluminum pigments are also used for functional purposes, for example, in the manufacture of aerated concrete. Bronze effect pigments generate golden effects in paints, printing inks, and plastic products. Customers use zinc pigments in special paints to achieve functional properties, particularly for corrosion protection.

ECKART GmbH is the division's operating management company. It produces a large part of the effect pigments it sells worldwide in southern Germany (Hartenstein and Wackersdorf). Other manufacturing sites are located in Switzerland and Finland, as well as in China and the U.S.

The manufacturing process is characterized by a very high degree of value creation. In a number of successive steps, all kinds of pigments are made, refined chemically, and in some cases processed into press-ready printing inks.

The effect pigments are marketed predominantly via the division's own sales structures, but also by sales partners. ECKART's most important customers include international manufacturers of coatings, printing inks, and plastics.

Other important customers are manufacturers in the construction industry and the cosmetics sector. ECKART achieves nearly half of its sales in Europe. Its next largest sales regions are Asia and the Americas.

As an important manufacturer of metal effect pigments, ECKART continually pushes forward the development of new product qualities and opens up new fields of application on the basis of sophisticated technological expertise and many years of knowhow.

#### **ELANTAS**

The companies in the ELANTAS division offer their customers a high level of expertise in the field of electrical insulation materials. As one of the world's leading suppliers of such products, the division's portfolio concentrates on coatings for insulating magnet wires as well as special resins and coatings for impregnating and protecting electrical and electronic components.

ELANTAS has its own holding structure under the management of ELANTAS GmbH, based in Wesel. The latter controls the division's activities and supports its operating subsidiaries, which develop and produce insulating materials in Germany, Italy, China, India, Malaysia, the U.S., and Brazil.

The division's products are marketed worldwide. Among its most important customer groups are magnet wire manufacturers, which need materials to insulate wires made of copper or aluminum. The division also supplies insulating resins and coatings directly to manufacturers of electrical and electronic components.

ELANTAS' most important sales region by far is Asia, and particularly China. A high proportion of global manufacture of electrical and electronic components and consumer goods is concentrated in this region. The division has had its own production sites in China, India, and Malaysia for years. After China, its most important sales markets are the U.S., India, and Italy.

On the basis of comprehensive expertise in the manufacture and application of liquid insulating systems, the division is steadily expanding its activities. It seeks to tap new application fields and thus growth potential by developing new insulating materials and applying specific polymerization knowhow.

#### ACTEGA

The ACTEGA division's portfolio is tailored to the needs of the packaging and graphic-arts industries. It produces specialty coatings, printing inks, adhesives, and sealants used by customers to achieve functional and visual effects.

ACTEGA is managed by the holding company ACTEGA GmbH, based in Wesel. Subsidiaries in Germany, France, Spain, China, the U.S., Brazil, Canada, and Chile manufacture and sell the division's products. Its research and development activities are also decentralized, oriented to the competencies of the individual companies in the relevant application areas.

Important product groups of the division include waterbased coatings and printing inks, as well as sealants and adhesives used to make packaging materials. A focal point of its product portfolio is the specific needs of the food industry with its high quality requirements. In addition, there is a demand for ACTEGA's printing inks and overprint varnishes among customers in the graphic arts industry. The division's largest sales region is Europe, followed by the Americas. Its most important individual markets are the U.S. and Germany.

Together with the packaging industry, and in direct contact with brand manufacturers, ACTEGA develops new and improved optic and haptic functionalities. Its innovation activities primarily aim to improve the safety and shelf life of packaged foods.

In recent years, the division has invested in a targeted way in the acquisition and further development of new technologies in order to tap new growth potential in the medium to long term for its existing business and to prepare its entry into new markets.

## Important Influences on Business Development

ALTANA's different sales markets are influenced by various short-, medium-, and long-term trends.

Short- and medium-term fluctuations in demand result mainly from economic developments. The current development of consumer behavior is not the only factor. Our customers' expectations regarding the short-term development of the end markets downstream in the value chain also have a significant impact on their purchase behavior. This appraisal largely determines how much storage is reserved along the value chain.

In addition, actual and expected changes in the prices of essential raw materials impact the sales situation. When raw-materials prices continually rise, customers look for alternative input materials and this influences overall sales or the product mix. The same applies to significant changes in other cost components that have a strong influence on the price of products. This price sensitivity of the markets is also reflected in short-term changes in demand, when for example stronger price fluctuations are expected for significant raw-materials markets.

The competitive situation in the different product-specific market segments can have similar effects on customer behavior. The entry of new manufacturers into a market or the withdrawal of existing manufacturers from a market and the competitors' prices can impact demand.

Long-term changes in demand for the Group's products and services are brought about on the one hand by global megatrends and the economic growth of certain regions. On the other hand, product and technological developments continually open up new sales potential or lead to product segments being discontinued.

In the course of a year, seasonal fluctuations in demand result from lower customer activity during the summer months and at the end of the year.

#### Strategy and Control System

#### Strategy

Current market requirements, and market demands expected for the future, determine the ALTANA Group's corporate action. The success of our customers is at the center of our business activities. We can only be successful in the competitive environment in the long run if we offer our customers added value.

Our top financial priority is to sustainably increase the company's value. To achieve this aim, we consistently gear ALTANA to profitable growth in future-oriented specialty chemicals markets.

At ALTANA, profitable growth is based on several pillars. The primary ones are to expand our operating activities in existing markets and to open up new adjacent sales segments. ALTANA's four divisions occupy significant competitive positions in their respective sales markets. This positioning is an important prerequisite for our being identified and acknowledged by market participants as a competent supplier of customized solutions. In addition to ALTANA's comprehensive product portfolio, innovation plays a key role in its high level of problem-solving expertise.

To enable customers to create new applications and strengthen their portfolio, ALTANA continually pushes forward its own research and development activities. To this end, our employees' knowhow and experience are just as important as investments in new technologies.

To continually expand our specialized portfolio, we regularly supplement our operating growth by acquiring new companies or business activities. As a result, for example, new value creation steps are integrated into the Group or access to new markets and technologies is granted.

In recent decades, the ALTANA Group has increasingly geared its activities to international markets. As a consequence, the Group has been able to benefit from the strong growth rates of emerging countries and to accompany many customers as they build production structures in these regions. Furthermore, ALTANA's global orientation enables it to recognize local demand trends quickly and to examine whether the applications developed subsequently have sales potential in other regions too.

#### **Control System and Goals**

ALTANA's control system is fundamentally oriented to the goal of a sustainable increase in the company's value. A number of ratios, mainly financial, are derived whose developments are analyzed and for which target values are determined. The most important key performance indicators are ALTANA Value Added (AVA), sales growth, earnings before interest, taxes, depreciation and amortization (EBITDA), as well as the EBITDA margin, earnings before interest and taxes (EBIT), and capital expenditure.

A change in the company's value in a given period is calculated by using the financial ratio ALTANA Value Added. The absolute AVA is calculated by subtracting the cost of capital employed in the Group from the operating earnings. The relative AVA constitutes this difference in proportion to the capital employed. It is calculated by subtracting the cost of capital from the return on capital employed (ROCE).

The calculation of the operating earnings starts with earnings before interest and taxes, which are adjusted for acquisition-related and one-time special effects and from which a calculated tax burden is deducted.

The capital employed, in turn, encompasses those components of the assets and liabilities needed to achieve operating earnings. The cost of capital is determined from the weighted average of cost of debt and cost of equity. We regularly examine the weighted average cost of capital but only adjust it for the calculation of the AVA if it exceeds or falls below a certain range. In the last few years, we set our weighted average cost of capital at 8 %.

AVA and ROCE are used for measuring the company's success and for determining variable compensation compo-

nents. In addition, they are used as criteria for making strategic and operative decisions at the Group holding, divisional, and individual company levels.

Our goal is to achieve a sustainable positive AVA, that is, to achieve operating earnings that exceed the cost of capital. In each of the last few years, we have managed to generate a positive AVA.

Sustainable profitable sales growth forms the basis for a long-term increase in our operating earnings and thus in the value of the company. ALTANA's goal is to outperform the general market growth in the most important sales segments and thus to obtain market shares.

In the long term, we aim to achieve average annual operating sales growth of 5 %. We seek to generate additional growth through acquisitions, either by acquiring supplementary activities at the level of our existing divisions or through the possible integration of new business activities.

But growth should not be achieved at the expense of profitability. Therefore, control of the EBITDA margin is very important for the ALTANA Group. The long-term target range for the EBITDA margin of the Group is 18 % to 20 %. Derived from this are long-term target margins for our four divisions, which may deviate from the average target value for the Group due to the different business activities and market characteristics. In the last few years, the Group margins achieved were within or, in some years, even above the target range.

In addition to achieving long-term sales and earnings momentum, another focus to successfully increase the value of the company is control of the operating capital. The main factors of influence in this context are the development of fixed assets and of net working capital.

On average over several years, our investments in property, plant and equipment and intangible assets have been approximately 6 % of our sales. Due to this continuity, sharp increases in operating capital and resulting short-term fluctuations of the AVA can be minimized. In addition, every important investment is examined regarding its short- and long-term effects on the company's value.

For the control of net working capital, which is of great importance for the development of operating capital, we use key performance indicators to analyze and control profitable growth and the company's value. These key performance indicators concern the scope of inventories as well as trade accounts receivable and payable.

Apart from the aforementioned essential financial control parameters, there are other financial key indicators that help us analyze and control profitable growth and the company's value. The most important ones are cost figures (cost of materials, personnel expenses, etc.).

To guarantee that all activities are geared uniformly to the Group's strategy, we also use nonfinancial key performance indicators. These indicators, however, are not directly relevant for control and focus on a qualitative evaluation of activities whose financial measurability is limited. They include data for evaluating innovation and sustainability, analyzing sales markets, and gauging customer satisfaction.

#### **Integrated Planning Processes**

All of the key performance indicators relevant for control are compiled and analyzed within the framework of standardized reporting processes. To be able to use these key parameters effectively to control our strategy and possible shortand medium-term measures, there is an integrated planning process embracing different planning levels and dimensions.

The planning cycle has a strategic planning component, which combines the analysis of the essential performance indicators for future business development at the product-group level with a detailed representation of the changes expected in the market environment.

From this, strategic measures are derived enabling us to react to expected developments at an early stage. These measures, developed in the strategic-planning process,

### **Business Development**

include not only fields of activity on current sales markets, but also concrete goals and planning steps for entry into new fields of business or application areas and changes in the portfolio of business activities.

The decisions taken within the framework of strategic planning enter into our subsequent medium-term financial planning. The latter delineates our growth and profitability goals for the coming three years and the effects of the expected business development on ALTANA's asset and financing structure. This is used to derive possible measures for our financing strategy. Our medium-term financial planning is supplemented by scenario analyses, which transparently reflect the sensitivities of the key performance indicators to relevant, predominantly cyclical changes in the market environment. From this, we derive levels of reaction for possible countermeasures.

#### General Business Setting

#### **Overall Economic Situation**

In 2018, the global economy developed with a momentum comparable to that of the previous year. The International Monetary Fund (IMF) estimates that the world economy grew by 3.7 % last year (previous year: 3.8 %). But the global economic conditions steadily deteriorated in the course of the year. This trend was particularly evident in the established industrial nations. Both in the Eurozone and in Japan the economic performance was weaker than in the previous year. This burden was offset solely by the dynamic development of the U.S. economy. The emerging countries grew more strongly than the established economic nations again in 2018. The key economic indicators in the sales regions important for ALTANA's business developed at different levels in 2018.

With expected growth of 1.8%, the Eurozone posted significantly lower growth than in 2017 (2.4%). All of the important European economies underwent a similar economic development. According to the IMF, Germany's economic growth was particularly subdued. At 1.5%, it was well below the good previous year (2.5%). But the overall downturn in growth in Europe was also driven by other important economies in the Eurozone such as France and Italy.

According to current IMF estimates, the economic dynamic in the countries of the Americas was generally at a stable level. Only the U.S. economy grew, from 2.2 % in the previous year to 2.9 % in 2018. This development is based on a palpable improvement of private consumption and on companies' growing inclination to invest. Economic growth in the important Latin American economies was at the same low level as the previous year. The Brazilian economy remained stable, 1.3 % up on the previous year. The same applies to Mexico and the entire Latin American economic region.

Growth in Asia was also stable. The growth rate of the large emerging economic nation China fell from 6.9 % in the

previous year to 6.6 % in 2018. Growth in India, however, rose, from 6.7 % in 2017 to 7.3 % last year. Together with the countries of the ASEAN-5 economic region, these nations continue to constitute the basis of the development in the entire Asian economic area. But growth in Japan slowed, decreasing from 1.9 % to 0.9 %.

#### Industry-Specific Framework Conditions

According to estimates by the American Chemistry Council (ACC), global chemical manufacture increased by 2.8 % in the past fiscal year, achieving lower growth than in the previous year (2017: 3.2 %).

In 2018, the production volume in Germany, Europe's largest chemical manufacturer, decreased (excluding the pharmaceutical industry) by 1.5 % according to estimates by the German Chemical Industry Association, although producer prices increased. According to the ACC, other European countries that are important for the chemical industry also exhibited a clear slowdown in chemical production growth, including France and Italy.

In the U.S., chemical production increased to 3.1 % (previous year: 2.6 %) against the backdrop of improved macroeconomic conditions. In Latin America, chemical manufacture showed a constant development vis-à-vis the previous year after a few recessive years.

The chemical sector in the Asia-Pacific region was again the biggest driver of global growth. The ACC estimates that chemical production in the region grew in 2018 by 3.2 %, which, however, lagged behind the strong growth in the previous year (3.9 %). The loss of momentum is primarily due to the development of chemical production in China, whose growth decreased from 4.2 % in the previous year to only 2.5 % in 2018. By contrast, chemical manufacture increased in Korea and India, with growth of 5.2 % and 6.5 %, respectively.

From the beginning of the year to the end of the third quarter, the price of a barrel of crude oil rose from 66 U.S.

dollars to 85 U.S. dollars. Hence the increasing price trend that began in mid-2017 basically continued. But this development was not uniform. There was high volatility and repeated phases in which the price moved laterally or fell slightly. In the months to follow, from October to December, however, the price decreased strongly, closing the year at around 55 U.S. dollars. Nevertheless, the average price in 2018 was significantly higher than in the previous year.

#### **Important Events for Business Development**

In 2018, non-operating effects influenced ALTANA's earnings and financial situation as well as its assets.

Acquisitions in 2017 of U.S. and German PolyAd companies (BYK division), of Solvay's insulating resin business, and a further acquisition of wire enamel activities in China (both by the ELANTAS division) again had positive effects on sales and earnings in 2018, because these activities were included in the financial statements for a full fiscal year for the first time. In addition, the successful acquisition of novel technologies in 2017, which are to be developed to the stage of market readiness in the coming years, also influenced the Group's key performance indicators in 2018. Of primary importance in this context is the acquisition of metallography technology from the Israeli company Landa Labs.

In 2018, the development of exchange rates between the euro, the Group currency, and other currencies important for ALTANA had a negative effect on sales and earnings development. The average exchange rate of 1.18 U.S. dollars for one euro was higher than in the previous year (1.13 U.S. dollar for a euro). Effects from changed exchange-rate relations also resulted from a further increase in the average exchange rate between the euro and the Chinese renminbi from 7.63 renminbi to 7.81 renminbi for one euro. Other currencies important for key business figures also changed in relation to the Group currency, the euro. The effects from the translation of financial statements of important non-euro Group companies on items of the income statement were generally negative in 2018. However, differences in exchange rates on the balance-sheet date had a positive influence on the balance-sheet positions compared to the previous year.

