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PREVIEW

39th International Dental Show • Cologne • 22–25 September 2021



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The show must go on—dental industry looks ahead confidently

IDS will help revive market situation after significant turnover decline in 2020.

■ In preparation for this year's IDS, the organisers held a live online press conference via YouTube in May to inform international media partners about the upcoming event. A unique mix of analogue and digital formats is planned for the event and will make IDS 2021 a very special event that will meet the demands of this extraordinary time.

The press conference was held under the motto “Out of crisis management and into future orientation”, which will also be the motto of the 39th IDS, which will take place from 22 to 25 September in Cologne.

Mark Stephen Pace, chairman of the board of the Association of the German Dental Industry (VDDI), said that everyone was looking forward to the event. There was great optimism, mainly because “developments are going quite well”, “measures are having an effect”, and “vaccination successes are increasing worldwide”.

Pace explained why the implementation of the IDS is so important, arguing that it is important for the dental profession to have access to innovations and to be able to talk about them. As an example, he mentioned topics such as artificial intelligence, which is progressing despite the pandemic, and which must be discussed. He further emphasised that he and the business organisation remain



• European press conference, from left to right: Dr Peter Engel, former president of the German dental association; Dominik Kruchen, president of the association of German dental technicians' guilds; Dr Marco Landi, president of the Council of European Dentists; Corinna Mühlhausen, Zukunftsinstitut Frankfurt; Mark Stephen Pace, Association of the German Dental Industry (VDDI) chairman; Oliver Frese, chief operating officer of Koelnmesse; moderator Nadja Cleven; and Dr Markus Heibach, executive director of VDDI. (Image: Koelnmesse/IDS)

€4.82 billion in 2020, 13.1% less than 2019. About €2.92 billion, a drop of 16.5%, was earned in export markets.

The German domestic market however developed considerably more robustly than the export markets. In 2020, domestic sales reached €1.9 billion and were thus only 7.3% lower compared with the previous year. Overall, slightly more than two-thirds of the companies that took part in the survey reported lower domestic sales figures than in 2019.

sales levels, the survey also indicated that the industry would most likely experience a recovery throughout the course of this year. Over 50% of the surveyed companies forecast an increase in turnover in 2021, and an additional 42% expected at least a turnover at the level of 2020.

“Not all regions will recover at the same pace. Some economic regions are still occupied with overcoming the corona crisis. The health systems are under a high degree of pressure, but we can assume that in

site events and sections that will take place online. According to Dr Peter Engel, former president of the German dental association, and Dominik Kruchen, president of the Verband Deutscher Zahntechniker-Innungen (association of German dental technicians' guilds), these concepts have already yielded positive experiences. They have found that dentists are able to get used to the new concepts relatively quickly owing to their affinity for technology and their openness. Nevertheless,

“Digitalisation helps us become more efficient, improve communication and reduce costs, but it is no substitute.”

Mark Stephen Pace, VDDI

is very important that we maintain relationships. The most important part of successful business is not possible without face-to-face meetings. Digitalisation helps us become more efficient, improve communication and reduce costs, but it is no substitute.”

Dr Marco Landi, president of the Council of European Dentists, agreed and then summed up by stating that September is the right time to take off again in the dental industry across Europe.

Although some major players in the dental industry, including Dentsply Sirona, will not be taking



• Oliver Frese, chief operating officer of Koelnmesse, stated that the security concept implemented by Koelnmesse will keep visitors safe and ensure that exhibitors are successful. (Image: Koelnmesse/IDS)

confident about the future economic position of dental companies despite a significant decline in turnover in the 2020 fiscal year.

According to a Treuhand trust survey that was launched at the beginning of 2021, the VDDI member companies earned a total turnover of

Pace stated that, by implementing measures to increase efficiency and reduce costs, dental companies had done their utmost to ensure that declines in sales did not escalate.

Although Pace assumed that some companies would keep struggling for some time to reach 2019

the medium term the success of vaccinations will also lead to recoveries in these regions. The general health awareness and a need for health services resulting from this will increase,” Pace concluded.

The 39th IDS will be a hybrid event—that is, a combination of on-

“people also want to meet in person,” Kruchen added.

Pace reiterated the importance of digitalisation and that progress had been made, but stated that there is clearly a lack of infrastructure to move forward. He also feels it is essential to meet in person and said: “It

part in this year's IDS for “various reasons”, the organisers hope that an interesting trade fair can be created with the companies that have registered so far.

The latest information on IDS can be found at www.english.ids-cologne.de. ◀

“IDS will light the way for the whole dental industry”

An interview with Mark Stephen Pace, chairman of the Association of the German Dental Industry, ahead of IDS 2021 by Christian Ehrensberger.



*Mark Stephen Pace, chairman of the Association of the German Dental Industry. (Image: DENTAURUM/Andreas Fabry)

■ From 22 to 25 September, Cologne will once more become the place to be for dental professionals when the 39th edition of IDS takes place. Mark Stephen Pace, chairman of the Association of the German Dental Industry, discussed his optimism ahead of the event and the innovations that he sees as drivers of the dental industry's future.

Mr Pace, IDS 2021 is just around the corner. Are you worried that another COVID-19 wave will still prevent the trade fair from taking place?

I think we have two options. Either we assume that IDS cannot take place under any circumstances and slide into depression, or we accept the challenge and ask ourselves: what do we have to do to ensure IDS 2021 will be a success for all involved and lead our industry into a new normal? I have unequivocally decided in favour of this second option.

With IDS only a few weeks away, we can sense the promise of a new beginning. IDS will light the way for the whole dental industry!

What steps have you taken to make IDS 2021 a success?

We have created safe conditions in the trade fair halls. The #B-SAFE-4business concept has been specifically developed for this purpose and gives us great flexibility. If, for example, the minimum social distancing requirements are decreased or increased the day before the trade fair begins owing to the COVID-19 incidence rate at the time, we can react immediately to the situation. Visitor management will then also change accordingly. This will be conducted via our indoor positioning system, developed in conjunction with Sam-

sung SDS, using the associated eGuard smartphone app.

We must, of course, acknowledge that we cannot prevent unexpected developments related to the COVID-19 incidence rate in the broader population. Anything that occurs under the present conditions over the next few weeks will see us go as far as humanly possible to find a solution for the trade fair. IDS 2021 will be a safe place, not least because visitors from industry and trade, and dentists, dental technicians and their teams deal professionally with hygiene and infection control on a daily basis—and thus will also do so at IDS.

What do you see as the major topics that are shaping dentistry?

We have all certainly endured some difficult months, but are now realising that it's going to be different in the future—things are looking up. We must, however, also reorientate ourselves and adjust to these new conditions.

For me, the first priority is to assess the situation and be proactive. Patients come into the dental practice with a greater awareness of health and its various dimensions. Many patients now understand that oral health and general health are closely linked and that strengthening periodontal health is also a protective factor against severe progression of COVID-19. While this has been reliably proved in studies, reduction of other oral inflammation—for example of the dental pulp—through treatment is also a likely advantage for general health. Presumably, this is also a positive component in the defence against COVID-19.

We can take advantage of this increased awareness in patients by discussing the subject with them and using it to create awareness of the importance of recall appointments, as well as the value of high-quality dentistry.

What does this mean for IDS visitors?

As a trade fair visitor, I would look around to see how I can offer patients the best possible dental treatment using state-of-the-art technology. This begins with periodontal prophylaxis—virtually nowhere else can you find such a large selection of manual instruments, sonic and ultrasonic instruments, and powder-water jets. At the same time, information will be available regarding adjunct measures such as the administration of chlorhexidine and laser treatments. At the trade fair, dentists and dental assistants will also find products that can provide maximum protection of or relief for their tendons, ligaments and joints.

Similarly, with regard to oral inflammation, IDS 2021 offers attendees the opportunity to test and compare proven and innovative procedures and products. To mention just one interesting detail: during diagnosis of irreversible pulpitis using analysis of inflammatory markers, it can emerge that the tooth can still be retained vitally through pulp capping with bioactive or bactericidal material. This approach would probably be employed more often with wider availability of the analytic test procedure.

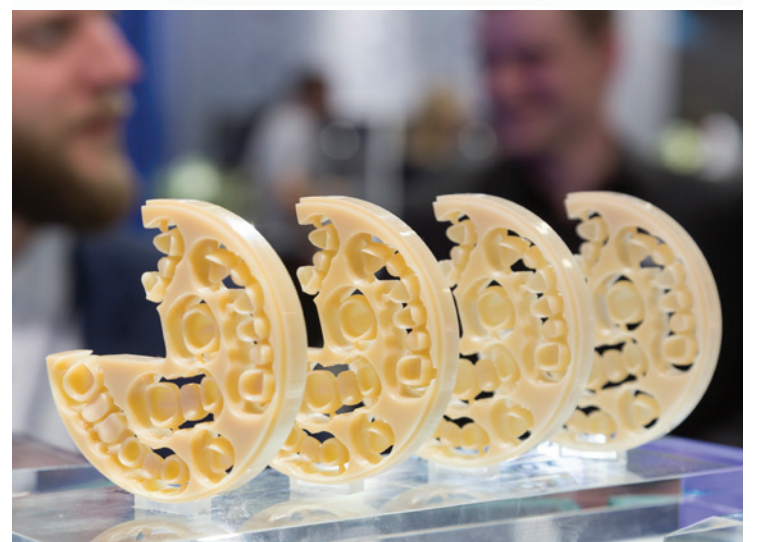
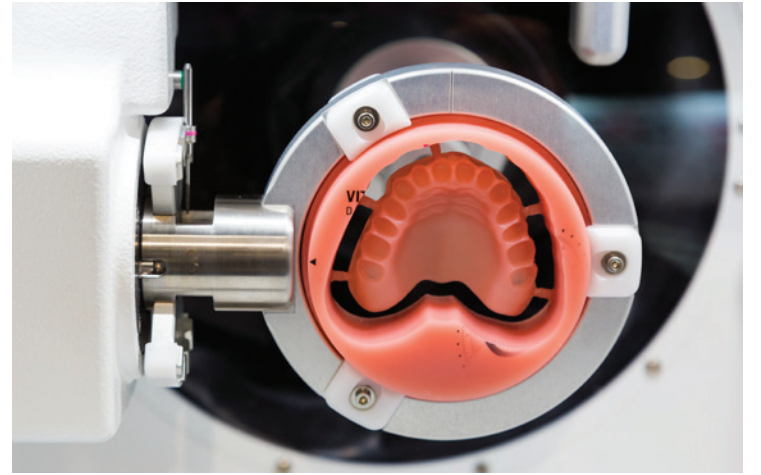
At previous IDSs, the focus has commonly been on digital technology.

Where is the development of digital technology headed?

Digital technologies have, in general, maintained their momentum over the course of the pandemic, and the dental industry remains a leader in this regard. In attending this year's IDS, both dentists and dental techni-

Industry forward the most—perhaps self-regenerating teeth?

IDS always offers surprises as far as innovation is concerned. Self-generating teeth are unfortunately still the domain of sharks, but innovative concepts for single-tooth restoration of implants using digitally



* CAD/CAM fabrication will be a focal topic of IDS 2021. (Images: Koelnmesse/Harald Fleissner)



* Proven and innovative products, both small and large, aid in daily dental routines—and will be available at IDS 2021. (Image: Koelnmesse/Thomas Klerx)

cians are likely to have the following two questions in mind:

1. What can be digitised in my dental practice or laboratory so that I can offer patients added value at a fair and considered price?
2. What areas can utilise combined analogue and digital procedures as an alternative to complete digitisation? For example, a complete denture can either be completely 3D-printed or be set up conventionally on a printed or milled denture base with artificial alveoli and retained using an adhesive in the final stage.

