

SUSTAINABILITY REPORT

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Sustainability approach and materiality

MATERIALITY ASSESSMENT AND REVIEW

In our latest strategic materiality assessment, we identified the most relevant topics for business success as well as stakeholder interests. By addressing these material topics, we ensure long-term performance, monitor high-level risks and opportunities, and strengthen relationships with our stakeholders. The materiality assessment is based on interviews with senior managers across the company every year. The interviews are aligned with the principles of the Global Reporting Initiative (GRI) for defining report content.

The materiality map on the right provides an overview of the topics that were deemed the most material for our business success (horizontal axis) and interests expressed by our stakeholders (vertical axis). In 2019, we made slight adjustments to the materiality map. We value a blend of backgrounds, outlooks and experiences – as diverse as our customer base. We believe that diversity is a source of creativity and contributes to business success. In order to accentuate this, ‘diversity, equal opportunity, non-discrimination’ are now described with the terms ‘Inclusion’ and ‘Colleague Engagement’. ‘Staff Fluctuation’ dropped out of the materiality map. It remains a key metric in the context of ‘Inclusion’ and ‘Colleague Engagement’ and is referenced accordingly.

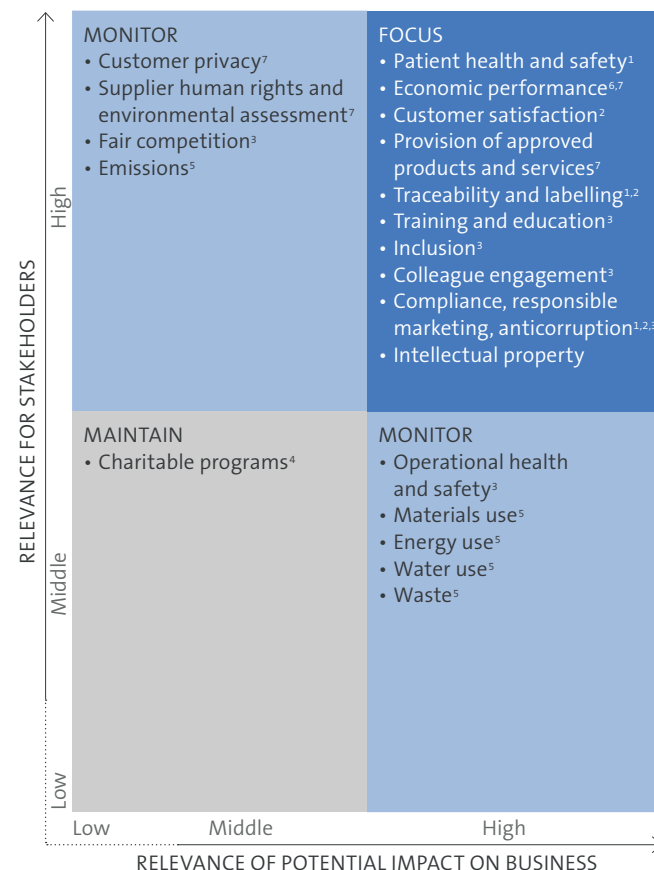
STAKEHOLDER ENGAGEMENT

At the Straumann Group, open communication and interactive dialogue with stakeholders is an important part of corporate responsibility. Stakeholders include investors, customers, employees, members of the community, and conservationists. Each group places different levels of importance on various aspects of our performance. Shareholders are interested in share-price development and good governance, while responsible investment professionals are also keen on performance in sustainability aspects. Customer interests include assistance in growing their business and establishing specialist reputations. Dental service organizations focus on affordability and an ethical supply chain. Employee feedback highlights professional development and a healthy work-life balance. Charitable partner organizations are interested in continuing sponsorship relations and agreed goals. Finally, various groups emphasize moral obligations to conserve the environment.

In this report, we discuss processes and results of performance-relevant dialogues with key stakeholders. Our material sustainability topics are addressed in the following sections on customers, employees, communities, and environment.

This page addresses GRI disclosures 102–43, 102–44, 102–46, 102–47.

Sustainability materiality map



Information on material sustainability topics is provided in the following places in this annual report:

- 1 Risk Management, p. 51 ff.
- 2 Customers, p. 61 ff.
- 3 Employees, p. 66 ff.
- 4 Communities, p. 70 ff.
- 5 Environment, p. 78 ff.
- 6 Operational performance, p. 36 ff.
- 7 Appendix, Global Reporting Initiative, p. 195 ff.

Customers

Winning key accounts through value and innovation

CONTINUED CUSTOMER GAINS

Our customer base expanded substantially in 2019 as we added small, medium and large-volume users as well as corporate customers that use thousands of implants every month. The key factors driving these gains are:

- innovation (e.g. BLX), value-added services, and total solutions including digital
- starter training and education courses
- attractively priced alternatives to competitor products (including our Straumann titanium SLA range, Anthogyr, Neodent, Medentika and other brands in our value portfolio)
- acquisitions and joint ventures (e.g. Anthogyr, Bay Materials, Peak Dental)
- forward integration (acquisition of Croatian and Chilean distributors and Swiss milling center)
- online marketing and sales initiatives.

INNOVATING TO WIN CUSTOMERS FROM COMPETITORS

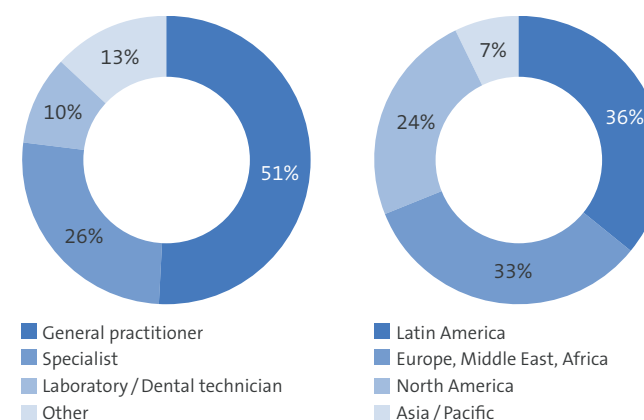
Straumann BLX is a highly flexible, innovative implant that appeals to a broad range of dentists, especially those who use high-end fully-tapered implants supplied by our competitors. After just a few months on the European and American markets, BLX had attracted more than 1 200 new customers, including large volume key opinion leaders, in addition to existing Straumann customers. By targeting specific customers, we also preserved and even increased sales of our apically tapered implant BLT.

YET MORE CORPORATIONS IN OUR CUSTOMER LANDSCAPE

The rapid increase in dental service organizations (DSOs), networks and chains, accompanied by a corresponding decrease in independent practices, is another significant trend – particularly in North America, Europe and China. DSOs range from local chains to international networks of fully integrated clinics. A single DSO can comprise up to 1 000 clinics employing teams of dentists and technicians and serving millions of patients each year.