#### **Business Performance**

#### **Group Sales Performance**

Group sales amounted to € 2,307.4 million in 2018, a 3 % or  $\in$  60.4 million increase over the previous year ( $\in$  2,247.0 million). Non-operating effects generally had a positive influence on the sales development. The acquisition of the PolyAd companies (BYK division) in 2017 and the new activities in the ELANTAS division acquired in the U.S. and China resulted in a sales increase of 1 % over the previous year due to the fact that they were included in the consolidated financial statements for a full calendar year for the first time. But the positive acquisition effects were more than offset by burdens from exchange-rate changes. Sales drops resulted primarily from the changed relations of the euro to the U.S. dollar, to the Chinese renminbi, and to the Brazilian real, amounting to 2 % in total. Adjusted for these non-operating effects, operating sales grew by 4 % in a year-to-year comparison. As a result, we achieved sales growth within the 2 % to 5 % range we had anticipated for 2018 at the beginning of the year.

The operating growth was driven almost exclusively by higher sales prices and slightly positive product-mix effects. The sales volume did not change much compared to 2017, however. But these influences generally developed unevenly within the Group.

The regional volume and sales structure shifted only slightly vis-à-vis 2017. Accounting for 38 % of total Group sales, as in the previous year, Europe continued to be

#### **Key figures**

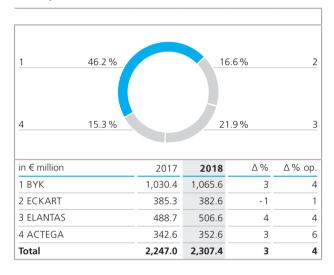
	2017	2018	Δ%	∆% op.¹
in € million				
Sales	2,247.0	2,307.4	3	4
Earnings before interest, taxes, depreciation and	470.0	420.6	0	0
amortization (EBITDA)	470.0	430.6	- 8	-8
EBITDA margin	20.9%	18.7%		
Operating income (EBIT)	335.9	295.8	- 12	- 12
EBIT margin	14.9%	12.8%		
Earnings before taxes				
(EBT)	306.0	264.1	- 14	- 14
EBT margin	13.6%	11.4%		
Net income (EAT)	234.6	187.0	-20	
EAT margin	10.4%	8.1%		

<sup>1</sup> Operating deviation, i.e. adjusted for acquisition and divestment as well as exchange-rate effects. This adjustment also applies to other sections of this management report.

ALTANA's most important sales market. Both nominal sales (+ 3 %) and operating sales growth (+ 2 %) in Europe was higher than in the previous year. Sales developed positively in most of ALTANA's important sales markets in the region. Only in Germany, Great Britain, Turkey, and a few Eastern European countries were sales down on 2017.

Sales in the Americas remained almost the same as in the previous year, after business had grown significantly in 2017. Adjusted for positive acquisition and negative exchange-rate effects, sales grew by 3 % in operating terms. Operating sales growth in the U.S. – still ALTANA's largest sales market, accounting for 19 % of total sales – reached 2 %. A main reason for the increase was an increase in oil and gas exploration activities. On account of the increase in annual-average crude-oil prices new mining sources were tapped in the U.S., and thus the demand for specialty products from the BYK division was higher than in the previous year. In Brazil and other important Latin American

#### Sales by division



#### Sales by region



markets, sales grew disproportionately compared to the prior year. Overall, the Americas accounted for 27 % of total Group sales, a slight drop from 2017 (previous year: 28 %).

Asia was responsible for 33 % of Group sales, unchanged from 2017. Recording operating growth of 6 %, Asia was the biggest growth driver of all of the regions, as in the previous year, though the sales dynamic cooled off somewhat. Sales in China, in particular, developed well, and we achieved operating growth of 5 % there. With an unchanged 18 % share of total sales, China is the Group's second-largest sales market. Nearly all of the other Asian countries also made positive contributions to the sales growth, most notably India and Japan, each achieving operating sales growth of 10 %.

#### Sales Performance of BYK

In 2018, the BYK division boosted its sales by 3 %, or 35.2 million, to  $\in$  1,065.6 million (previous year:  $\in$  1,030.4 million). This increase was slightly influenced positively by the prorated effects from the acquisition of the PolyAd companies in 2017, which, however, could not completely compensate the negative burden from exchange-rate changes. Adjusted for these two effects, operating sales growth was 4 % vis-à-vis the previous year. In the course of 2018, the sales dynamic developed unevenly and noticeably flagged, especially in the second half of the year.

In all markets and nearly all regions, BYK recorded sales growth. This is primarily due to price increases and positive product-mix effects. The sales volume, however, was slightly down on the previous year. An essential factor for the sales growth was the demand in oil and gas activities. But business with additives in the plastics industry and industrial applications, as well as sales of testing and masuring instruments, also developed positively. An increasing scarcity of raw materials in the course of the year curbed growth in some product groups. The slowdown in economic growth in the second half of the year was particularly due to declining demand for applications in the automotive industry.

In terms of regions, the division's growth was driven by Asia – and especially by the growing demand among customers in BYK's second-largest sales market, China. Substantial sales growth was also generated in other important Asian countries, above all in Thailand, Japan, and India. While sales in Europe did not grow at the same pace as in the Asian sales region, they showed a very stable development. A slight decrease in sales in Germany, Great Britain, and Turkey was more than compensated for by other important markets on the continent. The sales performance in the Americas remained virtually the same as in the previous year. The demand in Canada and Brazil, however, was disproportionately higher than in the previous year.

#### Sales Performance of ECKART

Sales in the ECKART division decreased by 1 % to  $\leq$  382.6 million (previous year:  $\leq$  385.3 million). Adjusted for slightly negative exchange-rate effects, however, sales were up by 1 % in operating terms. This is primarily due to price increases, which were set against negative product-mix effects. The sales volume of effect pigments was slightly lower than in the previous year.

Particularly due to steadily declining demand in the automotive industry in the second half of 2018, sales in this segment and in industrial applications were significantly lower than in 2017. Nor did sales with customers in the graphicarts industry reach the previous year's level. However, ECKART was able to expand its activities in the cosmetics sector in the last fiscal year.

In terms of regions, the division's operating sales growth varied. While Europe developed stably at the 2017 level, the Americas and Asia recorded slight operating sales growth.

#### Sales Performance of ELANTAS

In 2018, sales in the ELANTAS division increased by 4 %, or  $\notin$  17.8 million, to  $\notin$  506.6 million (previous year:  $\notin$  488.7 million). The positive sales effect from the two acquisitions in the U.S. and China in 2017 was completely offset by negative exchange-rate influences, and so after adjustments operating sales growth amounted to 4 %. The positive sales development is due to price increases and positive product-mix effects. The sales volume decreased slightly in year-to-year terms.

This development was reflected in all of the important fields of business. The division's biggest product segment, wire enamels, accounted for the largest share of the sales growth. But sales in the electric segment also improved slightly over the previous year.

In 2018, the demand for the division's products was generally positive in all core regions, with Asia again recording the strongest sales performance in operating terms. Asia accounted for more than half of the division's total sales in 2018. The sales achieved in China, ELANTAS' most important market, and in India developed disproportionately. The sales performance in Europe was also positive overall. Sales increased in many markets. In all of the important sales markets in the Americas, ELANTAS further expanded sales in 2018. The only country with lower sales was the U.S.

#### Sales Performance of ACTEGA

The ACTEGA division had the highest operating sales growth of all our divisions in 2018. Nominal sales increased by 3 %, or  $\in$  10 million, to  $\in$  352.6 million (previous year:  $\in$  342.6 million

lion). Adjusted for negative effects from exchange-rate fluctuations, sales rose by 6 % in operating terms. In the course of the year, the growth dynamic developed quite positively within the division, on the one hand due to a higher sales volume, and on the other due to the improved product mix compared to the previous year, supported by a slightly positive effect from price increases that were implemented.

In the important application fields ACTEGA achieved a positive business performance. It significantly boosted some activities with functional products for food packaging. But sales decreased in business with magazines and printed supplements as well as with labels.

In 2018, the regional sales structure of the ACTEGA division shifted slightly in favor of Europe at the expense of the Americas. The development in the core regions was generally positive with the exception of the German sales market. In operating terms sales in Europe, the division's largest region, increased significantly in the year under review. In Europe, positive sales impetus came from Italy, Spain, France, and many Eastern European countries, which more than compensated for the slightly lower sales in Germany. In the Americas, sales rose in the U.S. and in Brazil, the division's two largest single markets in the region in operating terms, vis-à-vis the previous year. The division also upped its sales in Asia in 2018.

#### Earnings Situation

The company's operating sales growth is not reflected by the earnings situation, because the price increases that were implemented did not completely offset the strongly rising material costs in the course of the year. As a result, earnings before interest, taxes, depreciation and amortization (EBITDA) decreased vis-à-vis the strong previous year by 8 %, or  $\in$  39.4 million, to  $\in$  430.6 million (2017:  $\in$  470.0 million). Since the positive acquisition effects and the negative

exchange-rate effects completely balanced each other out in the earnings, sales also fell by 8 % in operating terms after adjustments. Nevertheless, the EBITDA margin in 2018 of 18.7 % (previous year: 20.9 %) is within our strategic target range of 18 % to 20 %.

Both the performance of the absolute EBITDA and the EBITDA margin were below our expectations. At the beginning of 2018, we had expected an earnings growth on a par with the level of sales growth and thus profitability oriented more closely to the upper edge of our strategic target range. The discrepancy to the forecast was primarily due to the unexpectedly high increase in material costs.

This important cost factor for ALTANA, which encompasses raw-materials and packaging costs, developed negatively in relative terms. The material usage ratio, the ratio of these costs to sales, increased substantially to 43.8 % in 2018 (previous year: 41.5 %). The main reasons were the steady increase in raw-materials prices in the course of the year, especially the price of oil-based raw materials and specialty products, as well as in part extreme scarcities and limited availabilities of important raw materials. This trend particularly burdened BYK, ELANTAS, and ACTEGA.

Other cost factors important for ALTANA's earnings largely developed in proportion to sales. Personnel expenses rose only slightly, by 1 %. The ratio of total personnel expenses to sales fell to 20.9 % (previous year: 21.3 %).

In 2018, the structure of functional costs did not change significantly compared to 2017. Within production costs, external services rose disproportionately due to a number of strategic projects, as did maintenance costs due to high capacity utilization. In this area, personnel costs also rose disproportionately. But other kinds of costs that are important in production displayed a stable development or a downward trend.

In 2018, selling and distribution expenses increased slightly over the previous year, but the relative ratio to sales decreased. The drivers were lower depreciation and amortization and personnel expenses in sales. Outward freight and storage costs increased, however.

Of all the functional cost areas, research and development expenses exhibited the strongest growth in 2018, as in the previous year. On account of the continuous expansion of development activities in nearly all of our four divisions, as well as the expansion of strategic activities to build future fields of business, the ratio of research and development costs to sales rose from 6.3 % to 6.7 %. This trend was additionally driven by initiatives in application-oriented research and stepped-up activities to develop new technologies that can be used to market innovative products. In order to successfully implement these goals, we invested in human resources and labor in 2018, which particularly in the functional area of research and development led to higher personnel expenses as well as higher depreciation and amortization. In 2018, administrative expenses decreased compared to 2017, and the ratio of administrative expenses to sales decreased significantly. This development was primarily due to relatively stable personnel expenses, by far the most important cost position, which were influenced by lower variable salary components. In addition, travel expenses fell significantly.

The balance of other operating income and expenses was down on the previous year. This development is almost exclusively due to the absence of the one-off earnings of the previous year from the reimbursement of costs from the Renewable Energies Law (EEG).

In 2018, the level of deprecation and amortization was the same as in the prior year. As a result, earnings before interest and taxes (EBIT) developed on a par with the EBITDA. The EBIT reached  $\in$  295.8 million, under the previous year's level ( $\in$  335.9 million).

#### Multi-period overview of the earnings situation

**Sales** (in € million)



#### **EBITDA** (in € million)

2014	397
2015	391
2016	453
2017	470
2018	431

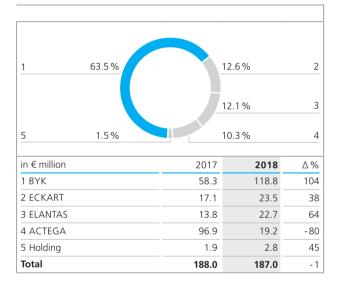
The financial result was € - 7.2 million, an improvement over 2017 (€ -8.6 million). The background for the improvement was lower interest expenses resulting from the repayment of promissory notes. On the other hand, the result of companies accounted for using the at-equity method worsened, from € -21.3 million in the previous year to € -24.5 million in the 2018 fiscal year. This decline is due to the fact that the Israeli Landa Corp. recorded higher losses for the year. The company's 2018 fiscal year was burdened by the planned higher expenditure in the course of preparations for the broad-based market introduction of future digital-printing solutions.

Earnings before taxes (EBT) dropped to  $\leq$  264.1 million (previous year:  $\leq$  306.0 million), and net income (EAT) to  $\leq$  187.0 million (previous year:  $\leq$  234.6 million). Despite the earnings decline, income tax surpassed the previous year's level. This is mainly due to the inclusion in the consolidated financial statements of the one-time positive special effect totaling  $\leq$  20 million from the tax reform in the U.S. in the previous year.

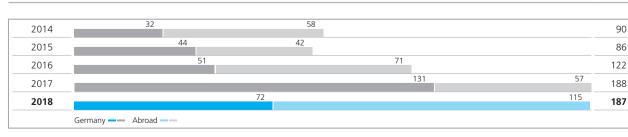
#### Asset and Financial Situation

#### **Capital Expenditure**

Capital expenditure by division



In the past fiscal year, ALTANA invested a total of  $\in$  187.0 million in intangible assets and property, plant and equipment. As a consequence, the capital expenditure was at the same high level as in the previous year ( $\in$  188.0 million), which



#### Capital expenditure ALTANA Group (in € million)

in 2017 was mainly influenced by the acquisition of the metallography technology of the Israeli company Landa Labs. The investment ratio, that is the ratio of investments to sales, was 8.1 % due to strategic growth projects and thus above our long-term target range of 5 % to 6 %.

Overall,  $\in$  171.8 million were invested in property, plant and equipment (previous year:  $\in$  96.4 million). Starting in 2017, large strategic projects were launched and advanced that encompass the expansion of manufacturing and laboratory capacities and that had a decisive influence on the increase in the investment level. In the past fiscal year, investments in intangible assets reached  $\in$  15.2 million, after  $\in$  91.6 million in 2017. The high level in the previous year is primarily a result of the acquisition of technology from the Israeli company Landa Labs.

In the last fiscal year, the regional distribution of investments changed significantly. The European share fell from 80 % to 51 %, and German sites again accounted for the largest share. The Americas, however, recorded a significant increase of 30 % (previous year: 14 %), while Asia's share also rose in the 2018 fiscal year, reaching 18 % (previous year: 6 %).

In 2018, the BYK division invested a total of  $\leq$  118.8 million, about twice as much as in the previous year ( $\leq$  58.3 million). The investment activity focused on the expansion of manufacturing capacities for rheology additives in the U.S. as well as the building of a new site in Shanghai in order to concentrate sales and research activities in China at one site in the future. Further investments involved research and development capacities at various sites as well as a facility for carrying out automated product tests on additives at the Wesel site.