You have already discussed various fields of innovation. What innovation at IDS 2021 will help to take the in-

supported backward planning, however, is something I can very much picture. Innovations that can be implemented immediately in the dental practice and laboratory will also be present at IDS 2021.

The biggest innovation for me, though, is a new sense of togetherness. I experienced this already at the European press conference in the run-up to IDS 2021, and at the event itself, we are coming together again. We will be talking to each other and actively looking for competition to ensure that we can secure the best deals. Personally, I'm curious to see what interests dentists and dental technicians most, and I wish everyone a safe and exciting IDS 2021. ◀

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EU wakes up to new medical device regulations

What will change under the EU's new medical device regulations?

■ After a three-year transition period and a delay of 12 months owing to the SARS-CoV-2 pandemic, new regulations for medical devices for human use in the European Union went into force on 26 May. The new and stricter rules mainly apply to those who manufacture, import and sell medical devices; however, dental professionals should be aware that distributors must keep a register of any complaints or reports received from health professionals and patients relating to devices and forward these complaints to the device manufacturer or importer.

Commonly referred to as the MDR (Medical Device Regulation), Council Regulation (EU) 2017/745 came into effect on 25 May 2017 with a grace period of three years. The MDR repealed Council Directive 93/42/EEC, known as the Medical Device Directive (MDD), and Council Directive 90/385/EEC, which regulated active implantable medical devices in the EU. An additional directive—Council Regulation (EU) 2017/746, known as the In Vitro Diagnostic Regulation (IVDR)—came into effect in tandem with the MDR and is set to regulate *in vitro* diagnostic medical devices when a five-year



transition period expires in May 2022.

The European Commission, in April last year, announced a 12-month delay of the application of the MDR. A statement from the commission explained that the decision was made so that member states, health institutions and commercial operators in the medical devices industry could prioritise efforts to combat the pandemic. "Shortages or delays in getting key medical devices certified and on the market are not an option right now," commented Mar-

garitis Schinas, vice president for promoting our European way of life, in the media release. Indeed, the MDR is denser and more complex than its predecessor and transposing the directive has been a mammoth task for all stakeholders.

Compared with the repealed MDD, the MDR changes device scope and the way that medical devices are classified. For example, the legislation includes new rules for devices that use hazardous substances and for software applications. Some devices have been reclassified under

the MDR, and the directive regulates certain devices that were previously exempt from medical device regulations.

The MDR also brings changes to the oversight process. Under the new directive, only notified bodies that are designated under the MDR can verify medical devices as being fit for use in the EU. Notified bodies that were designated under the MDD must be newly designated under the MDR. According to a white paper published by the Brussels-based European business law firm contrast and the Association of Dental Dealers in Europe—seen by Dental Tribune International—the public health situation in Europe has hampered efforts to designate enough notified bodies. Since some notified bodies that were designated under the MDD may not receive designation under the MDR, it is expected that some medical device manufacturers will need to change notified bodies.

Other examples of the various changes brought by the MDR include a redefined economic operator concept, which differentiates between manufacturer, authorised representative, importer and distribu-

tor. All economic operators must conform to the directive and the responsibilities of these stakeholders are expected to increase.

The MDR also brings heightened post-market surveillance to the medical devices market, and EU member states are required to adopt penalties for any infringements of its requirements. Unique identifiers must be placed on medical devices so that they can be registered on a new European database. Named EUDAMED, the database will record the registration of devices, the accredited notified bodies, and also certificates and reports of incidents relating to the safety and clinical performance of devices.

Distributors will be required to keep a record of any complaints or reports that they receive from health professionals and immediately forward them to the manufacturer and/or importer of the device in question. Distributors of medical devices must also keep a register of non-conforming devices and devices that were recalled or withdrawn from sale.

The full text of the MDR is available at <https://eur-lex.europa.eu/eli/reg/2017/745/oj>. ◀

IDSconnect: The new digital event platform of IDS

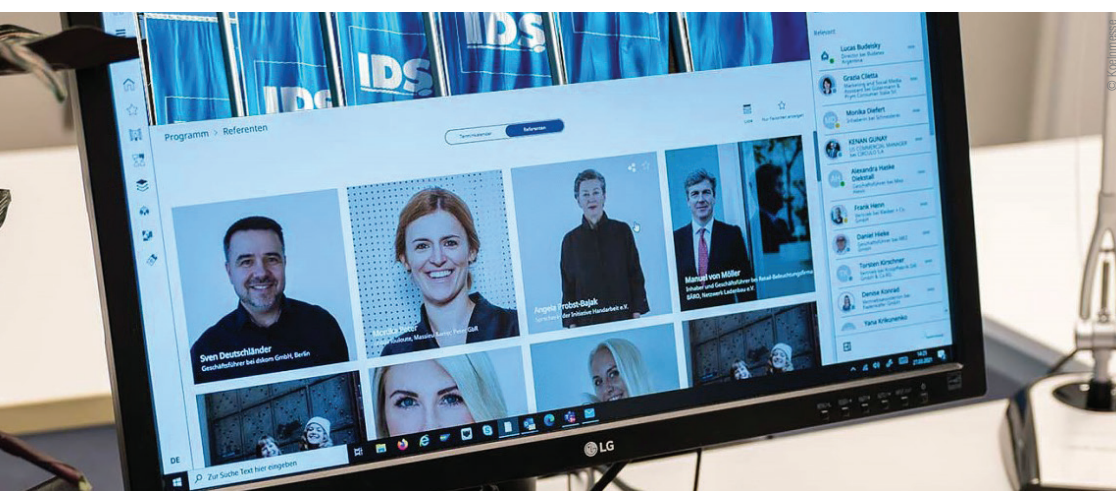
Koelnmesse has stepped up its game to make IDS a successful event—online and offline.

■ In 2021, IDS is going hybrid, which means that more participants than ever before will attend the largest trade show in the dental industry from the comfort of their homes and not in person, owing to COVID-19 travel restrictions. To provide a digital enhancement to the classic physical event, the free platform IDSconnect intends to maintain IDS's extensive international reach together with a successful on-site trade fair experience.

At a trade fair or in day-to-day commercial business, a company's success is based on three essential building blocks: inspiration, interaction and business. IDSconnect provides innovative opportunities for you to reduce the

live from Cologne or streaming from locations throughout the world. The IDS Main Stage is the central platform for the official event programme of IDS 2021. This is where to find insight and motivation in the many presentations and official side events. Let yourself be inspired by the visionary programme.

The area Exhibitors and Products represents the exhibition hall. From there, users have access to the booths of the various exhibitors in so-called Showrooms in which relevant information about the exhibitor's company, products and services will be provided. On the Product Stage, exhibitors will present product



effects of any current deficit in these crucial elements. Extensive features enable you to reach more potential customers easily, to experience trends and lectures on demand, and to establish valuable contacts—from anywhere in the world.

The experience starts in the Lobby, where users find an overview of all the features as well as initial recommendations for relevant contacts, exhibitors and upcoming scheduled trade fair items. Features include top experts on stage presenting on industry-relevant topics

innovations and highlights live to the audience. Alternatively, these can be watched later on demand.

At a Virtual Café, visitors, exhibitors, top decision makers, purchasers, industry experts and media representatives can come together to chat and network. In terms of networking, the Discovery Graph ensures networking with new contacts and achieving a direct exchange of ideas via the communication centre.

More information about IDSconnect can be accessed at <https://www.english.ids-cologne.de/fair/idsconnect/>. ◀

Around 830 exhibitors from 56 countries to attend IDS 2021

High number of international companies underscores importance of global industry platform.

■ The International Dental Show (IDS) will be opening its doors for the 39th time from 22 to 25 September. Owing to the ongoing global SARS-CoV-2 pandemic, which led the organisers to postpone the event from March to September, this year's edition will be taking place under extraordinary circumstances. Although a considerable number of companies will not be exhibiting at IDS, about 830 companies have already confirmed their participation.

According to the latest figures by Koelnmesse, 74% of exhibitors come from abroad, including from France, Great Britain, Italy, South Korea, Switzerland and the US. Companies from Brazil, Bulgaria, China, France, Italy, South Korea, Russia and the US will have country-specific pavilions. In a recent press release, Koelnmesse stated that the high level of international participation underlines once again the outstanding significance of IDS as the most important global dental industry platform.

Overall, the organisers predict that IDS will play a key role in the successful restart of the market. Throughout 2020, dental companies around the globe reported the financial effects of government-imposed lockdowns and radical public health measures, including the partial or complete closure of dental practices. As revealed by the fourth-quarter re-

sults for 2020 and this year's first-quarter results, the industry is slowly but steadily recovering from the crisis.

In order to protect and ensure the health and safety of exhibitors and visitors alike, rigorous protective measures in line with the official requirements have been taken into account in the allocation of the exhibition floor. IDS 2021 will be staged in Halls 2, 3, 10 and 11, which are connected via a simple circular route. Visitors will be able to enter the fair through four entrances, which will allow for an even distribution of attendees across the exhibition halls. To meet social distancing rules, the existing restaurant and resting areas in the halls have been expanded and a new food area has been installed in Hall 4.1.

In addition, the organisers are extending the physical event in Cologne through the digital platform IDSconnect. This strategic move to make IDS 2021 a hybrid event will benefit both dental professionals and companies and, in particular, those who will not be able to travel to Cologne in September, as it includes a number of innovative features that will allow users to discover new products and connect with colleagues and partners online. More information about IDS can be found on the <https://www.english.ids-cologne.de/>. ◀

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For patients looking for high-quality dentistry, IDS provides the answers

An overview of the state-of-the-art technology on exhibit at IDS 2021 by Christian Ehrensberger.



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▲ The whole range of filling treatments at the world's leading dental trade fair: Some of the goal-oriented and attractive solutions for dental practices from Silfradent, Polydentia and GC that will be on display at IDS 2021. (Images: Koelnmesse/IDS Cologne/Harald Fleissner [1 & 2]/Thomas Klerx [3])

■ The development of dental practices is in a much better position than one and a half years ago, and the COVID-19 pandemic is even showing positive signs. The 2021 IDS starting tomorrow in Cologne will provide a view into where we are headed.

Oral health: A key theme and an opportunity for the dental practice

Broad segments of the population are becoming increasingly interested in health, nutrition, physical activity, sport, medicine and more. This has resulted in a particularly strong focus on dentistry, since many patients are becoming aware of the significance of the oral cavity for their general

health, including preventing the severe progression of COVID-19.

This is boosting patients' confidence in their dental team, in their expert consultation skills and in their ability to perform prophylactic treatment. Among other things, hygiene standards are contributing to this. This is a classic core competence of the dental practice—though there are still things that can be improved. Based on current studies, optimising the holding technique for suction and a demand-oriented design of the suction system will further improve existing hygiene standards. Important decisions are made in particular when founding, taking over or expanding a dental practice. IDS 2021

will provide an overview of suction systems and suction tips, and visitors will be able to experience first-hand how the responsible design of their dental treatment facilities can provide the ideal hygienic conditions for the use of the entire range of instruments. This includes, in particular, high-speed turbines and powder-water jets used in prophylaxis.

Filling treatments will become more customised, quicker and easier

In the future, patients in all areas are likely to attach greater importance to extremely high-quality restorations. For example, they will want restorations that are hygienic as well as increasingly highly aesthetic.

Direct restorations have been an outstanding and innovative field for years. Since they represent the bread and butter of the vast majority of practices, even minor advances in procedures and materials have a clearly positive impact.

The dental team works with a number of proven materials, including composites, compomers, glass ionomer cements and amalgam, still. Recently, composite hybrids have been added to this mix. The field of dental materials is becoming more differentiated, and so in a given clinical situation, a decision can be made in favour of different options. Patients come to the dental practice with specific wishes and set their preferences accordingly. In general, this list of preferences can be assumed to be (1) long-term stability;

(2) compatibility; (3) preservation of as much natural tooth structure as possible; (4) natural aesthetics; and (5) favourable price. IDS 2021 allows a comparison of current filling materials in line with these criteria.

