MANAGEMENT COMMENTARY

Business model & objectives
Vision, strategy, core behaviors

STRAUMANN GROUP IN BRIEF
WHO WE ARE, WHAT WE DO AND WHERE WE DO IT

Headquartered in Basel, Switzerland, the Straumann Group is a global leader in tooth replacement and orthodontic solutions. It unites global and international brands that stand for excellence, innovation and quality in tooth replacement and esthetics, including Straumann, Neodent, Medentika, ClearCorrect, Dental Wings and other fully- or partly-owned companies and partners.

The Group develops, manufactures and supplies dental implants, instruments, biomaterials, CADCAM prosthetics, digital equipment, software, and clear aligners for applications in replacement, restorative, orthodontic and preventative dentistry. Its principal production sites for implant components and instruments are in Brazil, Germany, India, Switzerland and the US, while CADCAM prosthetics are milled in Brazil, China, Germany, Japan and the US. Biomaterials are produced in Sweden, digital equipment in Canada and Germany, and clear aligners in the US.

As a total solution provider, the company takes a holistic approach, offering training, support and a wide range of services to dental practitioners, clinics and laboratories all over the world. It is recognized as a leading innovator and works together with universities, clinics, research institutes, networks and communities to enhance the standard of patient care. Through a unique collaboration with academic partners like the ITI and ILAPEO, Straumann supports research and offers training and education to dental professionals.

The Group employs 4881 people worldwide. Its products, solutions and services are available in more than 100 countries through a broad network of distribution subsidiaries and partners. More than 90% of the business is conducted directly through fully-owned subsidiaries.

Straumann Group is a global leader in tooth replacement and orthodontic solutions. Beyond creating smiles, our aim is to restore confidence in patients around the world.

OUR VISION

Confidence relates to all our activities; it is built on trust, integrity, respect, communication, transparency, collaboration and delivering what we promise. For our customers, it means peace of mind, because our solutions are predictable and durable. For our employees, confidence means secure, rewarding jobs. For our shareholders, it means sustainable returns from a highly ethical business. For the communities in which we operate, confidence means that we care for the world around us as a responsible corporate citizen. For all our stakeholders it means that Straumann is a reliable partner.

We want to be the first place that people come to do business, to find genuine solutions, to turn ideas into reality, to learn, master, succeed and improve lives. This is what being the partner of choice means for us.

We are committed to being the premium partner of choice in tooth replacement and esthetic dentistry, offering education, innovation, quality, support, expertise, clinically proven long-term success, and peace of mind.

At the same time, we are a global leader in the non-premium segment, making high quality implant and prosthetic solutions more affordable to a broader population through our Neodent, Medentika, Equinox, Zinedent, and Anthogyr brands.

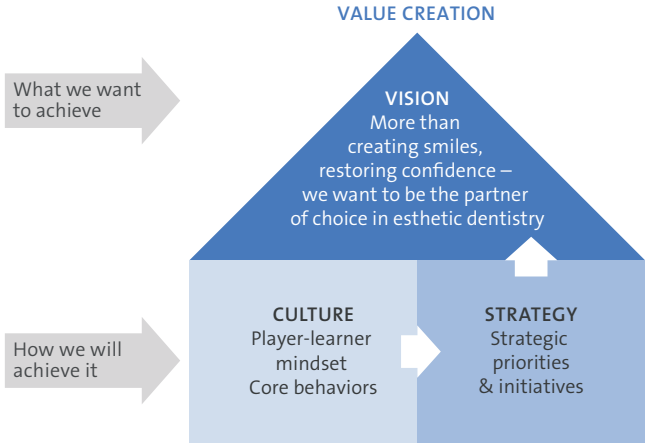
We are also committed to being the partner of choice in biomaterials, digital dentistry and clear aligners.

A PLAYER-LEARNER MINDSET

The right mindset is a prerequisite for the high-performance culture we are striving to build. Our main thrust over the past four years has been to inspire and foster a player-learner mindset throughout our workforce. Player-learners inspire trust; they are energized and embrace change; they listen, find out, share, collaborate, take risks, find solutions, learn by doing, encourage and celebrate.

Our vision is more than creating smiles, restoring confidence – we want to be the partner of choice in tooth replacement and esthetic dentistry.

OUR COMPANY HOME



MAKING VISION A REALITY

The way to a sustainable future is mapped out in our three 'Strategic Priorities' (see p. 23 ff.), which form the backbone of our strategy. Making it happen is a matter of culture and behavior. Thus, vision, strategy and behavior form the figurative building of 'our company home'.

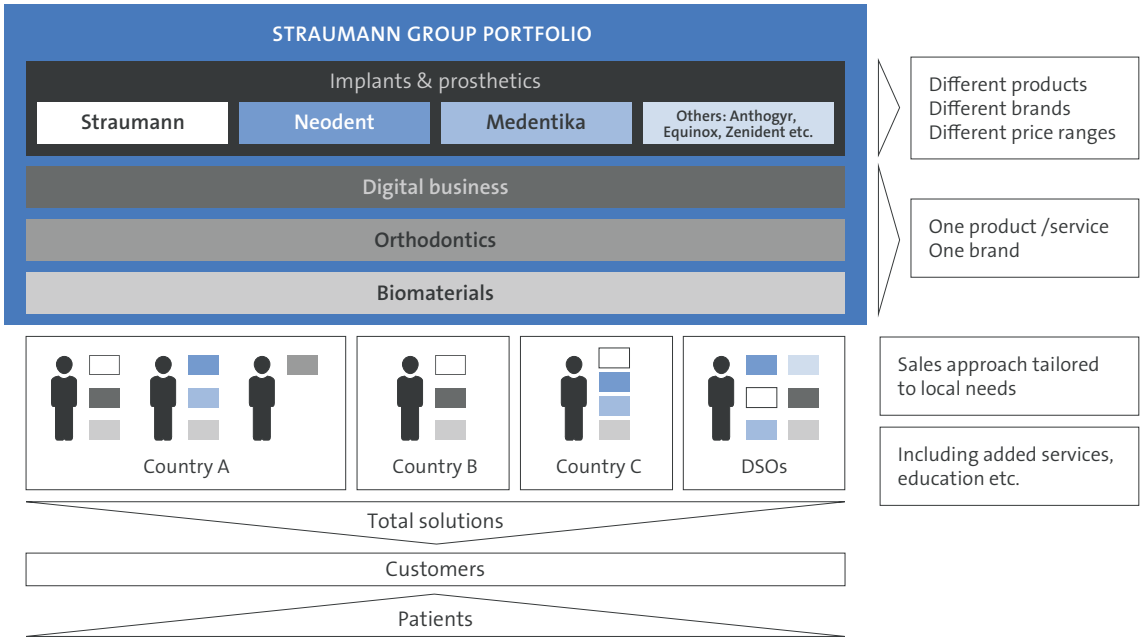
CORE BEHAVIORS BUILT ON LONG-HELD VALUES

Building on the values that have made Straumann what it is today, we focus on the following eight core behaviors that apply for all employees in the Straumann Group:

- Focus on customers
- Collaborate
- Take ownership
- Create opportunities
- Build trust
- Engage
- Communicate effectively
- Be agile

Our tradition of 'simply doing more' is an integral part of the Straumann brand; it is at the heart of these behaviors, and is the overriding principle for everything we do.

OUR BUSINESS MODEL



◀ The new Straumann Group structure (outlined on the left) enables us to provide comprehensive solutions that include a range of implant and prosthetic systems - covering all price requirements, CADCAM prosthetics, digital equipment and workflows, biomaterials, orthodontic treatments and various services, e.g. training and education. The portfolio mix, strategy and sales team approach is tailored for local markets by the Regions with the goal of balancing the premium and non-premium business to gain maximum market share.

We produce most of our products in-house and sell them to dental professionals either directly or through distribution partners. Our customers (p. 71 ff.) are specialists, general dentists, dental laboratories and dental chains/service organizations (DSO). Patients are usually addressed by general dentists, who often decide on the type of treatment and system, and specialists.

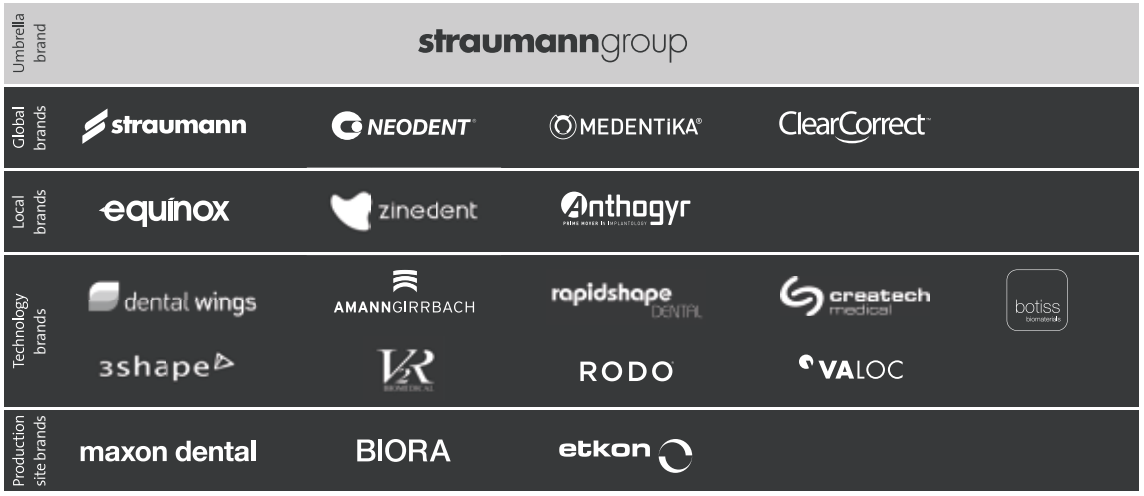
OUR BRAND

STRAUMANN GROUP – UNITING GLOBAL EXCELLENCE IN DENTISTRY

Our journey into new segments, geographies and technologies has turned Straumann into a global Group of national and international brands, companies and partners. To unite them and to provide a common identity we created the 'Straumann Group' umbrella brand at the outset of 2017. This creates value for the individual brands, companies and partners by allowing them to benefit from Straumann's global reputation – without compromising our premium brand, which has retained its distinctive identity and positioning.

We introduced the new Group brand quickly and with minimum investment because no changes to product names, brands or legal entities were required. As the year progressed, it became clear that the umbrella brand would allow us to bring our premium and non-premium businesses closer together, reducing complexity, creating synergies, opening up sales opportunities, and benefitting customers and patients.

By year-end, we started to integrate our Instradent subsidiaries and to simplify internal processes, making ordering, delivery and invoicing more efficient. We created a single e-shop for all brands and are now able to provide our digital solutions and biomaterials to all customers irrespective of which implant system they purchase from us. With Instradent incorporated, our Group brand architecture looks like this:



The Straumann Group unites various global and local/regional product brands with a number of fully/partially owned companies and independent partners, which provide technology and manufacturing expertise.

Strategy in action
Beyond tooth replacement – esthetic dentistry

At the heart of our strategy are three key priorities, which are reviewed annually by the Board of Directors. They translate into a number of clearly defined initiatives and deliverables, which are continuously tracked and adjusted as necessary. We do not disclose the initiatives, although most of them are reflected in the activities, investments, product launches, development pipeline and achievements featured in this report.

Having come close to our goal of being a total solution provider in tooth replacement, we started looking into attractive complementary fields as a potential source for further growth and synergies. As a result, we decided to broaden our scope from 'tooth replacement' to 'esthetic dentistry' which includes orthodontics, the field of dentistry devoted to the prevention and correction of irregular teeth, using braces, brackets, and aligners.

Our strategic priorities are:
- **Drive a high-performance culture and organization**
- **Target unexploited growth markets and segments**
- **Become a total solution provider in esthetic dentistry**

STRATEGY EXECUTION
A HIGH-PERFORMANCE CULTURE

High-performance organizations consistently outperform, continually innovate and steadily improve. They create opportunities, unlock the potential of employees and use resources and energies effectively without waste. They are agile and collaborate as an aligned team. These are the main characteristics of the culture we want to establish throughout the Straumann Group.

In 2017, we continued to promote the player-learner mindset and core behaviors that are central to the high-performance culture that will drive our future success. We extended our program of workshops and training modules internationally, but did not reach our target of 40% staff participation due to the significant expansion of our organization. The player-learner mindset remains at the heart of everything we do. We will complement it with a program to foster a commercial mindset and entrepreneurial excellence, which we piloted in 2017 and will roll-out in 2018.

Our annual staff survey, which is an indicator of our progress towards this strategic goal, yielded higher or equal scores than in 2016 (see p. 78 f.). 86% of respondents said they understood our strategy, 88% said they actively supported our Cultural Journey and 72% observed positive changes in our culture.

Further examples of cultural change can be found in the open-minded, entrepreneurial approach to new strategic initiatives – like our entry into orthodontics, our investment into digital, and the convergence of our premium and non-premium activities – which were previously strictly segregated.

However, the most significant evidence of this strategy in action can be seen in our operational performance, innovation pipeline, execution of strategic priorities, and our ability to forge partnerships and build talent.

TARGETING UNEXPLOITED GROWTH MARKETS AND SEGMENTS

In order to serve customers directly and to unlock the full potential of our business, we established new subsidiaries in Iran and India. We also signed an agreement to acquire our distributor in Turkey, adding more than 200 trained professionals to drive our business in this market, which – like Iran – is highly attractive and underpenetrated. Together they account for more than 1 million implants annually. In addition, we announced plans to open a subsidiary in South Africa early in 2018.