As this trend continues, an increasing portion of the dental business is determined by corporations with purchasing power, influence and special needs, including premium and non-premium

Straumann's customers by segment (left) and by region (right)



The Straumann Group's customers are spread over more than 100 countries and include general dentists, specialists (oral surgeons, periodontists, prosthodontists, orthodontists), dental technicians and laboratories, as well as corporate customers (labelled 'Others' in this chart) such as distributors, hospitals, universities and dental service organizations (DSOs). A single DSO can represent hundreds of clinics and dentists, including generalists, specialists and technicians.

There were no significant shifts in the specialization and geographic distribution of our customers. All segments grew well. The respective proportions of general dentists and specialists increased and decreased slightly, reflecting a continuation of the trend we have observed in recent years and other factors, such as the growth in our clear aligner business.

implant ranges, orthodontic solutions, private-label lines, logistics services, support for international expansion, increased efficiency, digital workflows, guided surgery, simpler, faster treatments, and support through education to ensure quality and to train young dentists.

The Straumann Group is well equipped to address these needs and to capture the significant business opportunity that corporate customers offer. Having expanded our dedicated global DSO unit significantly in 2019, this business continued to grow dynamically as we won further preferred-supplier contracts with large DSOs in all regions. Four of the large implant-focused chains / networks that we started to collaborate with in 2019 collectively operate more than 1300 clinics and place more than 300 000 implants annually. In China, dental implants were placed almost exclusively in hospitals until the recent emergence of DSOs, which now account for more than a third of implants placed, while individual practices account for approximately 15%.

CUSTOMER EDUCATION – A KEY TO SUSTAINABILITY

Long-term success and patient satisfaction depend on product performance as well as the education and experience of the treatment provider. In addition to providing proven products and solutions, Straumann offers a broad educational program around the world, covering all proficiency levels and relevant specialties. ITI specialists are the main teaching providers in collaboration with leading universities. Neodent also offers a broad educational program covering all levels and relevant specialties with its partner, ILAPEO.

We continued the roll-out of our SMART education concept, which offers blended learning opportunities which combine online study with hands-on tuition. Together SMART and the ITI Academy offer more than a hundred modules appropriate for starters, DSOs, universities and specialists who need to train referring partners on Straumann products.

The Straumann Peer-to-Peer Program was started in 2014 with the objective of converting prospective customers by sharing expertise and offering coaching with highly experienced surgeons. The success of this program has led to the creation of more than 30 independent Centers of Dental Education (CODE) around the world, which specialize in specific areas (e.g. fully edentulous treatments and immediacy protocols) and act as aligned hubs offering state-of-the-art training and education to help customers switch to or develop with Straumann. Going forward, we will be to leverage these centers to introduce new high-performance training tools e.g. interactive and virtual reality teaching systems.



Getting alongside customers to help others; a charity bike ride organized by Straumann Germany to raise money for a cancer charity.



More women are graduating from dental school than men^{1,2}, but this strong trend is not yet reflected in their engagement in implant dentistry.

BUILDING THE FUTURE CUSTOMER BASE

Attracting young dentists to implant dentistry and orthodontics is important to the sustainability of our success. Past perception-pulse studies revealed that their most common expectation from companies like ours is help in building a reputation and a business. To meet this expectation, the Straumann Young Professional Program offers educational events that focus on dental skills, practice management and marketing. The program also offers access to a professional network as well as special concessions on products/services. In 2019, approximately 300 young dentists participated at the second European Young Professional Summit, which we hosted in Amsterdam.

ADDRESSING THE GENDER SHIFT

More women are graduating from dental school than men^{1,2}, but this strong trend is not yet reflected in their engagement in implant dentistry. To inspire and engage more women in implant dentistry, we intensified our Women's Implantology Network initiative (WIN), bringing female practitioners and academics together in order to network, encourage, support, mentor and gain deeper insights into their needs. The ITI now offers WIN members access to educational content in a dedicated ITI Academy online classroom as well as an introductory discount on ITI membership. In 2019, WIN held its first international conference, in Malta, and quadrupled its membership to 2000.

CUSTOMER DIALOGUE

Our primary sources of customer feedback include:

- direct contact through our sales force
- scrupulous complaint management, evaluation and reporting
- market acceptance tests and limited market releases (LMRs) to obtain customer feedback prior to product launch; with Straumann BLX, we used an online tracker for customers to post perceptions, experience and feedback, providing useful insights into product use and service
- post-launch tests (e.g. to check the effectiveness of our marketing messages) and expert meetings including customers involved during development
- online channels and platforms (see below).

These and other channels are important sources of market intelligence and feedback, which is processed and used to refine products, usage, solutions and services.



A dedicated highly trained sales team is an important channel for customer feedback.



The first WIN summit was attended by 160 female dental professionals from 27 nations.

SERVING CUSTOMERS DIRECTLY

We serve customers directly through our teams of sales and marketing professionals, most of whom are highly trained sales representatives or service staff. This adds value for customers and helps us to identify, manage and learn from their needs. In 2019, we continued our global training program to enhance the effectiveness of our sales representatives and to help our customers improve their businesses.

AN INCREASINGLY DIGITAL APPROACH TO CUSTOMERS

Digital channels are increasingly important in our approach to customers and our interaction with them. E-commerce and digital platforms tell us about customer purchasing patterns and enable us to address their needs proactively. More than a third of our business comes through our e-shop, which increase efficiency with additional services like e-consignment (automatic stock replenishment and management) and e-returns.

We invested further in e-commerce in 2019 and developed a new platform that customers can also access conveniently and easily with mobile devices, which is particularly appealing for the growing number of practices that rely on tablets. The platform has enhanced cross- and up-selling capabilities and introduces customers to other products and benefits that complement ordered items or may be of interest to them.

In 2019, we invested in a new cloud platform with automated marketing capabilities that provides tailored information to customers depending on their online interest and behaviour. It also automates customer mailings and promotional campaigns.

Digital campaigns are increasingly important for reaching customers, addressing their information needs and collecting feedback. We use social media channels to target hundreds of thousands of users with customized marketing campaigns. The reach and cost-effectiveness make these channels particularly attractive. In 2019, we broadcast our scientific forums, symposia and other events (see p. 13) via social media channels, significantly broadening our audience beyond on-site participants.

A NEW ONLINE CHANNEL PROMOTING DIALOGUE

Towards the end of the year, we launched 'youTooth', an online community channel that is also accessible by mobile phone. Bringing dental professionals together, it aspires to become 'the place to be in dentistry', where key opinion leaders present, discuss trends and challenges, exchanging

youTooth – where dental professionals share what they know and learn what they do not.
www.youtooth.com 



The Group's new online community channel is also optimized for mobile devices and brings dental professionals together.

scientific and technical expertise with their peers and fellows worldwide. It features industry insights, clinical case studies, multiple video channels (LIVE, PLAY, 60 SECONDS, SCIENCE and CASE) and a host of other multimedia materials, including 40 recent video interviews where external experts share their views on our company, products, treatments and other topics. It also incorporates our scientific newsletter with summaries of recent publications.

