



# OUR CORPORate Reponsibility

General Overview

2019



## Disclaimer

Publication of Merck KGaA, Darmstadt, Germany. In the United States and Canada the group of companies affiliated with Merck KGaA, Darmstadt, Germany operates under individual business names (EMD Serono, Millipore Sigma, EMD Performance Materials). To reflect such fact and to avoid any misconceptions of the reader of the publication certain logos, terms and business descriptions of the publication have been substituted or additional descriptions have been added. This version of the publication, therefore, slightly deviates from the otherwise identical version of the publication provided outside the United States and Canada.



# successful business with a conscience



**science** is at the **heart**  
of everything we do.

We want to develop products that  
**create**  
**sustainable value**  
for our customers, for our company and for  
society.

“Merck KGaA, Darmstadt,  
Germany has been operating for  
more than 350 years. Our long  
history has taught us that  
sustainable business success is  
always the result of responsible  
conduct.”

**Stefan Oschmann,**  
**Chairman of the**  
**Executive Board and CEO**



## View from the outside 1/2

# External stakeholders value our engagement



FTSE4Good

Since 2008, our shares have been **included in the FTSE4Good Index.**



Merck KGaA, Darmstadt, Germany was confirmed as a constituent of the **Ethibel Sustainability Index (ESI) Excellence Europe** in 2018.

STOXX

In 2018, **the Merck KGaA, Darmstadt, Germany share was once again included in STOXX Global ESG Leaders Index**, a sustainability index that assesses companies based on key environmental, social and governance criteria.



Since 2015 we have been a member of the **Euronext Vigeo – Eurozone 120.** The index includes companies that show high performance with respect to 38 sustainability drivers.



In 2018, Sustainalytics awarded us 79 out of 100 points, putting us among the leading pharmaceutical companies – with particularly high marks in corporate governance, community outreach, and environmental performance.



## View from the outside 2/2

### Proof points for our leading position



In 2018, Oekom research AG gave us a "B-" rating which means we have once more achieved **prime status**.



We received **Gold** status in 2019, among the **top 1% of companies**.

EcoVadis annually examines 45,000 suppliers from 150 countries. The rating focuses on 21 criteria; topic areas: environment, social affairs, ethics, and sustainable procurement.



In the **2018 Access to Medicine Index** Merck KGaA, Darmstadt, Germany ranked **fourth place** again.

The ranking appreciates our efforts support-ing low and middle income countries by providing expertise and lab supplies.



Participation in CDP (formerly Carbon Disclosure Project) since 2008.

**CDP Climate:** In 2018, we scored "C" (2017: B).

**CDP Water:** In 2018 we received a "B-" (2017: B).



Merck KGaA, Darmstadt, Germany ranks on **fourth place among its peer companies** and achieved a total of 54 out of 100 points ("robust") with respect to environmental, social and governance (ESG) topics.

In 2018 Vigeo Eiris, a sustainability rating and research agency, analyzed ~ 4,500 companies.



Fulfilling our

# corporate responsibility strategy ...

**We seek to create added value both for the company as well as for the community...**

... focusing our strength on those areas where we can achieve the highest impact.



**We conduct our business in a responsible manner:**

By doing so, we secure our **social license to operate** and enhance the competitiveness of our company.




# Strategic sphere Global Health Improving care globally

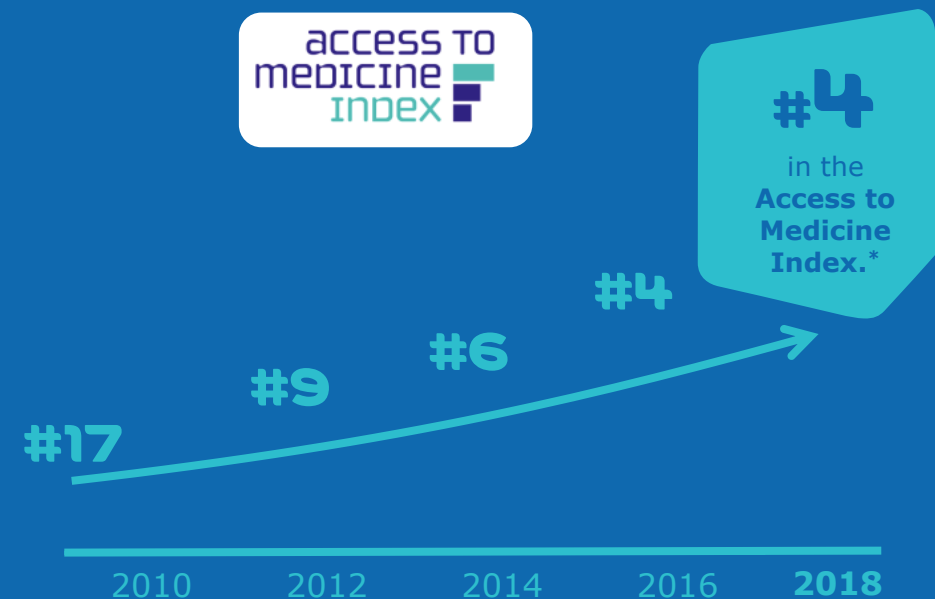


We provide people with **access to adequate high-quality healthcare**, for example

- We improved **access to better therapies in diabetes, cancer, hypertension, and fertility** in underserved regions through our Capacity Advancement Program
- We strengthened **our Global Health Institute** to accelerate R&D, incorporate access provisions and build capacity
- We conduct **awareness campaigns** e.g. for diabetes, thyroid disorders and cancer

  
Transparency on patents to insure public health needs: Pat-INFORMED initiative recognized as a **best practice** in the **2018** Access to Medicine Index

  
Colorectal Cancer Awareness Month campaign **#gutstrength** reached **162,000** people



\* The ATM Index assesses the degree to which companies have improved access to medicines in developing nations.