At the same time, the trends towards speeding up and simplifying the clinical procedures are continuing. The team can now work more quickly with many of the numerous self-adhesive composites. A comparison of the achievable adhesion values and marginal impermeabilities with the corresponding values of classic three-step etch and rinse systems as a reference shows how far their indication now extends.

Bulk fill composites can be applied in cavities in layers that are 4–5 mm thick, thus avoiding a time-consuming incremental technique. Flowable bulk fill composites are then overlaid with an occlusal filling material, and with specialist products, a change in consistency can be induced by sonic activation. For example, these are flowable when placed and become mouldable later. With this procedure, as with the high-viscosity bulk fill composites, a covering layer may be omitted.

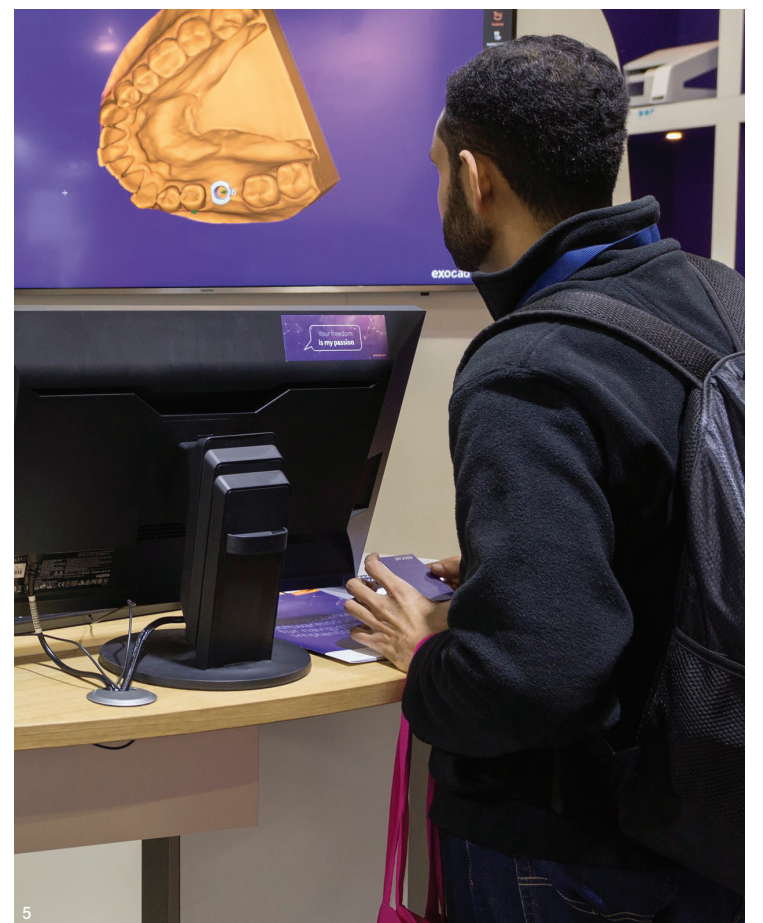
The existing range of composites is further enriched by dual-polymerising and permanent composite relatives. Able to be used without retentive preparation and without etching, bonding or other conditioning, these materials allow for a tooth-coloured restoration and can be placed in the cavity quickly. However, a different technique is required.

improvement of nickel-titanium alloys for files has reached a level where innovative clinical concepts allowing for the conservation of tooth structure are now possible. At the same time, digitally supported endodontic backward planning is becoming established and, with it, new forms of collaborative working. For example, the dental practitioner can have specialists perform the digital planning (including files, obturation and an endodontic drilling template for the access cavity), but perform the subsequent treatment himself or herself.

Backward planning in implantology is already part of the standard repertoire, and new digital interfaces that allow for a truly integrated digital workflow will be presented at IDS 2021. Furthermore, the benefits of the use of artificial intelligence (AI) are already becoming tangible. It is hoped that AI will provide ever greater assistance in the evaluation of radiographic images and other visual representations.

Attendees will also be able to experience innovation in orthodontics. The classic means of checking for occlusal contact is now supplemented by digitally supported variants, and special bruxism splints can even provide immediate biofeedback and thus, ultimately, help prevent damage.

The sheer range of proven and innovative products, enabling patients to be treated using state-of-the-art technology, that will be on display at IDS 2021 is unique. Visitors to the trade fair will also develop a keen



▲ At IDS 2021, new interfaces will turn various well-functioning partial workflows into a fluid, fully digital procedure from A to Z. (Image: Koelnmesse/IDS Cologne/Harald Fleissner)

Digital processes: Strong in specialist disciplines

In endodontics, the trend is increasingly towards conserving more natural tooth structure. The gradual

sense of how patients with their clearly increased interest in health in general and dental health in particular can best be persuaded to visit the dental practice. ◀



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▲ A way to control the viscosity of a bulk fill composite from flowable to mouldable: thermo-viscous material for the entire Class I, II and V indication range (VisColor bulk, VOCO). (Image: Koelnmesse/IDS Cologne/Thomas Klerx)

The growing localisation of trade fairs

An opinion piece by Björn Kempe.

■ We are almost in the fourth quarter of 2021 in the second year of the pandemic. What has changed so far in the German and international exhibition market worldwide, and what are the prospects for the future? These are the questions I hear almost every week through my social media channels or from friends. My answer to this is relatively simple.

In the 18 months of the pandemic, almost nothing has changed in the trade show market. The only thing that has changed—especially in Germany—is the urge to digitise faster. However, the first virtual and hybrid German trade shows have shown that one cannot make money with them so far, and only about 20–25% of attendees are excited about them. Additionally, an average of 30% of employees of trade fair companies have been cut, short-time work is still prevalent, and many highly qualified and long-serving employees have left the business for re-orientation.

Apart from digitisation measures and staff cutbacks, nothing new has emerged in almost two years except for cancelled or postponed shows. Personally, I do not think this approach will be enough in the long run. Much more could have been done in 2020 and 2021. The trade fair industries in China, the UK and the US show that local concepts can work perfectly. People need trade fairs to network, get to know each other and, most importantly, do business. This was underestimated in Germany.

Not only was the time span of the pandemic underestimated but also its effect on customers. Many trade show organisers in Europe literally outbid each other at the end of 2020 and the beginning of 2021 for hybrid and virtual concepts. What is left is a virtual and hybrid exhibition market controlled by a few event technology companies, like Grip, Swapcard and Corussoft. Many exhibition companies even took the

trouble to develop their own software and systems for a great deal of money—unfortunately almost certainly a bad investment. Event technology programmes are easily available off the shelf, and Messe München and Messe Düsseldorf are showing with Grip that it is very easy to use these without much programming and effort.

I would have liked to have seen every trade fair in Germany launching its own new concepts this year—local concepts that play a role for either the city or the region with a maximum radius of 500 km. Looking at the Chinese or US market, one can see that the local and regional component plays a much greater role than in Germany, which, for example, has only two medical technology trade fairs.

In the near future, I would like to see new trade shows coming on to the market—small and attractive. Organisers need to take a closer look at their city's industries and attendees'

needs. It is clear that there will not be any decent big international trade shows until 2024. The speed of vaccination is too slow for that, and countries are too diverse to agree on global travel arrangements. Also 2022 will be a difficult year for our industry, as only vaccinated and recovered persons will have unrestricted access to events and only business-to-business travel will be allowed within Europe. In the past, Chinese pavilions took up over 30% of exhibition space at some trade shows, and other Asian countries and the US are very important trade show participants in Germany. This will probably not happen again until the end of 2023. Thus, optimistically speaking, the next "normal" trade fair year will commence in 2024. Until then, organisers should not let the time pass! Think local, create great trade fairs and don't invest too much money into digitisation and certainly not into your own programming. ◀

About



Björn Kempe is the founder and CEO of Expos Asia, which is part of the EXPOS Global network, headquartered in Singapore. His consulting firm specialises in mergers and acquisitions, capital raising, investments, business development consulting and strategy consulting. Expos Asia also organises its own events in China and Indonesia.

The status of trade fairs in Germany

A look at the current environment.



■ It is no secret that the 39th edition of the International Dental Show (IDS) will look vastly different to previous iterations. The record 160,095 international visitors that attended IDS 2019 will be greatly reduced owing to COVID-19 travel restrictions, though a hybrid approach will mean more people than ever will participate virtually rather than in person. Nevertheless, there remains a high level of demand for physical trade fairs to return and for Germany to re-establish itself as the international leader in this field.

Let's start with the good news. Presently, a majority of the German population has been fully vaccinated against COVID-19, significantly decreasing their likelihood of developing a symptomatic form of the disease. In addition, there exists an undeniable appetite for in-person trade fairs to return. A recent survey of its customers conducted by Messe Frankfurt, the world's largest trade fair organiser, found that 97% still saw the in-person component as an essential part of such events.

For those who do travel to Cologne for in-person participation, comprehensive hygiene protocols and sanitation measures will be in place to offer exhibitors and visitors a safe exhibition experience. The wearing of face masks is mandatory, and people with COVID-19 symptoms—coughing, sniffles, loss of smell or taste, fever, etc.—are not allowed to enter the exhibition grounds. In addition, Koelnmesse's #B-SAFE4business concept—which was demonstrated as a prototype before the press late last year—includes a comprehensive catalogue of protective hygiene measures designed to reduce the risk of SARS-CoV-2 transmission. Personalised tickets and contactless identity checks and bag searches at the entrances will be available, while trained personnel will be present to ensure that all hygiene regulations can be easily observed and followed at each exhibitor's booth. Visitors to IDS 2021 will also be required to install the eGuard mobile application, which is designed to guide visitors so that they can best avoid crowds and maintain appropriate social distancing.

Virtual participation a point of emphasis

Of course, travel restrictions and the limited availability of vaccines has meant that the Association of the German Dental Industry (VDDI) and Koelnmesse—the joint convenors of IDS—have had to make some key changes to how IDS 2021 can be experienced by those who cannot, or choose not to, attend in person. Chief among these is a hybrid approach powered by the free digital platform IDScconnect, which the organisers hope will make IDS 2021 a successful event online as well as offline.

"In tandem with the physical exhibition, IDScconnect will offer information on products and system solutions and will enable the streaming of webinars, press conferences, events and one-to-one conversations with clients," Markus Oster, business unit manager of trade fair management at Koelnmesse, told DTI earlier this year. "This will facilitate a consistent international reach combined with a successful trade fair experience."

The road to recovery

Five of the top ten highest-grossing trade fair companies are headquartered in Germany, and it is important to note just how severe the impact of the COVID-19 pandemic has been on this industry. According to the Association of the German Trade Fair Industry (AUMA), just 114 of the 355 trade fairs planned in Germany in 2020 were able to take place, and this year, the first in-person congress was only held in June.

The dearth of activity led to many leading trade fair facilitators suffering extensive financial losses, and AUMA stated that overall trade fair business in Germany fell by approximately 70% during 2020. Koelnmesse, for example, recorded a turnover of €94.3 million for the year—less than a quarter of the €413 million it generated in 2019. This, in turn, led the company to declare a net loss of €109.6 million for 2020, and it expects to incur sizeable losses once more in 2021.

Though IDS 2021 is expected to have around 830 companies from over 56 countries exhibiting, there

are a number of notable absences that will undoubtedly be felt. Stallwarts, including Dentsply Sirona, Nobel Biocare and Ivoclar Vivadent, have elected not to participate this year. Walter Petersohn, chief commercial officer at Dentsply Sirona, explained that a major factor for his company's withdrawal was the lack of the "absolute planning certainty" needed to prepare for such a show.