CONNECTING WITH KEY ONLINE OPINION LEADERS (KOOLS)

KOOLs are key opinion leaders, who are well established in social media and have a recognized presence in the digital world through blogs, podcasts, online courses, webinars, live-streamed events, or social media channels. In our field, KOOLs typically attract sizeable audiences to their online channels and are gaining in number, relevance and influence. They have diverse profiles. In 2019, we started an initiative to identify top KOOLs who use our products to create a select endorsed group with the objective of addressing the interests and needs of a large number of dental professionals who go online to keep up with the latest scientific and clinical trends.

SAFEGUARDING COMPLIANCE IN THE INTEREST OF PATIENTS

Our Global Sales Compliance Program has been in place since 2009 and is one of several safeguards to ensure compliance with regulations relating to the sale of our products and services. The addition of a dedicated global compliance function in 2019 underpins this program. Further supporting our commitment to the patients' interests, much of the scientific information used to endorse our products is peer-reviewed.

Notes and references

- 1 Distribution of dentists in the US, by region and state, 2009. America Dental Association. 2011 Apr.
- 2 FDI Oral Health Atlas, 2014, p. 61.

We established a group of endorsed top KOOLs to address dental professionals online.



PLAY – one of several video channels offered on youTooth featuring KOOLs.

Employees

Creating a culture that enables people to perform at their best

CONTINUED INVESTMENT IN PEOPLE AND CULTURE

With our business expanding strongly, we created approximately 800 new jobs worldwide, which – together with acquisitions – increased our global workforce by more than 1600 to approximately 7600. The majority of new positions were in production and in sales. We created 122 jobs in Switzerland, mostly in production, reflecting the value of our Swiss brand and our commitment to Straumann's roots. Acquisitions added more than 800 employees in 15 countries. As a result, the diversity, spread and strength of our global team increased further. To support, manage, administer and meet the needs of our fast-growing global workforce and to seek additional talent, we invested in our People Management & Development teams globally and enhanced efficiency for example through further digitalizing personnel processes.

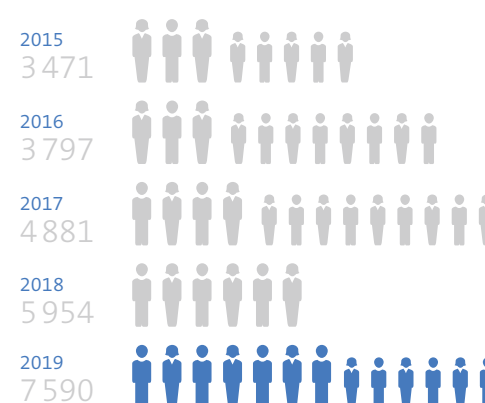
Next to the creation of new jobs, our largest investment in people continues to be in our Cultural Journey to promote the mindset and culture that foster and enable constructive behavior, collaborative leadership and high performance. Throughout the past six years, the Cultural Journey has shaped our company and helped us to achieve excellent results, sustainable market outperformance, and significant market share gains.

In 2019, more than a thousand colleagues around the world participated in Cultural Journey workshops. In addition, we launched a new program to help leaders reach their full potential, inspire high performance, and drive organizational culture through others. It places emphasis on building an environment of psychological safety in which colleagues are able to speak up, challenge and be challenged – within a framework of accountability. The top two management tiers completed the program, which was developed in house and is facilitated by the executive management team. The roll out will continue in 2020.

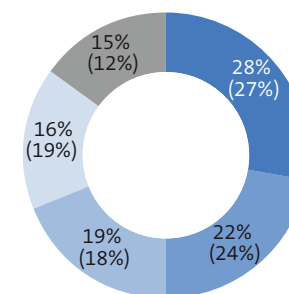
GLOBAL PULSE CHECK

Our annual pulse-check survey is an important indicator of cultural progress and engagement. Conducted Group-wide in 15 languages, it continued to generate a high response rate (77%). Once again,

Employees

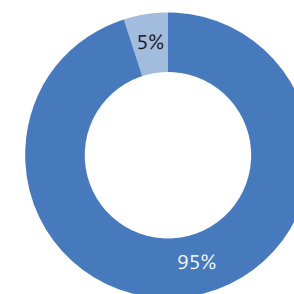


Employees by region



■ Rest of EMEA
■ Latin America
■ North America
■ Switzerland
■ Asia/Pacific

Employment



■ Full time
■ Part time

Numbers in brackets refer to 2018.

more than 90% of respondents said they are proud to work for the Straumann Group, love what they do and feel their work contributes to the overall success of the company. More than 80% perceive the company culture as positive and support our Cultural Journey. Numerous meetings and forums took place throughout the organization to address the lowest-scoring areas and qualitative issues raised.

PERSONAL DEVELOPMENT

As our company grows in size and complexity, it becomes increasingly challenging to share and capitalize on our knowledge of individuals, to understand their aspirations and to see opportunities for internal development. To help bridge this gap, we have digitalized our talent and succession management process using a platform on which employees record their own profiles including skillsets, mobility, interests and experience. This helps us to understand their aspirations and to discuss/develop career paths and development plans. The platform also enables colleagues to give recognition to others and to celebrate outstanding behavior.

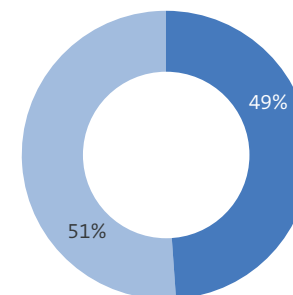
DEVELOPING SKILLS AND ENSURING SUCCESSION

Training and development are essential to meet the requirements for an international company in the medical device industry and are keys to attracting and retaining top performers. In addition to introductory product and technical training, we continued to offer updates and refreshers for staff who have been with the company for some time. We maintained our apprenticeship, internship and Corporate Graduate Programs in 2019, with the aim of offering jobs to as many participants as possible.

Our 12-month Global Development Program identifies and develops future senior leaders with a view to filling our succession pipeline. It focuses on members of junior to middle management who have leadership talent and aspirations. It involves real-life business assignments, assessments, individual development support and mentoring by top management. In addition, 18 managers were included in a new European Talent Development program.

Our Strategic Management Development (SMD) process involves senior management, people in key positions, and future leaders. It reviews leadership, performance, behavior, and career potential as a basis for development, deployment, and succession planning. As in previous years, our goal is to fill the majority of business-critical and key management positions with internal candidates, which we accomplished in 2019. Examples of this are the nominations of internal successors for the CEO and Global Head of Marketing & Education.