# Strategic sphere Global Health

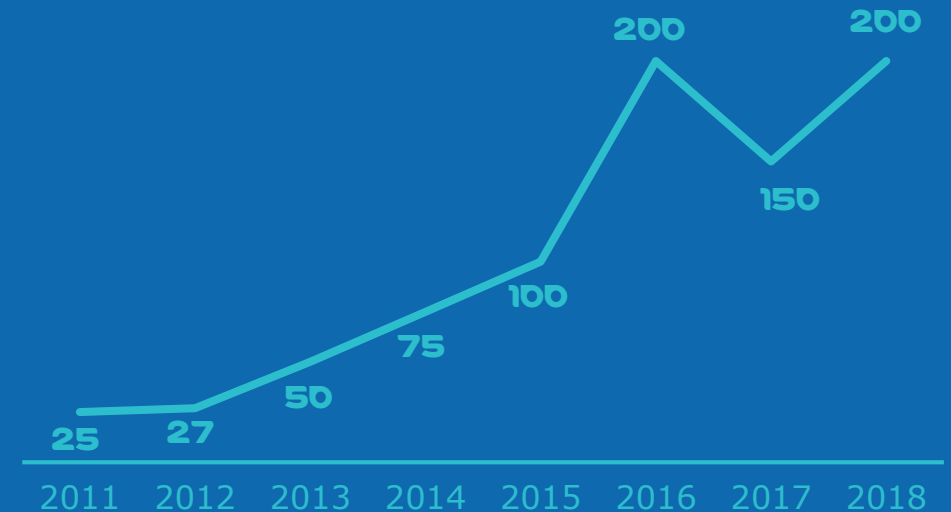
## Our engagement in Africa

### Preventing and treating infectious diseases

- We aim to eliminate the worm disease **schistosomiasis**
  - Since 2007, we have donated over 900 million praziquantel tablets to WHO for distribution across 46 nations in Africa
  - We support the NALA Foundation with a Schistosomiasis Health Education Project targeting 850,000 people in Ethiopia
  - We are developing a pediatric formulation of praziquantel for children under the age of six (Phase III study will be implemented in 2019)
- We help delivering integrated and **sustainable health solutions against malaria** (treatments, diagnostics, prevention methods)
- New compound is being developed as a single-dose combination to treat and potentially prevent **malaria in children** (Phase I study underway since 2017)



Number of praziquantel tablets donated to WHO (millions)





# Strategic sphere Sustainable Solutions

## More sustainable products throughout their life-cycle

Continuously improving the **sustainability performance of our products** and helping our customers to reach **their sustainability targets**:

With the Design for Sustainability (DfS) program, **we reduce environmental impacts** of devices and instruments, also through customers' own use, when developing a new product.

### For example:

- By the end of 2018, 27% of these DfS product development projects met three or more product sustainability criteria.
- EZ-Fit™ Manifold laboratory filter now requires **47% less raw material** than its predecessor.

Our in-house-developed web-based tool **DOZN™** enables us to assess green alternatives of various chemicals, creating transparency for our customers.

### For example:

- **Cyrene™**: Bio-based solvent derived from waste cellulose is used as an alternative to the critical substance formic acid.
- To date, we have used this matrix to assess and improve more than 40 products.



In **2018**

Cyrene was shortlisted for the "innovation of the year" at the Ethical Corporation's Responsible Business Awards.

We develop display technologies that **reduce energy consumption**.

### For example:

- We are developing high performance **OLED materials** for vacuum evaporation methods and printing processes. OLEDs increase the energy efficiency of displays.
- Our **liquid crystal window technology** under the new brand eyrise™ can lower the energy consumed by building climate control by up to 40%.



At

**BAU 2019**

we showed an iconic building design by renowned Brazilian architect Oscar Niemeyer.



# Strategic sphere Broad Minds Foster creativity and curiosity



By making education on all levels and culture accessible, we nurture characteristics that are essential to us as a high-tech company, namely creativity, enthusiasm for new discoveries and curiosity:



In 2018 approximately **3,500** students conducted research in the TU Darmstadt laboratories

We inspire a love of science in the next generation of researchers with a special focus on science education.

- **Junior laboratories** with the Technical University (TU) of Darmstadt
- **School booster program** in Germany helped ~70 schools conducting experiment-based science
- **Curiosity Cube** tour within SPARK program travelled 30,000 kilometers in North America

In 2018 more than **66,000** students engaged by SPARK Global Volunteer Program

We have more than **10** professors teaching on an voluntary basis. In addition we are sponsoring several university professorships.

**Deutsche Philharmonie Merck KGaA, Darmstadt, Germany** is our musical ambassador

~**31,000** people attending concerts in 2018

**Literature can stimulate imagination and give courage:**

We further writers who drive cultural exchange in our globalized world

**5** literary prizes in Germany, India, Italy, Japan and Russia

**1 Million €** annually will be provided over the **next 35 years** for the new research award **Future Insight Prize**



# How do we secure our social license to operate?

## Looking, listening and doing better

**GOVERNANCE:** Responsible conduct as central pillar of our company culture and integrated in our corporate governance.

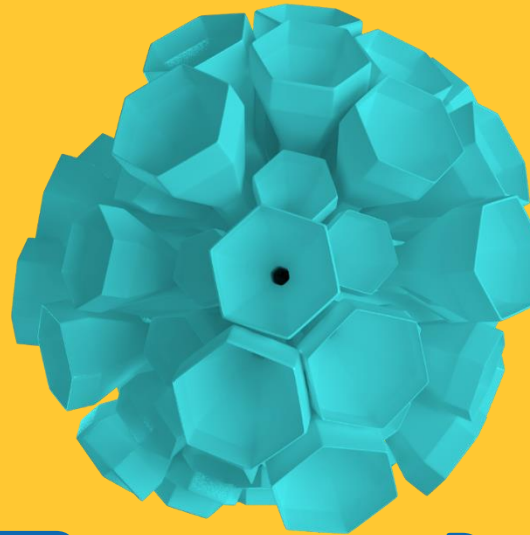
1

2

Our **products and technologies** help to solve global problems: When it comes to safety, environmental sustainability and ethical practices, we have extremely high expectations and standards.

We are dedicated to **environmental stewardship**, working to conserve resources such as energy, water and raw materials while reducing emissions and waste.

6



3

Secure **supply chains** are key to our success: We take a risk-based approach and are member of the Together for Sustainability initiative - pushing for better environmental, compliance and social standards at suppliers.

Across all our sites worldwide, we are deeply committed to **supporting our communities**.

5

4

**people** are crucial to our success: We seek to retain and develop them. We are integrating human rights due diligence into our processes.



# Our social license to operate: Governance

## Integrating responsible behavior into our governance

1

Company **values**, along with the external regulations and our commitment to initiatives

2

Group-wide **guidelines** such as the Corporate Environment, Health and Safety (EHS) Policy, the Human Rights Charter or the Genome Editing Principle

3

Derived from the charters, principles and policies, our **internal standards** give specific guidance to those responsible for operational processes

**Our employees are educated and trained on all guidelines that apply to them.**

 **11,404**

employees and contractors took part in 2018 in the anti-corruption training available in 15 languages.