Our ambition to enter the Indian market became a reality following the acquisition of Equinox at the end of 2016. Leveraging the Equinox infrastructure, we established Straumann Group India and launched the Straumann premium brand in December 2017.

We continued to invest in fast-growing markets like China and Russia, adding people and bringing key products to market. In Russia, we opened additional regional offices, gained important regulatory approvals and took initial steps into the value segment.

Having gained a foothold in the dental service organization (DSO) segment in 2015 by offering value and premium ranges together with tailored service solutions, we vigorously pursued our strategy, enabling us to win a number of leading chains in Europe. DSOs account for an increasing portion of the market due to the growth of dental chains and networks. These range from group practices to international networks of fully integrated clinics with significant purchasing power

and influence. To target and serve further DSOs and to reach a broader population of patients, we established a dedicated global unit at Group level in 2017.

A LEADING POSITION IN THE FAST-GROWING NON-PREMIUM SEGMENT

The premium segment remains a key focus and we are determined to extend our lead in it through innovation, documented clinical research, differentiated comprehensive solutions, service excellence, high standards of training/education, a global network, and guarantees on original products.

At the same time, we see significant business opportunities in the non-premium market segment, which is growing faster and now accounts for more than a third of the global implant market in value (see p. 35 ff.). Many non-premium players are local or regional companies who compete on price without the high level of service, support, innovation and long-term assurance that are inherent to the Straumann brand. Our aim is to be a leading global player in this segment too.

Our strategy has been to build a portfolio of non-premium companies with growing footprints in key markets and to drive their international expansion. We continued the roll-out of Neodent, our leading non-premium brand of progressive dental solutions, to further markets in Europe, which contributed to triple-digit growth in its international business. At the beginning of the year, we gained control of Medentika and have used it to offer attractively-priced perfected prosthetics. We also began to establish Medentika as an implant company offering highly competitive enhanced alternatives to leading value players. These initiatives, together with the expansion of our Neodent business in Brazil, Zinedent in Turkey and Anthogyr in China have made us one of the fastest-growing companies in the non-premium segment, where we rank among the top three global players.

With our strong portfolio of fast-growing value brands, we decided early in 2017 not to pursue our strategic interest in acquiring a controlling stake in the Korean implant company MegaGen and received our CHF 30-million loan back with interest.

We have become one of the fastest-growing global companies in the non-premium segment.

BECOMING A TOTAL SOLUTION PROVIDER IN ESTHETIC DENTISTRY

Our strategy to compete against heavyweight conglomerates that cover the entire dental spectrum has been to provide total solutions in tooth replacement – which means offering conventional, semi- and fully-digital tooth replacement solutions for all major indications. Thanks to our strength in innovation and the ability to form partnerships, we have filled almost all the gaps in our implant and prosthetic ranges and can also offer a full range of biomaterials as well as a wide-ranging portfolio for dental laboratories.

Thanks to our strength in innovation and the ability to form partnerships, we have filled almost all the gaps in our portfolio.

Perhaps our most exciting advances in 2017 were in the digital arena. Strategic partnerships with Amman Girrbach and 3Shape, together with our investment in RapidShape and the acquisition of Dental Wings, have enabled us to achieve the strategic goal of offering validated digital solutions that cover the full tooth replacement workflow, including guided-surgery, a choice of intraoral scanners, a full CADCAM service, a Scan & Shape option, 3D-printing, as well as central, in-lab and chairside milling.

The strategic decision to broaden our scope led to our entry into orthodontics through the acquisition of ClearCorrect in the US, and a 38% participation in Geniova in Spain. The former is a well-established, fast-growing provider of clear-aligner solutions which provides us with the technology, expertise and a strong footing in this field; the latter is an entrepreneurial pioneer of hybrid fast-aligners that gives us access to an innovative treatment approach. Both will benefit from our global network, brand, and digital technology. It is estimated that 75% of the teenage and adult population require orthodontic treatment. Clear-aligner solutions offer an alternative to conventional braces and brackets to address this need. Growing awareness, availability and esthetic needs are key growth drivers for the global clear-aligner market, which is estimated to be worth more than CHF 1.5 billion.

OUTLOOK

Our continuing strong growth and the fact that we have outperformed the market significantly confirm that we are executing an appropriate strategy. We have set the stage for future growth by entering new markets and the attractive field of esthetic dentistry. We have responded to market and technology trends by building digital capabilities and by devoting resources to the DSO segment. We will continue to be agile in seeking, evaluating and capturing attractive opportunities that are aligned with our strategic priorities, always vigilant of our changing market and environment and ready to challenge and adapt our strategy accordingly.

The fact that we outperformed the market significantly confirms that we are executing an appropriate strategy.

Products & services

Click here for complete product information

STRAUMANN

DENTAL IMPLANT SYSTEM

IMPLANT-BORNE PROSTHETICS

BIOMATERIALS

DIGITAL SOLUTIONS

SOLUTIONS FOR EDENTULOUS PATIENTS

ESTHETIC RESTORATIONS

ENABLEMENT AND EDUCATION

LESS INVASIVE TREATMENT PLANS

NEODENT

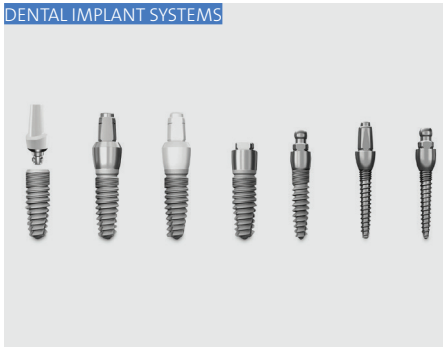
NEODENT'S SYSTEM

MEDENTIKA

HIGH QUALITY SOLUTIONS

EQUINOX

DENTAL IMPLANT SYSTEMS



CLEAR CORRECT

CLEAR ALIGNERS

ADDING PRODUCTS, SOLUTIONS AND SERVICES THAT MEET CUSTOMER NEEDS

For more than six decades, the Straumann Group has been innovating, developing, testing and refining products that address patient needs and contribute to their quality of life.

To complement our products and solutions, and to support their effective implementation, we offer a broad spectrum of services under the Straumann brand. For instance, we assist with networking and arrange experienced mentoring on request. We also offer initiatives to help clinicians develop practical skills, such as practice management and business expansion. Straumann services of this kind require staff with a very high standard of professional knowledge, able to provide the necessary information and instruction on products. Extensive training is therefore an important aspect.

We strive to extend product and service solutions that enhance convenience, leverage efficiency and add value, comfort and security for customers and patients, in line with our vision of 'more than creating smiles – restoring confidence'. In 2017, we introduced more products than in any prior year. The main launches are highlighted in the table below. Further information on products and solutions is available by clicking on the illustration on p. 27.

We strive to broaden treatment options, increase precision and longevity, minimize discomfort, add value and provide security.

KEY PRODUCTS LAUNCHED/INTRODUCED IN 2017

Product	Description	Benefit/added value
Surgical		
Straumann BLT Ø 2.9 mm – the 'SmallOne'	Roxolid SLActive small diameter implant; unique oval prosthetic design	• Makes treatment possible for patients with insufficient space or bone for regular implants • Helps to avoid bone augmentation • Prosthetic matches tooth anatomy
Straumann PURE two-piece ceramic implant	Ceramic implant with ZLA surface and ceramic abutment	• Esthetic full ceramic solution • No metal contact with body • Easier to place than one-piece • Flexible restoration • Enhanced osseointegration
Straumann Surgical Motor Pro	Robust high-performance drill motor	• Sold in attractive starter packages • Suitable for all Straumann implants • Implant protocol memory • Auto stop and torque calibration functions
Neodent Grand Morse implant system	Fully-tapered for all bone types; Acqua surface; comprehensive prosthetic range	• Attractive price • Improved flexibility and simplicity • Enhanced osseointegration
Medentika ProCone	Enhanced implant design	Attractively priced alternative to competitor implant in Germany
Restorative		
Straumann angled solution systems	Angled abutments with tilted screw channel; angulated self-retaining screwdriver	• Makes challenging angulated screw-retained options possible • Up to 25° tilt in any direction • Excellent precision handling
Straumann CARES abutment CoCr	Additional material option for customized abutment range	• High-quality • Can be veneered directly with standard porcelain • Reliable, flexible, efficient
Straumann n!ce	Innovative, fully-crystallized glass-ceramic blocks for CADCAM milling	• Highly esthetic tooth-like translucence • Saves considerable chair time and effort • Restoration can be ground and polished with no additional firing
Medentika (etkon iDent) multiplatform solutions	Prosthetic components that are compatible with other major implant systems	• Flexibility, precision, reliability • Lifetime guarantee • Validated digital workflow
Neodent titanium base for CEREC	For CEREC in-house milling applications	Enables CEREC users to produce prosthetics with original Neodent connections

Digital		
CARES Portable Intraoral Scanner	Small, portable version of the Straumann CARES IO scanner	Easy to move - for practices with limited space or multiple operatories
Straumann CARES intraoral scanner powder-free hand piece		• Exceptionally small and robust • Powder-free operation to improve patient comfort
Straumann TRIOS 3 I/O scanner	Intraoral scanners made by 3Shape, Straumann branded	• Accurate, ultra-fast, reducing chair time • Powder free and sprayless • Full color or black & white scanning options • Color version can measure tooth shades digitally • Portable pod option available
Straumann CARES C series	Compact 4-axis wet milling and grinding machine for dental practices	• Robust, chairside milling machine • Reliable precise milling of glass ceramic and hybrid materials • Reduces grinding times up to 60%
Straumann CARES D series	5-axis dry milling machine for dental labs	• Processes all dry millable materials • Wide range of indications due to compact 5X technology
Straumann P series	Range of 3-D printers	• Sturdy, reliable, high-speed • Certified, maximum-precision, top-quality dental products • Produces temporary prosthetic restorations, partial frameworks, bite splints, models, drill templates
Neodent digital solutions	Digital workflow	Broad range of treatment and restorative options
Collaboration with Zirkonzahn	Combination of simplified workflows and components: Zirkonzahn mills and Neodent implants and angulated abutments	• Attractively priced comprehensive package • Highly esthetic, affordable, edentulous solutions on four implants
Services		
Straumann Smart	Holistic education solution for dental professionals	• Implant dentistry starter training for working dental professionals • Blended learning: classroom, online plus mentoring

Innovation

The stream of products we launched in 2017 and the strength of our pipeline keep us at the cutting edge of innovation – a position that Straumann has held for more than 40 years.

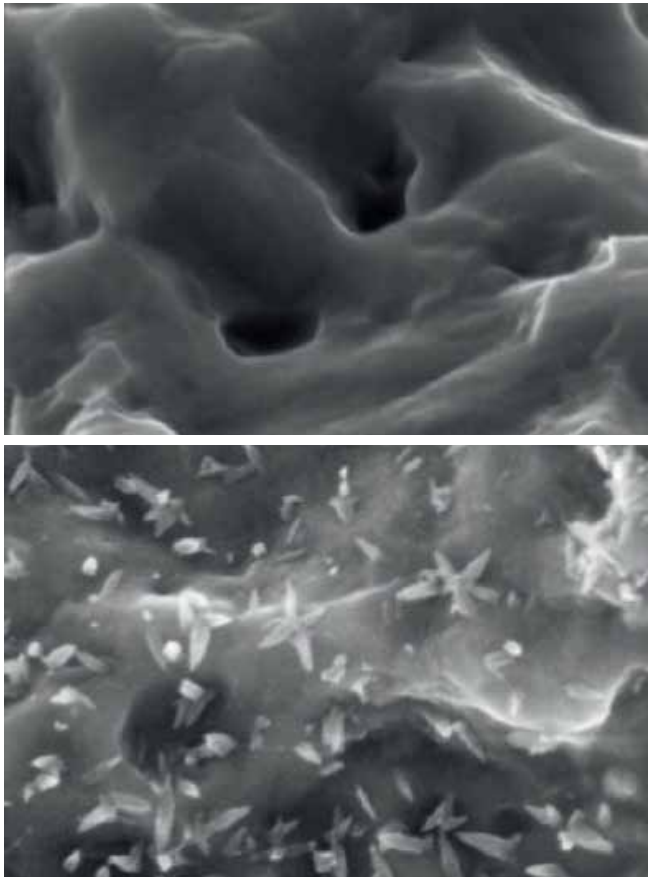
A COMMON FUNNEL OF IDEAS

The convergence of our brands under the new Straumann Group umbrella enables us to create opportunities, synergies and efficiencies in several areas, including innovation. In 2017, we redefined our innovation approach and processes to create a common 'funnel' for the entire Group. We established a dedicated team tasked with ensuring a continuous stream of ideas that lead to new commercial opportunities and solutions that differentiate our various brands.

LEVERAGING SYNERGIES ACROSS THE GROUP TO DRIVE INNOVATION

Although the diversity of our products is broad and our core R&D capabilities are specific, there are common areas in research and predevelopment where we can leverage synergies without diluting the distinct focus of our individual brands. To do this, we have created 'innovation clusters' at the Group level, which enable us to pool resources and to share new technologies, for instance in manufacturing, without disadvantaging the originator brand.