Employees added by business and geography

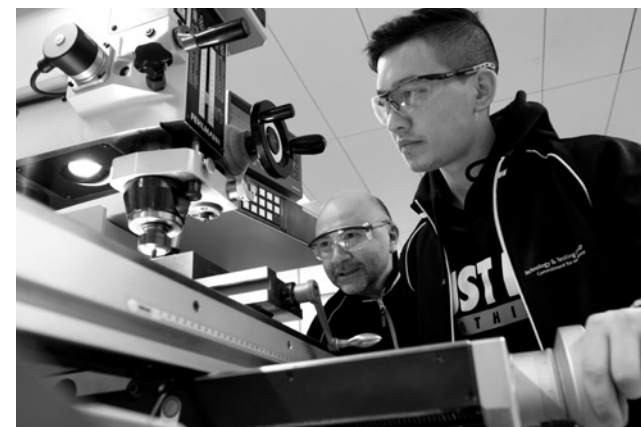


Organic expansion

830 employees were added, of which around 400 work in production in the US, Brazil and Switzerland. More than 200 jobs were added in Sales.

Acquired businesses

Approximately 800 employees joined the Group as a result of acquisitions. Around 600 of these employees work in Pakistan and France. Out of these more than 400 work in production.



Beyond continuity: passing decades of expertise on to the next generation.

SMART TECHNOLOGY CHANGING THE WAY WE HIRE

We launched an innovative hiring platform in 2019 and already use it for more than 80% of the Group's recruitments. It interfaces with social media platforms and has attracted more than 50 000 applicants. This technology is delivering high quality candidates and increasing recruiting efficiency.

DIVERSITY AND EMPLOYEE PROTECTION

A diverse team adds value and supports our ability to serve an increasingly diverse customer base. We monitor diversity with regard to age, gender, origin and educational background. Gender diversity is generally strong: females account for 43% of our employees and 35% of our managers worldwide. Our female representation in management is almost twice the average of the 250 largest Swiss companies listed in the 2019 Schilling Report. Our policy is not to discriminate between genders with regard to compensation.

Now in its second year, '#Power-up:Women@Straumann' is an initiative to help our female colleagues grow in their careers. It includes workshops, mentoring, networking, learning and skill-building. In 2019, Neodent launched its similar Juntas program which currently has more than 300 participants. These internal initiatives reflect our successful external program to support women dentists.

Freedom of association is allowed throughout the company in compliance with laws and regulations. There is a general preference for informal employee dialogue, and labor contracts are negotiated individually rather than by collective bargaining.

Health and safety training and awareness are given due importance throughout the Group. No workplace fatalities or serious accidents were reported in 2019.

RESPONSIBILITY AND ETHICAL BEHAVIOR

Our revised Group Code of Conduct was rolled out Group-wide in 2019. It is an integral part of our employment contracts and is designed to ensure that all our people conduct business in a legal, ethical and responsible manner. It is mandatory for all employees and includes requirements for good corporate citizenship, including respect for people, property and the environment. Clear responsibility for local implementation is assigned to each Country Head. In addition, we strengthened our compliance function and began to offer a worldwide hotline service for staff to report compliance issues and concerns. In 2019, five Code of Conduct violations were reported including one case of discrimination. Appropriate disciplinary actions were taken including four dismissals.

This page addresses GRI disclosure 102 – 41



Colleagues celebrating the 40 years of Straumann Germany, where 60% of the team have been with Straumann for more than 5 years.



In 2019, more than a thousand colleagues around the world participated in Cultural Journey workshops.

Human resources key figures

Parameter		Unit	2019	2018	2017
Staff size	Employees	Total headcount	7 590	5 954	4 881
		Full-time equivalents	7 494	5 874	4 811
Employment type	Part-time employees	% of headcount	5	4	4
Gender diversity	Women in general staff (excl. Mgmt) %		44	46	47
	Women in management ¹	%	35	32	31
	Women in SMD pool ²	%	37	31	26
Training and education	Investment in staff learning ³	CHF million	3.9	2.9	3.9
	Average annual training & learning	Days/employee	4	4	4
Turnover and absence	Staff turnover ⁴	%	14	13	12
	Absence rate due to sickness ⁵	%	4	4	4
	Absence rate due to workplace accidents ⁵	%	0	0	0
	Work-related fatalities	Number	0	0	0
Employee protection	Reported cases of discrimination / harassment	Number	1	2	3

1 Job position "Manager" and all levels above.

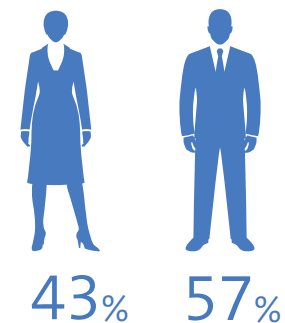
2 Strategic Management Development group (senior management reporting to the EMB plus outstanding talents identified throughout the organization).

3 Only direct expenses for internal and external training activities are counted here. Salaries paid to employees while in training are additional and are not included.

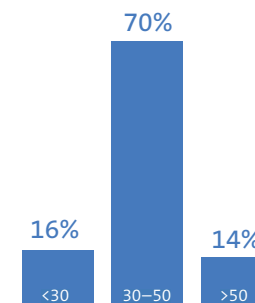
4 Includes resignations and terminations.

5 Switzerland only. Proportion of absence time compared to target working hours.

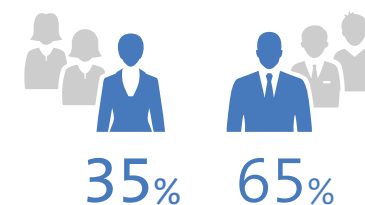
Gender



Age



Leadership by gender



Staff structure by category and age group

Age	<30	30-50	>50	Unit	(in %)
General staff (excl. Management)	16	57	11	% of headcount	84
Management ¹	0	12	4	% of headcount	16
TOTAL	16	70	14		100

1 Job position "Manager" and levels above.

Communities

Continuity in charitable projects

MAKING A MEANINGFUL DIFFERENCE IN A SUSTAINABLE WAY

The provision of safe, effective, lasting solutions that enhance well-being and quality of life is our biggest contribution to the community. Over the years, our solutions have helped dental professionals to create smiles and restore confidence in millions of people around the world. Still, millions lack access to even the most basic dental care. This is the motivation behind our charitable activities, which focus on dentistry, where we can make a meaningful difference.

PRINCIPLES AND CLEARLY SET TARGETS

Our Corporate Sponsoring Committee evaluates requests and initiatives according to clearly defined principles and policies. We set clear goals and look for continuity as well as sustainability in the projects we support, which is reflected in our long-standing relationships and commitments. In 2019, we evaluated approximately 70 requests and supported 25 projects in various countries (see table on p. 72).