In response to the European General Data Protection Regulation (EU GDPR), we redesigned our regular

**data privacy** eLearning course, rolling it out in 17 languages.



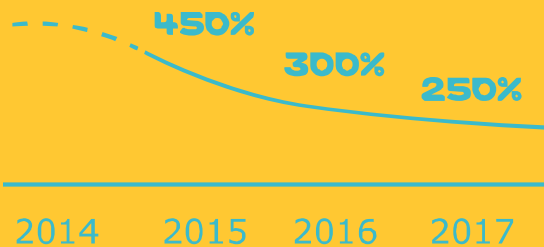
# Our social license to operate: Corporate Governance (CG)

## Reaching a new level of transparency in board compensation and CG

### Improvements underway:

- Intense dialogue with national and international investors to discuss state of the art compensation systems
- Board compensation system is built on best practice and leading voluntary guidelines: Reported according to the German Corporate Governance Code
- Last voting of AGM on the compensation system (not mandatory for the Company as a KGaA) in 2018
- Since 2018 Merck KGaA, Darmstadt, Germany provides a more transparent and user friendly remuneration report
- Awarded in 2018 with the "Euroshareholder Award for the Most shareholder-friendly Directors' Pay System DAX30"
- Introduction of maximum age (75 years) and maximum length of membership (15 years) in the Supervisory Board in 2017
- Open for a dialogue between Supervisory Board and investors

### Total Cap for LTI Grant Amount in total



[Follow link](#)



[Follow link](#)



# Corporate Governance at Merck KGaA, Darmstadt, Germany

## The best of both worlds –family-owned and publicly listed

### Share capital of limited liability shareholders

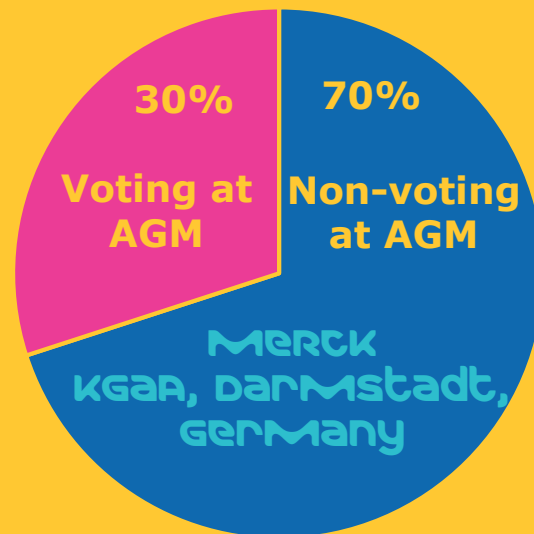
€ 168,014,927.60 (129,242,252 shares)

- Around 30% of the total capital of Merck KGaA, Darmstadt, Germany is publicly traded
- Only the share capital of limited liability shareholders is entitled to vote at General Meetings
- The supervisory board is elected to promote the interest of the share holders

### Equity interest of General Partner E. Merck KG, Darmstadt, Germany

€ 397,196,314.35

- General partner, holds around 70% of the total capital of Merck KGaA, Darmstadt, Germany
- Limited role of the Supervisory Board of Merck KGaA, Darmstadt, Germany (however, no restrictions of its audit duties)
- Instead, some of the responsibilities that lie with the Supervisory Board of a German stock corporation are fulfilled at Merck KGaA, Darmstadt, Germany by the Board of Partners of E. Merck KG, Darmstadt, Germany




Total capital  
€ 565,211,241.95





# Corporate Governance at Merck KGaA, Darmstadt, Germany

## Profile of skills, expertise and diversity of Supervisory Board



In their entirety, the Nominees for the election of the Supervisory Board in 2019 **fulfill the profile of skills, expertise and diversity** (see our Annual Report). Newly elected members complete a comprehensive **on-boarding process**.

Profile of skills,  
expertise and  
diversity



Profile	met
Important fields of the Company	✓
Main sales geographies	✓
Management experience	✓
Experience in business administration	✓
External supervisory & control boards	✓
Percentage of women	✓
Digital	✓
ESG (Environment, Social, Governance)	✓

The **Profile of Skills, Expertise and Diversity** for Company's Supervisory Board aims at:

- Min. 4 members with experience in **main important fields** of the Group (HC, LS, PM)
- Min. 3 members with experience in the **main sales geographies** of the Company (Europe, Americas, Asia-Pacific)
- Min. 3 members with **management experience** in medium- to large-sized companies
- Min. 4 members who have in-depth knowledge of **business administration**
- Min. 4 members which are also members in other **external supervisory and control boards**
- A **percentage of women** of min. 37,5%





# Corporate Governance at Merck KGaA, Darmstadt, Germany

## Boards and Committees

### Shareholders of Merck KGaA, Darmstadt, Germany

- Shareholders hold ~30% of the total capital of Merck KGaA, Darmstadt, Germany
- This capital is divided into bearer shares and one name share without nominal value listed at the German Stock Exchange's Prime Standard, member of the DAX 30 (German Blue Chips). The bearer shares are entitled to vote at Merck's KGaA, Darmstadt, Germany Annual General Meeting with one vote per share.
- The Merck KGaA, Darmstadt, Germany Share is a name share.

### Supervisory Board

- Its Chairman leads the AGM, representing the interests of Company's shareholders
- Approving the financial statements of Merck KGaA, Darmstadt, Germany
- Working together with Executive Board, receiving reporting on progress regarding business and financial development at Company, having 1 committee: Nomination Committee
- Containing 16 members: 8 employee representatives, 8 representatives incl. 2 family representatives and 6 elected and independent shareholder representatives

### Nomination Committee

- Define criteria for the selection process and target profile of potential supervisory board members
- Make proposals for new candidates

### Personnel Committee

- Decisions regarding members of the Executive Board
- Executive Board employment contracts
- Compensation system

### Finance Committee

- Analyzing and discussing the annual financial statements
- Recommends an auditor for the annual financial statements

### R&D Committee

- Reviewing and discussing the research activities of Healthcare, Life Science and Performance Materials

### E. Merck KG, Darmstadt, Germany: Partners' Meeting & Family Board

- E. Merck KG, Darmstadt, Germany holds ~70% of the total capital of Group (99.9% M. Family)
- These 70% of the total capital are not entitled to vote at Company's AGM
- Family Board represents the entrepreneurial interests of the M. Family (elected by partners' meeting)

### Board of Partners

- Elected by the Family Board and taking over some duties of a usual Supervisory Board:
- Appointment, dismissal and supervision of Executive Board members of the Company
- Granting approval of extraordinary business transactions and approves the annual financial statements of E. Merck KG, Darmstadt, Germany
- It contains 5 members of the Family Board and 4 external members of the business community, having 3 committees: Personnel, Finance, R&D Committee

### Executive Board

- The Executive Board is the management body and the face of E. Merck KG, Darmstadt, Germany
- Conducting the business of Merck KGaA, Darmstadt, Germany representing the company externally re. strategy, business development, financials
- Implementing the resolutions passed by E. Merck KG, Darmstadt, Germany and Supervisory Board



# Corporate Governance at Merck KGaA, Darmstadt, Germany

## Remuneration System



At Merck KGaA, Darmstadt, Germany, unlike publicly listed German stock corporations, it is not the Supervisory Board, but the Personnel committee of the Board of Partners of E. Merck KG, Darmstadt, Germany that decides on the amount and composition of compensation received by our Executive Board members.