The investment volume in the ECKART division was  $\notin$  23.5 million, higher than in 2017 (previous year:  $\notin$  17.1 million). By far the largest share was invested in the division's biggest site in Güntersthal, followed by sites in the U.S. and Switzerland.

The ELANTAS division invested  $\leq 22.7$  million in property, plant and equipment and intangible assets, more than in the previous year ( $\leq 13.8$  million). In the past fiscal year the focus of investment was on the division's sites in the U.S., Italy, Germany, and India.

Investing  $\in$  19.2 million, the ACTEGA division's capital expenditure was at a much lower level than in 2017 ( $\notin$  96.9 million). But the decrease was due solely to the acquisition in 2017 of the metallography activities and the technology portfolio for labels and packaging in the U.S. The capital expenditure in the past fiscal year mainly involved investment in capacity expansions as well as research and development labs at the division's German sites.

#### **Balance Sheet Structure**

#### **Key figures**

	2017	2018	Δ%
in € million			
Total assets	3,147.7	3,221.9	2
Shareholders' equity	2,214.2	2,344.6	6
Net debt (-)/ Net financial assets (+) <sup>1</sup>	(78.0)	(95.6)	- 23

<sup>1</sup> Comprises cash and cash equivalents, short-term financial assets, marketable securities, loans granted, debt, and employee benefit obligations.

In the course of the 2018 fiscal year, the ALTANA Group's total assets climbed from  $\in$  3,147.7 million to  $\in$  3,221.9 million. The increase of  $\in$  74.1 million, or 2 %, is mainly due to continued high investment activity and exchange-rate effects. Particularly the change of the euro in relation to the U.S. dollar led to an increase in the carrying amounts of assets and debts of the U.S. Group companies in the consolidated financial statements.

Intangible assets fell slightly to  $\leq$  1,044.2 million (previous year:  $\leq$  1,056.9 million). Additions resulted from the operating business and primarily involved the capitalization of

customer relationships and software that had been acquired. In the past fiscal year, there were no major business combinations or technology acquisitions. On the other hand, property, plant and equipment rose significantly, from  $\in$  774.4 million to  $\in$  868.2 million. With additions of  $\in$  171.8 million, the level of investment in property, plant and equipment was significantly higher than depreciation and amortization. Exchange-rate effects also led to an increase in the carrying amount in the Group currency, the euro.

On December 31, 2018, non-current assets totaled  $\in$  2,083.7 million (previous year:  $\in$  2,021.6 million),  $\in$  62.1 million up on the previous year. Their share in total assets was 65% on the balance-sheet date (previous year: 64%).

The change in current assets was influenced particularly by the increase in net working capital and partially offset by the decrease in the amount of cash and cash equivalents. Both inventories and trade accounts receivable grew in the past fiscal year. Inventories rose by 13 % to  $\in$  373.0 million, primarily due to the higher raw-material volume as some raw materials were purchased in larger quantities on account of the very limited availability at times and the expected price increases. This gave rise to an increase in the ratio of the entire net working capital. The ratio, in relation to the business development of the previous three months, was 109 days and thus significantly higher than at the end of 2017 (previous year: 101 days), surpassing our expectations. At the beginning of the year we had forecast a slight improvement of the ratio. As opposed to the ratio of inventories, the ratios for trade accounts receivable and payable basically developed stably. Total assets increased slightly to  $\in$  1,138.1 million (previous year:  $\in$  1,126.1 million).

Cash and cash equivalents decreased in the course of the year, mainly due to the continued high investments as well as the repayment of a tranche of the promissory note loan and the payment of dividends amounting to  $\leq 239.7$  million (previous year:  $\leq 275.7$  million).

On the liabilities side, changes arose primarily due to the earnings-related increase in equity. Group equity rose by

Assets		Dec. 31, 2017		Dec. 31, 2018
	€ million	%	€ million	%
Non-current assets	2,021.6	64	2,083.7	65
Inventories, trade accounts receivable and other current assets	828.8	27	873.9	27
Cash, short-term financial assets, and cash equivalents and marketable securities	297.3	9	264.3	8
Total asset	3,147.7	100	3,221.9	100

#### Structure of consolidated balance sheet

Shareholders' equity and liabilities		Dec. 31, 2017 Dec. 31, 2018		
	€ million	%	€ million	%
Shareholders' equity	2,214.2	70	2,344.6	73
Non-current liabilities	486.6	15	417.1	13
Current liabilities	446.9	14	460.2	14
Total shareholders' equity and liabilities	3,147.7	100	3,221.9	100

€ 130.4 million, or 6%, to € 2,344.6 million (previous year: € 2,214.2 million). The increase is attributable to the surplus in the 2018 fiscal year, and, to a lesser extent, to effects of exchange-rate fluctuations. The equity ratio increased to 73% on December 31, 2018 (previous year: 70%).

At the end of 2018, liabilities from promissory note loans remained an essential component of the debt. These liabilities were reduced further in the past fiscal year by the scheduled repayment of a tranche ( $\in$  64 million), and amounted to  $\in$  128 million at the end of the year. Due to reclassifications of the promissory note tranche due in 2019 ( $\in$  80 million), non-current liabilities decreased to  $\in$  417.1 million (previous year:  $\in$  486.6 million). All other important non-current debt items hardly changed compared to the end of the previous year. The share of total non-current debt dropped from 15 % to 13 %.

The amount of current debt on the balance sheet increased slightly from  $\in$  446.9 million to  $\in$  460.2 million on December 31, 2018. But within current debt individual items demonstrated a contrary development. Due to the reclassification of the promissory note tranche due in 2019 ( $\in$  80 million), current debt increased, and current accrued income tax also rose. On the other hand, other current provisions decreased, above all due to the disclosure of lower provisions for employee bonuses.

The net financial debt, comprising the balance of cash and cash equivalents, short-term financial assets, current marketable securities, loans granted, debt, and employee benefit obligations, reached  $\in$  95.6 million at the end of 2018, after net financial assets of  $\in$  78.0 million were disclosed in the previous year.

#### Principles and Goals of Our Financing Strategy

We generally aim to finance our operating business activities from the cash flow from operating activities. The same applies to the need for capital expenditure, which caters to the continual expansion of business activities. As a result, our financing strategy is oriented to keeping the cash and cash equivalents generated within the Group centralized. In addition, a financing framework is sought that enables ALTANA to flexibly and quickly carry out acquisitions and even large investment projects beyond the accustomed scope.

To successfully implement these goals, we manage nearly all of the Group's internal financing centrally via ALTANA AG. To this end, cash pools are set up for the important currency areas.

At the end of 2018, ALTANA's liabilities totaled  $\leq 128$  million due to the issuance of two promissory note loans in 2012 and 2013 ( $\leq 350$  million in total). The outstanding promissory note loans are divided into tranches with fixed interest rates and different maturities. The loans will be repaid by 2020. Furthermore, there is a general syndicated credit facility of  $\leq 250$  million. The term of this credit facility will last until 2022 and had not been utilized on the balance-sheet date.

This financing structure offers ALTANA the flexibility it needs to appropriately take advantage of short-term or investment-intensive growth opportunities. The distribution of the maturities of the financing instruments we use enables us to optimally control repayment of liabilities with inflows from operating cash flow.

We continue to use off-balance-sheet financing instruments to a very limited extent. These include purchasing commitments, operating leasing commitments, and guarantees for pension plans. Details on the existing financing instruments are provided in the online Consolidated Financial Statements.

#### Liquidity Analysis

#### **Key figures**

	2017	2018	$\Delta$ %
in € million			
Cash flow from operating activities	302.3	296.2	-2
Cash flow from investing activities	(325.1)	(195.7)	40
Cash flow from financing activities	(67.4)	(135.9)	- 102

In the course of 2018, the level of cash and cash equivalents fell by  $\in$  36.0 million to  $\in$  239.7 million (previous year:  $\in$  275.7 million). Cash inflow from operating activities was  $\in$  296.2 million and thus almost on a par with the previous year ( $\in$  302.3 million), despite the lower Group net income. This is primarily due to the fact that earnings in the previous year were favored among other things by non-cash oneoff earnings in the area of income tax. In the change of net working capital positions, the effects from a relatively low increase in trade accounts receivable compared to the previous year were offset by a slower increase in trade accounts payable.

Compared to 2017, cash flow from investment activities decreased significantly to  $\leq$  195.7 million (previous year:  $\leq$  325.1 million). Investments in intangible assets and property, plant and equipment were at the previous year's level, and also included larger technology acquisitions. No new business activities were acquired in the past fiscal year. The cash flow for acquisitions had reached  $\leq$  141 million in 2017.

The cash flow from financing activities amounted to  $\notin$  135.9 million in 2018 (previous year:  $\notin$  67.4 million). The current debt outflows concerned the scheduled repayment

of a promissory note tranche ( $\leq$  64.0 million) and thus were roughly the same as in the previous year. In 2017, in addition to the repayment of a promissory note tranche of  $\leq$  32.0 million, debt resulting from the PolyAd activities was also reduced. In the 2018 fiscal year, ALTANA AG paid a dividend amounting to  $\leq$  80 million, after no dividend was paid in the previous year.

#### Value Management

#### Key figures value management

	2017	2018
in € million		
Operating capital (annual average)	2,509.7	2,762.7
Operating earnings	284.8	258.6
Return on capital employed (ROCE)	11.3%	9.4%
Weighted average cost of capital	8.0%	8.0%
ALTANA Value Added (relative AVA)	3.3%	1.4%
ALTANA Value Added (absolute AVA)	84.0	37.6

ALTANA determines the change in the company's value via the key figure ALTANA Value Added (AVA), whose calculation is explained in the "Group Basics" section. In 2018, a positive contribution was made to our company's value again, which, however, was lower than in 2017 and was below our expectations.

The decline in earnings due to material costs is reflected in lower operating earnings, which at  $\in$  258.6 million did not reach the very good level of the previous year ( $\notin$  284.8 million). At the same time, the Group's average capital employed rose to  $\notin$  2,762.7 million in 2018 (previous year:  $\notin$  2,509.7 million). This increase in capital largely resulted from the fact that company and technology acquisitions made in 2017 were considered in the financial statements for the first time for a full year, and due to continued high investment in property, plant and equipment. The increase in net working capital and changed exchange-rate relations also contributed to the higher capital level.

In 2018, the return on capital employed (ROCE) amounted to 9.4 % and thus did not reach the previous year's level (11.3 %). With an unchanged cost of capital rate of 8.0 %, the relative AVA reached 1.4 % (previous year: 3.3 %).

Analogous to the expansion of the operating capital, the cost of capital rose to 221.0 million (previous year:  $\notin$  200.8 million). As a result, the absolute AVA amounted to  $\notin$  37.6 million in the past business year (previous year:  $\notin$  84.0 million).

The slight decrease of key value figures that was forecast for 2018 due to the fact that the full capital effect of business combinations was considered for the first time could not be achieved, particularly due to the weaker earnings performance.

#### Overall Assessment of Our Business Performance and Business Situation

In the course of 2018, the macroeconomic framework conditions deteriorated increasingly. At the same time, the prices of raw materials relevant for ALTANA rose significantly due to the crude-oil price development.

Nevertheless, ALTANA achieved its growth targets in this challenging business environment. However, the earnings performance did not meet our expectations because we did not fully pass on the raw-material price increases to the market. Nevertheless, we continued to make considerable investments in our strategic growth fields.

Our balance sheet continued to show a very solid structure at the end of 2018 and offers sufficient financial headroom for investments in sustainable profitable growth.

### Innovation and Employees

#### Innovation

As a specialty chemicals company, innovations are an important factor for ALTANA, enabling us to offer our customers new, competitive solutions and at the same time to meet cutting-edge requirements regarding performance profile, costs, environmental protection, and sustainability. Thanks to close cooperation with our customers we are integrated into new fields of development at an early stage and thus can develop customized solutions quickly and reliably. We build on existing competencies, on the one hand, and gain access to new ones on the other, in order to continuously adapt our product portfolio to market and customer needs. Stateof-the-art analytics in chemical labs as well as application technology testing laboratories geared to specific features are available to our researchers and developers for targeted development.

In addition to the development activities in the business divisions, selected innovations are initiated and coordinated at the ALTANA level, aimed at tapping new business fields and absorbing technology and market trends. This is achieved through different procedures, namely, through the ALTANA Institute, the central management of technology platforms, as well as corporate venturing investments.

With the help of the ALTANA Institute, external networks and close cooperation with universities and research institutes around the world are used to harness outside impetus. Through the use of a successful open-innovation approach coupled with the use of synergies by our divisions, ALTANA manages to create long-term and partially transformative innovations and to develop solutions.

Within the framework of technology platforms, based on the work of past years ALTANA advanced digital printing processes and the printing inks and materials needed for printed electronics. Additionally, initiatives in the field of 3D printing were bolstered, ventures whose success opens up further possibilities in additive manufacturing. In 2018, ALTANA also expanded its competencies in the field of new innovative coating technologies, including laser transfer printing technology.

Due to the close cooperation with the central department Corporate Venturing, technology and market potential are continually examined, and through targeted investments in transformative technology entry into new attractive markets developed. In this context, ALTANA acquired a stake in the Israeli industrial digital printing company Velox Ltd. in 2018, thus expanding its technology and investment portfolio in this area.

The basis of our innovative strength is an open and dynamic corporate culture that gives the 1,128 employees in our research and development centers around the world the freedom to act creatively and entrepreneurially. The equipment in our development centers enables our employees to implement their ideas in marketable solutions. In the year under review, expenses for research and development

#### Research and development expenses (in € million)



#### Employees in research and development

ВҮК	503
ECKART	224
ELANTAS	173
ACTEGA	221
Holding	7
Total	1,128

amounted to  $\in$  154.1 million (previous year:  $\in$  142.5 million). The fact that the share of research and development expenses in sales was higher once again, at 6.7 % (previous year: 6.3 %), is yet another expression of our innovative focus.

#### Employees

In the course of 2018, the number of people employed by the ALTANA Group climbed by 242, or 4 %, to 6,428 (previous year: 6,186). The increase is primarily attributable to investments in our strategic growth fields and the expansion of our business activities. Business combinations played no role in the development of our staff numbers in 2018, while in 2017 111 employees were added due to acquisitions. The divisions within the Group exhibited different growth rates in 2018.

In the BYK division, the number of employees rose by 124 to 2,324 (previous year: 2,200). The companies in Germany, China, and the U.S. accounted for the most significant share of the increase, against the backdrop of the strategic expansion of business activities in the additives segment and in the testing and measuring instruments business in Germany.

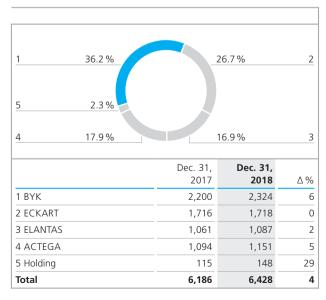
The number of employees in the ECKART division remained virtually constant at 1,718 people (previous year: 1,716). But the development within the division was uneven. While a slight decrease was recorded at the division's American sites, the headcount at its Swiss, German, and Chinese sites increased slightly due to the expansion of business activities.

In the course of 2018, the workforce of the ELANTAS division increased by 26 to a total of 1,087 people (previous year: 1,061). The division's companies in Italy, China, and Germany accounted for the main share of the increase. Meanwhile, staff numbers in the U.S. decreased.

ACTEGA's headcount rose by 57 to 1,151 employees (previous year: 1,094). The main reason was the expansion of business activities in the course of the year by the division's sites in Germany. The number of employees also increased in the U.S.