To replenish and expand the funnel, the innovation team scouts adjacent segments and monitors trends in technology for ideas that might have a significant impact on our fields, for example artificial intelligence. Customer feedback, our web-based innovation portal and direct contacts are some of the many other sources of potential innovations. With more than 50 ideas currently under investigation, we take a systematic approach, balancing 'core', 'adjacent' and 'breakthrough' projects with the probability of commercial success, time to market, etc. This approach ensures that we focus on ideas that are most likely to succeed and enables us to allocate them to the most appropriate center of competence and brand.



Scanning electron microscope (SEM) images of the SLA (top) and SLActive surfaces. The discovery of distinct nanostructures on the SLActive surface helps to explain why it enhances the process of osseointegration.
The presence of nanostructures substantially (+50%) increases surface area and, together with surface purity and wettability, enhances protein adsorption, fibrin-network formation, cell adhesion and bone-cell mineralization.[2–5]

2017 – A STRONG YEAR OF INNOVATION

Straumann 'SmallOne' – our 2.9 mm small-diameter implant for patients with insufficient bone or space for regular implants – is an excellent example of innovation in 2017. It completes our highly successful BLT range and was made possible by two other Straumann innovations: Roxolid material for high strength and SLActive for enhanced osseointegration on a reduced surface area.

Another good example is Straumann's PURE 2-piece ceramic implant, with its innovative material, design, surface technology and manufacturing process. Our proprietary glass ceramic material n!ce and Neodent's Grand Morse implant system are further examples of major innovations launched in 2017.

Major innovations in 2017 include Straumann's 'SmallOne' and PURE 2-piece ceramic implant as well as Neodent's GM implant system.

After more than twelve years on the market, Straumann's SLActive implant surface is still the benchmark for osseointegration and is supported by more than 300 publications[1]. One of the most exciting of these appeared in 2017 and describes the presence of nanostructures on the SLActive surface that do not occur on SLA equivalents[2]. These structures increase the surface area by 50%. Together with wettability, they enhance protein adsorption, fibrin-network formation, cell adhesion and osseointegration[2-5], which explains the enhanced healing and clinical success rates seen over the years[6-11]. The nanostructure findings relate specifically to SLActive, which is unique to Straumann. While other companies have tried to imitate it and claim to have hydrophilic, active surfaces, they have neither demonstrated this mechanism nor published 10-year substantiating clinical data[6].

In addition to working on our own pipeline, we gained access to further innovative concepts that could become game changers in our field. For example, we invested in RapidShape, a leader in 3D printing technology, which is changing the ways we make prosthetics, and we increased our stake in Rodo Medical, whose revolutionary device for attaching crowns or dentures to implants without cement or screws became commercially available in initial markets.

We gained access to innovative concepts that could become game changers in our field.

A CULTURE OF INNOVATION

Innovation goes far beyond breakthrough products and is evident in most of our activities, from design and production to sales, marketing, communication, education and services. It is supported by our culture of focusing on customers and creating opportunities.

A STOCKED INNOVATION PIPELINE

	Project	Key benefit target	Introduction/ roll-out
	Modular surgical cassette	Enhanced surgical flexibility, ease of use	2018
	Single use-instruments	Complete single-use portfolio for added convenience and patient safety	2018
	PURE 2 ceramic implant	High-end esthetics, increased prosthetic flexibility	2018
	Simplified Guided Surgery	Increased confidence when placing implants	2019
	New implant designs	• Less invasive procedures • Immediate procedures • Cost effective edentulous procedures • Additional indications	2019
	Variobase extensions	Enhanced flexibility and handling	2019
	Angulated solutions	Enhanced solutions for screw-retained tilted prosthetic connections	2020
	Next generation fixture system	Cement-free, screwless	2020
	CARES milling system	Integrated in-house milling systems and additive manufacturing options	2018
	Digital connectivity	Fully integrated workflows	2018
	Emdogain	New indications	2018
	Next generation biomaterials	Enhanced osseointegration	2020

Highlights from Straumann's development pipeline. Introduction/roll-out dates may be subject to positive clinical results and regulatory clearances, and barring unforeseen circumstances.

OUTLOOK

Four years after its inception, we are upgrading our innovation portal with more powerful software to enable clinicians, labs and other dental professionals to share their ideas with us in confidence and to partner with us in a variety of ways. In 2018, we will release a new platform for open innovation, fostering in-depth interaction with dental professionals around the globe with regard to trends and unmet needs.

In 2018, we will release a new platform for open innovation.

FOOTNOTES & REFERENCES

1 PubMed search with keyword set (SLActive) OR (modSLA) OR (modified SLA) OR (hydrophilic SLA surface).
2 Wennerberg A et al. Clin. Oral Impl. Res. 25, 2014, 1041–1050.
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4 Müller E et al. eCM Meeting Abstracts 2017, Collection 3; SSB+RM 31.
5 EMPA (2017), Swiss Federal Laboratories for Materials Science and Technology (data on file).
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9 Lang NP et al. 2011 Clin Oral Implants Res. Apr;22(4):349-56.
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Markets
Position bolstered, addressable market expanded

THE GLOBAL DENTAL SUPPLY AND EQUIPMENT MARKET

The global dental supply and equipment market is an attractive subset of the global medical device sector with annual sales of approximately CHF 24 billion[1]. Increasing prosperity and awareness of oral health, as well as the aging population, and innovation are the main drivers of market growth, which typically exceeds that of gross domestic product.

We estimate that the market for implant dentistry was worth CHF 3.7 billion in 2017.

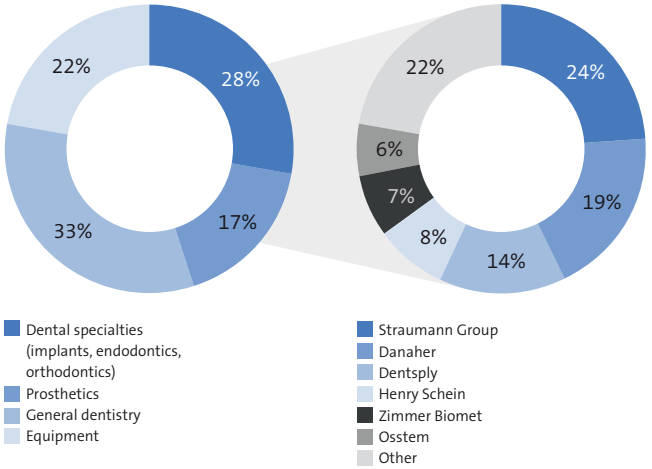
IMPLANTS

Implant dentistry accounts for nearly 15% of the overall dentistry market and is part of the dental specialties segment (see chart on the right). We estimate that the market for implant dentistry was worth CHF 3.7 billion[2] in 2017, including implant fixtures, abutments and related instruments. The Straumann Group leads this market and holds an estimated share of 24%, which it has expanded in recent years through continual outperformance. Independent market research firms including DRG and iData project that growth in this segment will outpace the dental market as a whole. The implant segment thus offers an attractive return-on-investment, particularly for large and innovative companies that can benefit from economies of scale.

Internal intelligence and external research are essential for estimating market size because few players disclose sales information. Using this approach, we estimate that the global market picked up slightly and grew 4% in 2017. Volume growth outpaced that of revenues, reflecting strong growth in emerging markets, where average prices are lower, the increased share of non-premium products, and modest price deflation in general.

The implant market itself can be divided into two segments: premium and non-premium. Premium companies are distinguished by preclinical research and development activities, pre- and post-market clinical documentation, product innovation and breadth, as well as added-valued services. The Straumann Group leads both the premium segment and the implant market as a whole. Non-premium manufacturers hold substantial combined market shares in several large markets, where dentist fees are comparatively low, e.g. Brazil, Russia, Israel, and South Korea. Even though the

THE CHF 24 BILLION GLOBAL DENTAL MARKET
BY CATEGORY AND IMPLANT SEGMENT SHARE



growth differential between the two segments is diminishing, the non-premium market continued to grew faster in 2017. By value, three quarters of the market are controlled by the leading six companies. The remainder is distributed among more than 400 manufacturers, most of whom are non-premium and compete mainly on price, with limited research, training and education services.

The leading six implant companies control three quarters of the market.

Our Straumann premium brand offers a wide range of implants at various prices, depending on the material and surface technology, while our Neodent, Medentika, Equinox, Anthogyr, and Zinedent brands enable us to compete in the non-premium segment, offering customers implant systems at multiple price options in different regions as well as attractively priced abutments for third-party systems.

HIGH POTENTIAL IN THE PREMIUM TAPERED-IMPLANT SEGMENT

Dental implants are distinguished by their design: tapered implants offer high primary stability, while parallel-walled implants are versatile and have been documented for 30 years. More than two thirds of the implants sold in 2017 were tapered. Over the years, Straumann and the ITI have been strong proponents of parallel-walled implants and Straumann controls roughly half of this segment. Contrastingly, our Neodent brand has offered tapered implants for many years. In 2015, Straumann entered the premium tapered segment with BLT and, based on volumes, had gained a share in the low teens by the end of 2017, which is three times lower than our share of the parallel-walled segment. Our goal is to gain further share of the tapered segment in the coming years, for example through targeted marketing initiatives, further product launches and geographical roll-outs.

Our goal is to gain further share of the tapered implant segment in the years to come.

MARKET PENETRATION STILL LOW

The principal factors driving growth in the tooth replacement market are:

- Demographics – more elderly people need tooth replacement as the population ages
- Affordability – the middle class is growing in developing countries
- Adoption – the number of trained dentists who are confident placing implants is rising
- Awareness – patients are better informed about the negative effects of poor oral health
- Esthetics – the trend in people choosing cosmetic surgery and dental implants is growing.

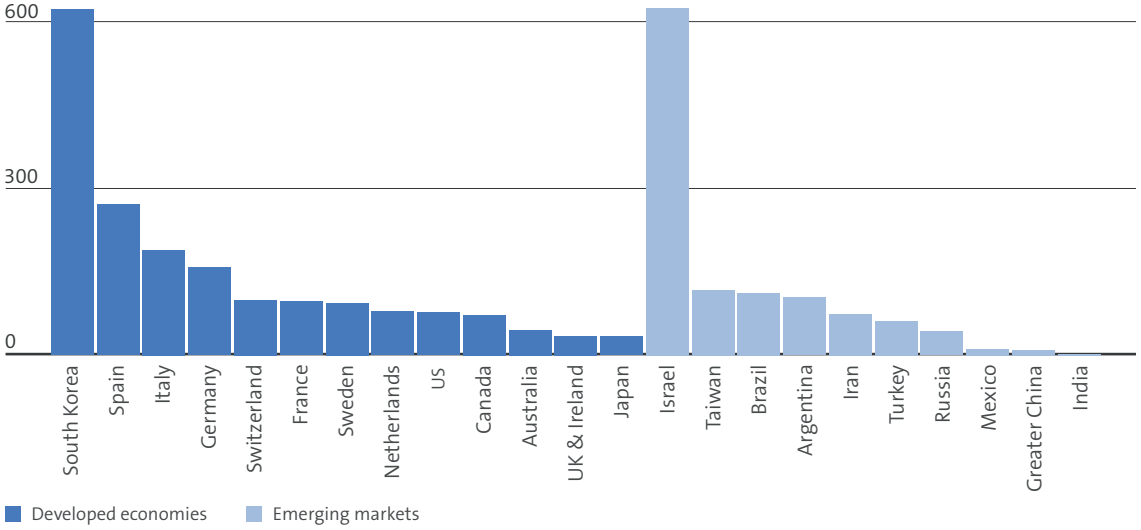
The number of Americans ages 65 and older is projected to more than double from 46 million today to over 98 million by 2060, and the 65-and-older age group's share of the total population will rise to nearly 24 percent from 15 percent.[3] The American College of Prosthodontists estimates that the

number of partially edentulous patients will continue to increase.[4] 90% of edentulous people use simple, unanchored dentures. Some accept their limitations; others cannot afford implant solutions. In 2015, the World Health Organization estimated that more than 60% fall in this category. Many would prefer to upgrade to implant-supported fixed or removable overdentures. To serve this market, we offer a range of premium and non-premium solutions including fixed and removable options, and we have been working on simpler, cost-efficient protocols that are needed to serve a larger pool of patients.

Cost is an obstacle. Private insurance schemes are either financially unattractive or apply strict entry criteria. Even in cases where insurance companies cover dental implant procedures, the amount reimbursed is rarely sufficient to cover the full cost of treatment, leading to considerable costs for patients, which can discourage them from choosing the procedures. In countries where the difference in price is small and/or where there is reimbursement, there is a clear preference for implant solutions.

The number of partially edentulous patients in the US will increase in the next 15 years to more than 200 million.

DENTAL IMPLANT PENETRATION BY COUNTRY (PER 10 000 POPULATION)



With very few exceptions, tooth replacement is an out-of-pocket expense. In South Korea, reimbursement was gradually introduced for senior citizens in 2014. This, together with the fact that more than 70% of the dentists in the country place implants, explains the high penetration rate. By contrast, large economies like China and India remain heavily underpenetrated due to a lack of qualified dental professionals.

The pool of potential patients seems inexhaustible. In the developed world, more than 600 million people are affected by tooth loss, but only a fraction seek treatment. In the world's largest market, the US, more than 150 million people are missing at least one tooth, yet just over a million are treated each year (corresponding to 2.5 million implants). This is low in absolute terms and in comparison with other countries. Our analysis shows that only one in five medically eligible US residents who seek treatment for tooth loss actually receive implants[5]. In Germany, the penetration level is approximately 25%, while in Switzerland, it is close to 40%[6].