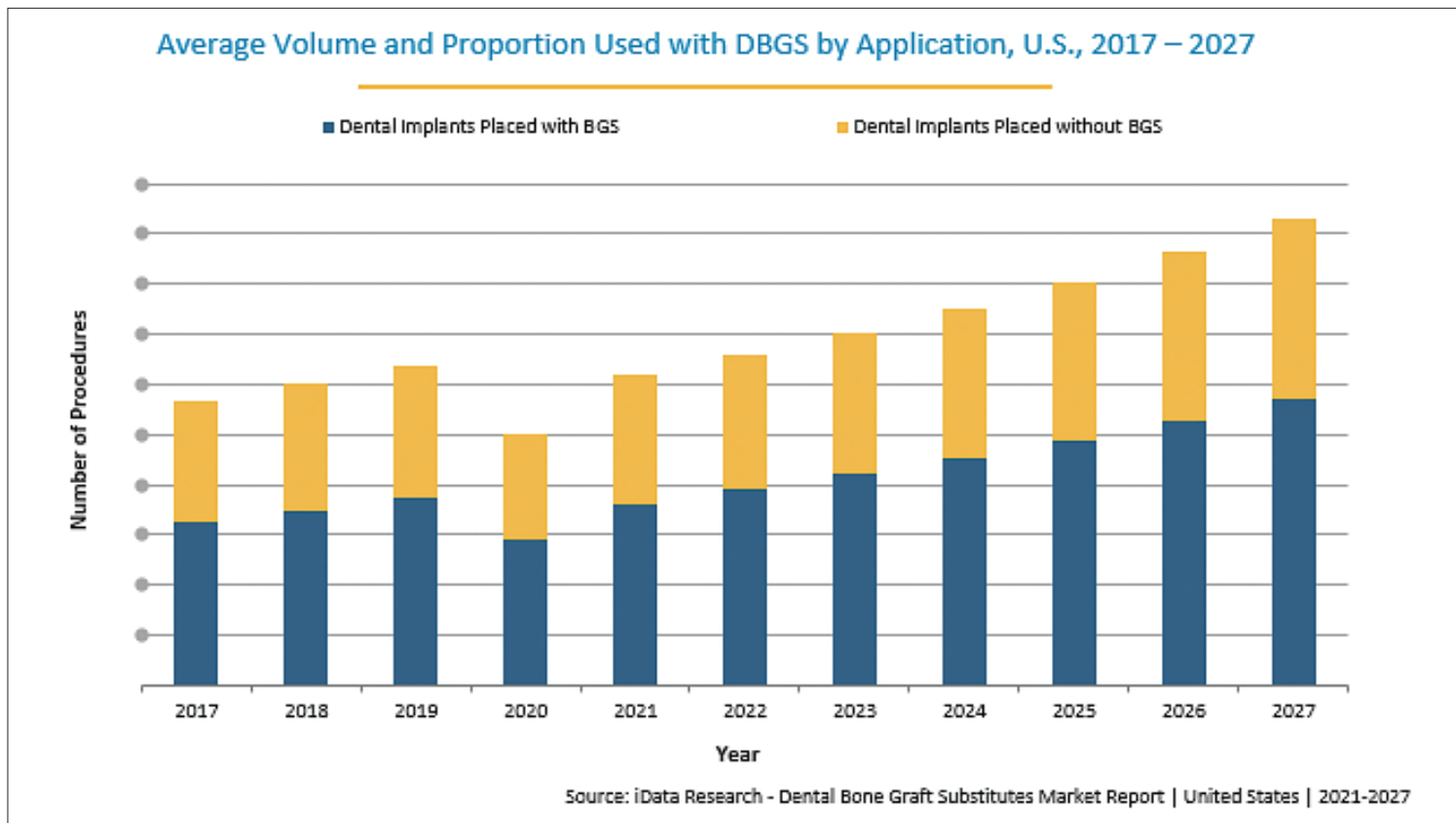
Regardless, there is a sense of optimism that surrounds IDS 2021 and what its success could mean for the future of trade fairs in Germany.

"Even if the first on-site trade fairs do not have the same dimensions and level of global internationality as in the past, the main thing is that we return to the scene as soon as possible," said Oliver Frese, chief operating officer at Koelnmesse, at a press conference in May.

"In recent months, we have been even more dedicated than ever to developing hybrid and digital trade show experiences all the way through to a year-round online presence for our trade fair brands," he added. ◀

Top three trends influencing US dental bone grafting industry in 2021

US dental bone graft substitutes market size expected to reach \$390 million in 2021.



• The number of implants being placed with bone graft substitutes is increasing, and a growing body of evidence suggests that most dental implant procedures could benefit from a bone graft. (All images: iData Research)

Trend 1: Growth in implant market; stronger scientific support

Dental bone grafting has become an important and common step in the dental implant procedure. Advancements in allograft, xenograft and synthetic bone graft materials have positioned them as suitable alternatives to traditional autologous bone grafts, and this has created a thriving market for dental biomaterials. Although demand declined significantly in 2020 owing to the rippling economic effects of the COVID-19 pandemic, it is expected to recover quickly alongside the overall demand for dental implants.

Notable trends accelerating growth in this market include the increasing number of dental implant procedures performed. There is also a growing body of evidence suggesting that most (if not all) dental implant procedures could benefit from a bone graft.¹ Although the dental bone graft substitute (DBGS) market faces some minor headwinds in commoditisation effects and short-term pandemic-related constraints, the long-term outlook and secular growth trends remain positive.

Trend 1: Growth in implant market; stronger scientific support

The percentage of dental implants placed with DBGS in the US is forecast to grow from 58% in 2020 to over 60% in 2027, according to iData Research's new report on the US DBGS market. Because the two markets are closely related, the same growth trends that drive the demand for dental implants will also contribute to growth in sales of dental biomaterials. These trends include an aging population that is more prone to ailments like edentulism, a growing number of dentists trained in implant dentistry, improved consumer accessibility owing to industry consolidation, and stronger value propositions offered by shrewd pricing strategies.

In addition, there is growing clinical research suggesting that bone graft substitutes perform as well as autologous grafts with regard to bone formation, eliminating the need for costly and uncomfortable secondary grafting procedures.² This level of rigorous scientific documentation lends credence to manufacturers' own clinical trials and reinforces the value proposition of DBGS materials in implant dentistry.

Trend 2: Slowing innovation and bundling of DBGS

Innovations in bone grafting products are most often driven by advancements in the much larger orthopaedic market, before trickling down into dental applications. In recent years, innovation has slowed in both the orthopaedic and dental biomaterial markets, particularly with regard to bone graft substitutes, leaving little room for price growth and product differentiation. Furthermore, parts of the market are heavily fractured owing to hundreds of competitors offering similar products, which exerts downward pressure on prices and market value.

Put together, the two effects of commoditisation and bundling present a moderately bullish case for the DBGS market

Leading manufacturers have instead turned to leveraging their strong positions in the marketplace by employing bundling strategies to mutually reinforce demand for both dental implants and biomaterials. Because demand for dental biomaterials is largely driven by specialists, who typically order large volumes of dental implants in bulk, companies with strong brand recognition across the dental supply industry, like the Straumann Group, Zimmer Biomet and BioHorizons, have capitalised on this imbalance by bundling DBGS and implant products.

Put together, the two effects of commoditisation and bundling present a moderately bullish case for the DBGS market. Although competition and commoditisation can threaten stalled growth, strong players in the DBGS and adjacent markets will be rewarded if they are able to continue providing value to end users by offering attractive pricing strategies. The DBGS overall sales value is expected to have shrunk by nearly 21% in 2020 owing to the pandemic-induced economic downturn, followed by a sharp rebound of around 22% in 2021.

Trend 3: Innovation opportunities in barrier membranes and regenerative materials

While innovation in DBGS has slowed, there is no evidence of this for dental barrier membranes and dental growth factors. Over the next six years, both markets are projected to grow at an annualised rate of over 6%, following a sharp decline in 2020 and a complete recovery in 2021.

In the barrier membrane supply chain, market leader Osteogenics Biomedical has been consistently releasing new products with promising novel features. In 2019, the company released the RPM reinforced PTFE mesh, which was designed to work like a traditional titanium mesh but with a porous design that provides the added benefits of easier trimming and adaptation. In 2020, Osteogenics announced a distribution partnership with DBGS giant Geistlich Pharma, adding the mesh to Geistlich's expansive biomaterial portfolio. This move combines the brand recognition of two strong players in their respective markets to reinforce demand.

Currently, manufacturing of dental growth factors is led by four major players: Medtronic, Lynch Biologics, the Straumann Group and ACE Surgical. Each of these companies' regenerative products is indicated for

a slightly different use, though they all generally originated as innovative products for orthopaedic applications. Dental growth factor production is still in its early stages of the industry life cycle, and the entire market stands to benefit from new product developments in the orthopaedic market. Furthermore, blood derivative growth factors such as platelet-rich fibrin (PRF) are seeing a rise in popularity. Notably, BioHorizons acquired Intra-Lock in 2018, stating in a press release that it was "excited to add the IntraSpin system to [its] portfolio since [PRF] is increasingly used in grafting procedures."³ Although it is not yet clear that blood derivative growth factors are ready for prime time, an endorsement of PRF products by a major player is a good indication of the market trend.

The impact of COVID-19 on dental bone graft substitutes

The COVID-19 pandemic and subsequent forced business closures ground all dental implant procedures to a halt in early 2020. As dental clinics across the US began to reopen in the latter half of 2020, dentists reported a large volume of pent-up demand for implant (and therefore bone grafting) procedures, which is a promising indicator for a strong recovery.⁴ Industry leaders remain confident in their respective companies' fundamentals and expect to recover pre-pandemic sales by the end of 2021 or early in 2022 before resuming previous growth targets.

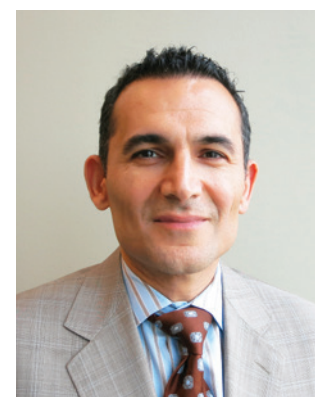
Demand is forecast to grow

Demand for dental biomaterials will continue to grow alongside the dental implant market for the foreseeable future in the US as well as in 21 other countries, as analysed by iData Research. Although some segments may be negatively impacted by slowed innovations and increased

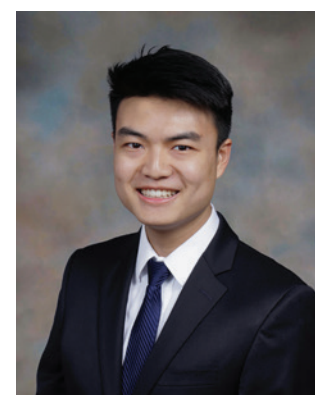
competitive pressures, the medium- and long-term growth trends remain positive. Major drivers of sales include growth in the related dental implant market, increases in supporting scientific literature, and innovations in dental regenerative products. Like the dental implant market, the DBGS and related biomaterial markets will make a strong recovery from the pandemic-induced market shock and continue a modest growth trend over the forecast period. ◀

Editorial note: A list of references can be obtained from the publisher.