Staff numbers of the Group holding companies climbed by 33 to 148 in the past fiscal year (previous year: 115), recording the highest-percentage increase. This is mainly due

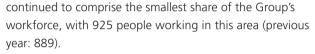
#### **Employees by division**



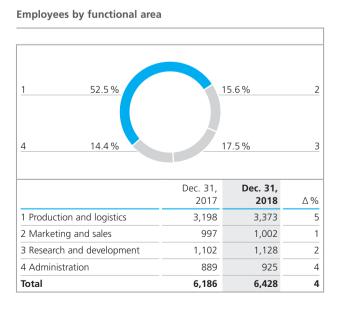
to the implementation of a service company at the holding level, in which mainly IT employees in the BYK and ECKART divisions have been brought together so far in one service unit.

The functional structure of the workforce did not alter significantly in the 2018 fiscal year. The number of staff rose in all four functional areas. With 52 %, the same percentage as in the previous year, or 3,373 people (previous year: 3,198), most of the employees continued to work in production. And this area accounted for the highest-percentage increase in 2018. Last year, the number of people employed in research and development rose by 26 to 1,128 (previous year: 1,102).

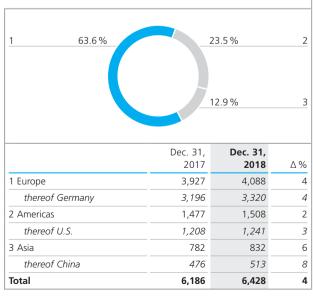
The headcount in marketing and sales, as well as administration, also increased in the course of 2018, by a total of 41 people. As in the previous years, administrative functions



In 2018, all of the regions exhibited an increase in staff numbers. In terms of the regional structure, there were no major shifts in 2018 in comparison with 2017. The European companies continued to employ by far the largest number of people, with a headcount of 4,088 (previous year: 3,927). At the end of the year, 3,320 people worked in Germany (previous year: 3,196), the majority of them at ECKART's and BYK's production and development sites, in Hartenstein and Wesel, respectively. Staff numbers in the Americas increased slightly by 31, from 1,477 employees in the previous year to 1,508 at the end of 2018. The head-count in the Asian Group companies grew from 782 in the previous year to 832, increasing by the highest percentage.



#### **Employees by region**



At the end of the 2018 fiscal year, 1,692 women and 4,736 men worked for ALTANA. On the balance-sheet date, 92% of all employees had an unlimited employment contract and 8% a limited employment contract. This ratio was the same for both genders. Of the women employees, 78% worked full-time and 22% part-time at the end of 2018. 98% of the male employees worked full-time. Apart from its own employees, 161 people from employment agencies worked for the ALTANA Group on December 31, 2018.

ALTANA competes internationally for specialists and managers. Like all companies in the chemical industry, in the years to come the ALTANA Group, particularly in Europe, will enter a phase that due to the demographic development makes precision succession planning indispensable already today. As a result, talent management and human-resource development play a key role in ALTANA's agenda for the future (Keep Changing Agenda). The main aim is to mobilize people at ALTANA, to increase diversity at all levels, to further develop leadership culture, and in doing so to strengthen entrepreneurial thinking. To achieve these goals, we reworked ALTANA's competence model in 2018. Existing human-resource instruments were evaluated with the aim of optimizing personnel selection and the basis for human-resource decisions, and to promote lasting employee loyalty to the company. As a result, succession planning, in particular, will bear fruit in the future.

The "HR Transformation" project, which was launched in 2017 and whose aim is to reposition ALTANA's strategic positioning of personnel activities, was pushed forward in 2018. Initially, a comprehensive evaluation of personnelrelated services and processes was made on a global level. These activities will continue in the coming years. The project's aim of redefining the worldwide organization of ALTANA's human-resource department, will be supported by the implementation of a global IT system. With the help of this IT system, a platform for far-reaching digitalization in the environment of human-resource management is to be created. The main aim is to continuously further expand strategic human-resources work in order to meet the future needs of the ALTANA organization, which is steadily expanding due to organic and acquisition-related growth. The basis of all of these activities continues to be ALTANA's business principles as well as the company's defined and transparently communicated values, which determine the orientation of our action and employee management.

**Declaration of Corporate Governance Pursuant to** Section 289f (4) of the German Commercial Code (HGB) Promoting women in management positions remained a focus in the 2018 fiscal year. By intensifying measures that had been introduced in the past, and with new instruments, we further anchored the expansion of diversity in our human-resource management. One focus was promoting women. The ratio of women in ALTANA's national and international management development programs has increased significantly in recent years. In addition, our further education program includes special offers for women. The mentoring program for women launched in 2016 was continued in 2018. Furthermore, various informal platforms were created to intensify dialog on this issue. Among them are regular meetings of women in management positions that focus on strengthening the network, and workshops for further development of family-friendly employment models intended to contribute to continual improvement of the general working conditions at ALTANA.

ALTANA's medium- to long-term goal is to increase the share of women in management positions to the percentage of women in the entire workforce.

In keeping with legal requirements regarding equal participation of women in management positions in private business and the public service sector, ALTANA AG's Supervisory Board specified targets for the share of women in the company's Management and Supervisory Boards. For the

# Subsequent Events

Supervisory Board, a target of 25 % was resolved by the end of the target-achievement period on June 30, 2020. For the Management Board, no personnel changes or an extension of the body are planned by the end of the target-achievement period, and so the body will continue to be without any woman. For the first management level under the Management Board, the Supervisory Board resolved a share of women of 20 % and for the second management level a share of 30 %. Targets were also defined for the German companies subject to codetermination. In January 2019, we participated as planned in a further capital increase in Landa Corp. totaling 50 million U.S. dollars. After the capital increase, ALTANA's share in the company remains at 33.3 %.

# **Expected Developments**

### Future Orientation of the Group

We do not plan on making any fundamental changes to the Group's strategy or organizational structure in the next two years. The focus on specialty markets and the offer of innovative chemical solutions will continue to drive our business development.

We do not expect our entry into new market segments or application areas to lead to any significant changes in our sales structure in the medium term. We also expect the balanced regional sales distribution to basically remain stable.

Acquisitions, however, could lead to changes in our sales and market structures. Bolt-on acquisitions and particularly the integration of a new business division could result in a shift.

## Economic and Industry Outlook

Global economic growth is expected to weaken slightly in 2019. The International Monetary Fund (IMF) forecasts a decrease of 3.5% in world economic output. As a result, the growth would be below the level expected for 2018 (3.7%).

This development should be driven primarily by the industrial nations. The IMF expects a slight slowdown in growth for the U.S. (from +2.9% in 2018 to +2.5% in 2019) and also for the Eurozone (from +1.8% in 2018 to +1.6% in 2019). This decline will mainly be driven by the growing uncertainty regarding geopolitical risks, which could lead to restrictions on economic trade relations. A decline in private-sector demand is anticipated in important industrial countries, including Germany.

According to IMF forecasts, growth in the emerging countries should be on a par with 2018, at 4.5%, and thus surpass the expected growth of the industrial economies (+2.0%). This development should be driven particularly by

economies in Asia, primarily China (+ 6.2 %) and India (+ 7.5 %). Growth in Latin America is expected to increase vis-à-vis 2018, to 2.0 %, which, however, would be at a lower level than the emerging economies in Asia.

Against the background of the global economic outlook, we expect the growth in the general chemical sector to be at the level of the previous year. The American Chemistry Council (ACC) forecasts that worldwide chemical production will increase by 3.0 %, after an expected 2.8 % in the past fiscal year. This growth should be driven mainly by the chemical industry in North and Latin America. But chemical production is also expected to show a positive development in Europe and Asia.

On the basis of the economic and industry-specific framework conditions, we assume that the general demand on all of the markets relevant for ALTANA will basically be positive, although there will be regional and market-specific differences. The extent to which changes in storage levels along the value chain will influence the actual demand for the products of our divisions largely depends on the expected short- to medium-term development. Stock-level changes can lead to significant effects.

The development of crude-oil prices cannot be predicted reliably. We expect that in 2019 there will be no significant price movements. The availability, pricing, and consumption volume of chemical products are subject to the influence of the crude-oil market, albeit to different extents. In addition, the expectations of market participants in terms of the future development of oil prices can result in significant changes in the level of storage along the entire value chain of the chemical industry.

As in the previous years, the exchange-rate relations important for ALTANA may continue to show pronounced volatilities. The development of regional interest rates and economic output, as well as political influences, can be of decisive importance for exchange-rate fluctuations. Since the intensity and direction of the exchange rates cannot be predicted, it is not possible to make concrete statements about the influence. Concrete risks can result from a deviation of the actual exchange-rate development from our planning assumptions.

## Expected Earnings, Asset, and Financial Situation

#### **Expected Sales and Earnings Performance**

On the basis of the growth anticipated for the global economy, we expect the demand for our products and services to exhibit a positive development in the new fiscal year. We expect our operating sales growth, i.e. sales growth adjusted for exchange-rate and acquisition effects, to be in the 1 % to 5 % range. This growth should result from an increase in the sales volume and positive effects from price increases and shifts in the product mix.

We expect nominal sales in 2019 to be influenced by negative effects of exchange-rate changes. For the most part, sales in the divisions should develop in the same range as Group sales.

In terms of the most important functional cost factors, we do not foresee significant shifts of cost ratios in relation to sales. We expect the materials cost ratio to largely undergo a stable development at the level of the past fiscal year.

For personnel expenses and other fixed cost figures, we project a relative increase at the same level as sales growth.

Against this background, we anticipate that in 2019 the EBITDA margin will develop roughly at the level of the previous year and thus within our strategic target range of 18 % to 20 %.

After 2019, we expect stable growth momentum with slightly higher profitability.

#### **Expected Asset and Financial Situation**

There should not be any significant shifts in the balancesheet structure in 2019. In the next two years, our capital expenditure for property, plant and equipment and intangible assets should be above our long-term target range of 5 % to 6 % due to strategic growth projects. The development of the absolute values of net working capital should be analogous to the general business development, though we are striving to slightly improve the ratios.

Based on the anticipated business performance, we should achieve liquidity surpluses from operating activities. These surpluses will be used primarily to finance investments and bolt-on acquisitions. In addition, we plan to repay the promissory note loans on schedule in 2019 and 2020.

We project the value management key figures to increase slightly in 2019 compared to the past fiscal year. This should result from an improved earnings situation.

## Risks

Management and control of the ALTANA Group are geared to the strategy that has been defined and the target levels derived from it. Due to changes in the economic environment or internal factors of influence, it might not be possible to implement the strategy successfully or to achieve targets in the planned time frame or to the planned extent. To be optimally prepared for such situations, ALTANA systematically identifies, evaluates, and considers risks within the framework of decision-making processes.

To anchor our risk policy at all decision-making levels, we established a Group-wide risk management system that brings together various information, communications, and monitoring systems. Core elements of our risk management include strategic corporate planning, internal reporting, our internal control system, compliance organization, and risk management in the strict sense, i. e. the identification, documentation, and evaluation of risks including the derivation of appropriate precautionary measures and countermeasures.

Our strategic corporate planning is closely tied to our medium- to long-term financial planning. The extent of the fulfillment of our targets is examined in monthly reports on the company's business performance and in our short-term financial planning. Apart from an analysis of the current business situation, our expectations for the current fiscal year are discussed extensively at the level of the divisions three times a year. As a result, deviations from planned developments can be recognized and countermeasures introduced if necessary.

Our internal control system, which is oriented to the standards of the internationally recognized COSO model, defines organizational measures for preventing damage from being done to the company, among other things. In connection with our established compliance organization, it aims to prevent possible violations of guidelines and laws on the part of employees.

At ALTANA, risk management in the strict sense is viewed as the systematic compilation, evaluation, documentation, and communication of relevant risks. Thus it is an essential component of the company's system for early risk recognition in accordance with section 91 (2) of the German Stock Corporation Act. This system was voluntarily examined by the auditor.

The audit deemed the system capable of recognizing risks that can endanger the existence of the company at an early stage.

Risks that are identified are evaluated in a uniform way. So-called evaluated risks are assessed based on the probability of its occurring and the potential damages. Individual risks can be rated based on this assessment. Risks rated as very high are risks which could cost the company € 25 million or more in the next twelve months. Individual risks that could cost the company between € 12 million and € 25 million are rated as high risks; risks that would cost between € 5 million and € 12 million are categorized as medium risks, and risks that would cost less than € 5 million are deemed low risks. The prioritization resulting from the assessment determines focal points for the development and initiation of countermeasures to prevent or reduce the potential effects of risks.

The individual risks and risk fields described in the following pages could have a material adverse effect on the Group's earnings, financial, and asset situation in the years to come and thus give rise to a negative deviation from the forecast development. For individual risks categorized as "medium," "high," and "very high" we address changes in our appraisal compared to the previous year.

#### **Economic and Industry Risks**

The development of the general economic conditions worldwide has a decisive impact on our business performance. The performances of the economies of the U.S., China, and Germany – industrial nations important for ALTANA – have a particularly strong impact on the direction and intensity of demand for our products.

A global economic crisis leading to an economic collapse would bring about significant sales decreases with corresponding influences on our earnings. Recessions limited to certain regions in sales markets important for us could also significantly impair our business performance. With the global orientation of our sales activities, we try to shape our dependence on regional or national markets in such a way that the effects of geographically confined economic crises on the Group are limited. Thus, our most important individual market currently accounts for only roughly 20 % of total Group sales. The distribution of our business activities in the core regions of Europe, Asia, and the Americas also has a balanced structure.

At the same time, we continually update our appraisal of the regional economic development in our internal reporting system to be able to react to foreseeable effects by controlling our procurement, production, and sales activities.

We react to long-term shifts in regional economic performance by adjusting our sales and local production and organizational structures.

In addition to general economic risks, there are marketrelated sales risks concerning individual product groups or application areas. Particularly medium- to long-term trends that structurally lead to a decrease in demand in our target markets can mean that we will not achieve our growth and profitability targets. We try to control industry-related sales risks by broadly diversifying our offer. We supply many different industries, which in turn sell their end products in various markets. Therefore, our dependence on the underlying consumer segments is limited. We estimate that no single consumer segment (e.g. the automotive industry) accounts for more than 20 % of our sales.

The analysis of our industry-specific and application-related sales is a component of our annual strategy process. In addition, we examine changes in future growth potential arising from demand trends and technological developments, and adjust our strategic orientation in the divisions if necessary.

The occurrence of a global economic crisis or the emergence of regional economic crises are two significant economic and industry risks that are rated as "very high" or "high" risks. In the 2018 fiscal year, we assessed the probability of these two risks occurring as being higher due to the slowdown in growth and the deterioration of the outlook regarding the development of the economy. Since a subdued market development was already taken into account in our medium-term financial planning, our assessment of the potential losses compared to the previous year decreased slightly. The evaluated risk of the two individual risks occurring was higher than in the previous year.

#### Sales Risks

Sales risks result mainly from intensified competition or shifts in customer structure. They include sales risks for individual products or product groups due to specific demand trends.

This can lead to decreasing sales revenues, which can be caused by declining sales volumes or falling prices. Since in many cases we cannot adjust the cost structure in the short term, this can lead to a drop in profitability.

We counter sales risks by continually optimizing our product and service portfolio, above all on the basis of our innovative ability. In the process, it is decisive that we cooperate closely with our customers at an early stage of development work to adapt to market needs. With our innovation strategy, we can counter increased competition in our markets.