The pool of potential patients seems inexhaustible.

As the chart on p. 37 shows, the number of implants placed per 10 000 population in the US is only half that of the largest European market, which illustrates the considerable growth potential. Penetration in other highly populated countries like the UK, India, China and Japan is also clearly below average, offering strong upside potential in the coming years.

BIOMATERIALS

The Straumann Group is also active in the regenerative dentistry market, which is interrelated with implant procedures and offers considerable cross-selling potential. We estimate that the global market for biomaterials, which includes bone-augmentation materials, membranes, fleeces, sponges and soft-tissue regenerative products, was worth more than CHF 0.5 billion in 2017.

We estimate that the biomaterials market grew double-digit and was worth CHF 0.5 billion in 2017.

PROSTHETICS

Digitalization makes it possible to design and mill prosthetic elements by computer-aided design and manufacturing (CADCAM), saving time and increasing accuracy. The CADCAM-prosthetics market segment is thought to be worth more than CHF 3.7 billion and comprises crowns, inlays, onlays, bars, and bridges. Tooth-borne restorations, crowns and small bridges make up the lion's share. While CADCAM production is growing strongly, most crowns and bridges are still composed of porcelain fused to metal or press ceramics made by a time-consuming manual process. Market research[7] indicates that general dentists usually obtain CADCAM crowns and bridges from local labs, and most use models or impressions to order the restorations.

CADCAM makes it possible to use strong, translucent glass-ceramic materials like Straumann n!ce and zirconia, which look natural and are fracture-resistant. Internal and independent surveys have shown that patients are increasingly willing to invest in treatments that not only restore function, but which also improve appearance.

CADCAM EQUIPMENT

We estimate the global market for CADCAM dental equipment, which comprises optical scanners as well as milling equipment, to be worth CHF 1 billion.

CADCAM systems can be classified as:

- Chairside systems, where scanning, design and milling are all performed in the dental practice, using compact milling machines,
- Full in-lab systems, with scanning, design, and manufacture on medium-sized milling machines, and
- Central milling, in which lab scanners connect to an external milling center that uses sophisticated, heavy milling machines.

We entered the chairside and lab-milling segments last year, complementing our well established centralized milling option.

Penetration of the chairside segment is modest. Less than 20% of dental practices in the most advanced markets (e.g. the US, Germany and Switzerland) use intraoral scanners and few have invested in a chairside milling system[8], underscoring the market's potential opportunity.

In contrast to dental practices, labs have invested in CADCAM technology. In developed countries, more than half of the dental labs have an in-lab scanner and most of them also have invested in milling technology[9]. The vast majority of larger labs in advanced countries like the Netherlands, Germany and the US work digitally. Medium-sized and large labs/dental practices are more advanced and tend to prefer complete CADCAM systems over stand-alone scanners because they have financial resources and higher volumes of restoration production. Technology is advancing fast and thanks to the multiple applications (restorative, orthodontic, prevention) intraoral scanners are becoming the gateway to the digital dental universe. More and more dental schools are including CADCAM in their curricula, which should drive penetration.

We are convinced that the future lies in open software architecture that offers connectivity to hardware supplied by various manufacturers. While data transfer between terminals, labs and practices is becoming easier, compatibility is a frequent issue and there is a growing requirement for validation. This is why we offer an integrated CADCAM portfolio, including leading chairside and in-lab scanning and milling technology, 3D in-lab printing and central milling, supported by leading-edge software and validated workflows covering the tooth-replacement spectrum.

< 20% of dental practices in the most advanced markets use intraoral scanners and chairside milling systems.

CLEAR ALIGNERS

Growing awareness, broader availability (e.g. through general dentists) and the increased importance of dental esthetics are key growth drivers for the clear-aligner market, which is estimated to be worth over CHF 1.5 billion and growing at a double-digit-percentage rate.

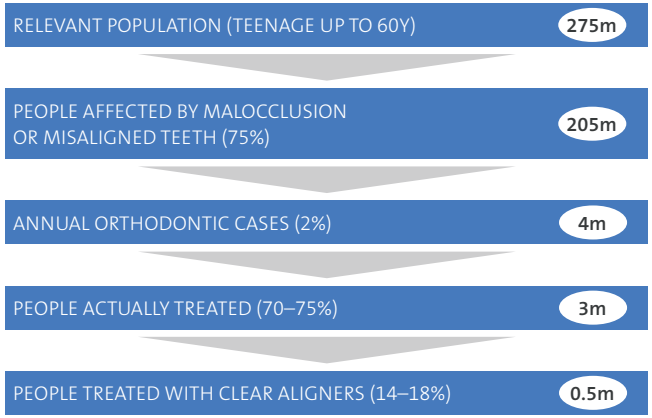
Research indicates that 75% of the population in North America[10] have malocclusion/misaligned teeth. Considering that there are 275 million residents in the US and Canada between the ages of 12 and 60, the patient pool amounts to 4 million patients annually (see chart right). Of the three million orthodontic cases treated in North America in 2017, most received conventional wires & brackets, while approximately one sixth received clear-aligner solutions. It is estimated that 50% of all patients with misaligned teeth could theoretically be treated with current clear-aligner solutions. This underscores the future market potential.[11] The penetration rate is lower in other countries, where the clear-aligner market is still emerging.

In 2017, we entered this attractive field by fully acquiring ClearCorrect, a well-established provider of full clear-aligner tooth-correction solutions. We also acquired 38% of Geniova, a small entrepreneurial company in Spain, which has pioneered an innovative hybrid approach combining the advantages of clear aligners with the benefits of conventional braces and brackets.

ADDRESSING MARKETS COLLECTIVELY WORTH CHF 11 BILLION

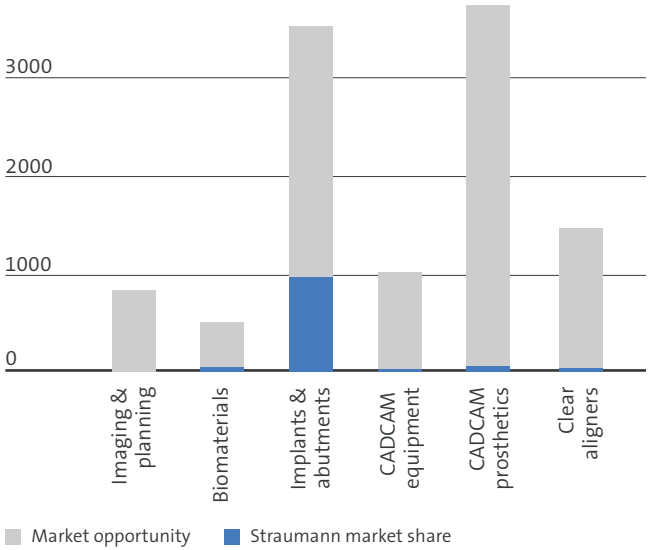
Having concentrated on parallel-walled implants for many years, we have significantly broadened our scope through internal development, acquisitions, investments and partnerships, with the goal of offering complete solutions in both replacement and esthetic dentistry. As a result, our addressable market has expanded significantly, tripling in the past three years alone to approximately CHF 11 billion (see charts on the right and p. 41).

UNDERPENETRATED CLEAR-ALIGNER MARKET (US & CDN)

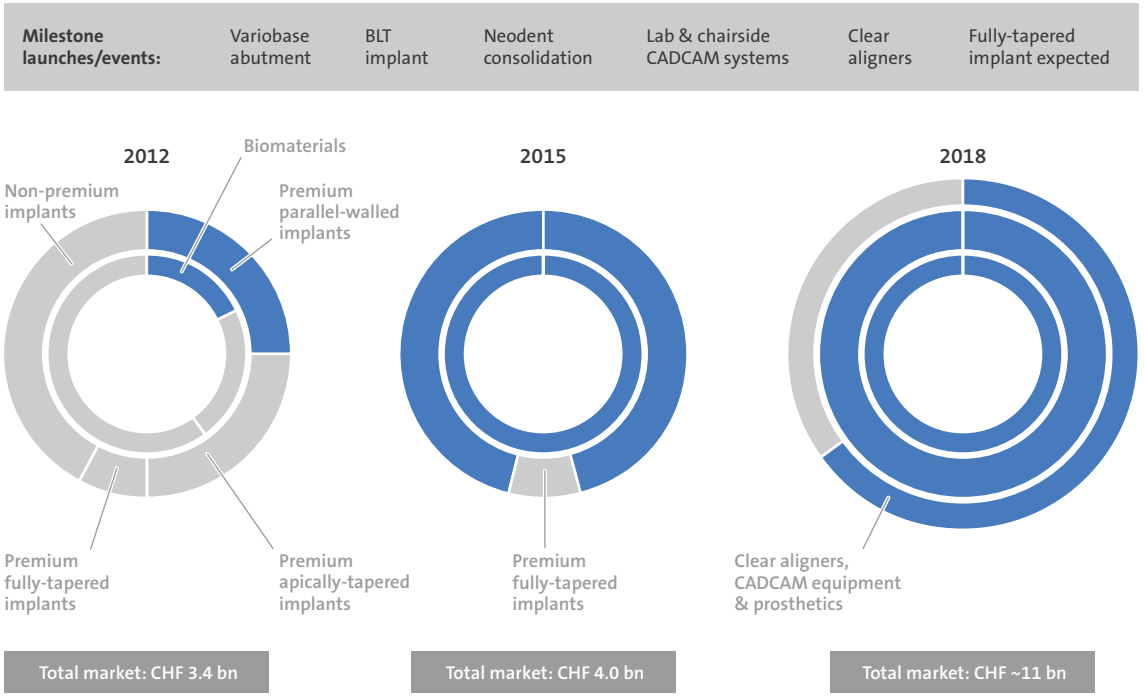


Source: World Statistics, Global Industry Analytics, Inc, 2016, company reports.

PLENTY OF POTENTIAL
IN MARKETS WORTH CHF 11 BILLION (in CHF million)



STRAUMANN GROUP'S EXPANDING ADDRESSABLE MARKET



In 2012, we focused on a market worth CHF 3.4 billion, of which we were able to address segments worth a total of just CHF 1 billion because our portfolio was limited to premium parallel-walled implants, standard CADCAM prosthetics and a limited range of biomaterials.

With the consolidation of Neodent in 2015 we stepped fully into the non-premium segment and our partnership with botiss and other partners gave us a complete portfolio of biomaterials. Straumann BLT and Neodent implants provided access to the large tapered-implant segment, while Variobase enabled us to compete in the fast-growing ti-base prosthetic market. By 2015, we had expanded our addressable market to CHF 4.0 billion and were addressing segments worth CHF 3.6 billion.

In the meantime, a series of partnerships and the addition of Dental Wings have provided us with a comprehensive digital equipment portfolio (scanners, mills, consumables and 3D printers) enabling us to offer full in-house solutions to labs and dental practices, in addition to our central milling service. These additions and our entry into the clear aligner business in summer 2017 have further increased our addressable market to CHF 11 billion, which we will be able to address almost fully when we add a fully tapered implant.

FOOTNOTES & REFERENCES

1 MarketsandMarkets 2014, Renub Research 2016 and Straumann estimates.
2 Decision Resources Group 2016-18, MarketsandMarkets 2013 and Straumann bottom-up estimates in 70 countries.
3 Population Reference Bureau (www.prb.org).
4 American College of Prosthodontists, 2016; www.gotoapro.org/facts-figures.
5 Exevia, 2014, based on market research data in Germany, Italy, Spain and the US.
6 Straumann proprietary survey.
7 2016 The Key Group Inc. and Straumann estimates.
8 Decision Resources Group Dental CADCAM Systems 2016, Frost & Sullivan 2017.
9 2016 The Key Group Inc.
10 Epidemiology of Malocclusion and Assessment of Orthodontic Treatment Need for Nepalese Children, V. Singh and A. Sharma, Int. Scholarly.
11 Global Industry Analyst Inc 2016; company reports; internal estimates.

Business performance
Group

STRONGEST GROWTH SINCE 2007

In 2017, the Group reported its strongest growth in ten years, as revenue climbed 21% in Swiss francs to CHF 1112 million. Fuelled by double-digit increases across all businesses, organic growth rose 16%, driven by North America and Asia/Pacific. Acquisitions and business combinations contributed CHF 32 million to revenue.

We achieved further improvements in profitability despite significant investments in new segments, geographic expansion, R&D, and production capacity. Underlying EBITDA and EBIT (operating profit) both rose 26%, with the respective margins reaching 29% and 26%. Net profit increased 20% to CHF 276 million, bringing the corresponding margin to 25% and earnings per share to CHF 17.61.

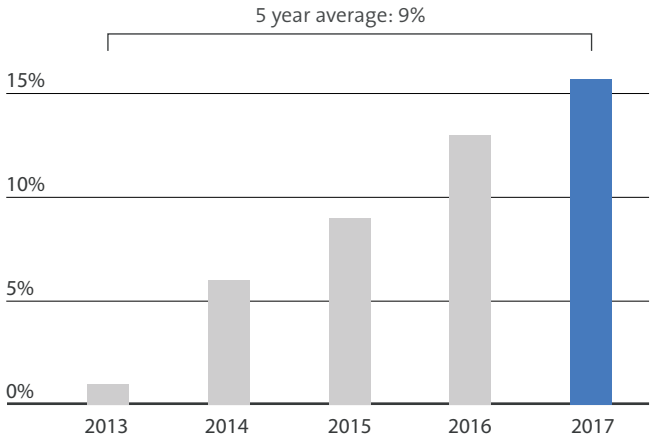
Revenue climbs 21% and exceeds CHF 1 billion.