CONTINUITY AND SUSTAINABILITY

Most of our projects have been running for many years and we strive for long-term commitments wherever appropriate. Our charitable projects include:

- Straumann AID (Access to Implant Dentistry), a global initiative to help underprivileged patients who are in need of treatment but cannot afford it. This program has been running since 2007 and relies on collaboration with dentists or dental surgeons who provide treatment without charge, while we donate the relevant products.
- The National Foundation for Ectodermal Dysplasia (NFED), a US-based non-profit organization that helps ED patients and their families. Among other symptoms, ED patients typically show severely malformed or missing teeth from infancy. We provide free implants and prosthetics in addition to financial support for the NFED, which has been our partner since 2004.
- The Sonrisa project provides free dental treatment to orphaned children in Nicaragua and has received our support since 2006.
- Neo Sorissos (New Smiles), Neodent's mobile dental clinic in Brazil, has now been on the road for three years. Staffed by 200 volunteer dental professionals, it has travelled across the country to various cities in order to serve thousands of patients free of charge.



We continued to support the treatment of children with cleft palate in Indonesia.



Four young dentists whose dental training has been sponsored completely by Straumann.

- The NOIVA project in Jordan operates a mobile dental clinic and offers dental treatment to refugees along the Syrian border. We have been sponsoring this project since 2018 and intend to support it for some time.
- In Switzerland, our 'Stiftung schönes Lächeln' (Beautiful Smile Foundation) is a collaboration with Swiss University clinics to help patients who need implant treatment but have limited financial means.

BIG HEARTS FOR YOUNG TEETH

We continued to support a team of surgeons to treat children with cleft palates in Indonesia and, through two Swiss-based charities, we provided dental treatment and education to children in poor regions of Myanmar and Vietnam. The Rebuilding Smiles initiative in Australia provides free dental work to children and women who have suffered dental injury in domestic violence.

HELPING YOUNG DENTISTS TO HELP NEEDY PATIENTS

We continued to fund scholarships to young dental students who are connected with projects that we support in Cambodia and Nicaragua. These students are already serving their communities in local clinics. In addition, we regularly support dental school students from North America and Europe who spend part of their vacations to offer free dental care to patients in underprivileged areas with no regular dental services. We intensified our collaboration with German student networks like Dental Volunteers and Mini Molars, through which several outreach projects from various dental faculties at German universities were organized in Cambodia, Madagascar, Tanzania and Uganda.

All of these projects focus on dentistry and promote the Group's reputation among its stakeholders as a caring, responsible corporate citizen. This supports our business and thus adds value for our shareholders. We are grateful to our dental partners – many of whom are volunteers – for their devotion and for ensuring that the funds are used efficiently.



Above and below: We continued to sponsor various dental hygiene initiatives in underprivileged regions.



Main initiatives and projects sponsored by Straumann in 2019

Region	Lead partner	Objective ¹	Status / results
Global	Straumann AID	Free implants and materials for needy individuals, supporting volunteer dentists	Ongoing since 2007
Australia	Australian Dental Association Rebuilding Smiles	Free dental treatment to women and children affected by domestic violence	Ongoing since 2017
Brazil	ILAPEO	Free dental implant treatment for underprivileged people	Ongoing
Brazil	Neodent	Novo Sorrisos mobile clinic, dental care for underprivileged individuals	Ongoing since 2016, ≈3000 patients treated annually
Cambodia	Hope for All Clinic	Dental student scholarships and clinic support	Ongoing since 2007, currently 1 student fully supported
	Mini Molars / Volunteers Mainz University	Dental treatment & supplies for underprivileged people	Completed
Germany	Jung & Krebs	Charity bike ride organization & support for young people with cancer	Completed
Indonesia	Dharma Wulan Foundation	Treatment of children suffering from cleft palettes	Ongoing
Jordan	NOIVA Foundation	Mobile dental clinic treating Syrian refugees; 1200 treatments performed, 4 jobs created	Ongoing
Madagascar	Dental Volunteers, Tübingen & Vienna Universities	Dental treatment & supplies for underprivileged people	Completed
	Dental Volunteers, Münster University	Dental treatment & supplies for underprivileged people	Completed
Nicaragua	Sonrisa Foundation, Switzerland	Free dental care for orphaned children; support dental student scholarship	Ongoing since 2006
Russia	Solidarnost	Charitable donation to support handicapped children	Completed
South Korea	The Smile Charity Foundation	Dental aid for handicapped people	Ongoing
Switzerland	Stiftung schönes Lächeln	Affordable implant treatment for seniors with limited means	Ongoing since 2018
Tanzania	Dental Volunteers, Münster & Cologne Universities	Dental treatment for underprivileged people	Completed
Uganda	Dental Volunteers, Münster & Cologne Universities	Dental treatment for underprivileged people	Completed
USA	National Foundation for Ectodermal Dysplasia	Free implants and prosthetics in addition to financial and public relations support	Support ongoing since 2004

¹ In each case clear prerequisites and goals were set.

BEYOND CONTINUITY IN CHARITY

Novos Sorrisos – giving smiles to the underprivileged

Edentulism is a real problem in Brazil where 11% of all adults and 41% over the age of 60 have no teeth. Because more than half the population are unable to see a dentist regularly, Neodent launched its Novo Sorrisos (New Smiles) campaign in 2016, which brings dentistry to local communities via a mobile clinic. To date they have travelled more than 11 000 kilometers and seen 5 000 patients in 25 cities. In December, the clinic set up in front of Curitiba's Arena Stadium, home of the beloved Athletico Paranaense football team, and received patients for three weeks.

The public response has been so overwhelming that the Novo Sorrisos team acquired a much larger truck housing two treatment rooms fitted with state-of-the-art equipment and staffed by 200 volunteer dentists from various locations. Their ambition is to reach as many people as possible promoting not only oral health, but also self-esteem.

[Watch the linked video](#) ▶



Global Production & Logistics

Boosting capacity to cover huge launch program and continuing volume growth

Production output increased significantly in 2019 in response to continued growth in demand for our in-market products. In addition, we had to supply a host of new launches around the world and to cover the needs for new development items in clinical programs. One of our biggest ramp-up projects was to build manufacturing capabilities for a whole new brand of implants that we expect to launch in 2020. All of this posed significant challenges for production and logistics. However, in spite of the initiatives to scale up, we achieved efficiency and productivity gains.

CAPACITY EXPANSION

All our expansion projects continued according to plan. In Villeret (CH), the Straumann brand's largest production center, we finished the shell of the new building and began interior construction work. Nearby, in Corgémont, we completed our Global Process & Technology Center and more than doubled production capacity for surgical instruments. Straumann also added production space in Andover (US). In Curitiba (BR), we completed a new facility for producing nuvo implants and ClearCorrect orthodontic aligners. In Germany, Medentika started to build a new production facility for prosthetic components and implants, while in Arlington (US), we purchased land and began architectural work on a new facility. In Round Rock (US), we increased the capacity for aligners, and in Montreal (CDN), Dental Wings relocated after its scanner assembly unit and headquarters were destroyed by fire. In the latter case, our biggest challenge was to minimize disruption of the business and supplies.