A loss of, mergers of, or backward integration of customers can lead to major changes in the customer structure. Due to our very diversified customer structure, however, these risks are limited. In addition, we cooperate closely with our core customers within the framework of our key account management.

The group of sales risks is assessed as being "medium." In the year under review, we only slightly changed our assessment of the probability of occurrence and loss potential from sales risks.

### **Risks from Business Combinations and Investments** Apart from operating growth, acquisitions of companies, business activities, and individual technologies play a

key role for the implementation of the strategy for profitable growth at ALTANA. Depending on the size of the activities acquired, inadequate integration can place a burden on the Group's earnings situation and limit its financial headroom. In addition, a business performance that is worse than what was expected when the acquisition was made can lead to impairments of assets with a negative impact on earnings.

To minimize the effects of the risks from business combinations, we examine our acquisition targets systematically and comprehensively and analyze them in detail in a multistage approval process.

In 2018, we assessed the risk of impairments of assets from acquisitions, which we classify as a medium risk, as being higher than in the previous year. This resulted from a higher probability of this risk occurring coupled with the same assessment of potential losses.

#### **Procurement Risks**

Limited availability of certain raw materials or substantial rawmaterials price increases that we cannot or can only partially pass on to the markets in the short term constitute the primary procurement risks. These can have a negative impact on the Group's earnings situation.

We continually analyze the situation on the raw-materials markets that are relevant for ALTANA. By doing so, we can identify price trends and structural shifts on the part of suppliers at an early stage and devise suitable measures. We take this knowledge into account when we arrange supply contracts. In addition, we take account of the volatility of raw-materials prices in our customer relations. To be able to pass on price increases to the markets in the short term, we use the flexibility of price mechanisms and price lockup periods.

Our assessment regarding procurement risks changed significantly in the course of the year. Due to the higher

probability of occurrence and greater potential losses due to price movements and limited availabilities, the group of procurement risks is now assessed as a medium risk.

#### **Financial Market Risks**

Financial market risks primarily concern short-term and significant changes in exchange-rate relations and interest rates, as well as default risks and the covering of financialresource needs.

Due to exchange-rate fluctuations, the translation of foreign currency positions into the Group currency, the euro, can have a negative effect on the Group's sales and earnings performance (translation risks). Such negative effects can also result from business conducted in a foreign currency (transaction risks). As in the previous year, we categorize translation risk as being a medium risk. Interest-rate changes influence financing costs. Defaults on trade accounts receivable or financial receivables can also have a negative effect on the Group's earnings situation and its financial resources. If there is a lack of availability of financial resources for the implementation of acquisitions or major investment projects, we might not reach our strategic targets.

We safeguard against material transaction risks by concluding forward foreign-exchange contracts in cases where we assume that the underlying business can be realized with a sufficient degree of certainty. The total amount expected is safeguarded in different tranches to offset short-term exchange rate fluctuations.

More information on our evaluation and accounting procedures for hedges can be found in the online Consolidated Financial Statements on page 55 ff. (note 28).

To minimize credit default risks, we systematically examine the credit rating and payment behavior of our counterparties. The latter include customers, the banks we do business with, and other business partners where payment default can have an influence on our financial situation. We safeguard availability of financial resources through central control and monitoring of our Group-wide financial resources. In addition, by utilizing various financing instruments, we centrally provide a financial resources framework that covers medium-term needs going beyond the planned financial cash inflow from our operating business.

Our assessment of financial market risks is nearly unchanged vis-à-vis the previous year. We evaluate the most important individual risk in this risk group, namely negative effects on earnings from exchange-rate changes, as having a slightly higher probability of occurrence and at the same time a slightly lower potential to lead to losses. Continued high cash inflows from operating business activity and the existing general financial resources framework continue to suffice to cover the expected cash outflows for investments, repayments, and dividends.

#### **Innovation Risks**

ALTANA's position as an innovation and technology leader is a major success factor for the company. It is important for a supplier of highly specialized chemical products to continually introduce new products on the market and to be perceived by our customers as a competent and innovative partner. If this was no longer the case in the future, risks could result for our sustainable growth, the attainment of our profitability targets, and ALTANA's positioning in the relevant markets. The same applies if competitors patent knowhow that we use but have not protected, as we would then no longer be able to use it, or only at additional cost.

With our innovation culture, which is put into practice at all levels of our organization, we highlight the importance of innovation and safeguard its status. Both at a decentralized and a Group level, we continually evaluate and control our research and development activities based on financial and non-financial criteria. By investing above-average amounts in research and development and focusing on product adjustments and new developments, we can continually introduce products on the market that are tailored to customers' individual and current needs and thus heighten our competitive edge.

It is important to protect knowhow we develop with patents to convert our knowledge edge into economic success. This includes safeguarding technologies as well as methods and product properties we currently use so that other companies cannot patent them.

In 2018, there was no significant change in our assessment of innovation risks in comparison to the previous year.

#### **Other Risks**

Production risks concern technical disruptions or human failure in production that can be harmful to people or the environment. Our goal is to minimize the effects of machine failure on the value chain by operating production lines independently from one another. It is compulsory for our staff to receive training in the clearly defined process and quality standards in the areas in question. In addition, we conclude property damage as well as plant and equipment breakdown insurances.

Information technologies form the basis of nearly all of ALTANA's business and communications processes. Breakdowns or other disruptions of IT systems can lead to farreaching impairments in all of the Group's value-added stages, which can have significant effects on business performance (IT risks). In addition, potential risks arise from data loss or theft of business secrets. ALTANA attaches great importance to smooth availability of IT applications and services. To guarantee this, corresponding processes and organizational structures have been established. Emergency plans are in place in case of significant disruptions or losses of data.

Delivery of faulty products can cause damage to people, property, or the environment and thus cause liability risks. This can have significant effects on the Group's asset situation. We minimize this risk by standardizing production processes to a large extent and by taking comprehensive quality-control measures. In addition, we continually conduct analyses to assess the hazardous potential of our input materials and products, and we conclude insurances.

Changes in political and regulatory framework conditions can lead to restrictions on trade or foreign-exchange transactions. Due to political unrest, it can be more difficult or even impossible to access the Group's assets in the country or countries in question. On account of regulatory adjustments, it might no longer be possible to process or sell certain products or ingredients, or only with strong restrictions. We continually examine the political environment in the countries important for us and take current tendencies into account when evaluating business relationships. We only make direct investments in countries in which we assume the political environment is highly stable. We actively take part in legislative procedures and discussions focusing on changes in the regulatory environment. As a result, we can anticipate possible new requirements early on.

In the past fiscal year, risks resulting from changed political and regulatory framework conditions increased due to the steadily growing probability of higher customs duties and more stringent trade restrictions.

A possible unregulated exit of the United Kingdom from the European Union does not pose a significant risk to ALTANA. Potential short-term burdens on earnings can result from higher customs duties and increased administrative expenses for imports and exports, whose effects, however, are limited due to the fact that an absolute increase would be on a low level. In addition, the availability of raw materials can be restricted due to the elimination of REACH certifications for products that have so far only been registered in the United Kingdom. All of the Group's divisions have carried out an audit of an unregulated exit from their respective supply flows and, if needed, introduced measures to increase stocks of raw materials or finished products or to minimize delivery bottlenecks. An unregulated exit of the United Kingdom does not pose any risks that would necessitate a revaluation of the Group's assets to a significant extent.

Legal violations (compliance risks) can give rise to liability risks or tarnish our reputation, which can have a significant effect on the Group's earnings and asset situation. We counter these risks within the framework of our compliance management system, inter alia by regularly informing and training our employees about relevant legal requirements.

An important basis for long-term success are competent and committed employees. Should we no longer be able to recruit or retain suitable specialists or managers in the future, risks could arise for the successful implementation of our strategy (personnel risks). To counter these risks, ALTANA offers a sophisticated work environment and an attractive compensation system, which is supplemented by various pension plans and wealth creation schemes. Moreover, we regularly offer further education and training programs to budding junior staff members, as well as to specialized and managerial staff.

#### **Compliant Group Accounting**

Essential accounting-related risks arise particularly when extraordinary or non-routine issues are handled. These include the first-time consolidation of acquired businesses or parts of companies as well as the recording of the sale of Group assets. Accounting of financial instruments is also subject to risks due to the complex evaluation structure. Risks also arise from fraudulent acts.

At ALTANA, a separate department of the Group's holding company coordinates and monitors Group accounting. A core component of the control system are the guidelines, process descriptions, and deadlines that this department defines centrally for all companies, guaranteeing a standardized procedure for preparing the financial statements. For complex issues, the instruments needed for uniform accounting are retained centrally for all Group companies. For recording extraordinary processes and complex special issues, we regularly obtain external reports, advice, and statements.

The financial statements of the individual Group companies are prepared decentrally by the local accounting departments. Hence the individual companies are responsible for preparing the financial statements, in keeping with Group guidelines and country-specific statutory accounting requirements.

The work steps needed to prepare the financial statements are defined such that important process controls are integrated. These include guidelines pertaining to the separation of functions and allocation of responsibilities, to control mechanisms, and to IT system access regulations. The respective management explicitly confirms to the Group's management that the annual financial statements are correct and complete. In addition, important financial statements are audited by the company or Group auditors in charge.

The local financial statements are recorded and consolidated via standardized formats and processes in a central IT system. At the divisional and holding company levels numerous manual and IT-assisted control mechanisms are applied. They encompass an analysis and a plausibility examination of the registered data and the consolidated results by Group accounting as well as by the controlling department and other departments with expertise in this area. Required corrections of the information in the financial statements are generally made at the level of the individual company to ensure the data are uniform and are transferred.

The company auditor and the Group auditor examine issues, processes, and control systems relevant for the generation of financial statements. The Group auditor reports on the audit directly to the Supervisory Board and the Audit Committee. In certain cases, audits are carried out by the central Internal Audit department. After each process related to the preparation of the financial statements, optimization potential identified at the different levels is analyzed and necessary adjustments of the processes are made.

#### **Opportunities**

The identification and evaluation of opportunities for our future business development is integrated into the different planning, analysis, and control processes.

Within the framework of strategic planning, we analyze demand trends as well as market and technology developments with regard to options for action that could enable ALTANA to create value. In addition, the divisions continually examine possibilities of developing new sales markets. During the financial-planning process, the effects of action options are evaluated and discussed so that we can optimally exploit future opportunities. Finally, possible opportunities for short-term business development, along with the attendant risks, are dealt with in detail at all levels of management.

Below, major opportunities are described that could lead to ALTANA's surpassing its short-, medium-, or long-term goals. The order corresponds to our assessment of the effects on our business performance.

#### **Economic and Industry Development**

Should the economic environment in the established industrial regions important for ALTANA, particularly in the U.S., China, and Europe, develop better than we anticipated, unexpected growth impetus could arise. As a result, demand for our products and services could develop more positively and exceed our forecast. The same applies to growth in the important emerging countries in Asia and South America. If the growth rates in these nations were higher than expected, we might be able to benefit from this to a disproportionately high extent due to our market positions. In addition to regional factors, growth impetus can also result from individual branches of industry. Further potential could be opened up, in particular, if the automotive sector and the construction industry showed a positive development, or if there was a trend reversal concerning the use of silver and gray colors in the consumer sector.

#### Innovation

We have to continually streamline our product and service portfolio to be able to continue to pursue our strategy for profitable growth in the long term. Should ALTANA manage to enhance its innovativeness more quickly than expected or to increase its share of new products for which there is a high demand beyond the target level, there would be even better prospects for growth. The same applies if we entered new markets or opened up new application fields for our products.

#### **Business Combinations and Portfolio Measures**

Acquisitions play a key role in ALTANA's long-term value creation. In recent years, we have continually advanced the Group strategically due to acquisitions. At the same time, we cleansed our portfolio of those activities that were not in line with our strategic aims and for which there were no long-term value-creation perspectives within the Group.

In the future, we intend to continue to boost our growth by acquiring businesses and activities. This is an essential prerequisite for us to achieve our strategic growth targets. Should opportunities arise in the future that exceed our expectations, these new activities could help us strengthen our market positions and open up new market segments. This, in turn, could help us achieve our strategic targets more quickly.

#### Synergies

The ALTANA Group is decentralized to a large extent. Still, in some areas of the value-creation chain and in certain

management functions, central units support the divisions and play a coordinating role. To the extent that we manage to push forward the networks within the Group more strongly than expected, this may spawn further potential to improve efficiency.

# The Management Board's Overall Statement on the Anticipated Development of the Group Including Its Overall View of the Risk and Opportunity Situation

In 2019, we expect the deterioration of the economic framework conditions and the increasing uncertainty about the macroeconomic situation to continue. In this environment, we expect ALTANA to achieve operating sales growth of 1 % to 5 %, with earnings profitability remaining roughly at the previous year's level. The key performance indicators for value-oriented management should improve slightly compared to the preceding fiscal year.

We believe that the risk of burdens from a development of the global economy that is worse than we expected or even recessive, or in important core regions, continues to exist. In addition, considerable risks to our short-term sales and earnings performance are posed by the higher price volatility on the raw-materials markets, by impairments for intangible assets acquired within the framework of acquisitions, and by short-term exchangerate fluctuations.

Overall, we have not found any risks that could endanger the continued existence of the company. The risks we face are set against opportunities that could enable us to achieve sales and earnings performance surpassing our forecasts.

# **Products**

Our innovative products contribute to conserving resources and protecting the environment. At the same time, we help our clients manufacture with low emissions and energyefficiently, and assist them in enhancing the safety of their products.

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## Sustainable Product Strategy

ALTANA offers companies around the world specialty chemical 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, environmentally 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.

Due to their strong customer orientation, many ALTANA companies gear their innovation strategies systematically to a catalog of sustainability criteria at a very early stage of product development. This includes responsible handling of resources (water, energy, and raw materials) as well as the goal of developing products whose effects on the environment are as low as possible without detracting from the product's function. This is reflected by the increasing number of coatings, additives, and pigment formulations that are conceived for water-based applications and do not need organic solvents.

Another aim of ALTANA's product strategy is to replace critical components with less critical ones whenever possible. For products that need classifications due to national or international hazardous substance regulations, ALTANA's companies have special data sheets on hand that provide consumers with important information on safe storage and further processing. Moreover, certified lifecycle analyses are available for certain products. The Keep Changing Agenda for the future supports the ALTANA Group's sustainability strategy, among other things. A central action field of the future agenda is "Take the lead in sustainability." To achieve this goal, new criteria were defined in purchasing, research and development, M&A, investment-related activities, and in the initiative to improve corporate processes, called ALTANA Excellence, in order to address ecological and social aspects in addition to economic ones.

#### Products Promoting Climate Protection

The trend toward usage of water-based coatings and resin systems continued in the period under review. Legal regulations, for example the restriction on organic solvent-containing coatings in China, and customer requirements have led to a growing demand for water-based products.

A good example are the activities of ALTANA's largest division, BYK, which recognized this development at an early stage and in the last five years has developed and marketed more than 30 new products for water-based systems. The additives and instruments specialist achieves more than 40 percent of its sales alone with wetting and dispersing additives, defoamers, and water-based rheology additives. An exemplary product is the recently introduced VOC-free defoamer BYK-1786 for aqueous systems used to remove microfoam. This defoamer has a wide range of applications and is particularly suitable for environmentally friendly architectural and general industrial coatings. In general, BYK is relying on aqueous systems as a future technology. Water-based coatings are topical alternatives to conventional systems. In most cases they perform just as well and are as easy to process, while being profitable and environmentally sound at the same time.