# Corporate Governance at Merck KGaA, Darmstadt, Germany

## Anticipatory resolutions on capital measures

1

### Authorized Capital

- valid until April 2022
- 56.521.124,19 €
- 33,6% of base capital
- Exclusion of subscription rights of 20% (cumulative with contingent capital described below)

**Merck KGaA, Darmstadt, Germany can issue stock without shareholder approval of 33.6% of shares outstanding (with a maximum of 20% exclusion of subscription rights)**

2

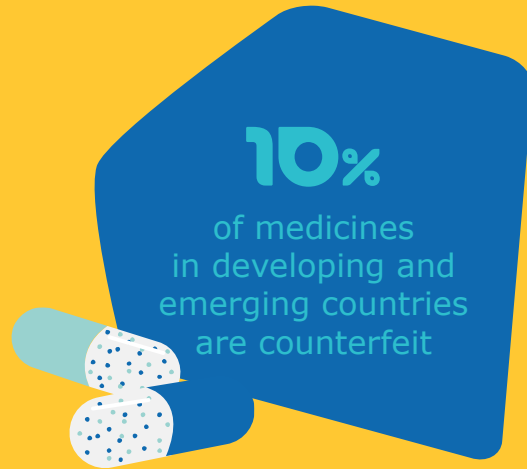
### Contingent Capital

- valid until April 2023
- 16.801.491,20 €
- 10% of base capital
- Exclusion of subscription rights of 20% (cumulative with authorized capital described above)
- Authorization to issue warrant and/or convertible bonds, participation rights or participation bonds, or a combination of these instruments



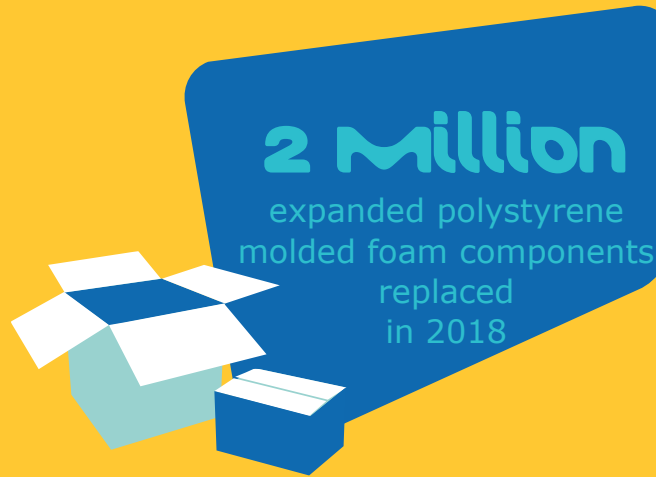
# Our social license to operate: Products & technologies

## Products with sustainable impact



### Fighting counterfeit medicines

- We secure our products against counterfeiting and are deeply committed to fighting product-related crime
- We apply a unique serial number to our pharmaceutical packaging
- With the GPHF Minilab®, a portable, compact laboratory, counterfeit medicines can be detected quickly, easily and inexpensively



### Committed to circular economy

- >300,000 products in our Life Science portfolio need sustainable packaging
- We used approximately 669 metric tons of molded pulp packaging material in 2018
- End of 2018, we kicked-off our sustainable packaging plan with four goals:
  - Reduce amount of packaging
  - Achieve zero deforestation
  - Improve plastic sustainability
  - Maximize recycling



### Thin & light with supreme contrast

- OLED materials increase energy efficiency of displays while providing brilliant colors and razor-sharp images
- OLED production: Some material always remains in the used containers and machinery. Our customers can collect this residual and send it back to us. We then prepare it so that it reaches its original quality again and can be reused.



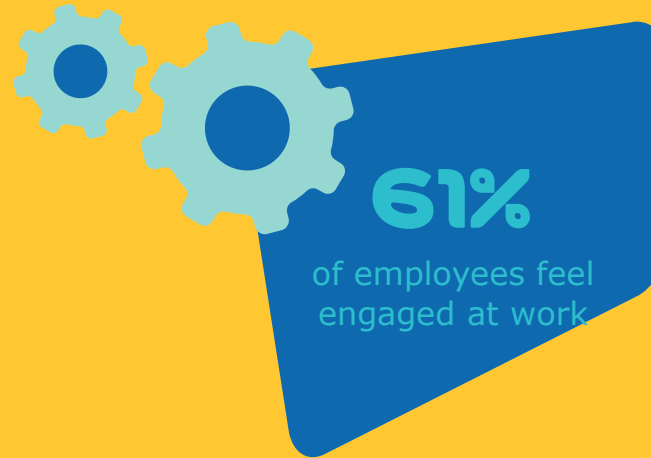
# Our social license to operate: People (1/3)

## Engagement is key



### Realizing people's full potential

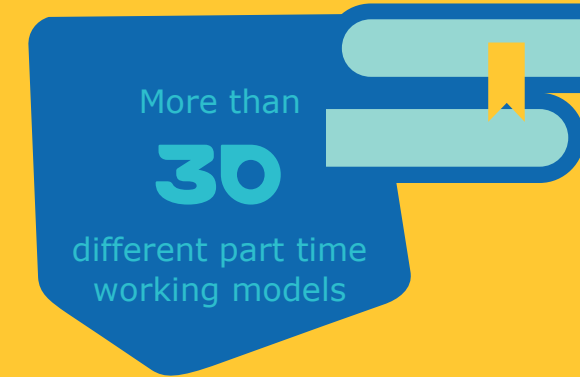
- Regular feedback on employee performance
- Leaders and subordinates work together to define individual objectives
- 70% of employees create development plan reflecting each employee's tasks and strategic priorities



### Employee engagement

Annual Group-wide Employee Engagement Survey:

- platform for employees and management to share opinions and ideas
- benchmark against our competitors
- 2018 we included questions regarding employee health. The input is used to calculate our company's Healthiness Index from 2019 on.