KEY PERFORMANCE FIGURES

	2017		2016
	Reported	Excluding exceptionals[1]	Reported
Revenue (CHF m)	1 112		917.5
Gross profit margin (%)	75.6	75.8	78.3
EBITDA margin (%)	29.1	29.3	28.3
EBIT margin (%)	25.5	25.7	24.8
Net profit margin (%)	24.8		25.0
Free cash flow margin (%)	13.0		15.1

1 CHF 23 million gain related to the Medentika business combination (CHF 24 million after tax), including inventory revaluation expenses of CHF 2 million (COGS) and a CHF 25 million consolidation gain. The takeover of Dental Wings resulted in a consolidation gain of CHF 44 million. A loan revaluation led to an impairment expense of CHF 16 million in the financial result.

ORGANIC REVENUE GROWTH



All of our businesses achieved double-digit growth. Two thirds of the growth was generated by the implant business, where Straumann's BLT range as well as Neodent's Cone Morse and Acqua implants were the key drivers. Straumann's Roxolid and SLActive kept momentum and Titanium SLA enabled us to compete successfully in the lower premium segment.

In the non-premium business, Neodent, Medentika, Anthogyr and Zinedent all grew strongly and constitute the fastest growing international implant franchise. Spain, the UK, the US, Brazil and distributor markets were the main drivers. The combined package of complete premium and non-premium solutions has been a key to the success of our Dental Service Organization business, which grew strongly in Europe and won important tenders in the fast-growing corporate dentistry segment.

The combined package of complete premium and non-premium solutions has been a key to the success of our DSO business.

Our biomaterials continued to grow strongly. Demand was most notable for bone substitutes and membranes – especially in Europe, where the we offer a comprehensive portfolio of guided bone regeneration products.

Our restorative business achieved double-digit growth, driven by demand for implant-borne prosthetics (both standard and CADCAM). Straumann's cost-efficient, versatile Variobase range was also a major growth contributor. CADCAM screw-retained bars and bridges, ProArch edentulous solutions and the Novaloc fixation system for removable dentures all contributed to growth. Revenues from intraoral scanners and milling equipment accelerated as the year progressed, reflecting our efforts to offer complete end-to-end solutions.

Revenues from digital equipment accelerated, reflecting our efforts to offer complete end-to-end solutions.

OPERATIONS AND FINANCES

The business combinations of Medentika and Dental Wings led to the following non-cash-relevant effects in 2017:

- On 1 January, we consolidated Medentika. Our 51% stake was previously reported as 'share of results of associates', but now contributes to the financial statements at all levels. This business combination led to several one-time effects, which include inventory revaluation expenses of CHF 2 million under 'costs of goods sold' and a one-time gain of CHF 25 million below the EBIT line (see Note 3 on p. 165). In connection with this transaction, we further recognized a financial liability of CHF 55 million in the balance sheet to reflect the present value of the put option granted to the founding shareholders.
- In October 2017, we increased our stake in Dental Wings from 55% to 100% and consolidated the business. This led to a consolidation gain of CHF 44 million below the EBIT line.

DOUBLE-DIGIT VOLUME EXPANSION LIFTS GROSS PROFIT

Strong volume growth in premium and value implant solutions lifted reported gross profit by 17% to CHF 841 million. Excluding the exceptional inventory-adjustment charge, underlying gross profit was CHF 842 million and the respective margin reached 76%. This is 270 basis points lower than in the prior year period, reflecting the strong demand for digital equipment, the Medentika integration costs, a higher share of third-party products, the integration of acquired businesses, and ramp-up costs in the expanded facilities.

Strong volume growth in premium and value implant solutions lifted reported gross profit by 17%.

To cater for strong volume growth and to meet future demand, we invested significantly in production capabilities and capacity expansion in Brazil, the US and Switzerland, resulting in higher production costs.

OPERATING PROFIT (EBIT) MARGIN EXCEEDS 25%

Distribution costs, which comprise sales-force salaries and commissions, as well as logistics expenses rose by CHF 39 million to CHF 250 million as we incorporated the aforementioned businesses, invested further in our direct distribution network in underpenetrated markets, and expanded our non-premium franchise internationally. This figure includes amortization expenses of CHF 10 million mainly for customer-related intangible assets of acquired companies.

Administrative expenses increased from CHF 283 million in 2016 to CHF 311 million in 2017, which includes overheads, R&D and marketing costs for the newly-added businesses. Relative to sales, administrative expenses decreased 290 base points to 28%, which was the key driver of profit margin improvement.

To cater for strong volume growth we invested significantly in production capabilities and capacity expansion.

Earnings before interest, tax, depreciation and amortization (EBITDA), and exceptionals increased 25% to CHF 326 million, lifting the respective margin 170 base points to 29%.

After depreciation and amortization charges of CHF 40 million, our underlying operating profit amounted to CHF 286 million (CHF 284 million reported) compared with CHF 227 million in 2016. The underlying EBIT increased 90 base points to reach 26%.

NET PROFIT INCREASES 20%

Excluding exceptionals, the net financial result remained stable at a negative CHF 3 million, largely reflecting coupon payments for the outstanding CHF 200-million corporate bond. We recognized cumulative consolidation gains of CHF 69 million, mainly because the fair value of the investment in Medentika and Dental Wings exceeded the respective carrying amount. This exceptional effect is both cash and tax-neutral and is shown in a separate line in the income statement under 'Gain on consolidation of Medentika and Dental Wings'.

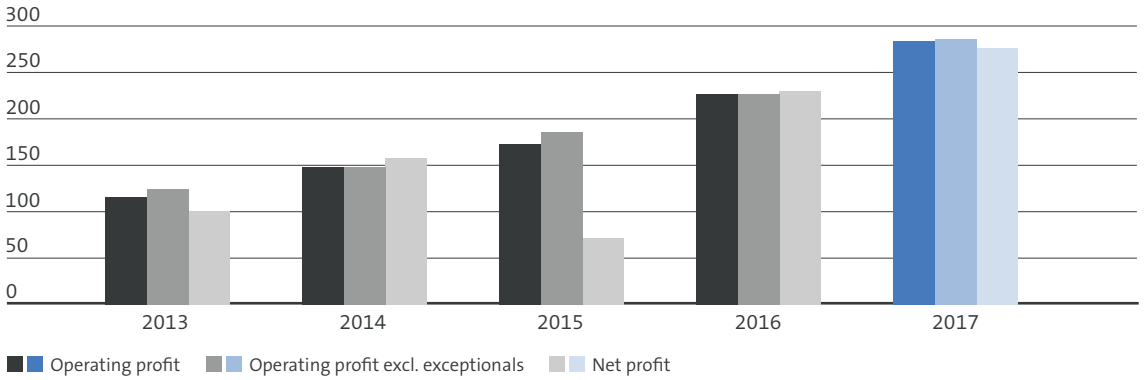
The share of results from associate partners[1] was a negative CHF 10 million compared with a negative CHF 2 million in 2016. The decrease mainly reflects this year's business combination of Medentika.

Income tax expenses amounted to CHF 48 million in contrast to the exceptional tax income of CHF 7 million in 2016. The sale of treasury shares in September in the amount of CHF 260 million resulted in a one-time tax expense of CHF 8 million. Going forward, the tax rate is expected to be approximately 15%.

The combination of these effects meant that net profit increased 20% to CHF 276 million, with the corresponding margin amounting to 25%. Basic earnings per share increased by nearly CHF 3 to CHF 17.61. Return on equity (ROE) amounted to 32%, and the company is (net) debt-free.

EBIT margin clears 25% for the first time since 2010.

OPERATING AND NET PROFIT (in CHF million)



FREE CASH FLOW CLIMBS TO CHF 145 MILLION

Cash flow from operations increased 18% to CHF 217 million, reflecting a strong cash conversion rate of 79%[2]. Cash generation was constrained by higher inventory levels due to our newly-created subsidiaries, extension of the product portfolio and the product range. The dynamic topline growth in emerging and distributor markets led to an increase in accounts receivable. Days of sales outstanding increased by one to 56. We invested heavily in capacity expansion at various production sites, increasing CAPEX by CHF 27 million to CHF 73 million. The combination of these effects resulted in a free cash flow of CHF 145 million and a respective margin of 13%.

Due to the expansion of our business volume, production capacity, distribution network and acquisition activities, the balance sheet total increased 54% to CHF 1.7 billion by year-end.

FURTHER DIVIDEND INCREASE PROPOSED

Based on the results in 2017 and the outlook for 2018 and beyond, the Board proposes a further dividend increase to CHF 4.75 per share, payable on 12 April 2018. Going forward, the Board's intention is to increase the dividend per share continuously, subject to further good performance.

OUTLOOK 2018

(BARRING UNFORESEEN CIRCUMSTANCES)

We expect the global dental market to grow at about 4% and are confident that we can continue to outperform and expand our share by achieving organic revenue growth in the low double-digit percentage range. Assuming fairly stable currency exchange rates, the expected organic revenue growth and operational leverage should lead to further improvements in the EBITDA margin, in spite of further investments in Sales & Marketing, Research & Development, and Logistics. With the continued high level of investments in production capacity, as well as the amortization of acquisition-related intangibles, we expect our EBIT margin to remain stable.

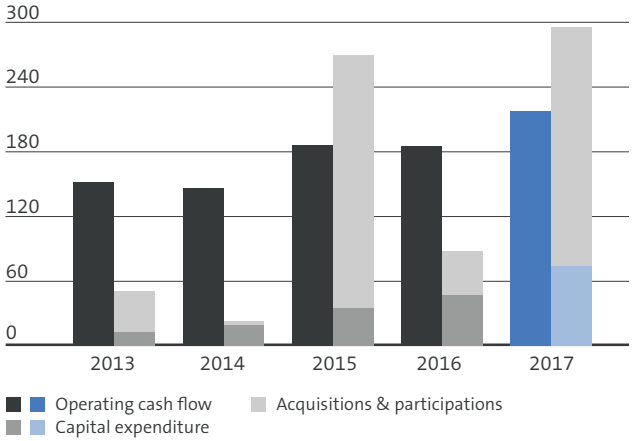
SUMMARY OF MAIN INVESTMENTS

INVESTMENTS IN THE NON-PREMIUM SEGMENT

One of the Group's strategic priorities is to penetrate the fast-growing non-premium segment. Having acquired a 51% stake in Medentika (the German provider of prosthetics for leading implant systems) in 2013, we signed a new shareholder agreement with the founding shareholders to obtain control over the company as of 1 January 2017. This did not involve additional investment as our stake remained unchanged.

Net profit rises 20% to CHF 276 million.

CASH FLOW AND INVESTMENTS (in CHF million)



Solid cash flow despite investments.

INVESTMENTS TO STRENGTHEN EXISTING PARTNERSHIPS

In 2017, we invested CHF 9 million to increase our stake in Rodo Medical Inc. from 12 to 30%. Rodo is a privately-held US company that develops and produces innovative retention devices for dental implant restorations. We also obtained broad exclusive distribution rights and a call option to increase our stake to 51% in 2021.

INVESTMENTS IN PRODUCTION

To meet the strong increase in demand for our products, we invested approximately CHF 43 million in our production plants in Switzerland, the US and Brazil. The latter included additional production space and a new distribution center.

INVESTMENTS IN FORMING THE DIGITAL BUSINESS

To accelerate the development of digital platforms and equipment we increased our stake in Dental Wings Inc. from 55% to full ownership. We entered the field of orthodontics by acquiring 100% of ClearCorrect and 38% of Geniova and we purchased a 35% stake in Rapid Shape GmbH, a leader in 3D-printing technologies, as well as 100% of Loop Digital Solutions, a software developer in patient referral management. Collectively, these investments totalled approximately CHF 215 million.

Approximately CHF 215 million invested in forming the digital business.

OTHER INVESTMENTS

The International Team for Implantology (see p. 74) is Straumann's longstanding academic partner and shares our goal of developing optimal treatment solutions to the benefit of patients. In 2017, we supported the ITI with total investments of approximately CHF 11 million (2016: CHF 11 million).

Investments in people (training and development) are covered in the Employees section of this report. Information on investments in distribution, including selling activities as well as research, development, intangible and tangible assets and our investment in organizations like the ITI are presented in our financial report.

FOOTNOTES & REFERENCES

1 Associate companies in 2017 comprise: maxon dental, Geniova, Rodo Medical, Createch, Anthogyr, Rapid Shape, T-Plus, Valoc, V2R, Abutment Direct, and Zinedent. The equity method of accounting is applied for these companies, in which Straumann holds a non-controlling stake. The associate result is shown net-of-tax and after amortization of intangibles.