ELANTAS is also continually developing new products with improved environmental properties. The focus is on lowemission water-based systems. A challenge in the development of organic solvent-free technologies is the preservation or improvement of the product characteristics and the performance features. Therefore, the rheological properties of water-based systems can be optimized and thinner films can be achieved with the same or better efficiency. With the product ELAN-Guard 6965, an impregnating resin for electric motors, for example, this is achieved through special emulsion manufacturing processes.

In the period under review, ACTEGA Rhenania developed and marketed new water-based products with significantly lower emissions. These products are used in packaging for animal feed products, among others.

## Sustainable Effects for Customers

ALTANA products can simplify our customers' manufacturing processes and simultaneously significantly improve the products' properties. Both effects not only have economic advantages, but also have a positive impact on the environment.

ELANTAS' rapidly hardening impregnating resins, for example, make a lasting contribution. Through the use of this technology both the electricity consumption and the time needed for impregnating low-voltage motors can be reduced significantly. Furthermore, through targeted adjustment of the flow properties the use of solvents can be largely avoided, contributing to occupational safety, sustainability, and cost reduction.

With a focus on using resources more efficiently, ACTEGA acquired a technology for a new label printing process. One advantage is that printing can be carried out with significantly less waste. This technology is currently under development, and the first commercial products are expected in the coming years.

In the packaging coatings sector, mercury vapor lamps and LED lights are used to cure certain coating systems. The latter have clear advantages: longer runtimes, consistent quality, lower energy needs, less heat generation, and avoidance of dangerous mercury. Legal requirements restrict the use of mercury vapor lamps in Europe. For curing with LED lighting systems, ACTEGA has successfully developed suitable printing inks and coatings and established them on the market.

## **Replacement of Critical Substances**

In the year under review, ALTANA succeeded in replacing further critical substances. For example, at BYK a solvent was replaced whose use hitherto was drastically limited by export regulations. An alternative solvent combination was found that leaves the product properties unchanged.

The substitution of N-Methyl-2-pyrrolidone (NMP), classified as a reprotoxic substance, was pushed forward in several projects. For instance, new formulations of wax dispersions could be developed without NMP.

At ECKART, the effect-pigment specialist, a group of emulsifiers was replaced whose use has been restricted increasingly within the EU in recent years due to the toxicological effect of its degradation products on water organisms. As an alternative, ECKART developed metallic pigments for environmentally friendly aqueous uses on a different raw-material basis and introduced them on the market.

At ACTEGA, adhesives for the PROVALIN product family were developed without Bisphenol A. In addition, these products are free of PVC plastisols and plasticizers suspected of having negative effects on health.

# Products from Renewable and Recycled Raw Materials

In the year under review, ELANTAS Beck developed a hardener for epoxy systems obtained from the shells of cashew nuts, a raw material that is amply available in India and has no other use (for example, as a foodstuff). Also, the manufacture of this hardener is more energyefficient and waste-neutral than classical chemical manufacturing processes using fossil sources.

An example of the usage of a recycled raw material is the use of purified polyethylene terephthalate (PET) for the manufacture of a wire enamel. This process leads to significantly reduced energy consumption and lower waste volumes.

# Safety and Health

ALTANA relies on a uniform safety culture. Various technical and organizational measures as well as training programs contribute to enhancing work safety and anchoring the issue firmly in our employees' minds. Our top priority is to reduce the number of accidents. We are constantly working on minimizing hazards and improving the protection of our employees' health.

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## A Focus on Occupational Safety

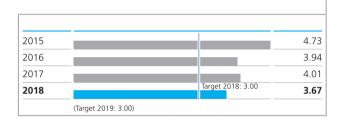
For ALTANA, the health and safety of employees is its top priority. Various technical and organizational measures that we implement to protect employees from hazards according to the respective sites' production conditions as well as to the laws and regulations are in effect at each location. ALTANA also relies on training and other measures to achieve a uniform safety culture.

Since 2007, ALTANA has used the Work Accident Indicator (WAI) as the most important key performance indicator in order to observe the occupational safety at all sites and to improve it. The indicator provides the number of occupational accidents and lost work days and sets them in relation to the total working hours. On the basis of these data, ALTANA's Management Board and the EH&S department define three WAI values each year as targets that apply to all of the companies in the ALTANA Group.

In 2018, as in the previous years, there were no fatal accidents. Some sites have achieved remarkable occupationalsafety results. For instance, BYK Tongling and ELANTAS Beck India at the Ankleshwar and Pimpri sites have not recorded any lost work time due to accidents for more than ten years. The following sites have been accident-free for more than six years: ECKART Zhuhai (eight years), ACTEGA Rhenacoat and ELANTAS Tongling (each seven years), and ACTEGA Foshan (six years).

Overall, ALTANA improved all of its occupational-safety key performance indicators (WAI 1, WAI 2, and WAI 3) compared to the previous year, but only partially achieved the targets it set itself in the year under review. Progress was made particularly regarding accidents with longer-term lost work time. Analyses of the accidents show that while some have technical and organizational causes, most have behavior-based causes.

To further improve this result, ALTANA will focus more on safety culture in the future. In addition to the further **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)

2015		3.22
2016		2.52
2017		3.06
2018	Target 2018: 2.10	2.69
	(Target 2019: 2.10)	

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

2015			57.04
2016			38.21
2017			54.58
2018		Target 2018: 40.00	36.45
	(Target 2019: 40.00)		

development of technical and organizational measures, behavior-based safety training serves to sharpen employees' awareness of safety issues and train them to act safely 100 percent of the time.

In addition, ALTANA published a newsletter titled SAFETY@ALTANA for the first time in 2018 and distributed it

to all its worldwide sites. In the newsletter, accidents with significant frequency and relevance, for example stumbling, slipping, and falling are addressed and recommended actions are provided. Furthermore, ALTANA's staff magazine regularly discusses special accidents and strategies for avoiding them. Moreover, all sites have established efficient processes for prompt analyses of accidents in which employees and managers are involved.

### Incidents in Detail

Based on the instructions for reporting on globally harmonized process safety key figures in accordance with the International Council of Chemical Associations (ICCA) and on the definition provided by the German Chemical Industry Association (VCI), we had a total of eleven significant incidents in 2018 (previous year: 12). No employees were injured. The eleven incidents were releases of chemicals. They did not have negative effects on the environment. There were no fires or explosions in the period under review.

#### Worldwide Safety Measures

At most sites, a safety week is held on an annual basis. All employees at the respective sites are invited to engage with the issue of safety within the framework of seminars and presentations. For example, special safety trainings were carried out at different sites of ELANTAS Europe, at ACTEGA North America, and at ACTEGA do Brasil.

To avoid accidents with forklifts, some sites have equipped their vehicles with so-called blue lights. The lights, mounted on the front and back of the vehicles, cast a bright blue spot on the ground, enabling pedestrians and other drivers of vehicles to see the forklift from a distance, especially in areas with poor visibility. The company suggestion scheme (CSS) continues to play a key role in the improvement of ALTANA's safety culture. More than 200 ideas concerned the subject of "Improvement of safety at the workplace and of health protection." The suggestions that were implemented not only helped improve ergonomic conditions and occupational safety but also helped cut costs.

# A Focus on Safety Communication

To continue to sharpen safety awareness in the long term, the ALTANA Group primarily relies on targeted communication.

Last year, BYK in Germany signed a multiyear cooperation agreement with the employer's liability insurance association of raw materials and chemical industry (BG RCI) titled "VISION ZERO. Zero Accidents – Healthy Work!" Accompanying this, the safety campaign "Together. For Safety. VISION ZERO" was launched in 2018. In this context, all managers attended a one-day workshop at which the seven VISION ZERO success factors were explained. For example, the success factor "Danger recognized – danger banned" was elucidated in detail. Within the framework of the cooperation, every year measures are jointly defined and implemented in practice.

At the ACTEGA site in Grevenbroich, a special kind of coaching on the topic of "Behavior-based safety culture" was carried out with an external partner. The aim of this concept is to bring about a lasting change in employees' safety awareness. In addition to other issues, the focus was on the topic of "self-motivated and self-dependent action." Given the very positive response, we will carry out this type of coaching or comparable kinds at other sites as well, in order to continuously improve employees' safety behavior there.

#### **Health Protection**

To improve health protection, investments were made to reduce volatile organic compounds (VOCs) in the room air of production buildings. BYK in Kempen, the ELANTAS sites in Hamburg, Quattordio, and Zhuhai, ACTEGA in Foshan, and ECKART in Güntersthal made great progress in this endeavor in the year under review. With the help of closed systems, optimized exhaust systems, and automation measures the corresponding emissions were reduced considerably.

Ergonomic conditions were improved at a number of sites. For instance, loading and lifting facilities for various work processes involving heavy containers and apparatus were set up at the ECKART sites in Painesville, Louisville, Pori, and Güntersthal, as well as at the ELANTAS site in Quattordio. As a result, manual activities were reduced and musculoskeletal disorders minimized.

At many sites around the world, annual health days have been established, on which employees can get medical checkups and obtain information about healthy nutrition. For example, the ELANTAS site in Hamburg offers employees additionally cardiovascular and thyroid examinations.

Moreover, employees around the world have access to a manifold sports, nutrition, fitness, and relaxation offer, which at many sites is available all year round.

# Environment

Environmentally friendly management is a key component of ALTANA's corporate strategy. Our goal is to steadily reduce the energy consumption at all sites and in all areas. We also implement this objective in other environmentally relevant areas, such as waste and the consumption of drinking water.

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#### Improvements in Environmental Performance

ALTANA controls the Group's environmental protection performance with the help of self-defined key performance indicators that set the company's energy and resource consumption in relation to gross value added. ALTANA specifies upper limits for energy and resources consumption for each calendar year. The data on CO<sub>2</sub> emissions, water consumption, and waste volumes, which have been collected since 2007, document the Group's continuous progress.

In the 2018 fiscal year, the ALTANA Group's energy consumption amounted to around 708,000 megawatt-hours after 697,200 megawatt-hours in the previous year. The specialty chemicals company had already reached its long-term goal of reducing its specific CO<sub>2</sub> emissions related to gross value added from 2007 to 2020 by 30 % to 0.21 kg/€ in the previous year. This aim was achieved through the selection of electricity providers. Nearly all of our German sites now obtain around half of their electricity, currently amounting to 280 g/kWh, from renewable energy sources. In addition, projects to improve energy efficiency are implemented at various sites. For example, another solar facility went into operation, increasing the amount of electricity from regenerative sources (see next page). As a result, specific CO<sub>2</sub> emissions related to finished goods produced were cut from 0.35 kg/kg in the previous year to 0.34 kg/kg (a reduction of 3 %).

In 2018, the ALTANA Group reduced the volume of hazardous waste it produced from 19,300 tons (in the previous year) to 18,800 tons, although the production volume increased in the year under review. The key performance indicator in relation to gross value added also improved, from 21.24 g/ $\in$  (in the previous year) to 20.27 g/ $\in$ . The amount of non-hazardous waste also decreased in absolute terms, from around 11,700 to 11,400 tons. The key performance indicators related to gross value added and

produced finished goods also showed a positive trend (details can be found in the online document "Facts and Figures on Sustainability 2018"). The reasons for the improvement of the waste volume record include optimizations of production processes and reuse of byproducts.

In terms of water consumption, ALTANA could not achieve its target in 2018. The company's drinking water consumption was above the upper limit set internally for the year, increasing to around 1,370,000 cubic meters. This was due among other things to temporary technical disturbances.

In the period under review, ALTANA increased its production of finished goods to 562,600 tons, needing 545,400 tons of raw material. Of the latter amount, 418,100 tons were fossil raw materials, 25,500 tons renewable raw materials, and 101,800 tons non-fossil and non-renewable raw materials. 47,100 tons of water were also used as raw material. Detailed information on ALTANA's resource and energy consumption (differentiated based on electricity, natural gas, and oil) and on ALTANA's environmental key performance indicators can be found in the document at www.altana. com/facts\_figures\_sustainability\_2018.

Again in 2018, 81 % of the Group's manufacturing sites fulfilled the ISO 14001 standard. In addition, the energy management systems of ten sites are certified in accordance with ISO 50001.

### **Progress in Climate Protection**

Within the framework of the Keep Changing Agenda, numerous lighthouse projects were identified that can push forward sustainability at ALTANA. Of the 26 projects submitted, 16 were selected to be implemented with a higher priority. 14 of the projects selected concern the optimization of energy efficiency, one project supports waste reduction,

#### Environmental performance indicators ALTANA

	2015	2016	2017	2018
CO₂ (Scope 1 + Scope 2) (kg/€)	0.27	0.24	0.21	0.21
Drinking water (I/€)	1.87	1.52	1.36	1.48
Hazardous waste (g/€)	23.57	23.33	21.24	20.27
Hazardous waste for disposal (g/€)	6.92	7.04	4.20	3.73
Non-hazardous waste (g/€)	13.22	10.49	12.89	12.26
Non-hazardous waste for disposal (g/€)	6.36	5.16	5.62	5.67

The key performance indicators are calculated from the absolute values related to the gross value added. Scope 1: direct emissions; Scope 2: indirect emissions

and another project deals with the issue of lifecycle assessment. By improving its energy efficiency, the ALTANA Group consumes less electricity and reduces CO<sub>2</sub> emissions.

One lighthouse project, for example, seeks to optimize the drying of the product Laponite. At its Widnes site in Great Britain, BYK aims to improve energy efficiency through lower steam consumption, to reduce the waste volume, and to create better working conditions by reducing the temperature of the ambient air. With this measure BYK already saved 1,240 megawatt-hours (corresponding to 230 tons of CO<sub>2</sub>) in the year under review.

Another example is the modernization of boilers at several sites. For many chemical processes, steam is needed for heating. This steam is produced in boilers and distributed through a pipe system. Modern heating boiler systems are equipped with efficient and low-emission gas burners, exhaust heat recovery systems, and highly effective control technology. For example, at its U.S. site in Gonzales, BYK saved around 13,350 megawatt-hours thanks to this modernization. CO<sub>2</sub> emissions were cut by nearly 2,900 tons.

ALTANA also made further investments to upgrade to more energy-efficient LED lighting. At a total of eleven sites of the four divisions, electricity-saving LED lighting was installed. With this measure, the ALTANA Group was able to save more than 1,460 megawatt-hours and reduce  $CO_2$  emissions by 620 tons.

Our Moosburg site is also contributing to environmental protection. BYK is using warm wastewater to generate energy there. Heat from around 30,000 m<sup>3</sup> of wastewater with a temperature of 70 °C is fed back into the production process through a heat exchanger. As a result, around 1,180 megawatt-hours could be saved, meaning a reduction of approximately 340 tons of CO<sub>2</sub>.

In addition to the existing solar plants at ELANTAS in Ascoli Piceno, Italy, and in the Netherlands at BYK in Deventer, this year an additional photovoltaic facility went into operation at ELANTAS' site in Pune, India. On the factory grounds a total of 804 panels with a maximum output of 250 kW were installed in a space of around 3,500 m<sup>2</sup>. The panels can generate approximately 400,000 kWh of energy a year, accounting for about half of the electricity needs of the new research center and administrative building at the site.

#### Responsible Usage of the Resource Water

Water plays an important role in many of the ALTANA Group's production processes, and so the specialty chemicals group is making various efforts to deal sparingly with this resource. Water is used in the chemical industry as a raw material, as a cleaning agent, and as a coolant. ALTANA aims to keep its water consumption as low as possible and to use it as a cooling medium in closed loop systems.