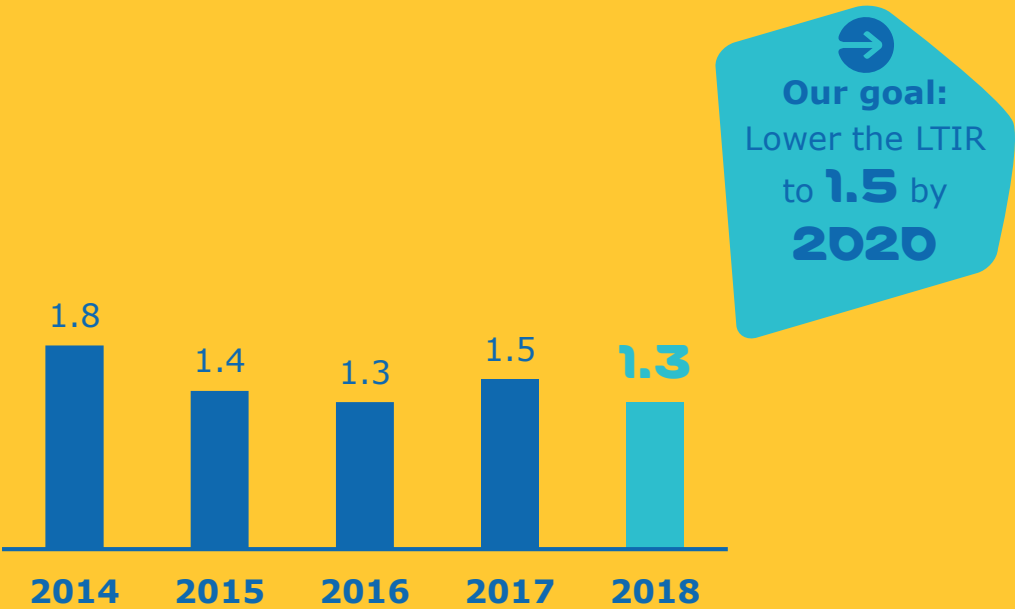
### Better work-life balance

- New Group-wide guideline facilitates the use of flexible working time and location options in the twelve major countries
- Part-time employees (5% of total workforce) receive the same job benefits as fulltime workers
- Parental leave conditions beyond statutory requirements for 45% of workforce



# Our social license to operate: People (2/3)

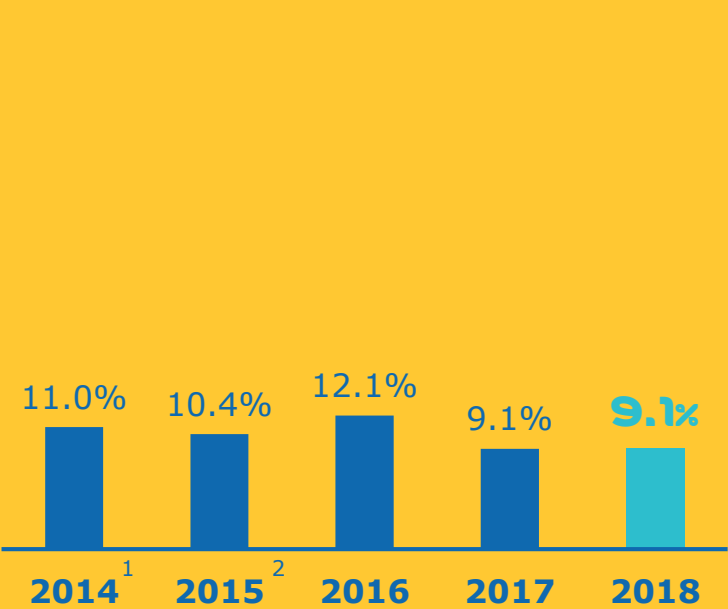
## Well on track for our goals



### Health & Safety for our people

The lost time injury rate (LTIR)\* is the indicator to assess the success of our safety efforts.

\* LTIR = workplace accidents resulting in missed days of work per one million man-hours.



### Turnover rate

Focus on a stable workforce that brings our strategy to life and moves the business forward.

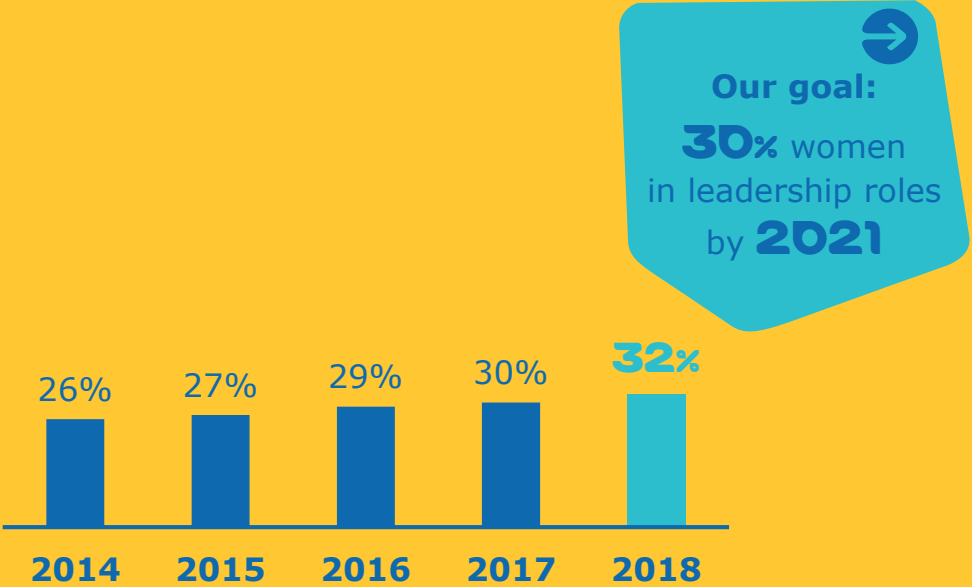
<sup>1</sup> Employee turnover for 2014 was calculated: Total number of leavers of the past 12 months multiplied by 100 divided by the employee headcount as of December 31.

<sup>2</sup> Employee headcount from 2015 on is calculated: Total number of leavers from the past 12 months divided by the average employee headcount multiplied by 100.



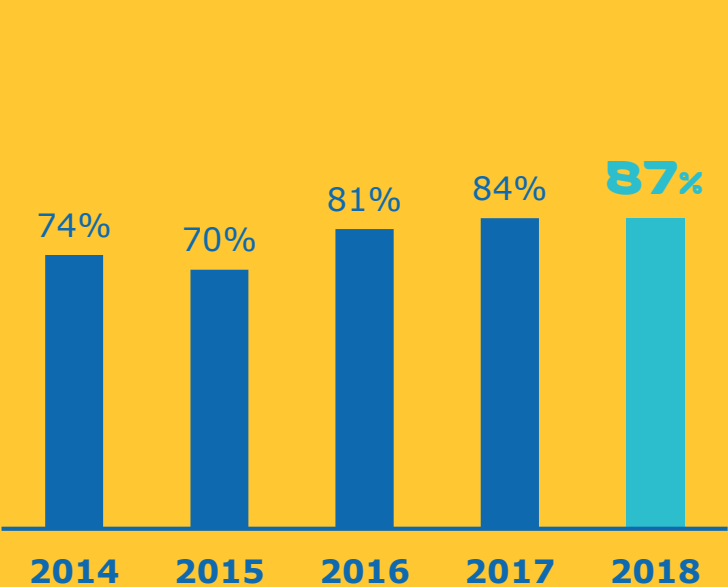
# Our social license to operate: People (3/3)

## Well on track for our goals



### Diversity

Focus on women in leadership and increasing internationality. In 2018, we overachieved our target for 2021.



### Rich leadership pipeline

We identify and advance suitable employees with leadership potential. In 2018 87% of our vacant leadership positions were filled internally.