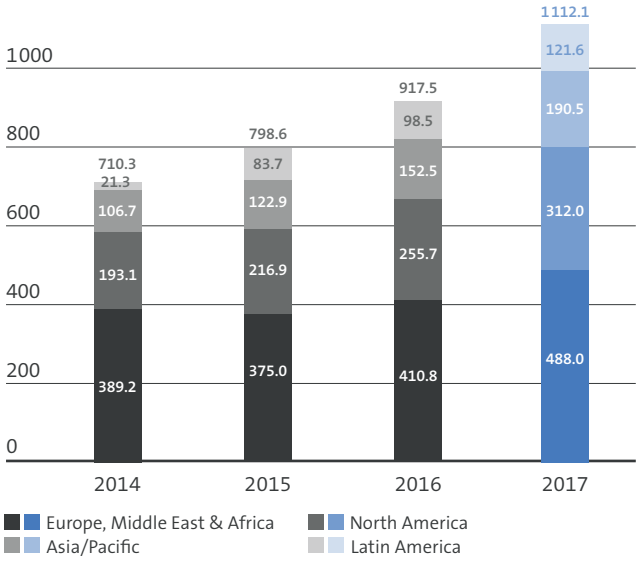
2 Relationship between operating cash flow and net profit.

Business performance
Regions

Throughout 2017, we outperformed the market significantly and gained share in all regions. The Group's strong performance was led by dynamic growth in North America and Asia/Pacific – which was our fastest growing region. Latin America's continuing growth shone out against a background of economic difficulty and sluggish markets. Our largest region, EMEA, performed very well and posted double-digit growth both in Swiss francs and organically for the first time in a decade.

To support future growth, we expanded our local presence (e.g. in Russia), incorporated distributors, established subsidiaries (e.g. in Iran and India), obtained key registrations (e.g. in China and Russia) and launched a host of new products.

REGIONAL SALES PERFORMANCE BY YEAR (in CHF million)



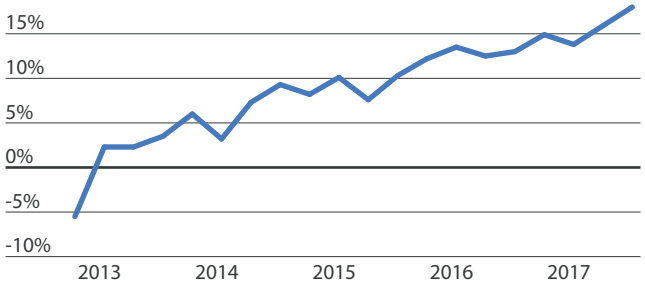
REGIONAL SALES PERFORMANCE BY QUARTER

(in CHF million)

	Q1	Q2	Q3	Q4	Total 2017	Total 2016
Europe, Middle East & Africa	121.1	123.1	107.1	136.6	488.0	410.8
Change in CHF %	12.3	13.8	20.3	29.3	18.8	9.5
Change (organic[1]) in %	10.1	9.9	9.9	15.0	11.3	9.1
As a % of Group revenue					43.9	44.8
North America	73.8	75.5	72.1	90.7	312.0	255.7
Change in CHF %	19.0	16.9	16.7	34.5	22.0	17.9
Change (organic[1]) in %	17.2	17.2	17.0	22.7	18.7	15.6
As a % of Group revenue					28.1	27.9
Asia/Pacific	46.0	47.0	45.7	51.8	190.5	152.5
Change in CHF %	29.5	18.5	25.8	26.3	24.9	24.1
Change (organic[1]) in %	25.7	19.4	27.9	22.1	23.6	19.7
As a % of Group revenue					17.1	16.6
Latin America	25.4	31.6	33.0	31.7	121.7	98.5
Change in CHF %	45.0	21.9	23.5	12.0	23.6	17.6
Change (organic[1]) in %	15.3	12.8	18.9	11.6	14.6	14.6
As a % of Group revenue					10.9	10.7
TOTAL	266.3	277.1	257.9	310.8	1112.1	917.5
Change in CHF %	19.5	16.3	20.6	28.2	21.2	14.9
Change (local currencies) in %	17.8	16.5	18.8	25.5	19.8	13.9
Change (organic) in %	14.9	13.8	15.9	18.0	15.7	13.1

1 Excluding the effects of currencies and acquisitions/business combinations (i.e. Medentika, Equinox, Dental Wings, and ClearCorrect).

FIVE-YEAR QUARTERLY REVENUE GROWTH (ORGANIC)



Europe, Middle East & Africa

- FIRST YEAR OF DOUBLE-DIGIT-GROWTH IN SEVERAL YEARS: Against a backdrop of sluggish growth in Europe's largest markets, the Group outperformed significantly and achieved double-digit revenue growth in almost all countries.

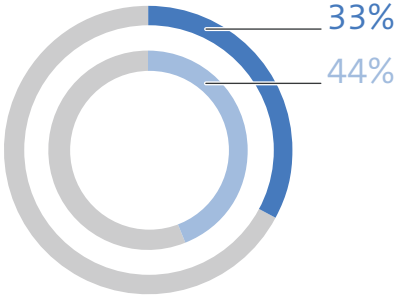
- UNPRECEDENTED NUMBER OF LAUNCHES: We used the International Dental Show in March to introduce an exceptionally large number of new products both in our premium and non-premium businesses, which we subsequently launched and rolled out during the year. They added to the strong underlying growth that was driven in particular by Straumann's Roxolid, SLActive, BLT and Variobase lines. Digital sales were particularly strong, boosted by the new intraoral scanners, milling machines and 3D-printers.

- FURTHER GAINS IN THE NON-PREMIUM SEGMENT: Our Neodent, Medentika and Zinedent brands broadened their reach and made further gains in the non-premium segment. For example, Medentika's attractively-priced implants and prosthetics were successfully launched in Turkey.

- EXPANSION IN EASTERN EUROPE AND MIDDLE EAST: Growth accelerated in Eastern Europe and in the Middle East, despite socioeconomic uncertainty. The main drivers were Russia, where we invested in additional staff and sales offices, as well as Iran, where we took over distribution, and in Turkey, where we launched Medentika. In the latter two alone, more than 600 000 implants are placed annually, which offers us a considerable opportunity. We also announced agreements to acquire Same Day Solutions (SDS), a dental distribution company in Portugal, and our distributor in South Africa, and will close both deals early in 2018.

PRESENCE IN EUROPE, MIDDLE EAST & AFRICA

CONTRIBUTION TO GROUP



ORGANIC GROWTH

+11%

CHANGE IN CHF

+19%

REVENUE

CHF 488m

GROUP'S LARGEST REGIONAL MARKETS IN 2017

1. Germany
2. Italy
3. Spain

North America

- INNOVATION DRAWS MANY LARGE CUSTOMERS: Our team in North America successfully pursued a strategy of targeting large competitor accounts and attracted well over a thousand new customers in 2017. In addition, we increased our share of wallet with existing customers who use more than one implant supplier. Many new customers were attracted through innovative products like Straumann's small-diameter BLT implant, the Straumann Bone Ring allograft, and digital equipment including our chairside milling machine and Dental Wings' intraoral scanner.

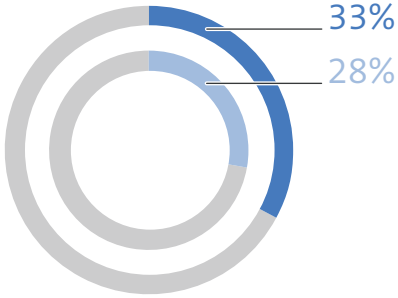
- KEY DRIVERS: STRAUMANN BLT AND VARIOBASE, NEODENT AND DIGITAL EQUIPMENT: Incremental revenue from the aforementioned products, the continuing uptake of Straumann's BLT and Variobase ranges, and the strong performance of Neodent contributed to accelerated organic growth as the year progressed.

- ADDRESSING SIGNIFICANT NEEDS THROUGH ENTRY INTO THE ATTRACTIVE ORTHODONTICS FIELD: Of the three million orthodontic cases treated in the North America in 2016, approximately a quarter received clear-aligner solutions[1]. ClearCorrect in Texas provides us with a firm foothold in this attractive growth market. Similarly, the acquisition of Dental Wings in Canada opens opportunities in the fast-growing area of digital dentistry. Both enable us to offer new levels of patient care and to advance our strategy to become a total solution provider in esthetic dentistry.

1 Sources: Global Industry Analyst Inc.: Orthodontic Supplies/A global strategic business report 2016; company reports; internal estimates.

PRESENCE IN NORTH AMERICA

CONTRIBUTION TO GROUP



ORGANIC GROWTH

+19%

CHANGE IN CHF

+22%

REVENUE

CHF 312m

GROUP'S LARGEST REGIONAL MARKETS IN 2017

1. USA
2. Canada

Asia/Pacific

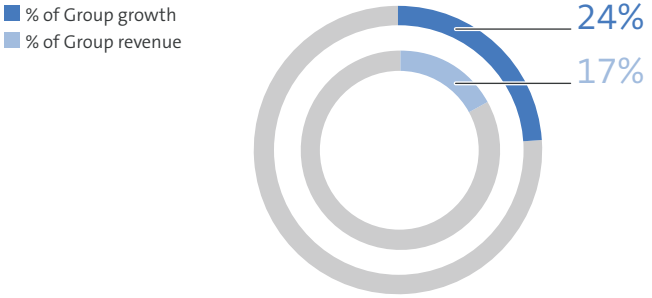
- SUSTAINED DYNAMIC PERFORMANCE POWERED BY CHINA AND JAPAN: Asia/Pacific posted another year of dynamic growth fuelled by its largest market, China, which was driven by the dynamic premium market, sales force expansion, and an increasing presence in the value segment with Anthogyr.

- IMPRESSIVE LAUNCH EVENTS DRAW THOUSANDS OF PARTICIPANTS: As the year drew to a close, we gained registration in China and launched a number of key products, including Straumann BLT, Roxolid and SLActive. The launch event included a 3-day innovation summit symposium held concurrently in four cities, which attracted 1000 visitors onsite and 13 000 online. Although China is one of seven markets in the world where more than a million dental implants are placed annually, penetration is low and we see considerable growth potential. We also obtained approvals for BLT, Roxolid and SLActive in India, where the launch event in Mumbai attracted 600 onsite visitors.

- FURTHER SHARE GAINS – SET FOR FUTURE GROWTH: Robust implant and scanner sales fueled regional growth elsewhere. We extended our leadership position in Japan, posting double-digit growth there and in South Korea and Australia. Equinox in India and our new subsidiary in Singapore also contributed to regional expansion and are set for growth.

PRESENCE IN ASIA/PACIFIC

CONTRIBUTION TO GROUP



ORGANIC GROWTH

+24%

CHANGE IN CHF

+25%

REVENUE

CHF 190m

GROUP'S LARGEST REGIONAL MARKETS IN 2017

1. China
2. Japan
3. Australia

Latin America

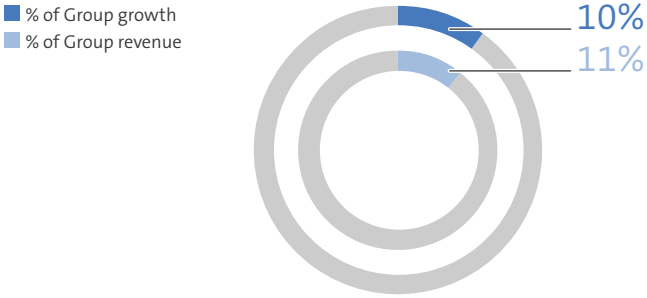
- ROBUST PERFORMANCE DESPITE WEAK BRAZILIAN MARKET: The Group achieved strong double-digit growth in Latin America despite the economic situation and general weakness in parts of the region. In Brazil, both Straumann and Neodent delivered double-digit growth and gained new customers. We strengthened our sales team, added new stores to our countrywide network and significantly expanded Neodent's production capacity.

- UNDETERRED IN MEXICO, BLOOMING IN ARGENTINA, COLOMBIA & CHILE: Mexico enjoyed a wave of strong growth driven by substantial customer acquisitions. The severe earthquake in September interrupted life in general but has not significantly affected our progress. Our young subsidiaries in Argentina, Colombia, and Chile are fully fledged and delivered excellent results. To complement them, we established a subsidiary in Peru, which will open in the first half of 2018.

- GM – NEODENT'S MOST SIGNIFICANT DEVELOPMENT TO DATE: At the IN-Congress in São Paulo in August, we launched Neodent's innovative Grand Morse (GM) fully-tapered implant system in Brazil. Supported by excellent 1-year clinical data, GM attracted 200 new customers in its first month on the market and is expected to supersede the Cone Morse in the next two years, becoming Neodent customers' preferred choice.