About the authors



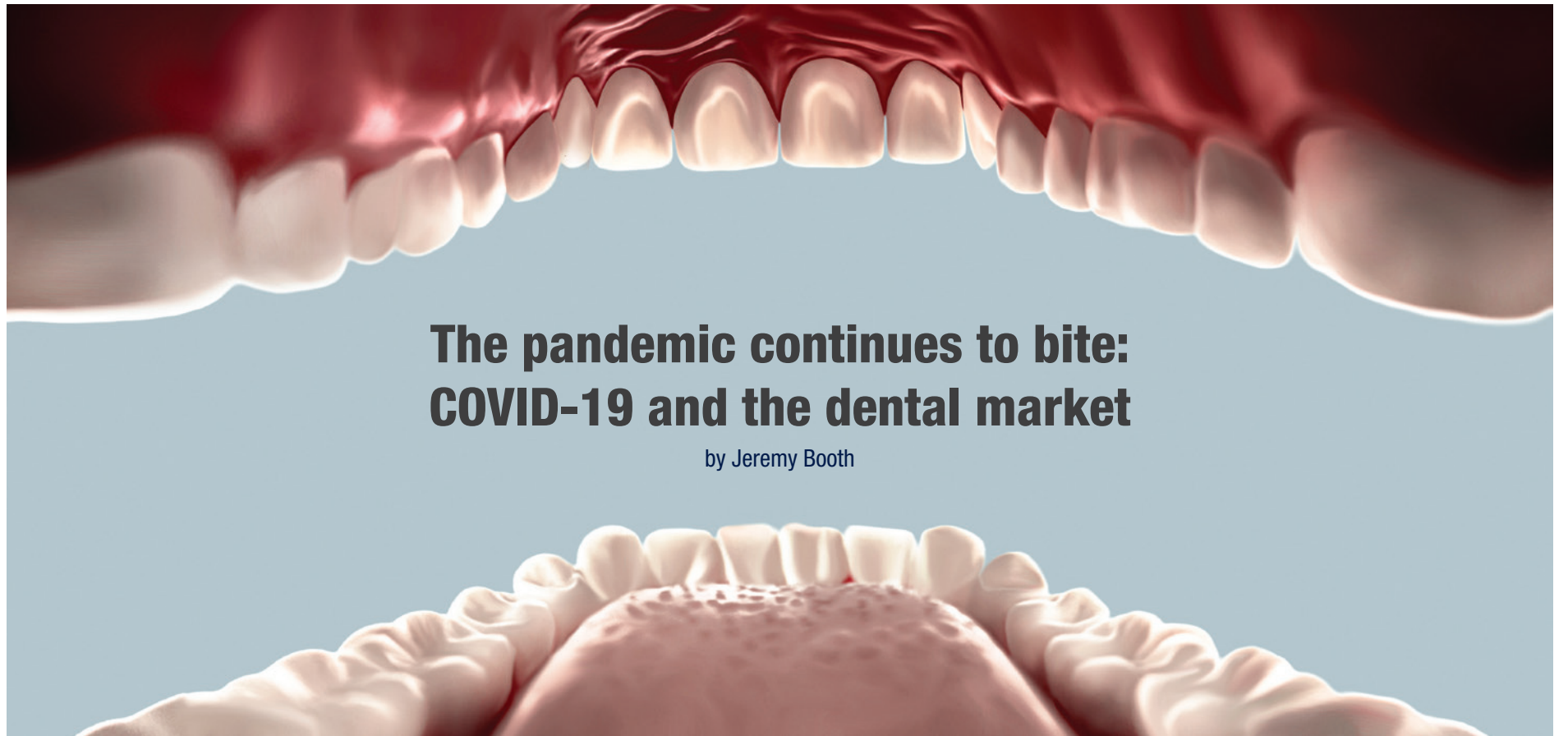
Dr Kamran Zamanian is CEO and founding partner of iData Research. He has spent over 20 years working in the market research industry with a dedication to the study of dental implants, dental bone grafting substitutes, prosthetics, as well as other dental devices used in the health of patients all over the globe.



William Guo is a research analyst at iData Research. He has been involved in the global research of dental implant and bone graft substitute markets, publishing the reports on the US market.

About iData Research

For 16 years, iData Research has been a strong advocate for data-driven decision-making within the global medical device, dental, and pharmaceutical industries. By providing custom research and consulting solutions, iData empowers its clients to trust the source of data and make important strategic decisions with confidence. More information: <https://idataresearch.com>



The pandemic continues to bite: COVID-19 and the dental market

by Jeremy Booth

• The latest earnings reports from major dental companies show that dental offices around the world are open and doing business, but that the market has not yet returned to 2019 levels. (Image: Mirror-Images/Shutterstock.com)

■ Sales at major dental companies climbed in the second quarter of this year compared with the same period in 2020, during which the pandemic brought dentistry to a grinding halt. In the latest series of earnings reports, some dental company chiefs praised the recovery of the market, whereas others outlined falling discretionary spending, concerns about SARS-CoV-2 variants and sluggish vaccine rollouts in some geographic areas.

David Katzman, CEO of tele-orthodontics company SmileDirectClub (SDC), was candid when he spoke with analysts in August. SDC missed its earnings expectations for the quarter. Katzman pointed to SDC's newest international markets, Spain and Germany, where he said "lingering effects" of the COVID-19 pandemic had hampered earnings. He said that, at home in the US, the company's target demographic had been hit hard in the pocket by the health crisis.

He explained: "[Our] core demographic, which has a median household income of \$68,000 (€58,000), likely experienced outsized pressures in their capacity to spend on discretionary items given the significant inflationary headwinds facing the non-discretionary categories like transportation, utilities and food."

SDC's target consumers, Katzman said, appeared to be favouring products over services owing to pent-up demand for apparel, automobiles and home-related goods. Joblessness was also having an impact. He explained: "Further contributing to the unfavourable condition of constrained capacity on spend on discretionary items and a general consumer preference for products over services, joblessness remains pervasive in four of our larger states, California, New York, Texas and Florida. Through 10 July 2021, these four states represent 40% of the nation's continuing jobless claims."

Total sales revenue at SDC for the quarter was \$174.2 million, an increase of 62.7% year over year, and the company completed just over 90,000 unique aligner shipments, compared with 57,136 in the second quarter of last year. During the call with analysts, Katzman detailed the financial costs of a June cyber-attack on the company and praised growing acceptance of tele-orthodontics.

Align Technology posts \$1 billion in sales

Staying with orthodontics, leading clear aligner maker Align Technology fared better than SDC during the quarter, as it continued to break its own earnings records. The company sold \$841 million worth of clear aligner trays during the period—a year-over-year increase of 181.9%—and its imaging systems and CAD/CAM services revenue was \$169.8 million, a 214.7% year-over-year increase. Total sales therefore topped \$1 billion for the first time. Compared with the first quarter of this year, the company's clear aligner and imaging services revenue streams were up 11.6% and 20.0%, respectively. Clear aligner volume for the second quarter increased by 200.0% year over year to reach 665,600 cases, and clear aligner volume for teenagers increased by 156.3% to reach 181,000 cases.

A look at the company's regional figures shows that dentists in most regions provided Invisalign treatment to more patients in the second quarter of this year than they did in the quarterly periods before the pandemic. In the Americas region, case volume was up 260.7% year over year. International shipments were up 149.2%, and those in the Europe, Middle East and Africa region (EMEA) were up 265%, led by Iberia, the UK and Italy. In the Asia Pacific region, clear aligner volume increased by 50%, led by Japan, China, Australia and New Zealand.

Straumann remarks on improved patient volumes in 2021

The results of another international player, Straumann Group, will give readers an impression of the state of global dental markets. In the EMEA region, total sales of CHF 230 million (€212.7 million) represented a 102% year-over-year increase, which Straumann credited to sales of premium and challenger implant brands, its orthodontics business, and strong sales in Germany, Iberia, France, the UK and Turkey. Straumann's organic sales growth in North America decreased by 42% during the second quarter of 2020; this year, it increased by 135% to reach CHF 152 million. Sales in the Asia Pacific region rebounded by 63% in the period to reach CHF 103 million. In Latin America, where Brazil is the largest contributor to regional revenue, CHF 31 million in sales represented a year-over-year increase of 174.4%.

Straumann's total revenue for the second quarter was CHF 516 million. This represented a year-over-year increase of around 92%—in the comparable period last year, Straumann's total revenue of CHF 248 million was down nearly 40%.

Straumann published a half-yearly report at the close of the second quarter, and in the report, the company said that dental practices had been operating with "healthy patient flows throughout the first half of 2021".

Straumann CEO Guillaume Daniellot reminded analysts in a conference call: "When we held our last media conference three months ago, our industry was in lockdown. COVID-19 had cut our monthly revenue by 70%, and we were initiating measures to reduce our headcount and cost base in preparation for the economic recession that the pandemic is expected to trigger." He added that the situation on the day of the latest media conference (12 August 2021) was more positive. "With the exception of Latin

America, which is still in the eye of the storm, all of our regions report that more than 85% of dental practices are open. Correspondingly, between 85% and 100% of our facilities are open and our sales team are operating at similar levels. In short, both we and our customers are back to business."

Envista optimistic about continued recovery

Sales at Envista Holdings in the second quarter were \$740.1 million, an increase of 104.4% year over year. The close of the period marked four consecutive quarters of growth for Envista's premium implant business—which achieved 90% core sales growth in the three-month period ended 30 June.

Envista CEO Amir Aghdaei said during the company's earnings call that Envista had seen solid demand for its infection prevention business, owing to the fact that enhanced disinfection protocols are now the new normal. Aghdaei said: "We're excited about the opportunities for a new CaviWipes 2.0 product. It features a two-minute universal contact time, shows efficacy against a broad range of pathogens, including the COVID-19 virus, and increases our opportunity to penetrate the medical market further while enhancing our dental position."

Howard Yu, senior vice president and chief financial officer at the company, said: "While patient volumes have improved to pre-pandemic levels in our major markets, we continue to see inconsistent roll-outs of vaccines and spikes in COVID-19 variant infections in several geographic areas, including Western Europe and parts of the United States. Overall, we are mindful of the pandemic-related risks but remain optimistic for a continued recovery throughout the balance of 2021."

Aghdaei added: "While vaccination rates are increasing every day, we are mindful of the risk related to COVID-19 variance, continue to moni-

tor reopening of economies and acknowledge that vaccination rollout worldwide [is] at different stages. However, we believe that patient demand will sustain at pre-pandemic levels, due to the industry's enhanced sanitation measures."

Envista owns more than 30 dental brands, including major names like KaVo Kerr, Nobel Biocare and Ormco.

Dentsply Sirona cautions over "ongoing impact"

Net sales at Dentsply Sirona for the second quarter were \$1.067 billion, a 117.3% year-over-year increase. In the dental consumables segment, net sales of \$445 million for the period represented a 138.0% increase. Sales of dental technology and equipment reached \$622 million, a year-over-year gain of 104.6%.

US sales were \$366 million, up 179.4% year over year, European sales of \$431 million were up 99.5%, and sales in all other markets reached \$270 million, an increase of 87.5%.

In a call with analysts, Jorge M. Gomez, executive vice president and chief financial officer at the company, commented: "Growth was strong across all regions and in all categories, most notably within the endo and [restorative] parts of our portfolio, which represent strategic priorities for our business."

CEO Donald M. Casey said that the dental market continues to recover and to demonstrate its underlying resilience, but that dentistry is not yet out of the woods. "The pandemic remains a key consideration for us as we evaluate our performance for the quarter and plan for the remainder of the year," he explained. "At this point, we feel the market is operating slightly below 2019 levels with a continued recovery expected for the remainder of the year. As we navigate through the newest phase of the pandemic, we are mindful that there [continues] to be some ongoing impact in certain regions and some stresses to the supply chain." ◀

Newest digital tools from Amann Girschbach are patient oriented and enhance teamwork



* The Ceramill Direct Restoration System (DRS) joins dental technicians and practitioners together in an interdisciplinary and future-oriented team and enables easy entry into same-day denture fabrication (Same Day Dentistry).

Digitisation in the dental industry is unstoppable—it heralds change and, at the same time, offers unlimited potential. Digital technology brings about enormous advantages, such as the simplification of process steps, reproducibility and a high degree of predictability.