At its Swiss site in Vétroz, ECKART is in a first step optimizing control of the pump unit in an exemplary way, thus reducing the amount of water used for cooling. As a consequence, 3,000 m<sup>3</sup> of groundwater can be saved. In a second step, the cooling systems will be converted to closed loop cooling systems.

At its Indian site in Ankleshwar, ELANTAS successfully carried out a pilot project ("Zero Discharge") aimed at reducing the amount of wastewater significantly. The wastewater is treated in several process steps, and in the end less than 2 % of the initial volume has to be disposed of. The largest share can be reused as water, say, for cooling the production plant.

#### Further Waste Management Improvement

When it comes to waste management, ALTANA's main strategy is to avoid waste or reduce the amount of waste it produces.

At BYK's Kempen site a usage possibility was found for a byproduct that until now had to be disposed of at great cost. So far, this byproduct has been partially fed back into the process, which, however, was very laborious and costly due to the lower quality and the additional processing time required. Now customers have been found that can use this product for their processes with no further steps. At ECKART'S U.S. site in Louisville, previously, aluminum powder, which arises as waste during production and cannot be reused by ECKART for quality reasons, was disposed of as landfill waste. Now a recycling operation has been developed that melts this aluminum powder and enables it to be recycled. As a result, 22.5 tons of landfill waste can be avoided per year.

By optimizing its waste management at its U.S. site in Wallingford, BYK increased the percentage of waste used thermally from 52 % to 60 % and thus considerably reduced the amount of waste for disposal.

## **Emissions Reduced Further**

In addition to  $CO_2$ , which mainly arises during the combustion of fossil fuels, volatile organic compounds (VOCs) also contribute to emissions. ALTANA aims to continue keeping these emissions as low as possible in the future. To achieve this goal, various technical possibilities are available at many sites, which will continue to be used and will be expanded in the coming years.

Technical improvements, for example the installation of an additional condensate cooler at a plant to recover solvents at ELANTAS in Ankleshwar, also contribute to a significant reduction of local emissions.

In a broader sense, ALTANA considers noise to be an emission. At all sites measures are being taken to reduce noise. At ACTEGA's Grevenbroich site, highly efficient mufflers were installed in the ventilation systems, enabling noise levels to be reduced from 82 dB(A) to 39 dB(A) per ventilator.

# **Human Resources**

ALTANA gears its activities to long-term and sustainable growth. We can only achieve this goal together with our competent and committed employees. We therefore promote the professional development of our staff, prepare them for leadership positions, and enable them to participate in the company's success. We put particular emphasis on the recruitment of young talent, specialists, and managers.

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#### Our Employees: Our Most Important Asset

ALTANA is a highly innovative globally leading specialty chemicals company. Of overriding importance for the company's success is our most important resource, our employees, who are motivated and dedicated and have above-average qualifications. They are committed to the respectful corporate culture defined in ALTANA's Guiding Principles, which is informed by our four central values: appreciation, openness, empowerment to act, and trust.

As an attractive employer, we offer our some 6,400 employees around the world individualized further training opportunities, promote their professional development in a targeted manner, and support their health with special preventive measures. Among the measures we offer are many voluntary additional benefits. The success of our offer is reflected by a survey conducted in 2018 at a few of ALTANA's German sites within the framework of a bachelor's thesis. Around one-fourth of the employees participated.

The survey participants were "completely satisfied" (40.5 percent) or "satisfied" (56.4 percent) with the additional benefits offered. For most of the participants, the most important benefits are pension provision, Christmas and vacation money, flextime and compensatory time off, profit participation, and the cafeteria. Nearly 70 percent indicate that no important benefits are missing at present.

# Human Resource Development and Talent Management

To ensure that the company remains highly competitive in globalized sales markets, a primary focus of the ALTANA Group's human resource strategy is to secure young talent. Special emphasis is placed on consistent and global promotion of internal talent. By 2020, we aim to fill around 70 percent of all management positions worldwide with ALTANA staff. To this end, we are continuously improving our human resource development programs. In the year under review, we reworked our competence model. The model helps us develop and recruit employees on the basis of our corporate strategy and our growth targets. In addition, the competence model provides us with orientation enabling us to determine competencies that our employees already have when they join the company and ones we have to (further) develop together with them.

In 2018, the Advanced Leadership Program (ALP) was launched. With ALP the company's leadership culture is strengthened and networks between managers are intensified. Selected experienced managers with a great willingness to change and high potential for taking more responsibility (for example, globally or cross-divisionally) can take part in this program. Twelve managers are already taking advantage of the opportunities offered by ALP.

In the year under review, a globally oriented Management Development Program (MDP) with six modules was offered again. Seventeen participants from nine countries participated. The program is geared to employees with a strong willingness to change and high international mobility, as well as potential for strategic positions. In the context of MDP, they are intensively prepared for global leadership roles and have the opportunity to be part of networks.

On a regional level, dp Europe was introduced in the year under review. In the Regional Development Program (Regional DP) fourteen participants are prepared for operating and strategic functions. The months-long programs MDP and Regional DP enable valuable networks within the ALTANA Group for promoting exchange between regions and subsidiaries.

Furthermore, we in the ALTANA Group carry out specially developed dialogs with all employees on a regular basis. They promote the employees' professional development by assessing their development. Within the framework of this progress dialog carried out each year, the disciplinary supervisor holds personal talks with each employee at least once a year, which forms the basis for the respective target agreement.

If a work contract specifies that the target agreements impact the compensation of the employee in question, the supervisor carries out a performance dialog in addition to the objective-setting dialog. All of the dialog elements together constitute the ALTANA compass dialog.

### Women in Leadership Positions

Diversity in leadership positions is an important goal of our Keep Changing Agenda. At the end of 2018, 30.2 percent percent of our employees in Germany and 22.3 percent of our managers there were women. ALTANA's medium- to long-term goal is to increase the share of women in leadership positions to the percentage of women in the company's total workforce.

The initiative LEADING WOMEN @ ALTANA is providing important impetus. It includes a mentoring program for women that prepares women who have potential for a possible leadership role and accompanies women who have taken on a leadership role for the first time. The mentoring program makes an important contribution toward increasing the share of women in leadership positions.

To this end, teams consisting of a mentee and a mentor meet regularly over a period of twelve months. The mentor shares his or her knowledge and experience with the mentee. On account of the success, ALTANA continued the mentoring project in 2018 with 19 new tandems across its sites in Germany and is examining whether to roll out the project Europe-wide.

#### Recruitment

Our recruitment activities received two awards in 2018. ALTANA received top results regarding online recruiting channels from BEST RECRUITERS and the Potentialpark study. BEST RECRUITERS gave us the Gold award in its ranking of the chemical industry. In the overall ranking, which evaluates the online recruiting qualities of companies in all sectors, ALTANA finished in third place. The top 400 employees in Austria, Germany, and Switzerland were examined.

In the 2018 Potentialpark study ranking, we also finished in a top position (16th place again) and were awarded as one of the "top 30 in Germany."

For the recruitment of young talent, the ALTANA Group has relied for years on cooperation with institutes of higher education. The focus of ALTANA's activities has been extended from "chemistry" to IT courses of study. It promotes, for example, projects and final theses at Rhine-Waal and Niederrhein universities.

For the ninth time ALTANA supported students majoring in chemistry, chemical and coatings engineering, business informatics, human resource management, and mechanical engineering with a Deutschlandstipendium scholarship. The 27 recipients not only received financial support, but could also personally experience ALTANA within the framework of various events, enable themselves to be considered for internships and degree theses, take advantage of mentoring offers or take part in specialist seminars.

Since mid-2018 ALTANA has participated in a program called "Make Something Out of Your Studies" launched by Niederrhein University. Students majoring in coatings technology or instrumental analytics who are accepted into ALTANA's program are given a realistic picture of jobs they can pursue after they finish their studies. We started with eight students.

# **Social Commitment**

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.

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## Social Commitment

The natural sciences, mathematics, informatics, and technology are among the drivers of economic development and social progress around the world. In this context, ALTANA wants to help introduce young people to these disciplines at an early stage and to kindle their enthusiasm for them. In addition, ALTANA is involved in a number of selected social projects. In cooperation with experienced partners from the education sector, we support concrete projects, often in the immediate proximity of our sites. To maximize lasting impact, the company usually promotes these projects over a period of several years.

## Educational Coaching of Elementary School Children

ALTANA supported the educational coaching project at GGS Innenstadt, the largest public elementary school in Wesel, for the fifth time in a row (see also page 42 ff.). The project was initiated by the City of Wesel and implemented by the Klausenhof Academy in close cooperation with GGS Innenstadt. The main aim of the coaching is to promote elementary school children and to achieve equal opportunity for children with a migration background and from socially deprived backgrounds. The project also supports the development of children with special talents.

As in the previous years, ALTANA financed the personnel and material costs for a socio-educational expert at the Klausenhof Academy. The expert assigns a "personal mentor" to each child, trains the mentors, and coordinates their work. A total of 35 children have been supported since the project began in 2014. Currently, 18 children are assisted and challenged on an individual basis by volunteer mentors, who promote their personality development in keeping with their interests and abilities. The support focuses on extracurricular activities such as library visits, music, and sports.

## Junior Researchers Visit ALTANA

Furthering children's and adolescents' scientific knowledge has a tradition at ALTANA. Employees of BYK-Chemie at our Wesel site have worked as school ambassadors for many years. ALTANA is a network partner of the Germany-wide foundation House of Junior Researchers. For a number of years now, it has accompanied two elementary schools and one daycare center in Wesel. The aim of the initiative, which is sponsored by the German Federal Government, is to get children interested in science. The concept includes special research days that take place in cooperation with school ambassadors at the respective school or daycare center. In 2018, water and communication were the main topics of the research days. In March, the junior researchers presented their results to parents, teachers, and employees at the traditional closing event held at the ALTANA conference center.

In the context of various events, employees at other sites also give young people insight into the world of science, conduct experiments together with them, and introduce them to scientific training and career possibilities. In Wallingford, BYK USA took part in May in the Parker Farms School Career Fair for third, fourth, and fifth graders. In Italy, ELANTAS Europe employees thrilled the public with experiments in September during the Night of Researchers, an event series staged by the University of Parma.

## Youth Startups Competition

ALTANA supports the online competition "Jugend gründet" (Youth Startups), sponsored by the German Federal Government, and in 2018 offered a special prize in chemistry for the third time. In the national finals in 2018, a team of students from Nagold, Germany, won the prize for an innovative business idea called GAIA, whereby a digitally controlled system enables plants to be fertilized individually. The idea is innovative because modern measuring devices are combined with a watering system to optimally supply nutrients to different plants. The award included a four-day trip to the East Coast of the U.S., where the students visited one of the ALTANA Group's largest research and manufacturing sites at BYK USA in Wallingford in August 2018.

#### **Open House Day**

At various sites, ALTANA participated in the Germany-wide Open House Day of the Chemical Industry, hosted by almost 200 chemical companies and seven universities, on September 22, 2018. Around 7,500 interested people, neighbors, and customers came to ALTANA's and BYK's headquarters in Wesel, a record number of visitors. There was a wide-ranging offer for both adults and children. Laboratory experiments and informative tours of production gave visitors diverse, interesting, and not-everyday insights into the world of chemistry. A colorful stage program, participatory events for children, and a performance demonstration by the Wesel fire department were among the highlights. BYK rounded off the proceeds from token sales to 10,000 euros and donated the sum to the Löwenzahn & Pusteblume booster club for pediatric palliative medicine.

In Grevenbroich, more than 400 visitors used the Open House Day to tour the manufacturing and laboratory facilities, finding out how ACTEGA Rhenania products are developed and produced. The products are used worldwide in packaging for many foods. In a coatings training session, visitors gained deeper insights into the world of coatings, and in a special "children's laboratory" kids could witness exciting experiments. A diverse framework program rounded off the Open House Day. ACTEGA Rhenania topped up the income from the sale of food and drinks and donated the money to the Grevenbroich-based Tafel Existenzhilfe, which distributes food to people in need, and to Haus St. Stephanus, which assists youth and the handicapped.

The doors were also open to the public at BYK's sites in Wesel-Emmelsum, Kempen, and Schkopau, at ACTEGA's site in Lehrte, and at ELANTAS' Hamburg site.

#### Social Engagement and Donations

ELANTAS Beck India has sponsored a number of projects over a longer period of time. The projects focus on the fields of education, health, and hygiene. For example, support from ELANTAS Beck India enabled a school in the village of Pungam and a school in Ankleshwar to be refurbished and new toilet facilities to be built. In other villages and schools, new sanitary facilities for students, a water treatment plant, and computer-learning technologies in the form of socalled e-learning kits were financed. In the slums of the city of Pune, the company supports an initiative that kindles children's interest in curricular and extracurricular learning offers and shows them the importance of education.

In addition, ELANTAS Beck India works with the charity organization Suhrud Mandal. ELANTAS Beck India provided the organization with funding for printing schoolbooks for hearing-impaired children throughout the state of Maharashtra. Among the seven partnerships that ELANTAS Beck India supports within the framework of its commitment to sustainability is the educational initiative Swadhar IDWC, which with its program enables girls from socially weak classes to receive an education, strengthens their confidence, and thus enables them to be role models for other people in society. In 2018, the company supported nine participants in the educational program. In social projects at its U.S. site in St. Louis, ELANTAS PDG provides assistance and at the same time strengthens employees' personal commitment. An example is the monthly donations by employees to the aid organization United Way Worldwide, which the company tops up. Each year, ELANTAS PDG participates in the fall in the traditional World Food Day, on which employees pack food packages for needy people. At Christmastime, the company takes part in a Christmas campaign for poor families in St. Louis. The employees bring gifts that have been collected to the families' homes.

In the context of the annual ECKART Christmas donation campaign "Donations Instead of Gifts," a total of 20,000 euros were provided to four organizations. Three children's aid organizations and an inclusion project of a gymnastics and sports club near the site each received 5,000 euros.

# **Consolidated Financial Statements** (condensed version)

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# Management Board Responsibility Statement

The consolidated financial statements of the annual report have been prepared by the Management Board of ALTANA AG, which is responsible for the completeness and accuracy of the information contained therein.

The consolidated financial statements have been prepared in accordance with the International Financial Reporting Standards (IFRS), as endorsed by the EU and in accordance with the requirements of German commercial law pursuant to section 315e of the German Commercial Code (HGB).

The information contained in the consolidated financial statements and the Group Management Report is based on the information reported, in accordance with consistent guidelines in force throughout the Group by the companies included in the consolidated financial statements. The integrity of the reporting process is safeguarded by effective internal control systems established at these companies under the direction of the Management Board. This assures a true and fair view of the performance and results of the Group and enables the Management Board to recognize potential investment risks and negative developments at an early stage and take appropriate countermeasures.

By resolution of the Annual General Meeting, the Chairman of the Audit Committee of the Supervisory Board appointed PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft as independent auditors of the consolidated financial statements. The auditors issued an unqualified auditors' report on the complete consolidated financial statements and the Group management report. The consolidated financial statements, the Group Management Report and the auditors' report have been made available to the Supervisory Board for detailed discussion. The report of the Supervisory Board is contained on pages 16–19 of the Corporate Report 2018.

To the best of our knowledge and in accordance with the applicable reporting principles the consolidated financial statements give a true and fair view of the net assets, financial position, and results of operations of the Group and the Group Management Report includes a fair review of the development and performance of the business and the position of the Group, together with a description of the principal opportunities and risks associated with the expected development of the Group.