# Our social license to operate: Supporting our communities

## Charitable activities together with our employees

# 2018



Spending a total of around  
**€ 36**  
million on  
community  
involvement

- We mainly support social projects that align with **our strategic focus areas, namely Global Health, Sustainable Solutions and Broad Minds** and happen in the vicinity of our sites and in the countries where we operate.
- Focus on long-term initiatives: **Our activities are intended to have a positive, long-lasting effect** on the community.
- Our employees participate in corporate volunteering programs. In 2018, we introduced a new **Group-wide Corporate Volunteering Guideline**, which grants our people up to two days of paid leave per year to volunteer in initiatives that are supported by our company.



# 350 GOOD DEEDS

During our anniversary year we conducted more than **350 charitable activities** in 60 countries worldwide: Our employees were engaged in around 60% of the projects.





# Our social license to operate: Environmental stewardship

## Reducing our environmental footprint

### We meet a strict set of environmental regulations at all our sites

- Since 2009, our company has held a Group ISO 14001 certificate: All production sites with more than 50 employees must implement the requirements of the certificate. 81 sites worldwide are covered.
- In 2018, we passed 10 ISO 14001 audits, including facilities added to the Group certificate.

### We foster increasing climate protection

- Despite more than **doubling our sales** between 2006 and 2018, we managed to reduce our greenhouse gas emissions by 11% relative to the 2006 baseline.

\* Compared to 2006

\*\* Compared to 2016

**To mitigate  
the impact resulting  
from our operations**

### We strive to conserve water

- We minimize the amount of pharmaceutical active ingredient residue in our wastewater by optimizing production and purification processes. All our pharmaceutical manufacturing facilities have wastewater treatment plants.

**Goal  
for 2020:**

Cut water use by **10%** at our sites in water-stressed areas

### We reduce waste and recycle as much as possible

- We ensure that raw materials are recycled and that unrecyclable waste is discarded in an environmentally sustainable manner in line with the strictest waste disposal standards.

**Goal  
for 2025:**

Reduce the ecological impact of our waste by **5%\*\***

**Goal  
for 2020:**  
Reduce our greenhouse gas emissions by **20%\***



# Goals Summary



# ESG goals

## We are working on ambitious goals

### Environment

#### Climate

We endeavor to reduce direct and indirect emissions to mitigate our impact on the climate.



#### Waste

We consider it fundamental to both prevent and recycle as much of our waste as possible.



#### Water

For us, sustainable water management means not negatively impacting the aquatic ecosystems



### Social

#### Product safety

Product safety is one of our top priorities: From safe handling of hazardous substances to ensuring patient safety.



#### Employees

We aim to be an attractive employer, encouraging creativity and development under ideal working conditions.



#### Access to Medicine

We support a variety of initiatives that improve access to health particularly for people in low- and middle-income countries.



### Governance

#### Growth & Profit sharing

Our growth results from innovations and acquisitions strengthening our position in important markets, supported by strong cash-flow, long-term margins of >30% and a conservative but reliable dividend.



#### Risk management

We are focusing on a diversified business model: Our 3 sectors have pioneering knowledge to develop products to improve life for patients, further the success of our customers and meet global challenges.



#### Steering

Our core values along with the external regulations lead to business-guiding charters and principles for our responsible governance, documented in our Corporate Responsibility strategy and report.



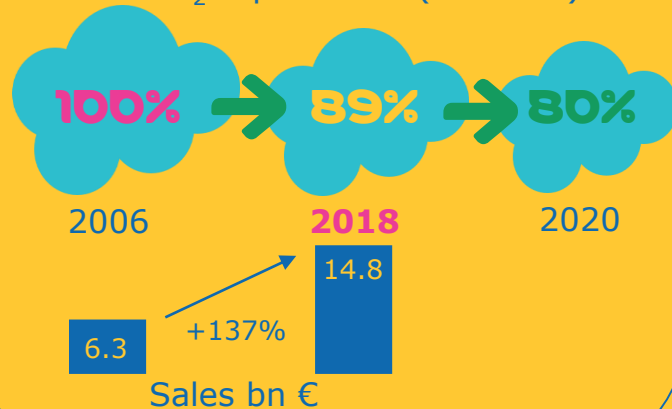
# ESG goals

## Emissions, water, waste reduced despite growing business

### Emission target:

- Growth-independent reduction of Company's greenhouse gas emissions of 20% until 2020 compared to 2006
- We are still confirming this goal for 2020 as we are expecting positive impact from latest initiatives like process optimizations and change to purchase more power from renewable sources

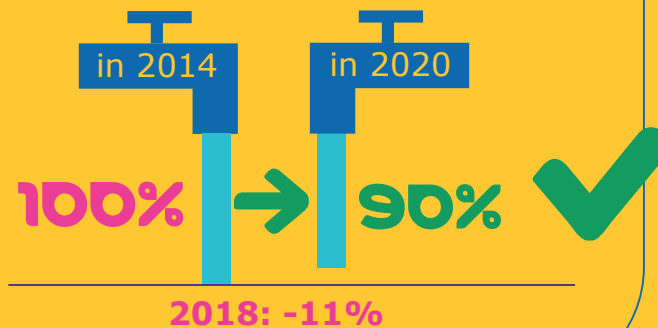
CO<sub>2</sub>-Equivalents (absolute)



### Water target:

- At 24 sites with relevant water use located in areas of high water stress we aim to cut water consumption by 10% until 2020 compared to 2014
- 2018, we had lowered our water consumption at the relevant sites by 11% compared to 2014 resulting from sustainable water management and re-usage

Water consumption  
in water stress areas




### Waste target:

- Our Waste Score allows us to compare the amount of waste our sites are producing - we aim to reduce the environmental impact of our waste by 5% until 2025 compared to 2016
- Expert panels discuss best practice in waste management and facilitate an exchange of experience between our global sites