Making these advantages tangible for dental professionals is precisely the mission that Amann Girschbach has set itself. Now, after five years of development, the company has launched AG.Live, its largest digitisation offensive to date. AG.Live is a web-based portal for collaboration between laboratories

and dentists, and it strives for perfection across the exhaustive digital services that it offers. For example, the platform is a central tool for digital case management, a networking, infrastructure and material management tool, and a support and knowledge database that will gradually replace the company's previous customer portal, C3.

The AG.Live platform also networks machines and materials in the laboratory, thereby simplifying processes and increasing quality and reproducibility. The greatest advancement that the platform offers, however, is that it links together the

growing global network of dental professionals who are operating digitally. This link bridges the interdisciplinary gap between dentists and dental technicians and facilitates future-oriented cooperation. Harnessing this network of new and optimised partnerships, dental participants can focus on their strengths and better position themselves on the market.

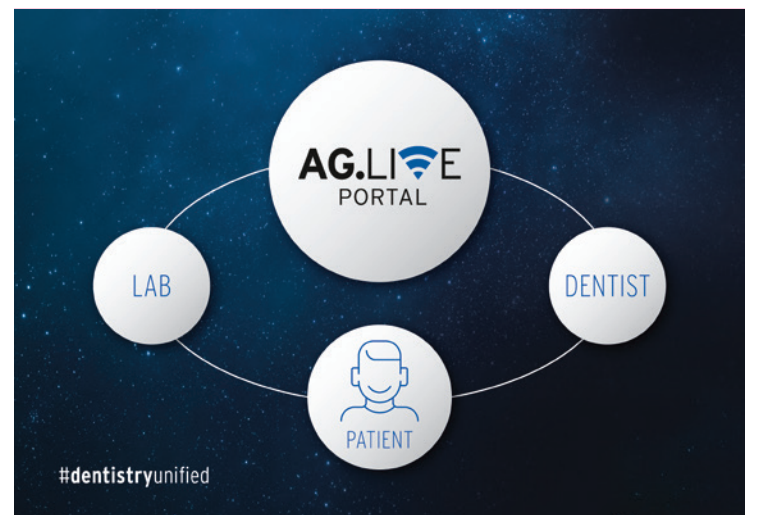
The interface of the Ceramill Direct Restoration System (DRS), with which Amann Girschbach extends the digital Ceramill CAD/CAM workflow to the dentist, is also provided by AG.Live. The Ceramill DRS

Connection Kit server is the entry-level option, and it consists of the Ceramill Map DRS intra-oral scanner and appropriate scanning software, as well as the connection to AG.Live. Any order data, including all the required information, can therefore be shared seamlessly and in real time, as the practice and the laboratory are digitally linked via AG.Live. This permits same-day dentistry for simple restorations, including those using zirconia, owing to its use of the Ceramill DRS High-Speed Zirconia Kit. This is further supplemented by the Ceramill DRS Production Kit, which allows fabrication to be performed directly in the practice by the dentist. Here, the laboratory can assist the practice in terms of design, expertise, service and advice.

In total, this results in access to three Ceramill team workflows, depending on the kit equipment and the team constellation. Owing to the modular design of Amann Girschbach's

solutions, it is possible to begin working with the Ceramill DRS Connection Kit and to upgrade at a later time to the Ceramill DRS Production Kit. In addition, the Ceramill DRS system is fully integrated and all components are compatible with one another and originate from a single source. Thus, Amann Girschbach is able to take full responsibility for service, support and the final restoration. Availability of the individual kits can be requested from respective dental dealerships.

With an expanding portfolio of digitised solutions such as AG.Live and DRS, Amann Girschbach supports dental practices and laboratories on their journey to a patient-oriented digital future. In addition to a number of innovations to its proven CAD/CAM products and materials, the company will focus on solutions for interdisciplinary cooperation between dental laboratories and dental practices at its IDS booth (#A010/B011 in Hall 3.2). ◀



* The digital platform AG.Live paves the way for smooth interdisciplinary collaboration.

IDS 2021: exocad announces its largest ever presence at trade show

Exocad, an Align Technology company, has announced its expanded presence at the International Dental Show (IDS) 2021. exocad will showcase its newest software releases and innovations for dental technicians and dentists at Booth A020 in Hall 3.2, where it will have 360 m² of exhibition space and a multitude of demo stations.

IDS is one of the most important dates on exocad's calendar. The international trade show is held biennially in Cologne and offers additional opportunities for the company to connect with new partners and deepen long-standing relationships.

"Proximity to dental technicians and clinicians is key for us at exocad, and for that reason we are delighted to finally reconnect in person. It was

**MEET US AT
IDS 2021
Booth A-020
Hall 3.2**

exocad

always clear for us that we'd par-

ticipate in IDS, but noticing how keen our users and partners are for

trade shows, we've decided to extend our presence at this year's

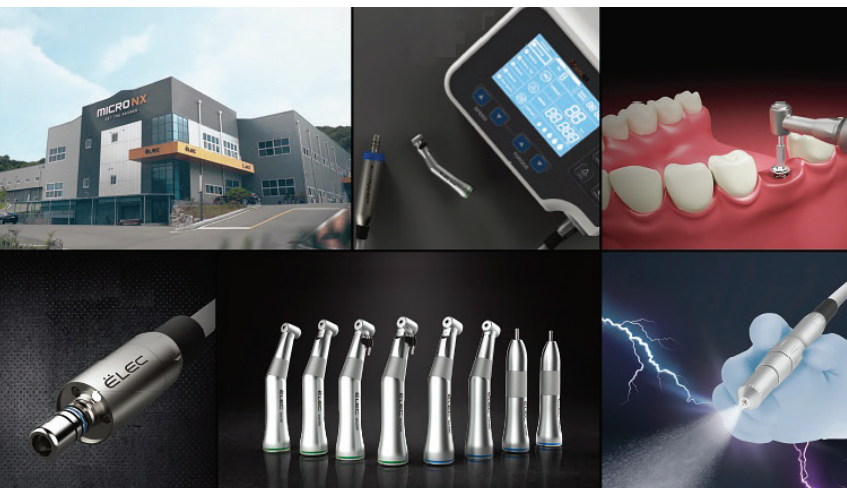
event," said Tillmann Steinbrecher, exocad CEO. "At IDS 2021, we will showcase our wide spectrum of innovative solutions for labs and practices, inviting them to discover these at our interactive demo stations."

Participants can experience exocad's variety of software solutions, including DentalCAD, ChairsideCAD and exoplan, and meet exocad's own experts as well as the renowned dental trailblazers Waldo Zarco Nosti and Dr Gulshan Murgai.

Exocad will present a new booth design at IDS 2021, reflecting the company's continued innovation and growth. For those who will not be able to attend IDS 2021, the trade show will offer a virtual experience that will feature many exocad highlights.

On-site participants can find exocad at booth A020 in Hall 3.2, and additional information is available at exocad.com/ids. ◀

Dental electric motor company Micro-NX to launch handpiece line-up at IDS 2021



■ Micro-NX is a South Korean company that specialises in manufacturing dental electric motors, including motors for implant surgery procedures. Its electric motors are manufactured using a technology patented in China, Japan and the US. They are exported worldwide and are growing in popularity. At IDS 2021, Micro-NX will launch a new line of products, including contra-angle and straight handpieces available in gear ratios 1:1, 16:1 and 20:1.

The handpieces were developed with Micro-NX's own technology. In the South Korean market in particular, the company's electric motor, known as ELEC, boasts a unique market share.

"Not only is the torque strong but also the precision is high, so when removing prostheses, chair time is reduced by one-third," says Dr Jung-soo Kim, head of a dentist's office, who has been using the electric motor for more than ten years. "It is very use-

ful for trimming margins with high torque at low speed and for precision preparations which can increase the completeness of prostheses." He also stressed that "the greatest advantage of ELEC is that it can be adjusted while checking the rotational speed directly, so that one can maintain constant rotational speed and torque of the handpiece".

Micro-NX is a B2B dental unit and implant manufacturer. It expects to expand its business with the launch of its new handpiece line. The company is concentrating on liaising with other manufacturers in order to provide products fitting their requirements.

"The electric motor is an essential part of the handpiece instrument, and we can meet our customers' expectations because, with our company, there is the advantage of being able to obtain both from a single source," said a Micro-NX spokesperson.

As a member of the Daegu Technopark, Micro-NX will be exhibiting its product portfolio at IDS 2021 (Hall 3.1, Booth L060/M060). More information about the company can be found at www.micronx.co.kr. ◀

HASS meets highest demands for aesthetic restorations

■ At IDS 2021, all-ceramic dental materials manufacturer HASS (Human-Aid System Supplier) will be presenting a wide range of glass-ceramic solutions for aesthetic restorations that meet the requirements of both chairside and laboratories.

In focus for IDS will be Amber Mill, which was named a WOW! Product in October 2020 by the Journal of Dental Technology, published by the National Association of Dental Laboratories in the US. Amber Mill is available in four shades: high, medium and low translucency, as well as medium opacity. It is a highly aesthetic and innovative nano-lithium disilicate CAD/CAM block with the following advantages:

1. Amber Mill demonstrates both opalescence and fluorescence of natural teeth.
2. It is possible to vary translucency with a single block of Amber Mill by modifying the heat treatment temperature according to the targeted translucency. This will enhance the work process efficiency and inventory management for CAD/CAM milling blocks.
3. The denser and more cross-linked crystal structure of Amber Mill results in superior physical properties.



4. Less chipping—the outstanding machinability of Amber Mill is evident from the edges of the milled restorations.

In addition, the company is showcasing other members of its CAD/CAM line: the Amber Mill Hhybrid ceramic block and the Zirtooth multilayered zirconia disk; the glass-ceramic ingots Amber Press and Amber Press Master that are suitable for hydrofluoric acid veneering material; and Amber LiSi-POZ, an innovative and differentiated product utilising the technique of lithium disilicate ingot pressing on a zirconia framework. Dental professionals can also try out Amber Vest, an ultra-fine phosphate-bound investment for press ceramics, and COCO Lux, a lighting device for dental photography with mobile phones.

At IDS, the HASS booth 0069 can be found in Hall 11.2. Special gifts will be available on-site. More information about the company can be found at www.hassbio.com. ◀

Diagnocat AI—a personal assistant in diagnostics and treatment for every dental team

■ Despite the development of technologies for the prevention and treatment of dental disease, more than 3.5 billion people suffer from oral disease. Untreated dental caries in permanent teeth is the most common, and severe periodontal disease affects almost 10% of the global population.

The solution is to recognise that dentistry today has become so technologically complex that the quality of treatment is no longer in the hands of one single doctor. The dental team consists of the dentists themselves, hygienists, treatment managers and other specialists under one roof or in different practices. This treatment team uses many different tools, in addition to the medical information system, to interact with one another: messengers, e-mails, task managers, etc. It is evident that most of these standard services are not customisable for the needs of dentistry, that they are inconvenient, that they do not comply with personal data laws and that they are ultimately ineffective. As a result, diagnostics and planning are incomplete, comprehensive treatment appears disjointed, and it is difficult to determine and take into account the position of individual doctors.

How can artificial intelligence solve these problems, to make diagnosis more accurate and optimise treatment?

The innovative Diagnocat dental software employs artificial intelligence (AI) to create a platform for effective collaboration between dentists, managers and patients.

The Diagnocat service consists of four main components:

1. AI that analyses all types of dental images, including intra-oral radiographs, panoramic

radiographs and CBCT scans, and assists the dentist in diagnosis and treatment planning;

2. a cloud to store and share any dental images, including STL files and dental photographs;
3. a task manager for real-time communication, assignment of tasks and notification of teammates of status changes online; and
4. a clear report for a patient so that he or she can easily understand that treatment is necessary.