Wesel, Germany, February 26, 2019

ALTANA AG The Management Board

M. Mulii N. Jahr C. Seulinder

Dr. Christoph Schlünken

Martin Babilas

Stefan Genten

# ALTANA Group Consolidated Income Statement

	Notes	2017	2018
in € thousand			
Net sales	4	2,246,956	2,307,399
Cost of sales	5	(1,371,573)	(1,463,627)
Gross profit		875,383	843,772
Selling and distribution expenses	6	(288,653)	(291,228)
Research and development expenses		(142,484)	(154,127)
General administration expenses		(118,466)	(108,571)
Other operating income	7	23,498	16,737
Other operating expenses	8	(13,359)	(10,825)
Operating income (EBIT)		335,919	295,758
Financial income	9	7,092	4,898
Financial expenses	10	(15,684)	(12,110)
Financial result		(8,592)	(7,212)
Income from at equity accounted investments		(21,301)	(24,460)
Income before income taxes (EBT)		306,026	264,086
Income taxes	11	(71,382)	(77,097)
Net income (EAT)		234,644	186,989
thereof attributable to non-controlling interests		1,829	1,975
thereof attributable to the shareholder of ALTANA AG		232,815	185,014

# ALTANA Group Consolidated Statement of Financial Position

Assets	Notes	Dec. 31, 2017	Dec. 31, 2018
in € thousand			
Intangible assets	13	1,056,943	1,044,217
Property, plant and equipment	14	774,405	868,162
Long-term investments	15	63,227	22,323
Investments in at equity accounted companies	16	96,705	117,869
Income tax refunds		169	
Deferred tax assets	11	18,645	20,496
Other non-current assets	21	11,479	10,667
Total non-current assets		2,021,573	2,083,734
Inventories	17	330,170	373,027
Trade accounts receivable	18	371,911	384,180
Income tax refunds		8,671	12,832
Other current assets	21	118,113	103,836
Marketable securities	19	18,730	21,907
Short-term financial assets	20	2,074	2,690
Cash and cash equivalents		275,671	239,652
Assets held for sale		797	
Total current assets		1,126,137	1,138,124
Total assets		3,147,710	3,221,858

Liabilities, provisions and shareholders' equity	Notes	Dec. 31, 2017	Dec. 31, 2018
in € thousand			
Share capital <sup>1</sup>		136,098	136,098
Additional paid-in capital		151,276	151,276
Retained earnings		1,864,798	1,974,331
Accumulated other comprehensive income		51,963	71,359
Equity attributable to the shareholder of ALTANA AG		2,204,135	2,333,064
Non-controlling interests		10,065	11,553
Shareholders' equity	22	2,214,200	2,344,617
Non-current debt	24	134,973	62,959
Employee benefit obligations	25	224,230	220,429
Other non-current provisions	26	18,366	20,331
Deferred tax liabilities	11	84,252	85,462
Other non-current liabilities	27	24,787	27,862
Total non-current liabilities		486,608	417,043
Current debt	24	69,269	82,641
Trade accounts payable		192,016	195,351
Current accrued income taxes		33,915	41,212
Other current provisions	26	104,237	87,479
Other current liabilities	27	47,465	53,515
Total current liabilities		446,902	460,198
Total liabilities, provisions and shareholders' equity		3,147,710	3,221,858

<sup>1</sup> Share capital consists of 136,097,896 no-par value shares.

# ALTANA Group Consolidated Statement of Cash Flows

	Notes	2017	2018
in € thousand			
Net income (EAT)		234,644	186,989
Depreciation and amortization of intangible assets and property, plant and equipment	13, 14	133,637	134,842
Impairment of intangible assets, property, plant and equipment and assets held for sale	13, 14	451	
Change in fair value of financial assets and securities	10		(27)
Net result from the disposal of intangible assets and property, plant and equipment	7, 8	316	(1,414)
Net result from the disposal of long-term investments and marketable securities	9	(17)	(55)
Change in inventories	17	(40,673)	(40,369)
Change in trade accounts receivable	18	(32,521)	(11,379)
Change in income taxes	11	(29,746)	1,723
Change in provisions	25, 26	(528)	(14,411)
Change in trade accounts payable		24,702	2,367
Change in other assets and other liabilities	21, 27	(8,951)	11,804
Other		20,951	26,165
Cash flow from operating activities		302,265	296,235
Capital expenditure on intangible assets and property, plant and equipment	13, 14	(187,964)	(186,988)
Proceeds from the disposal of intangible assets and property, plant and equipment	13, 14	1,085	5,843
Acquisitions, net of cash acquired	3	(140,695)	(3,126)
Purchase of long-term investment and investments in at equity companies	15, 16	(30,454)	(54,901)
Proceeds from the disposal of long-term investments	15	43	54
Payments on long-term loans		(54,000)	(23,010)
Proceeds from long-term loans		98	71,014
Purchase of marketable securities	19	(32,456)	(31,339)
Proceeds from the disposal of marketable securities	9, 10	28,575	27,462
Change in short-term financial assets		90,652	(700)
Cash flow from investing activities		(325,116)	(195,691)

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	Notes	2017	2018
in € thousand			
Dividends paid		(121)	(80,111)
Proceeds from issuance of long-term debt	24		8,383
Repayment of long-term debt	24	(1,892)	(67)
Net increase/decrease in short-term debt	24	(65,422)	(64,144)
Cash flow from financing activities		(67,435)	(135,939)
Effect of exchange rate changes		(9,649)	(624)
Change in cash and cash equivalents		(99,935)	(36,019)
Cash and cash equivalents as of January 1	2	375,606	275,671
Cash and cash equivalents as of December 31	2	275,671	239,652
Additional information on cash flows included in the cash flows from operating activities			
Income taxes paid		(114,219)	(80,603)
Interest paid		(8,260)	(3,916)
Income taxes received		4,500	5,966
Interest received		4,754	2,226
Dividends received		1,061	962

# Reference to the Consolidated Financial Statements

The consolidated financial statement to the Corporate Report 2018 are provided online at www.altana.com/consolidated\_financial\_statements\_2018

#### Consolidated Financial Statements

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# Multi-Year Overview

#### Key figures at a glance

	2009	2010	2011	2012	
in € million					
Sales	1,181.7	1,535.4	1,616.7	1,705.3	
Earnings before interest, taxes, depreciation and amortization (EBITDA)	208.4	314.1	308.0	323.2	
EBITDA margin	17.6%	20.5%	19.1%	19.0%	
Operating income (EBIT)	53.5	230.2	217.0	226.9	
EBIT margin	4.5%	15.0%	13.4%	13.3%	
Earnings before taxes (EBT)	39.0	218.2	207.7	217.2	
EBT margin	3.3%	14.2%	12.8%	12.7%	
Net income (EAT)	11.0	152.3	147.5	154.7	
EAT margin	0.9%	9.9%	9.1%	9.1%	
Research and development expenses	70.6	82.0	87.7	102.3	
Capital expenditure on intangible assets, property, plant and equipment	54.0	73.8	93.5	89.8	
Cash flow from operating activities	224.6	238.6	170.0	274.5	
Return on Capital Employed (ROCE)	7.6%	12.2%	11.2%	10.8%	
ALTANA Value Added (AVA)	(5.4)	64.2	53.2	50.0	
Total assets (Dec. 31)	1,707.8	1,943.6	2,001.9	2,121.3	
Shareholders' equity (Dec. 31)	1,177.6	1,364.2	1,417.1	1,498.2	
Net debt (-)/Net financial assets (+) <sup>1</sup> (Dec. 31)	(55.0)	79.7	(26.8)	68.2	
Headcount (Dec. 31)	4,789	4,937	5,313	5,363	

<sup>1</sup> Comprises cash and cash equivalents, current financial assets, marketable securities, loans granted, debt, and employee benefit obligations.

#### Sales by division

	2009	2010	2011	2012	
in € million					
ВҮК	419.9	541.2	581.9	618.4	
ECKART	282.3	356.6	346.8	340.5	
ELANTAS	272.7	377.4	390.9	412.5	
ACTEGA	206.8	260.2	297.0	333.9	

#### Sales by region

	2009	2010	2011	2012
in € million				
Europe	555.1	683.7	740.8	751.7
thereof Germany	188.0	234.5	258.5	266.1
Americas	267.7	361.5	373.3	412.0
thereof U.S.	178.4	242.0	243.2	268.4
Asia	317.9	439.0	447.7	509.6
thereof China	164.3	224.2	228.5	252.5
Other regions	41.0	51.2	54.9	31.9

Change in country allocation as of 2012

 2013	2014	2015	2016	2017	2018
1,765.4	1,952.3	2,059.3	2,075.3	2,247.0	2,307.4
 335.7	397.4	390.9	453.0	470.0	430.6
19.0%	20.4%	19.0%	21.8%	20.9%	18.7%
229.1	267.7	251.3	328.7	335.9	295.8
13.0%	13.7%	12.2%	15.8%	14.9%	12.8%
 212.6	251.8	227.8	299.8	306.0	264.1
 12.0%	12.9%	11.1%	14.4%	13.6%	11.4%
 151.6	179.2	158.0	210.1	234.6	187.0
8.6%	9.2%	7.7%	10.1%	10.4%	8.1%
109.4	113.9	128.1	129.3	142.5	154.1
94.3	90.4	85.6	122.1	188.0	187.0
 258.8	298.2	346.1	376.7	302.3	296.2
9.9%	10.3 %	10.1%	11.6%	11.3%	9.4%
38.7	51.9	49.2	83.3	84.0	37.6
 2,546.0	2,756.2	2,964.5	3,053.9	3,147.7	3,221.9
1,565.6	1,745.5	1,935.6	2,082.2	2,214.2	2,344.6
 (303.6)	(280.1)	(114.2)	25.7	(78.0)	(95.6)
5,741	6,064	6,096	5,967	6,186	6,428

2013	2014	2015	2016	2017	2018
691.5	856.7	870.0	909.1	1,030.4	1,065.6
334.6	332.2	349.7	361.9	385.3	382.6
414.6	431.2	463.2	452.1	488.7	382.6 506.6
324.7	332.1	376.4	352.2	342.6	352.6

2013	2014	2015	2016	2017	2018
745.2	795.1	795.6	798.6	852.3	875.0
 262.4	276.7	269.8	263.2	275.7	273.4
438.4	527.1	607.1	587.2	623.6	624.4
289.5	365.0	416.1	398.8	436.3	434.8
 547.4	593.0	618.9	652.3	733.5	769.4
 287.8	309.8	315.6	336.0	399.0	421.2
 34.3	37.0	37.7	37.2	37.6	38.6

# Global Compact: Communication on Progress (COP)

By participating in the UN initiative Global Compact, we commit to respecting human rights, creating socially compatible working conditions, promoting environmental protection, and fighting corruption.

Principle	Page	Measure taken
Human Rights		
Principle 1 Businesses should support and respect the protection of internationally proclaimed human rights	8–10, 12–13, 94 FFS <sup>1</sup> , pp. 9, 27–29	Sustainable Development Goals (SDG 8), ALTANA's Guiding Principles and leadership guidelines, Compliance Management System, women in leadership positions
Principle 2		
Make sure that they are not complicit in human rights abuses	7, 12–13 FFS <sup>1</sup> , pp. 23–24, 27–29	Code of Conduct, sustainability assessments, search for suppliers, supplier agreements
Labor		
Principle 3 Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining	12–13 FFS <sup>1</sup> , pp. 27–29	Compliance Management System, Corporate guideline HR
Principle 4 The elimination of all forms of forced and compulsory labor	12–13 FFS <sup>1</sup> , pp. 27–30	Compliance Management System
Principle 5		
The abolition of child labor	7, 12–13, 96–98 FFS <sup>1</sup> , pp. 23–24, 29	sustainability assessments, Compliance Management System, support of education initiatives
Principle 6		
The elimination of discrimination in respect of employment and occupation	7–10, 12–13 FFS <sup>1</sup> , pp. 27–30	Sustainable Development Goals (SDG 5), Compliance Management System, training, sustainability assessments and audits, surveys
Environment		
Principle 7		
Businesses should support a precautionary approach to environmental challenges	8–10, 81–83, 89–91 FFS <sup>1</sup> , pp. 2–7, 13–15	Sustainable Development Goals (SDG 13), sustainable product development, energy and environmental management systems, environmental key perfor- mance indicators system with targets, energy efficiency analyses
Principle 8 Undertake initiatives to promote greater environmental responsibility	8–10, 81–83, 89–91 FFS <sup>1</sup> , pp. 2–7, 17–23	Sustainable Development Goals (SDG 13), sustainable product development, process optimizations, capital expenditure, environmental key performance indicators system with targets
Principle 9		
Encourage the development and diffusion of environmentally friendly technologies	8–10, 81–83 FFS <sup>1</sup> , pp. 31–32	Sustainable Development Goals (SDG 9), product and technology innovations, alternatives to critical materials
Anti-Corruption		
Principle 10		
Businesses should work against corruption in all its forms, including extortion and bribery	7, 12–13 FFS <sup>1</sup> , pp. 27–30	Code of Conduct, Compliance Management System, training and audits

<sup>1</sup> Facts and Figures on Sustainability 2018 (Online document)

# Contact

Corporate Communications Tel +49 281 670-10900 Fax +49 281 670-10999 press@altana.com

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ALTANA AG Abelstr. 43, 46483 Wesel, Germany Tel +49 281 670-8 Fax +49 281 670-10999 info@altana.com www.altana.com

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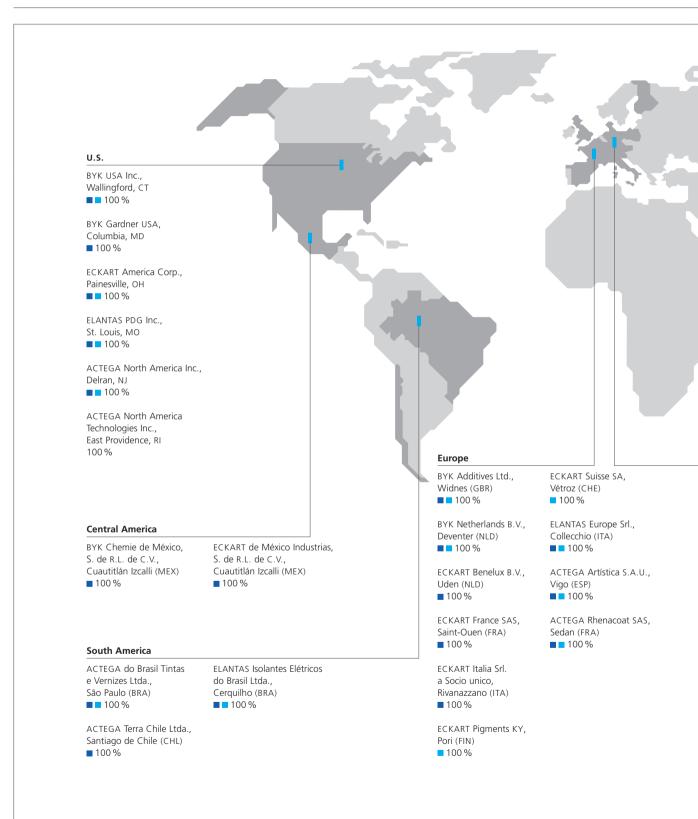
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Sales Production

ALTANA AG Abelstr. 43 46483 Wesel, Germany Tel +49 281 670-10900 Fax +49 281 670-10999

www.altana.com