NEW TECHNOLOGIES

In 2018, we worked on developing a new-generation CNC turning machine, which we installed in Villeret and Andover in 2019. The new machines consume less energy and are technically capable of producing more than 50% of our implant system. We also installed fully automated packaging lines at both sites and no longer depend on external suppliers for preformed blisters. Both of these initiatives increases flexibility and reduce costs. In Mendaro (SP), we installed equipment for additive manufacturing based on laser sintering. Our Markkleeberg (DE) center has already started using this technology, which offers new design features to dental lab customers.



Groundbreaking at Medentika's new production site in Oberreichenbach, Germany.

EXPLOITING THE OPPORTUNITIES OF OUR GROWING PRODUCTION NETWORK

We refined our production strategy based on our current and future portfolio requirements and an extensive review of our cost structure in Villeret, Andover and Curitiba. We continue to leverage synergies between the sites and to add value without jeopardizing the “Swissness” of the Straumann brand. The addition of Anthogyr’s production capabilities to our supply network offers further synergy opportunities and cost reductions by insourcing items that are produced for us by third parties.

UPGRADING THE INFRASTRUCTURE

We implemented various software tools to support planning, product verification, product validation, and the submission and administration of regulatory applications. We also developed further applications with a view to exploiting their full potential in 2020.

SUPPLY CHAIN MANAGEMENT

Our Villeret site and Corporate Logistics in Basel began to introduce the concept of DDMRP (Demand Driven Materials Requirements Planning), which is a method of modelling, planning and managing supply chains to protect and promote the flow of relevant information and materials. Other main sites will follow as we seek to enhance supply chain performance by optimizing planning, stocking and replenishment strategies.



Above and below: Automated clear aligner production in Round Rock, Texas (USA).



Straumann Group production sites in 2019

Products	Location	Markets	Certifications and main countries for clearance
Biomaterials	Malmö, Sweden (Straumann)	Global	ISO 13485, MSDAP ¹
CAD/CAM prosthetics	Arlington, USA (Straumann)	US	Dental licence for lab activity
	Markkleeberg, Germany (Straumann)	Europe	ISO 13485, MDSAP ¹
	Mendaro, Spain (Createch)	Spain (Europe)	ISO 13485, Dental licence for lab activity
	Mersch, Luxembourg (Simeda Anthogyr)	Europe	ISO 13485, Dental licence for lab activity
	Narita, Japan (Straumann)	Japan (Asia)	ISO 13485, Dental licence for lab activity
CAD/CAM prosthetics, Digital equipment	Shenzhen, China (Straumann, Dental Wings)	China	CFDA manufacturing licence
Clear aligners	Round Rock, USA (ClearCorrect)	Global	ISO 13485 US, EU, Japan
Digital equipment	Montreal, Canada (Dental Wings)	Global	ISO 13485 US, EU, Brazil, Japan
Implant systems	Andover, USA (Straumann)	Global	ISO 13485, MDSAP ¹ China, Russia
	Curitiba, Brazil (Neodent)	Global	ISO 13485, MDSAP ¹
	Mumbai, India (Equinox)	India, neighboring countries	ISO 13485
	New Taipei City, Taiwan (T-Plus)	Taiwan, China, US	ISO 13485 US, China
	Renningen, Germany (Medentika)	Global	ISO 13485 US, EU
	Sallanches, France (Anthogyr)	Europe, Asia	ISO 13485, MDSAP ¹ for instruments EU, Russia, China
	Villeret, Switzerland (Straumann)	Global	ISO 13485, MDSAP ¹ China, Russia
Resins / Thermoplastics	Fremont, USA (Bay Materials)	International	ISO 13485 application pending
	Pelotas, Brazil (Yllar Biomateriais)	LATAM	ISO 13485
Software	Chemnitz, Germany (Dental Wings)	Global	ISO 13485 US, EU, Japan

1 MSDAP: Medical Device Single Audit Program, including Australia, Brazil, Canada, the United States and Japan.

PRODUCTION EXPANSION PROJECTS*

ANDOVER (USA)

Straumann implant system

+3 000m²**+60%** PRODUCTION
CAPACITY**MONTREAL (CANADA)**

Dental Wings scanners

4 000m²**+40%** PRODUCTION
CAPACITY**ROUND ROCK (USA)**

ClearCorrect clear aligners

+3 250m²**+60%** PRODUCTION
CAPACITY**CURITIBA (BRAZIL)**Neodent and nuvo implant systems;
ClearCorrect clear aligners**+11 000m²****+35%** PRODUCTION
CAPACITY**OBERREICHENBACH (GERMANY)**

Medentika prosthetics and implants

+11 000m²**+50%** PRODUCTION
CAPACITY**MARKKLEEBERG (GERMANY)**Straumann CAD/CAM;
ClearCorrect clear aligners**+1 600m²****+35%** PRODUCTION
CAPACITY**VILLERET (SWITZERLAND)**

Straumann implant system

+16 100m²**+70%** PRODUCTION
CAPACITY**MENDARO (SPAIN)**

CAD/CAM prosthetics

+1 300m²**+70%** PRODUCTION
CAPACITY

* Expected production capacity increases

Environment

Continuously improving efficiency

Using energy and resources efficiently while minimizing waste and emissions wherever possible are inherent to the high-performance culture we foster. We believe that environmental stewardship and combating climate change are essential to sustainable development and must be addressed collectively and globally. As the Straumann Group and our operations continue to expand rapidly, it is no surprise that our environmental footprint has also increased. The geographical spread and speed of our growth add to the complexity of monitoring our impact on the environment. Nevertheless, we have strengthened our commitment and are in the process of expanding the scope of our environmental reporting to include all recently-acquired production facilities as well as larger non-production sites. In addition to providing further transparency, this will help us to identify opportunities for meaningful improvement. Currently, the areas where we see the greatest leverage are in materials efficiency, waste management and energy and water consumption.

MAINTAINING SOUND ENVIRONMENTAL MANAGEMENT PRACTICES BEYOND COMPLIANCE

As a supplier of medical devices, the Straumann Group complies with stringent regulations, including the analysis of raw materials and rigorous protocols for quality control to ensure the safety and effectiveness of the products we make. All manufacturing processes are fully documented to provide traceability.

In addition to complying with regulations, we track our energy consumption and resulting greenhouse gas emissions, we certify the environmental management systems at our principal manufacturing sites to ISO 14001, we communicate our progress over time, and we have been participating in CDP's Climate Change program since 2010. In 2019, we again reached the "Awareness" level of disclosure, which is awarded to companies for transparent reporting and emission reduction efforts. Care for the environment is included in our Code of Conduct for all employees and our Code of Conduct for Suppliers promotes the same goals.