How can Diagnocat be practically applied in a clinic?

The possibilities of the service can be illustrated using a clinical example. A 44-year-old female patient complained about her smile because she was dissatisfied with the appearance of her teeth regarding their colour and size and had decayed and missing teeth. At the initial consultation with a general dental practitioner, images using the digital smile design protocol and CBCT were taken. Integration with most dental imaging equipment manufacturers allows dentists to automatically create patient accounts and upload images. The doctor discussed her dental health with the patient using a photographic protocol and a Diagnocat radiographic report (CBCT analysis). The treating physician analysed the automatically created panoramic reformat, the slices of each tooth and the findings generated by the AI.

Diagnocat identifies the most common dental pathologies with an accuracy of over 90%. If necessary, the dental professional comments on the findings and corrects and completes the diagnosis. He or she can then send



the AI report in PDF format to the patient or provide a hard copy.

The treatment coordinator uses the report to familiarise himself or herself with the clinical case and adds other necessary specialists to the personal Diagnocat account. The task planner allows the user to set a deadline and track the progress of the treatment.

The HIPAA- and GDPR-compliant messenger allows doctors to discuss the case in real time and comment on dental images—both from a desktop computer and from a mobile phone. The notification system sends e-mails to users when new images are uploaded to the patient's account, when messages are received and for other important events.

In the process of dental rehabilitation, a prosthodontist, oral surgeon and orthodontist were involved. Throughout the entire treatment period of 13 months, these doctors used Diagnocat continuously. No additional software products, except for a management information system, were required.

Diagnocat perfectly complements any management information system and can be integrated into it for information exchange and for automated filling of a tooth chart. Diagnocat is an indispensable tool for dentists working remotely and/or dealing with complex dental rehabilitation. More information can be found at www.diagnocat.com. During IDS, Diagnocat will be exhibiting at booth R047 in Hall 10.2. ◀

Glass hybrids versus composite

Efficacy and cost-effectiveness in a multicentre clinical study.

■ Through the Minamata Convention on Mercury in 2013, the countries of the EU committed themselves to completely or largely eliminating mercury-containing industrial products such as dental amalgam from the supply and disposal cycle by 2030.¹ In 2020, the EU came to the conclusion through an expert opinion that not only the planned phase-down but even a complete phase-out of dental amalgam is possible. Accordingly, dental amalgam is becoming a material of the past. In Germany and many other countries, however, this development had already been apparent for some time without the Minamata agreement. Modern tooth-coloured restorative materials such as composites or glass ionomers enable metal-free restoration of tooth structure defects with better aesthetics and less substance loss during preparation.²

While composites have advantageous physical properties, such as high flexural strength, their use is technically demanding. Although the dental industry has been able to significantly reduce the complexity of the treatment steps required for placing a composite filling in recent years, even modern one-step adhesive systems in combination with bulk fill composites—which often have to be applied in at least two increments, depending on the cavity dimensions and material—still require step-by-step application and adequate drying. In addition, composites exhibit an increased risk of secondary caries, especially at the gingivo-cervical margins, compared with amalgam, and the time-saving materials mentioned may be particularly problematic in this respect.

Glass ionomers, however, were long considered to be temporary materials with a limited longevity of use in the posterior region. This was largely due to the physical properties of these materials, which exhibited low flexural strength and limited abrasion resistance. Aiming to eliminate these disadvantages, advanced high-viscosity glass ionomers covered with a light-polymerised resin coating have been introduced.³

In 2015, a newer class of restorative materials was launched, the glass hybrids. These materials are fluoroalu-



• A considerable range of materials, including glass hybrids and composites, are available for the restoration of posterior dental cavities resulting from dental caries. (Image: Stasiq/Shutterstock.com)

minosilicate glasses reinforced with a second, smaller and more reactive silicate particle and acrylic acid molecules with higher molecular weight, which can increase the matrix cross-linking and, consequently, the mechanical properties of the material.^{4,5} A nano-filled resin coat is used to cover the restorations and is supposed to increase the resistance of the material to mechanical forces^{5,6} and allows greater surface stability and aesthetics. Even if the resin coat is subject to certain wear in the masticatory load-bearing area, it can still be reapplied, and thus, above all, the problem of abrasion stability can be largely eliminated.⁵

Glass hybrids also have several advantages over composites:

1. They are self-conditioning and self-adhesive; thus, the application of an adhesive system is not necessary.
2. They are applied in one increment, that is, truly in bulk—regardless of the cavity dimension—among other things because reliable polymerisation occurs in all layers and independent of light polymerisation steps.

3. They are also moderately tolerant of moisture.

In a recently published study, a modern glass hybrid material was tested for the first time against an established composite material for the restoration of two-surface, occlusal-proximal restorations in molars, that is, in the load-bearing area. This was a randomised controlled clinical trial in which patients with two molars in need of restoration were randomly assigned to receive the glass hybrid material in one molar and the composite material in the other molar; the materials were then compared in the same patient.⁷ The special feature of this study was the large number of patients. Moreover, it took place in four different countries—Croatia, Serbia, Italy and Turkey. In all four countries, patients were treated in university hospitals. Patients had to be at least 18 years old and demonstrate tooth sensitivity to the vitality test. A total of 180 patients, each with a pair of molars to be restored (i.e. 360 molars), were included.

The teeth were first cleaned, local anaesthesia was applied, the molar to be restored with composite (Tetric Evo-

Ceram, Ivoclar Vivadent) was isolated using a dental dam, and the molar to be restored with a glass hybrid (EQUIA Forte, GC) was isolated using cotton rolls, and then the cavity preparation was performed. Segment matrices (Palodent Plus, Dentsply Sirona) were used to shape the proximal contacts. A two-step self-etching adhesive system (AdheSE, Ivoclar Vivadent) was applied in the composite group according to the manufacturer's instructions. Cavities in the glass hybrid group were conditioned with 20% polyacrylic acid (CAVITY CONDITIONER, GC) prior to placing the restoration. Both materials were then applied according to the manufacturers' instructions, and the glass hybrid was subsequently coated with a nano-filled resin coat (EQUIA Coat, GC).

Patients were followed up for a total of three years; the planned follow-up duration was five years. Each patient was examined by two blinded, independent and calibrated investigators using the FDI World Dental Federation criteria.⁷ Statistical methods were used to determine the mean time to complication for both groups. Furthermore, the costs for the initial and subsequent treatments within the study period, for example for restorative, endodontic or surgical complications, were determined. For this purpose, fee items from the fee schedules for dentists of the various countries were used. It should be mentioned that these fee schedules are applied very differently in the four countries and that the costs in the analysis were determined from a university setting perspective instead of that of a private practice. To allow comparability across the four countries, costs were harmonised using the 2018 purchasing power parities⁸ and expressed in US dollars per tooth. Cost and efficacy differences, that is, the difference in US dollars per gain or loss in complication-free time (in months), were finally calculated, and stratified analyses were performed for each country in addition to the main analysis.

Of the 180 patients, significantly more were treated in Croatia and Turkey than in Italy and Serbia. In Italy, the patients were older than in the other three countries. A total of 32 patients could not be followed up during the three-year study, and 21 patients (27 molars) required follow-up treatment owing to complications. The two materials showed limited differences in complication-free time. Broken down by country, the survival time of glass hybrids tended to be longer than that of composites in Croatia and Italy and tended to be shorter in Serbia and Turkey. Overall, however, the differences were minimal and not statistically significant.

The results were completely different for the costs (Table 1). In Croatia, Serbia and Turkey, composite was initially significantly more expensive than glass hybrid. In these three countries, the use of glass hybrid also saved money over the entire study period. When looking at the cost-effectiveness difference, it became clear that any effectiveness advantage of composite was minimal, but the cost difference was relatively large. Overall, each additional month without complications for the composite compared with the glass hybrid group cost US\$270. However, with slight variations in this value in the different centres, this exact pattern was also confirmed in the four different countries.

The results of this study are relevant on many levels. It is a large randomised controlled clinical trial conducted in four different countries. The high methodological quality and randomised design confer high internal validity, and thus the study results are presumably robust. Based on the fact that the study results were similar across the four centres in very different patients, the external validity, that is, the generalisability of the study results, can also be assumed to be high. In addition, a high methodological standard was implemented: the investigators were blinded (as far as this was possible as glass hybrid restorations and composite will have been identifiable for the investigator in individual cases) and calibrated before the examinations, and established examination criteria were applied. The consideration of multiple end points, such as complication-free time and cost-effectiveness, should also be emphasised.

This study is one of the first to compare the two existing amalgam alternatives, composite and glass hybrid, in such a design and for a crucial indication—restorations in the load-bearing posterior region (Fig. 1).² The results are relevant, among other things, because even in this difficult indication, glass hybrids performed overall on a par with composites (with minor differences between countries). It is also relevant that glass hybrids were significantly more favourable than composites in almost all the centres when it came to costs—both initially and in the long term. The latter in particular should be emphasised, as long-term cost-effectiveness can be significantly influ-

Parameters	Countries			
	Croatia	Italy	Serbia	Turkey
Age (years)	26.5 (7.4)	44.6 (15.8)	31.7 (11.4)	30.6 (11.2)
Sex (f/m)	44/16	16/16	16/12	40/20
Glass hybrid cost (US\$)	92.7 (7.4)	146.1 (12.9)	44.0 (3.3)	66.2 (11.9)
Composite cost (US\$)	126.42 (16.3)	146.2 (19.3)	61.0 (3.5)	128.6 (3.8)
Survival time glass hybrid (months)	35.1 (3.4)	35.3 (2.3)	34.1 (6.2)	35.0 (3.0)
Survival time composite (months)	34.3 (5.1)	35.0 (4.0)	34.9 (4.6)	35.8 (1.0)

Table 1: Patient characteristics, costs and mean (standard deviation) survival times.



1a–d: Restoration with the glass hybrid EQUIA Forte in the multicentre study. (a) Directly after placement. (b) Recall after one year. (c) Recall after two years. (d) Recall after three years.

enced by complications over the follow-up period. Numerous studies in dentistry have shown that initially less expensive interventions are not necessarily cost-effective in the long term; a high degree of complications may well offset initial savings and make an initially less expensive alternative more expensive in the long term.^{9,10} This was not the case in this study; glass hybrids were initially less expensive in three centres, and they were able to maintain this cost advantage in the long term, partially because the complication rates of glass hybrids and composites were similar. It must be added that, based on this one study, it is not yet possible to make

a complete generalisation of the results; the data on glass hybrids for use in larger load-bearing posterior cavities are so far of limited quantity. Although *in vitro* studies and the present randomised controlled trial are promising, further robust clinical data, ideally from practice-based multicentre studies, should be collected before a final comparison between glass hybrids and composites can be made for this indication. Nevertheless, it should be emphasised once more that glass hybrids show an amalgam-like application. Moreover, the study confirmed a clinical performance similar to that of composites and a high cost-effectiveness. ◀

Editorial note: A complete list of references can be obtained from the publisher. The study, titled “Cost-effectiveness of glass hybrid versus composite in a multi-country randomized trial”, was published in the April issue of the Journal of Dentistry.