PRESENCE IN LATIN AMERICA

CONTRIBUTION TO GROUP



ORGANIC GROWTH

+15%

CHANGE IN CHF

+24%

REVENUE

CHF 122m

GROUP'S LARGEST REGIONAL MARKETS IN 2017

1. Brazil
2. Mexico
3. Argentina

Business Performance
Financials

FIVE-YEAR OVERVIEW – OPERATING PERFORMANCE

(in CHF million)

	2013	2014	2015	2016	2017
Net revenue	679.9	710.3	798.6	917.5	1 112.1
Growth in %	(0.9)	4.5	12.4	14.9	21.2
Gross profit	535.9	558.7	614.9	718.5	840.5
Margin in %	78.8	78.7	77.0	78.3	75.6
Operating result before depreciation and amortization (EBITDA)	148.4	176.2	207.6	259.2	323.5
Margin in %	21.8	24.8	26.0	28.3	29.1
Growth in %	24.3	18.7	17.8	24.9	24.8
Operating result before amortization (EBITA)	122.6	153.1	182.0	236.3	298.6
Margin in %	18.0	21.5	22.8	25.8	26.9
Growth in %	33.9	24.9	18.9	29.8	26.3
Operating profit (EBIT)	115.8	148.3	172.6	227.2	283.6
Margin in %	17.0	20.9	21.6	24.8	25.5
Growth in %	83.6	28.1	16.4	31.6	24.9
Net profit	101.2	157.8	71.5	229.6	275.6
Margin in %	14.9	22.2	9.0	25.0	24.8
Growth in %	169.8	56.0	(54.7)	221.1	20.0
Basic earnings per share (in CHF)	6.55	10.15	4.52	14.68	17.61
Value added / economic profit[1]	52.7	113.7	27.1	182.2	208.4
Change in value added	60.4	59.3	(86.6)	155.1	26.2
Change in value added in %	785.3	109.2	(76.2)	572.5	14.4
as a % of net revenue	7.8	16.0	3.4	19.9	18.7
Number of employees (year-end)	2 217	2 387	3 471	3 797	4 881
Number of employees (average)	2 308	2 302	3 232	3 615	4 305
Sales per employee (average) in CHF 1 000	295	309	247	254	258

1 Figures as reported in the financial reports.

FIVE-YEAR OVERVIEW – FINANCIAL PERFORMANCE

(in CHF million)

	2013	2014	2015	2016	2017
Cash and cash equivalents	383.8	459.4	318.3	164.0	281.8
Net Cash (Net Debt)	180.8	255.1	117.2	(36.9)	23.2
Net working capital (net of cash)	57.3	64.9	63.3	123.9	187.7
as a % of revenue	8.4	9.1	7.9	13.5	16.9
Inventories	62.3	69.2	76.1	102.0	152.1
Days of supplies	161	149	155	171	174
Trade receivables	93.2	106.8	125.2	148.9	191.9
Days of sales outstanding	49	51	53	55	56
Balance sheet total	1 019.7	1 160.8	1 046.3	1 089.9	1 678.4
Return on assets in % (ROA)	11.4	14.5	6.8	21.5	19.9
Equity	631.4	736.8	605.0	633.7	1 069.9
Equity ratio in %	61.9	63.5	57.8	58.1	63.7
Return on equity in % (ROE)	16.4	23.1	11.8	37.1	32.4
Capital employed	162.3	142.9	341.8	476.2	889.4
Return on capital employed in % (ROCE)	66.2	97.2	50.5	55.5	41.5
Cash generated from operating activities	151.5	146.2	185.6	184.7	217.3
as a % of revenue	22.3	20.6	23.2	20.1	19.5
Investments	(50.6)	(22.8)	(44.5)	(87.9)	(295.5)
as a % of revenue	7.4	3.2	5.6	9.6	26.6
thereof capital expenditures	(12.6)	(18.8)	(35.2)	(46.7)	(73.4)
thereof business combinations related	0	(4.0)	4.9	(25.5)	(178.8)
thereof investments in associates	(38.0)	0	(14.2)	(15.7)	(43.3)
Free cash flow	139.2	128.4	151.1	138.7	144.7
as a % of revenue	20.5	18.1	18.9	15.1	13.0
Dividend	58.2	58.6	63.2	65.1	75.1[1]
Dividend per share (in CHF)	3.75	3.75	4.00	4.25	4.75[1]
Pay-out ratio in % (excluding exceptionals)	53.3	37.1	43.4	35.6	31.4

1 To be proposed to the shareholder's AGM in 2018.

Share performance
74% total shareholder return – beating the benchmark

With the share price rising 73% in 2017, Straumann Group was one of the three top performing shares in the SMIM index (consisting of the 30 largest midcap stocks in Switzerland) and ranked 17th among the largest 600 listed companies in Europe.

Over the past five years, Straumann has outperformed the SMIM by approximately 20% p.a., reflecting the change in strategy, market share gains, increased sales momentum, enhanced profitability, replenished product pipeline and expanded addressable market. The share price development also reflects strong growth in investor confidence fuelled by performance consistency and the company's ability to deliver on its promises.

In 2017, total pre-tax shareholder return amounted to 74% or CHF 295 per share. The average daily closing share price in 2017 ranged from CHF 395 to CHF 733, with the year-end closing price at CHF 689. Average stock exchange trading volumes in 2017 increased 22% year-on-year to 47 200 Straumann shares, which is good in view of the limited free-float and steady increase of volumes traded via multilateral trading facilities.

STOCK EXCHANGE INFORMATION

Listing	SIX Swiss Exchange (STMN)
Bloomberg	STMN SW
Reuters	STMN.S
Investdata	STMN
Ex date	10 April 2018
Payment date	12 April 2018
Security ID	001 228 007
ISIN	CH 0012 280 076

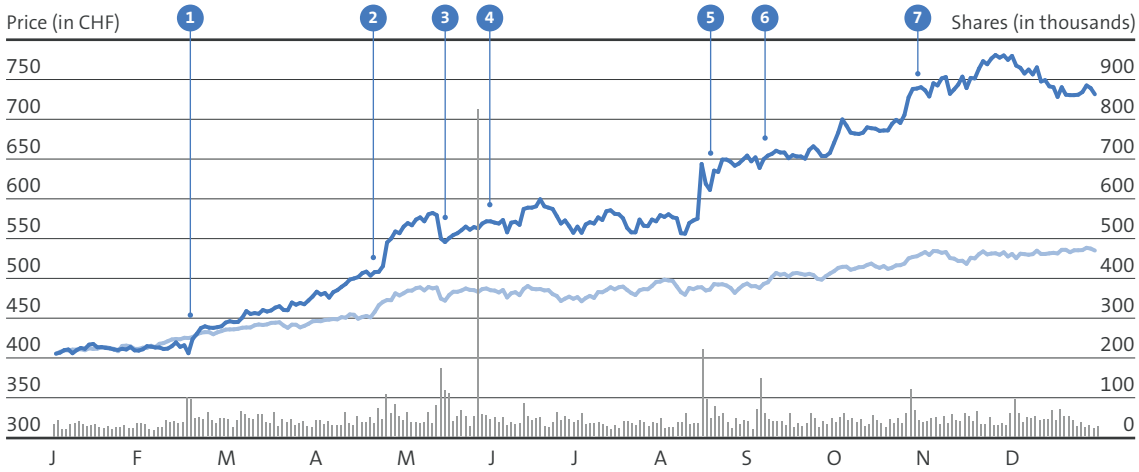
SHARE PRICE DATA

(in CHF)

	2017		2016	
	Value	Date	Value	Date
First trading day	394.50	3 Jan	249.90	04 Jan
Lowest[1]	394.50	3 Jan	281.00	11 Feb
Highest[1]	733.00	24 Nov	405.25	23 Aug
Last trading day (tax value)	688.50	29 Dec	397.50	30 Dec
Average	553.50		357.54	
Total shareholder return, gross of tax	74.3%		31.6%	
Share price performance	73.2%		30.3%	
Market capitalization at year end (CHF million)[2]	10 887		6 092	

1 Value reflects closing price.
2 Treasury shares are excluded from calculation.

SHARE PRICE DEVELOPMENT



1 17 Feb Further operational progress announced at full-year results publication

2 24 Apr After strong Q1 results Straumann raised its full-year guidance

3 17 May Singapore's sovereign wealth fund GIC sells remaining 0.54 million Straumann shares

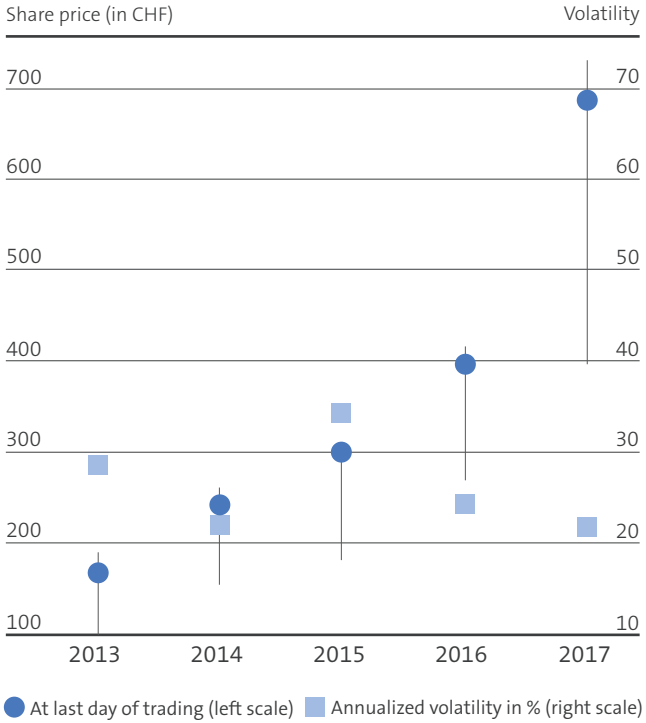
4 31 May Straumann share added to the MSCI Switzerland index

5 17 Aug Group published convincing 1H17 results and announced entry into clear-aligner market

6 6 Sep Group generates CHF 260 million cash from sale of treasury shares to finance strategic acquisitions/investments

7 30 Oct Strong Q3 organic growth of +16%; Straumann raises full-year outlook

TRADING INFORMATION



Risk management
A globally standardized process

The Straumann Group applies a globally standardized process for identifying and managing possible developments within or outside the Group that could jeopardize the Group's sustained growth, profitability and objectives.

The management of opportunities and risks is an integral part of corporate governance and sustainability. We are committed to implementing appropriate controls, processes and strategies to identify, assess and manage risks associated with our activities in order to prevent or minimize the impact of unexpected events on our business and our ability to create value.

RESPONSIBILITIES AND ORGANIZATION

Risk monitoring and control are management objectives. At Straumann, the Chief Financial Officer is also the Chief Risk Officer (CRO) and is responsible for risk management. Our risk assessment and management is embedded in a comprehensive internal control framework, which we address through a holistic, disciplined and deliberate approach.

Our approach matches that of the COSO (Committee of Sponsoring Organizations of the Treadway Commission), whose integrated internal control framework is one of the most widely used. For identified risks that arise from accounting and financial reporting, relevant control measures are defined throughout Straumann's Internal Control System (ICS) framework.

Various tools and aids are used to assess and manage risks. For instance, foreign exchange risks are managed with an SAP Treasury tool, while external consultants are used on a regular basis to assess insurance coverage risks.

RISK REPORTING

A comprehensive corporate risk assessment report is produced annually (and ad hoc as necessary) and serves as a working document for the coming year. It includes key risks that are critical for the Group's business.

RISK MANAGEMENT APPROACH

Straumann's risk assessment takes into account:
• Operational risks
• Strategic risks
• Compliance-related risks
• Financial market risks
• Other internal risk factors
• Other external risk factors

CORPORATE RISK ASSESSMENT REPORT

The report covers the following topics:
• Risk description
• Assessment of possible damage
• Occurrence probability
• Risk monitoring and counteracting measures

A specific scenario is developed for each risk topic, including existing and new measures and controls. The risks are ranked and prioritized. Action plans are defined and the implementation of measures to reduce risk is monitored.

The significance of a risk scenario is estimated in terms of EBIT cumulated over three years. Certain risks are assessed according to qualitative criteria, e.g. risks to the Group's reputation.

The reporting of key risks is based on fixed value limits. Pressing risks that emerge very rapidly are discussed by the Board at short notice.

INTERNAL AUDIT

The task of Internal Audit is to provide independent assurance to the Board of Directors that key risks of the organization are under control and to support Management in ensuring compliance, operational efficiency and control effectiveness across the Group. Acting in a consulting role, its main tasks are to assess internal processes and controls, propose improvements, and assist in their implementation. The objective is to safeguard the Group's tangible and intangible assets and to evaluate the effectiveness of its risk management and governance processes.

As of July 2017, KPMG was mandated with the Internal Audit function at Straumann (see p. 124 f.). The CFO/CRO is the administrative contact person. In 2017, four internal audits were performed by KPMG at global and local levels according to the audit program approved by the Audit Committee of the Board of Directors.

RISK ASSESSMENT

STRATEGIC RISK

MARKET ENVIRONMENT

Straumann is active in specialty segments of the dental industry. Based on the aging population, the rising number of professionals trained, and increasing awareness, there are no discernible reasons why these segments should not continue to offer attractive growth prospects in the long term (see p. 35 ff.). However, the economic uncertainties seen in recent years might continue for some time and affect the prospects of market growth.

RISK ASSESSMENT REPORT PROCESS

Step	Execution
Preparation	Chief Risk Officer (CRO)
Discussion	Executive Management Board
Risk assessment & discussion based on report	Audit Committee with CRO/ Senior Management
Key findings presented to Board	Chief Risk Officer (CRO)

Our future revenues depend on market reach and expansion as well as on our ability to defend and increase our business with existing customers, to enlarge our customer base, to develop innovative solutions that meet customers' needs and bring them to market in a timely manner.

New market entrants and price pressure from discounters pose a potential threat to established companies like ours. We conduct analyses of competitors based on our own and external market intelligence to counteract such risks and to evaluate our opportunities. One example of managing this risk in 2017 is our continued expansion strategy into the non-premium segment (see p. 25).

OPERATIONAL RISK

LEGAL RISKS

We operate in a competitive market, in which legal compliance, solid agreements and intellectual property rights are of significant importance.