Company's Waste Score





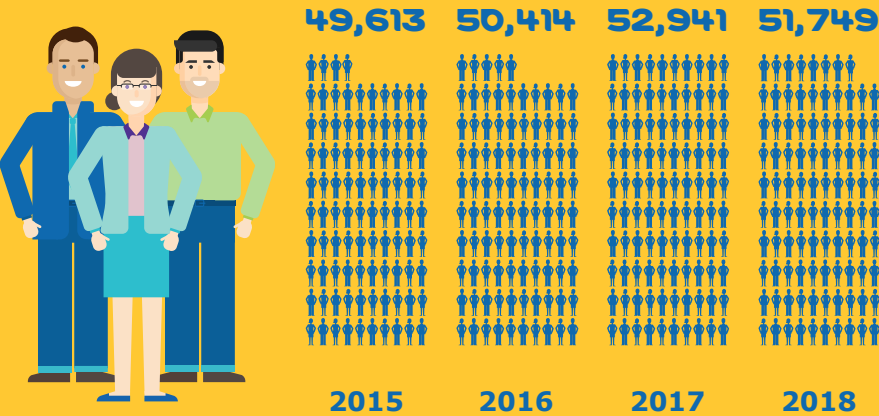
# selected figures



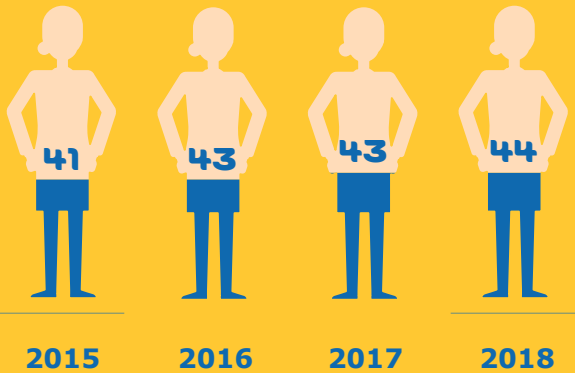
# Employees

## Number of employees by hierarchical level

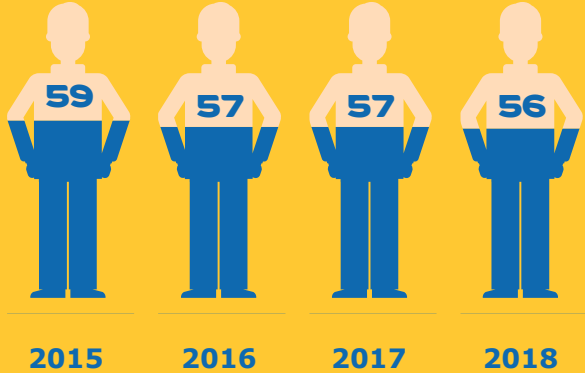
total  
employees



% of women



% of men



NUMBER  
of employees

	2015*	2016*	2017*	2018*
Senior management	146	181	197	193
Middle management	2,211	2,685	2,927	3,095
Low management	6,622	8,139	8,904	9,019
Other employees	40,634	39,409	40,913	39,442

	2015	2016	2017	2018
Senior management	21	25	30	36
Middle management	611	805	917	1,025
Low management	2,636	3,361	3,714	3,795
Other employees	17,348	17,375	18,197	17,888

	2015	2016	2017	2018
Senior management	125	156	167	157
Middle management	1,600	1,880	2,010	2,070
Low management	3,986	4,778	5,190	5,224
Other employees	23,286	22,034	22,716	21,554

\* From 2015 on, these figures include Sigma-Aldrich, however as of Dec. 31, 2017 the job grading system had not yet been implemented for employees of Sigma-Aldrich legal entities in Germany, or for employees of Allergopharma. These employees are included under "thereof other employees (Role 3 and below)".



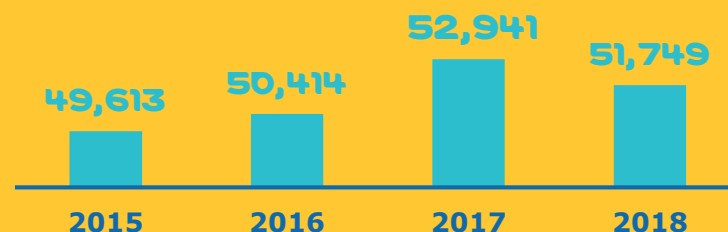
# Employees

## Number of employees by region



### North America

	2015*	2016	2017	2018
<b>Total</b>	<b>9,794</b>	<b>10,037</b>	<b>10,520</b>	<b>10,978</b>
Women	4,183	4,308	4,518	4,742
Women (%)	43	43	43	43



### Europe

	2015*	2016	2017	2018
<b>Total</b>	<b>23,429</b>	<b>24,438</b>	<b>25,980</b>	<b>25,792</b>
Women	10,316	10,884	11,627	11,464
Women (%)	44	45	45	44

### Latin America

	2015*	2016	2017	2018
<b>Total</b>	<b>4,352</b>	<b>4,140</b>	<b>4,050</b>	<b>3,340</b>
Women	1,986	1,910	1,896	1,648
Women (%)	46	46	47	47

### Middle East and Africa

	2015*	2016	2017	2018
<b>Total</b>	<b>942</b>	<b>1,045</b>	<b>1,097</b>	<b>1,097</b>
Women	425	483	519	519
Women (%)	45	46	47	47

### Asia-Pacific

	2015	2016	2017	2018
<b>Total</b>	<b>11,096</b>	<b>10,754</b>	<b>11,294</b>	<b>11,096</b>
Women	3,706	3,981	4,298	4,348
Women (%)	33	37	38	41

\* Includes Sigma-Aldrich as of 2015; As of Dec. 31

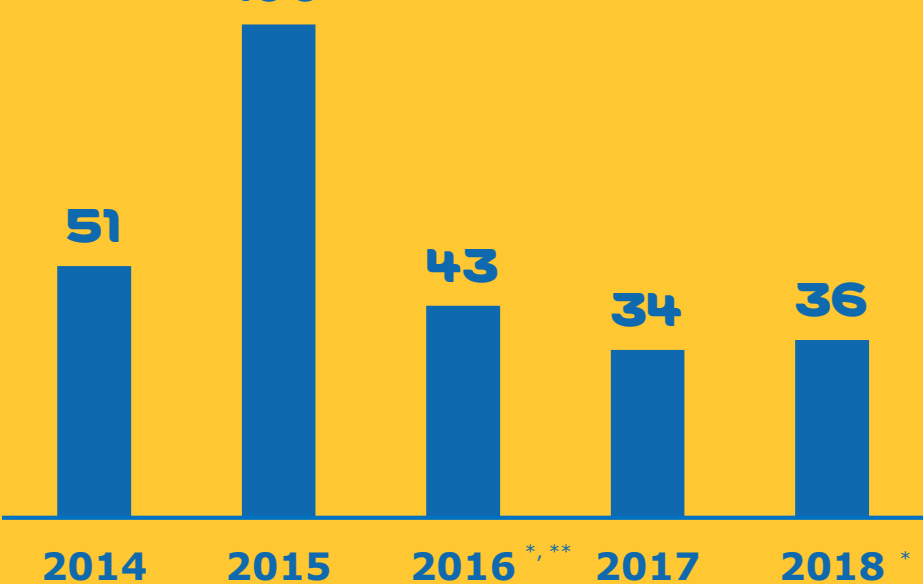
External contractors are currently not logged in our employee data system, nor do we currently have any plans to integrate them.



# Society Spending

## spending on community involvement






in € million



<sup>\*</sup>Includes Sigma-Aldrich as of 2016 and excludes the Merck KGaA, Darmstadt, Germany Foundation as of 2018  
<sup>\*\*</sup>From 2016 on, we are separating spending on patient support programs such as our Erbitux® China Patients Assistance Program from our community involvement figures.