In 2019, we began a global lean initiative program involving senior management. The program uses frameworks such as 5S, which aim to achieve continuous efficiency improvements through the elimination of waste in manufacturing, warehouse, distribution, fulfillment and logistics processes. This extends to energy consumption, material use, time, quality, scrap, and refuse.

Using energy and resources efficiently is inherent to the high-performance culture we foster.



In 2019, we began a global lean initiative program involving frameworks such as 5S to achieve continuous efficiency improvements and to eliminate waste.

Increased productivity, improved safety and sustained employee commitment are additional benefits of lean initiatives and support the Group's strategic priority of further building a high-performance culture.

We also seek to avoid unnecessary business travel and to reduce air travel. In this respect, we entered an agreement regarding the full compensation of CO₂ emissions from business flights by Straumann Group HQ staff with the Lufthansa Group from 2020 on. Emissions will be reduced or offset via investments in sustainable aviation fuels and re-forestation initiatives, which according to recent studies¹ is one of the most effective methods to fight climate change. In addition, our Biora subsidiary in Sweden fully compensated CO₂ emissions associated with their business flights in 2019. At several sites we have initiatives to encourage staff to travel to and from work by bicycle.

UNDERSTANDING OUR IMPACT

Both our business scope and our product portfolio have broadened significantly in recent years. Today we produce titanium/ceramic dental implants, ceramic/metal/polymer prosthetic elements, polymer orthodontic aligners, and biomaterials for tissue regeneration. Through two acquisitions in 2019, we added resins for 3D-printing and thermoplastics for clear aligners.

Our product portfolio includes:

- dental implants and componentry made from pure titanium, titanium alloy and ceramic
- prosthetic elements made of ceramic, metal, or polymer
- clear aligners made from polymer
- biomaterials for tissue regeneration including proteins, collagens and bone derivatives
- digital equipment (e.g. scanners), milling machines and 3D printers, mostly manufactured by third parties and made mainly from metal, plastic, prefabricated electronic componentry and glass
- materials for 3D-printing and aligner production
- prevention products (e.g. whiteners, fluoride varnish, airflow device, hydrogen peroxidase and fluoride made by third party suppliers).



In Basel, we began replacing conventional lighting with LEDs, which will lead to improved illumination and lighting energy savings of up to 20 percent.

Our principal products, dental implants, are produced on CNC turning machines from rods of titanium or titanium-zirconium alloys or ceramic blanks. In the manufacturing process, we use cutting oil as a coolant, followed by sand-blasting, acid etching, cleaning, packaging, and sterilization. We have also started to produce implant system components by ceramic injection molding.

Our production processes make up our most significant internal environmental impact, followed to a much lesser extent by activities in research and development. We do not use significant amounts of heavy metals such as mercury, lead, or manganese, which are often present in the production processes of manufacturers serving the dental industry.

INCREASING TRANSPARENCY

This report is based on data for our global headquarters in Basel, Switzerland, our country headquarters in Freiburg, Germany, as well as Neodent's headquarters in Curitiba, Brazil. It also includes our production sites in:

- Villeret and Corgémont (Switzerland)
- Markkleeberg and Renningen (Germany)
- Malmö (Sweden)
- Andover, Arlington, and Round Rock (USA)
- Curitiba (Brazil)
- Narita (Japan)
- Montreal (Canada)
- Shenzhen (China)
- Mendaro (Spain)
- Sallanches (France)
- Mersch (Belgium) and
- New Taipei City (Taiwan).

As part of the Group's growth strategy, we hired additional staff at almost all production sites in 2019. In addition to these sites, we have started to extend the environmental data collection process to non-production entities such as offices and warehouses with more than 100 employees. Some of these are already included in the 2019 data, while the rest will be included in our 2020 report. In total we expect to include four further sites in our reporting as of 2020.

[This page addresses GRI disclosure 102 – 49](#)

We started to extend the environmental data collection process to non-production entities.

CONTINUED EXPANSION IN PRODUCTION

We are in the process of significantly expanding production at various sites as outlined in the chart on p.77. These initiatives include:

- the expansion of our implant system production centers in Andover, Curitiba, Oberreichenbach, and Villeret
- the addition of clear aligner manufacturing in Europe, together with 3D-printing and selective laser melting processes at our CAD/CAM milling center in Markkleeberg
- the expansion of our clear aligner production center in Round Rock
- the transfer of Dental Wings to a new facility in Montreal with additional scanner production capacity
- the addition of clear aligner manufacturing in Curitiba to serve the Latin American market
- the increase in Createch's CAD/CAM production in Mendaro.

MATERIALS, WASTE AND WATER

Consumption of titanium increased significantly as a result of continued growth, new launches and production expansion. While implant volumes increased, the use of metals (mainly cobalt chrome alloy) for CAD/CAM prosthetics at our existing sites went down, reflecting the trend towards local milling by customers, a shift towards modern materials like zirconia and improvements in raw material yield by increasing nesting density, i.e. arranging items to obtain the largest number of prosthetics from each disc of raw material. Titanium recycling also increased considerably, most notably due to optimized waste and recycling management processes in Curitiba, but also in connection with the installation and upgrade of machinery. The marked increase in photopolymer consumption was due to the strong growth in our clear aligner business, even though we have been investing in new technology with lower material consumption.

Despite the production increase, acid consumption remained fairly stable due to efficiency measures in surface treatment processes. On the other hand, additional machinery led to a rise in the consumption of oils and cleaning solvents.

Waste in general remained fairly stable in 2019, despite our continued production expansion and revenue growth. The optimization of waste streams and improved separation of waste fractions was an important driver in this context. Water consumption increased moderately, as expected with ramped-up production and additional people. Andover achieved environmental improvements as they switched from foam food trays and cups to paper-based tableware in cooperation with their cafeteria food service provider.

Titanium recycling also increased considerably, mainly due to optimized waste and recycling management processes.

ENERGY USE AND GREENHOUSE GAS EMISSIONS

Our energy consumption rose as our organization and activities increased. Electricity consumption per capita increased moderately as a result of considerable production expansion and the installation of additional machinery. Heating energy consumption per capita decreased due to reduced reliance on fossil fuels and more favorable climatic conditions. Our efforts to reduce energy consumption and greenhouse gas emissions in operations included the following activities:

- Villeret, our biggest production site and largest consumer of energy, has been sourcing all its electricity from renewable sources since 2018. In addition, air compressor heat recovery systems were optimized, compressor efficiency in workshops was improved and two compressors were replaced
- in adjacent Corgémont, the installation of a centralized cooling system for the grinding machines led to energy efficiency gains
- in Basel, we began replacing conventional lighting with LEDs, which will result in improved lighting and related energy savings of up to 20 percent
- in Mendaro, we also converted to LED lighting at our production site
- in Malmö, we used environmentally friendly renewable district energy as a new means of heating
- in Andover, we continued to convert to LEDs when renovating or repairing lights, and we installed a load and energy management system for air compressors.