In 2017, the Straumann Group was involved in important IP disputes against Nobel Biocare, which are still ongoing. The Group is also involved in a dispute with Dentsply Sirona regarding a patent infringement action filed in the Federal District Court of Delaware. Straumann successfully initiated an Intellectual Property Right case at the US Patent Trial and Appeal Board, but Dentsply Sirona appealed against the decision in the US Federal Circuit Court of Appeals and the case is still pending.

Our newly acquired company Clear Correct is involved in a patent litigation initiated by Align Technologies as well as a commercial litigation initiated by CapNet, who requests a conversion of its warrants into shares. ClearCorrect is vigorously defending both suits.

CYBER SECURITY RISK

Reliable, correct and safe handling of information is essential to our business. IT risk and security management are therefore an integral part of the Group's IT strategy. The main objectives are:

- To achieve business goals while reducing IT risks through security controls and by creating awareness among employees and management.
- To safeguard sensitive data and to protect and guarantee the integrity of the Group's digital assets and infrastructure worldwide.
- To ensure the availability of IT services (applications and systems) as required by business processes and stakeholders.

Our future revenues depend on market reach, expansion and our ability to:

- **defend/increase our business with existing customers**
- **enlarge our customer base and**
- **develop and successfully commercialize innovative solutions.**

The Group has established an IT risk and security management framework derived from widely used industry standards, such as GMP, COBIT and the ISO/IEC 27000 series, to manage cyber and IT security risks, threats and controls, taking ethical, legal, economic and social principles into consideration.

The IT risk and security management committee approves and adopts the information security strategy as well as essential business critical implementations. The committee meets three times a year and includes the CFO/CRO, the Head of Corporate Process Excellence and Applications (CPEA), the Head of Corporate Information and Communication Technologies (ICT), and the IT Risk & Security Manager, who is responsible for

- Assessing IT security threats and their business value
- Mitigating IT risks (including data loss and corruption)
- Evaluating IT service continuity plans
- Verifying the effectiveness and efficiency of IT security controls and hardening IT assets security
- Improving IT security awareness for all employees
- Maintaining security policies, procedures and supporting standards in alignment with (core) business processes
- Establishing IT security key performance indicators and reporting structures.

MANUFACTURING AND SUPPLIER RISK

The Group has spread its manufacturing risk by establishing production centers for key products on different continents. The significant expansion of Neodent's production facilities in South America in 2017 as well as the establishment of two CADCAM facilities in Asia helps to mitigate this risk.

With regard to suppliers, we pursue a second source strategy, which offers a high degree of independence from single suppliers. Both Straumann and Neodent production facilities keep about a year's stock of titanium, the key material for our implant systems, to avoid any bottleneck in the supply/demand chain.

ETHICAL SUPPLY CHAIN

Adherence to ethical behavior (through our Code of Conduct) is not only expected from our employees. Our 'Code of Conduct for Suppliers', which was revised in 2016, refers to working conditions, human rights protection, business ethics, legal compliance, and environmental

The Group has established an IT risk and security management framework to manage cyber and IT security risks.

protection in the supply chain. A signed copy of the Code is requested especially in instances where a potential conflict has been identified, e.g. for raw material suppliers in countries where child labor might be an issue. Almost all of our principal raw material suppliers have signed the Code.

PRODUCT RISK AND TREATMENT OUTCOME

We seek to minimize product risks by using state-of-the-art techniques for product risk management and always conduct long-term product surveillance. These processes are frequently reviewed by regulatory agencies to confirm that they meet internationally recognized standards. Furthermore, we conduct large-scale trials under real-life conditions, followed by controlled, selective introductions wherever appropriate. We also offer a comprehensive range of education courses at all levels in all countries where our products are sold.

FINANCIAL RISK (SEE ALSO FINANCIAL REPORT)

EXCHANGE RATE RISK

As the majority of our business is international – and because we prepare our financial statements in Swiss francs, fluctuations in exchange rates affect both the Group's operating results and the reported values of its assets and liabilities.

Straumann's Corporate Treasury is responsible for managing the risks created by currency fluctuations within the Group, following the scope of the policy approved by the Executive Management Board and the Audit Committee of the Board of Directors.

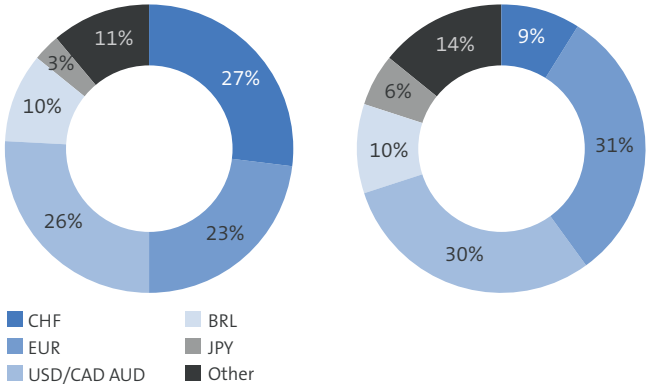
The major foreign currencies in Straumann's business are the euro, the US dollar, the Brazilian real, the Chinese renminbi and the Japanese yen. Straumann invoices its subsidiaries in local currencies and its distributors mainly in euros and US dollars. Each subsidiary invoices its local third-party customers in the local currency. Applying this concept, the major foreign currency risk is at headquarters.

The Group is exposed to transactional and translation risks. Hedging decisions are taken by the Corporate Treasury with subsidiaries being co-responsible for identifying currency exposures and informing headquarters.

The key objective is to limit the foreign currency transactional exposure of the Group. Transactional risk arises when the currency structure of the Group's costs and liabilities deviates to some extent

We use state-of-the-art techniques for product risk management and always conduct long-term product surveillance.

COST (LEFT) AND REVENUE (RIGHT) BREAKDOWN – MAJOR CURRENCIES

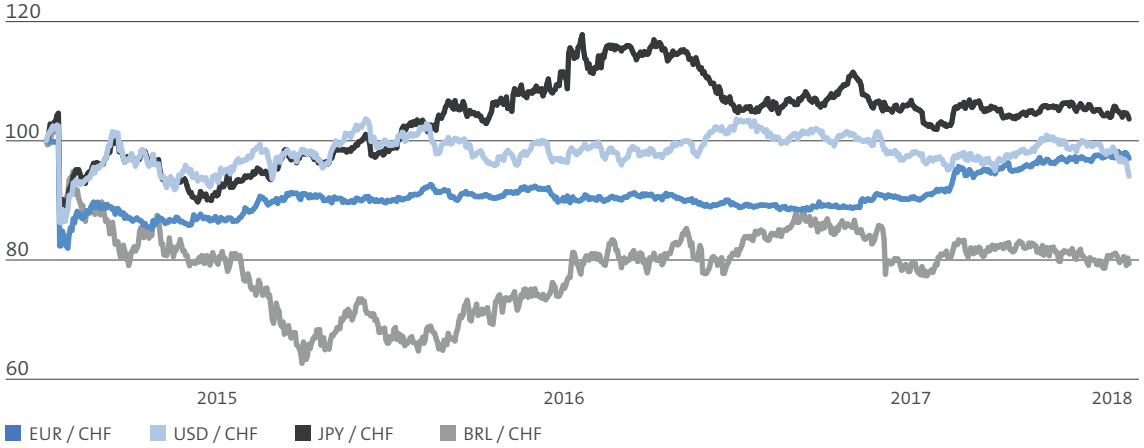


Allocation of cost of goods sold, distribution and administrative expenses (left) and net revenues (right) across the various currencies. All numbers are rounded approximations.

from the currency structure of the sales proceeds and assets, as well as from imbalances in the payment streams between the various currencies. Straumann hedges these risks by means of spot, forward transactions and in rare cases with options based on the principles stated in the Treasury Policy. The limitation and management of the translation exposure is a secondary priority.

The Group's gross transactional booked exposure (TBE) at year-end is presented in the table on the right.

CURRENCY CHART (DOLLAR, EURO, YEN, REAL)



GROUP CURRENCY BREAKDOWN & GROSS TRANSACTIONAL BOOKED EXPOSURE (TBE; at year end)

	Sales	Cost	TBE
EUR	31%	23%	32%
USD/CAD/AUD	30%	26%	33%
JPY	6%	3%	14%
BRL	10%	10%	1%
Others	23%	38%	21%

CREDIT RISK

Credit risks refer to the ability of our customers to settle their obligations as agreed. There are no significant concentrations of credit risk within the Group.

COUNTERPARTY RISK

Counterparty risk encompasses issuer risk on marketable securities, settlement risk on derivative and money-market contracts, and credit risk on cash and time deposits. Exposure to these is closely monitored and kept within predetermined parameters.

Further information on financial risk management is provided in Notes 29 and 30 (see p. 187 ff.) of the consolidated financial statements.

INSURANCE POLICIES

The Group covers its inherent key business risks in the same way that it covers product or employer liability risks and property loss through corresponding insurance policies held with reputable companies.

PENSION LIABILITY RISKS

The Group offers its staff competitive pensions. The pension funds are managed locally and invested by independent financial institutions. The investment strategy of the Swiss pension fund, which represents the largest pension plan of the Group, is determined by the Group's Pension Fund Commission and is executed by the financial institution. Neither Straumann nor the trustees are allowed to influence the specific investment decisions. The pension funds publish regular reports for all members.

COMPLIANCE RISK

It is essential for Straumann to ensure that the company in general and its employees individually conduct business in a legal, ethical and responsible manner. To this end, we implemented a Code of Conduct in 2006 (see p. 80).

All employees are required to report any breach of this internal policy to the Compliance Officer by e-mail or telephone. Infringements of the Code are tracked and appropriate measures are taken against cases of non-compliance.

LEGAL COMPLIANCE

We monitor laws and revisions and adapt our internal processes to cover new legal requirements. We fully comply with the 'Sunshine' legislation in the United States and France, not least through implementing a data collection system and corresponding policies and guidelines.

We fully comply with the 'Sunshine' legislation.

REGULATORY AND QUALITY COMPLIANCE

Companies in the medical device industry face growing scrutiny from regulators around the world and increasing requirements for documented evidence in order to demonstrate compliance.
To avoid the risks associated with regulatory compliance for Medical Devices, we have a qualified team of specialists in regulatory and quality assurance.

Focused quality objectives, supported by key performance indicators and comprehensive internal as well as supplier-related quality audit programs, assured our status of substantial compliance and helped to identify opportunities for improvement. We run a continuing education program to streamline processes.

In 2017, Straumann subsidiaries in the US, Canada, China and Japan were inspected by the local authorities. No major observations were identified. We also passed all Notified Body audits at our manufacturing and design/development sites, which are required to maintain the certification status of the quality and environmental management systems. Overall, there were no critical issues with any authorities.

We were challenged by unannounced audits at Biora in Malmö and Institut Straumann in Basel, with only one minor observation for each.

We consolidated our 'One Quality Management System' (for design centers and manufacturing sites) after a successful recertification of the quality system.

We passed all Notified Body audits at our manufacturing and design/development sites.

ISO CERTIFICATION AND AUDITS PERFORMED IN 2017

Standard	**ISO 9001** Quality management system	**ISO 13485** Medical device quality management system	**ISO 14001** Environmental management system
Institut Straumann AG (Basel, Gräfelfing)	No	Yes	No
Straumann Villeret SA (Villeret)	No	Yes	Yes
Straumann Manufacturing Inc (Andover)	No	Yes	Yes
J.J.G.C Indústria e Comércio de Materiais Dentários S.A. [Neodent] (Curitiba)	Yes	Yes	No
Medentika GmbH (Renningen)	No	Yes	No
Etkon GmbH (Markkleeberg)	No	Yes	No
Biora AB (Malmö)	No	Yes	Yes
Etkon KK (Narita)	No	Yes	No

We continue to challenge our quality by mock FDA inspections at the FDA-registered establishments. To ensure the readiness of our people and processes at our certified sites, we have also conducted unannounced internal audits and dedicated audits of our technical files.

Straumann continues to collaborate with Neodent in the area of quality compliance and regulatory affairs. Neodent products have received approvals in various markets outside Brazil, including the US, Europe and APAC.

Several regulatory authorities continue to inspect manufacturers in foreign countries. We are prepared for this and have built up experienced teams of regulatory and compliance specialists in Basel, the US, China, Japan, Korea and Brazil. As a consequence, successful registrations of our BLT implant portfolio (world-wide), ceramic implant, n!ce, collagen membranes and bone grafts (in various countries) were based on excellent collaboration of our experts in Basel with our colleagues in different regions.

The new Medical Device Regulation issued in Europe means greater surveillance, more involvement of competent authorities for higher-class products, longer approval times, access to technical documentation, tests on products, and unannounced audits. Notified Bodies have declined in number and their control has increased. Stricter requirements and regulations are also expected in smaller markets, which will increase the need for enhanced compliance and safe and efficient products. The Group has already initiated a project about compliance to the new European Regulation for Medical Devices.

REPUTATION RISK

Like other leading manufacturers, the Group is exposed to the risk of damaged public perception of dental implants by third parties, which might be the result of poor implant placement, competitor's inferior implant quality, or unethical business practices. Many Straumann country organizations are members of associations of manufacturers of medical/dental products, such as FASMED in Switzerland, Comident in France and ABIMO in Brazil (Neodent). These associations are dedicated to the advancement of medical technology and its safe and effective use.