## Focus of our local community involvement in %

Based on number of projects

	2014	2015	2016 <sup>*,**</sup>	2017	2018 <sup>*</sup>
 <b>Global Health</b>	33	33	35	38	34
 <b>Broad Minds</b>	38	33	36	43	42
 <b>Sustainable solutions: Environment</b>	10	7	5	4	2
 <b>Disaster relief</b>	4	6	2	2	2
 <b>Other</b>	15	21	22	13	20

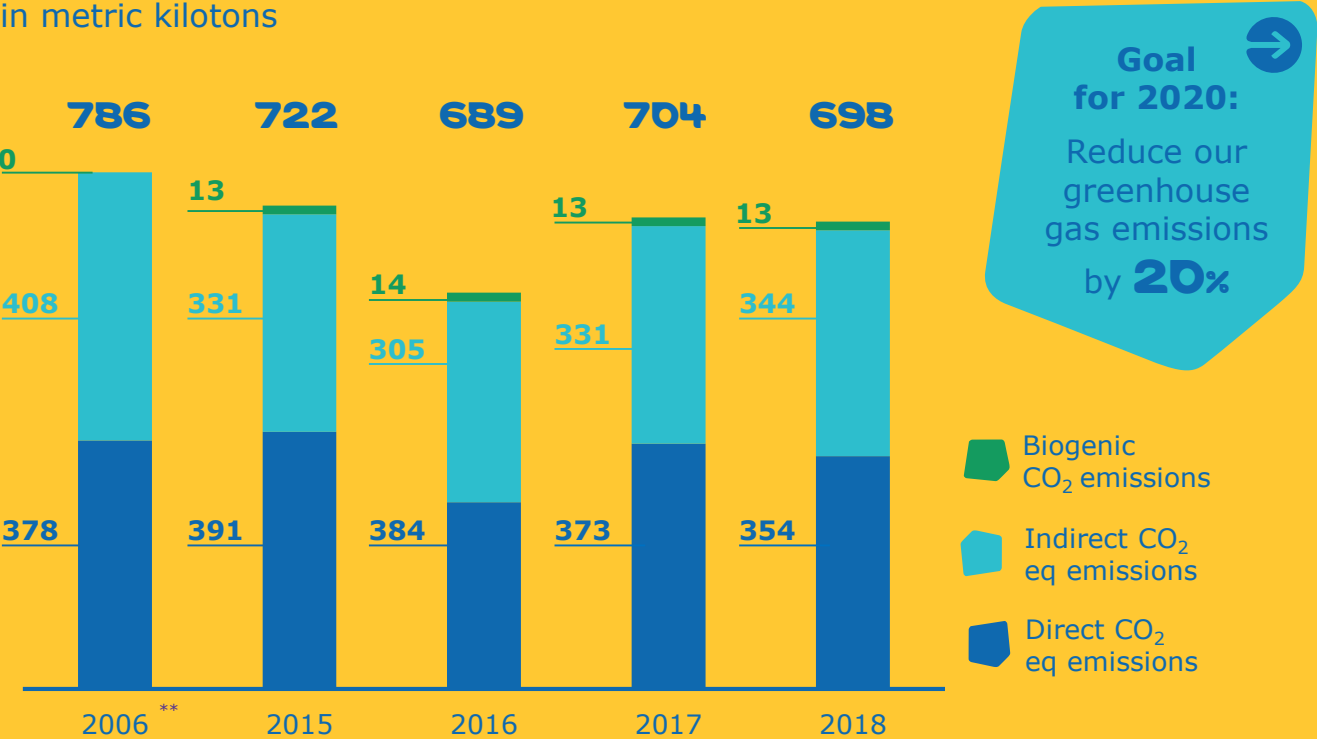




# Environment

## Total Greenhouse Gas Emissions

**total greenhouse gas emissions**  
in metric kilotons



eq = equivalent  
\* In line with the Greenhouse Gas Protocol, for all previous years (up to the 2006 baseline) the greenhouse gas emissions have been calculated based on the current corporate structure of the reporting year and retroactively adjusted for acquisitions (e.g. Sigma-Aldrich in 2015) or divestments of (parts of) companies, or for changes in emission factors (portfolio-adjusted).  
\*\* Baseline for our emission targets is 2006.

**scope 1\***  
emissions that **we produce ourselves**, for instance by burning fossil fuels to generate power.

**scope 2\***  
emissions **from the consumption of purchased energy**, such as electricity or district heating.

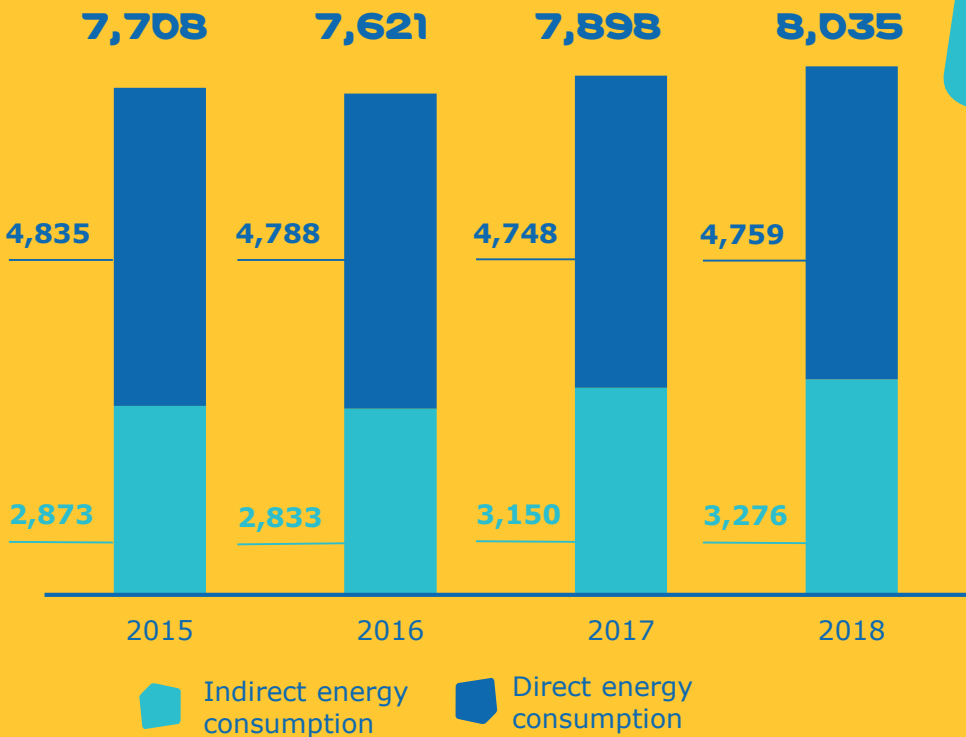
**FOCUS**  
**40 of our sites** account for **roughly 80%** of our greenhouse gas emissions



# Environment

## Moderate energy consumption and less waste

Energy consumption  
in terajoules



**Goal for 2020:** ➔  
Full integration of the purchase of electricity from renewable sources