Our greenhouse gas emission rates mirrored the overall increase in energy consumption (see table on p. 84).

References

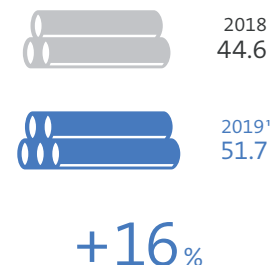
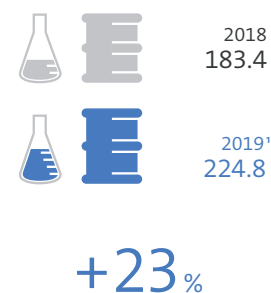
- 1 <https://science.sciencemag.org/content/365/6448/76>

Environmental key performance indicators (as per 27 January 2020)

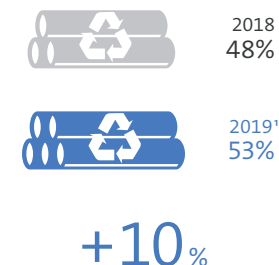
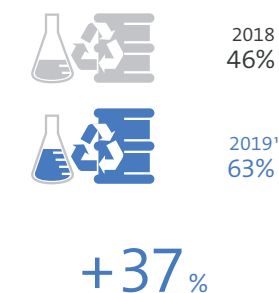
		Performance indicator	Unit	2019 (incl. new sites) ¹	2019 (excl. new sites)	2018 (excl. new sites)
Product raw materials	Titanium	Consumption	tons	54.3	51.7	44.6
		Recycling (consumption minus product)	tons	29.1	27.3	21.5
	Cobalt chrome	Consumption	tons	9.0	8.8	8.7
		Recycling	tons	2.7	2.7	4.6
	Zirconia	Consumption	tons	4.9	4.9	4.6
Operating materials	Various oils	Consumption	tons	152.7	149.4	122.6
		Recycling	tons	107.8	106.3	51.5
	Cleaning solvents	Consumption	tons	77.3	75.5	60.8
		Recycling	tons	37.0	35.8	33.1
	Acids	Consumption	tons	84.4	82.6	84.3
	Paper	Consumption	million sheets	7.8	6.1	6.7
		Per capita ²	sheet/employee	1 848	1 801	2 295

1 Data for Anthogyr (Sallanches and Mersch) cover seven months of 2019 since acquisition. 2019 figures for Montreal were estimated based on 2018 data due to the fire incident and subsequent relocation.





2 Per capita figures refer to headcount per end of year at relevant sites only.

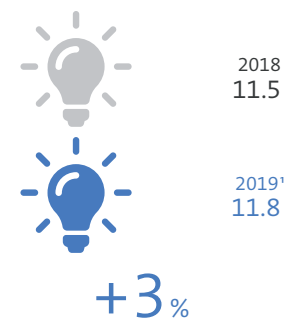
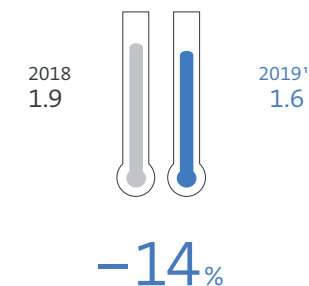
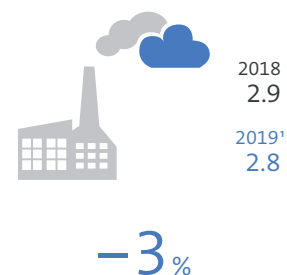
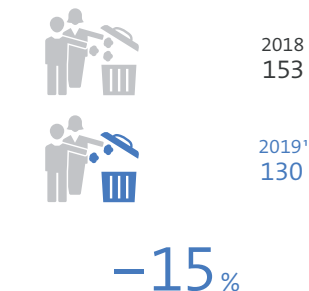
Titanium consumption
(tons)Oils and solvents consumption
(tons)

1 Figures exclude new sites.

Titanium recycling
(%)Oils and solvents recycling
(%)

Environmental key performance indicators (as per 27 January 2020)

		Performance indicator	Unit	2019 (incl. new sites) ¹	2019 (excl. new sites)	2018
	Energy	Electricity Consumption ³	MWh	43 301	40 145	33 681
		Per capita ²	MWh/employee	10.2	11.8	11.5
	Heating	Total heating energy	MWh	6 000	5 436	5 456
		– Fossil fuels	MWh	4 641	4 077	4 209
		– District heat	MWh	1 359	1 359	1 246
		Total heating energy per capita ¹	MWh/employee	1.4	1.6	1.9
	Emissions	GHG emissions Total emissions	tons CO ₂ e	10 219	9 548	8 455
		– Direct (Scope 1) ⁴	tons CO ₂ e	1 025	908	1 204
		– Indirect (Scope 2) ^{5,6}	tons CO ₂ e	9 194	8 640	7 251
		Total emissions per capita ²	tons CO ₂ e/employee	2.4	2.8	2.9
	Water	Consumption	m ³	71 238	64 022	57 162
		Per capita ²	m ³ /employee	16.8	18.9	19.6
	Untreated waste water	Disposal	m ³	180	180	165
	Waste	Diverse waste Hydroxide sludge	tons	17.9	17.9	15.9
		Contaminated material	tons	226	218	276
		Solvents	tons	25.4	24.1	7.6
	Refuse	Total refuse	tons	658	441	446
		Per capita ¹	kg/employee	155	130	153

Electricity consumption
(per capita; in MWh)Heating energy
(per capita; in MWh)CO₂ emissions
(per capita; in tons CO₂e)Refuse
(per capita; in kg)

1 Figures exclude new sites.

- 1 Data for Anthogyr (Sallanches and Mersch) cover seven months of 2019 since acquisition. 2019 figures for Montreal were estimated based on 2018 data due to the fire incident and subsequent relocation.
- 2 Per capita figures refer to headcount per end of year at relevant sites only.
- 3 Includes 265 MWh (2018: 1266 MWh) diesel consumption for electricity generation.
- 4 Scope 1 emissions comprise greenhouse gases emitted by sources owned or controlled by the Group, such as heating units.
- 5 Scope 2 emissions comprise greenhouse gases emitted in the production of electricity and district heat the Group consumes.
- 6 Greenhouse gas emissions associated with electricity consumption of 8893 t CO₂e (2018: 6974 t CO₂e) were calculated according to the location-based approach, as defined in the GHG Protocol Scope 2 Standard. Results are used as a proxy for the market-based approach.