References

[1] United Nations Environmental Programme, Minamata Convention on Mercury, United Nations, New York, 2013.
 [2] F. Schwendicke, G. Gostemeyer, M. Stolpe, J. Krois, Amalgam Alternatives: Cost-Effectiveness and Value of Information Analysis, *Journal of Dental Research* (2018) 22034518782671.
 [3] A.M. Kielbassa, E.P. Oehme, N. Shakavets, M. Wolgin, In vitro wear of a (resin-coated) high-viscosity glass ionomer cement and a glass hybrid restorative system, *Journal of Dentistry* (2020) 103554.
 [4] M. Moshaverinia, A. Navas, N. Jahedmanesh, K.C. Shah, A. Moshaverinia, S. Ansari. Comparative evaluation of the physical properties of a reinforced glass ionomer dental restorative material. *J Prosthet Dent.* 2019 Aug;122(2):154–9. doi: 10.1016/j.prosdent.2019.03.012. Epub 2019 Jul 17.
 [5] F. Schwendicke, J. Knies S, Paris, U. Blunck. Margin integrity and secondary caries of lined or non-lined composite and glass hybrid restorations after selective excavation *in vitro*. *Oper Dent* 2017 42:155–64. <https://doi.org/10.2341/16-095-L>.
 [6] Z.B. Kutuk, O. Ozturk, F.Y. Cakir, S. Gurgan. Mechanical performance of a newly developed glass hybrid restorative in the restoration of large MO Class 2 cavities. *Nigerian Journal of Clinical Practice*, Vol. 22, Issue 6, June 2019. <http://www.njcponline.com. IP: 188.118.59.242>.
 [7] I. Miletia, A. Baraba, M. Basso, M.G. Pulcini, D. Markovi, T. Peri, C.A. Ozkaya, L.S. Turkun, Clinical Performance of a Glass-Hybrid System Compared with a Resin Composite in the Posterior Region: Results of a 2-year Multicenter Study, *The Journal of Adhesive Dentistry* 22(3) (2020) 235-247.
 [8] OECD, Purchasing power parities (PPP) (indicator), 2020. (Accessed 20 November 2020).
 [9] F. Schwendicke, Less Is More? The Long-Term Health and Cost Consequences Resulting from Minimal Invasive Caries Management, *Dental Clinics* 63(4) (2019) 737–49.
 [10] F. Schwendicke, J. Krois, M. Robertson, C. Splieth, R. Santamaria, N. Innes, Cost-effectiveness of the Hall Technique in a Randomized Trial, *Journal of Dental Research* (2018) 22034518799742.

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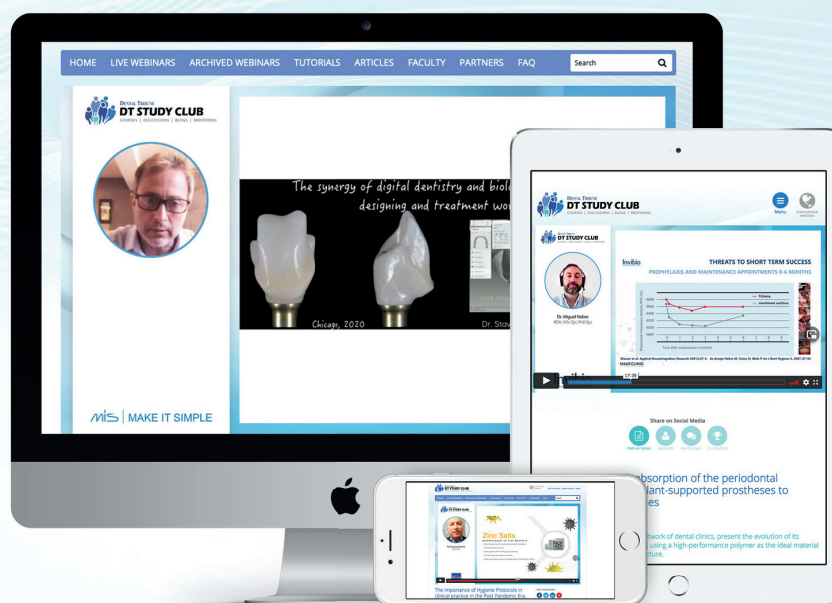
Prof. Falk Schwendicke is the head of the Department of Oral Diagnostics, Digital Health and Health Services Research at Charité—Universitätsmedizin Berlin in Germany. He has a demonstrable track record of clinical and scientific excellence in the fields of diagnostics and operative, preventive and data-driven dentistry. Prof. Schwendicke’s research is aimed at answering questions of high clinical relevance. His research focus is on cariology and restorative dentistry, preventive and public health dentistry, dental diagnostics and artificial intelligence, as well as health economics and health services research. He has authored over 300 articles, edited various books and provided over 20 book chapters on a range of issues—from caries management to health economics.

Prof. Schwendicke has been awarded a range of prestigious awards, among them the International Association for Dental Research’s Basil G. Bibby Young Investigator Award and Lion Dental Research Award, numerous awards from the Deutsche Gesellschaft für Zahnerhaltung (German society of conservative dentistry) and the David Sackett Award from the German Network for Evidence-based Medicine.

He reviews for over 40 peer-reviewed journals, among them *The Lancet*, as well as for various national funding agencies. He has served on the editorial boards of various dental journals and is presently an associate editor of the *Journal of Dental Research*.

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When in Cologne, get out and about

■ Cologne is one of Germany's most diverse, historic and rowdy cities—famous in equal measure for its architecture, night life, art and gastronomy. Read on for selected tips on finding your feet, finding something to eat, and finding some of the many surprises that the city has to offer.

Cologne is an old city, having been founded by the Romans nearly 2,000 years ago. Since then, it has given us many different things, including the world's tallest cathedral, a type of perfume marketed for men, and a long list of influential and notable residents. Nowadays, the largest city on the Rhine has come into its own as a stronghold of the German carnival tradition and a bastion of contemporary European culture. You

painter. You may prefer to simply take a selfie in front of the cathedral's superlative facade and then head off. Rest assured—Cologne has much more to offer!

Just south of the cathedral is the Heintzelmännchen fountain (a nod to the city's love of folklore) and the 900-year-old city hall. A short ride west will bring you to the expansive, park-like Melaten cemetery, home to the remains of many notable residents—including Johann Maria Farina, who invented eau de cologne, and Alfred Nourney, Cologne's own Titanic survivor.

To get to know the city from a different perspective, take a city tour, the themes of which are so diverse that there is literally some-

Visitors to IDS should consider taking a break every once in a while, and what better way to do so than by enjoying a piece of cake and a cup of hot coffee? The multicultural Ehrenfeld district (north-west of the inner city) offers a relaxed and interesting atmosphere, and a number of good cafes. Visit the cosy and slightly hidden Kaffeebud Ehrenfeld to find out what a "third wave" coffee is, or sample a creamy latte and authentic New York-style cheesecake at Cafe Cafe Ehrenfeld (cafecafe.de), where the breakfast menu is also to be recommended.

If you are longing for a holiday feel and find yourself in the southern part of the inner city, Sabor 'ermoso has surfboards hanging on the walls, little Spanish delicacies and an excellent cappuccino—perfect to unwind after a busy day of dental business.

Cologne by night

As the sun goes down, Cologne reawakens in a different light, and so it is easy to enjoy the city once the trade fair halls close. Keep an eye out for the Büdchen (kiosks), which are found on many street corners. Locals will stop by one of them for a drink before heading to their favourite Kölsch-serving bar, so why not join them? The trendy bar Zum scheuen Reh is located next to the Köln West train station and is perfect for starting the evening: get to know some Cologne locals while enjoying a couple of long drinks—non-alcoholic drinks are also plentiful—and the live music on offer in the bar's outdoor area (www.zum-scheuen-reh.de).

Afterwards, you can hit Bumann & SOHN, which is close to the Ehrenfeld train station. It is here that beer garden atmosphere meets urban industrial vibes, and this is where the dynamic, alternative flair of this district can be felt best (www.bumann-undsohn.de). Coming early pays off!

The next destination is STAPEL BAR, which is located within walking distance from Bumann & SOHN at the heart of the Helios district. At STAPEL BAR, you can buy freshly brewed Gaffel Kölsch from the barrel and experience a colourful music programme, including DJs, live acts and local artists (www.stapel.bar). Are you intrigued by the original steel dartboard? Then this is also the place for a casual round of darts. If you are in the mood for dancing, you can spend the rest of the night in the northern part of Cologne, between Ehrenfeld and Nippes at the Odonien nightclub, to be exact. Apart from concerts, plays, flea markets and open-air film showings, you can dance to predominantly electronic club music in the midst of obscure metal sculptures and impressive fireworks.

Arts and culture

Cologne has a great deal to offer as far as arts and culture are concerned. Collections of famous canonical artworks can be found in the celebrated Museum Ludwig—this might be your thing. However, the museum's current temporary exhibition, "In Situ: Photo Stories on Migration", offers a window into local history. The personal photographs on show document the period between 1955 and 1989 (when the social make-up of Cologne was forever altered by an influx of migrant workers) and may change the way that you see and understand the city today (museum-ludwig.de).

Speaking of understanding Cologne, how has this carnival-obsessed city negotiated social distancing and the cancellation and scaling down of two successive carnival seasons? The exhibition "Alaaf auf Abstand. Bilder einer anderen Session" is taking place online and in public spaces across the city, and is therefore also a must for virtual visitors to IDS. Organised by Kölnisches Stadtmuseum, it features photographs and digital media that investigate the hidden dynamics of a pandemic carnival season. A virtual tour of the show, followed by a real-life scavenger hunt through the inner city, is highly recommended (alaaf-auf-abstand.de).

Cologne is also home to the Käthe Kollwitz Museum Köln, which specialises in exhibiting work by and relating to the pioneering female artist (1867-1945), who is nowadays associated with the expressionist movement. A new exhibition—"Der Ausdruck der Augen vergrübelt und fern"—presents a variety of Kollwitz's portraits of friends, family members and political figures across a range of media (kollwitz.de).

There are many, many more museums of note—the Museum für Angewandte Kunst Köln, the Wallraf-Richartz Museum, the Museum für Ostasiatische Kunst Köln, just to name a few. Film buffs should pay a visit to the Filmforum NRW, and one of many other highlights of the city for cineastes is the ODEON, a cosy,

retro-style movie theatre that shows art-house productions.

Food and drinks

Whether you are interested in music, art or history, Cologne and its attractions are best explored on a full stomach. For quite some time now, an unofficial institution of the city has been the falafel. Usually, it is freshly made with coriander or parsley (either Lebanese or Syrian style) and fried to perfection. In Cologne, these spicy chickpea balls taste like nowhere else in Germany and are preferably eaten with a giant spoonful of tahini. Try it yourself: take a stroll down Venloer Street in Ehrenfeld and see how long you can resist the smell of the various oriental bistros and cafes. Arguably, the best falafel can be found at the traditional Habibi (habibi-koeln.de), in doughnut shape at Vegan Food Revolution (vegan-food-revolution.de) or at Beirut restaurant, while enjoying a beautiful view over the Rhine (beirut-restaurant.de).

If your tastes are more carnivorous, however, then you should pay Karl Hermann's a visit. Also located on Venloer Street, here you will find high-quality burgers with freshly minced and succulently grilled meat patties—free from antibiotics—in a fluffy brioche bun (karlhermanns.de). If you still have some room left afterwards, you can hit Frittenwerk Köln for some delicious homemade fries (frittenwerk.com/koeln). Enjoy fries made from regular or sweet potatoes with chive-and-cheese topping. Whatever you choose, make sure to also try the lemon aioli and the homemade guacamole. Naturally, humans are not like goats, and these large amounts of salt need to be counteracted somehow, which is why a visit to one of the Kölsch-serving traditional restaurants is a necessity. Enjoy a chilled Kölsch beer like a true local at Bierhaus en d'r Salzgass (bierhaus-salzgass.de) or Weinhaus Vogel (weinhaus-vogel.de), where not only simple, authentic Cologne food is served, but also the spirit of the city can be experienced. Enjoy! ◀



◀ Cologne Crane Houses near the Rhine.



◀ The museum Ludwig for modern art in front of the Cologne Cathedral.

will not regret juggling your time at IDS to allow for an excursion into the heart of the city. A taste of what Cologne has to offer may leave you with a thirst for more.

Cologne by day

Most visitors will head to the cathedral. It is Germany's most visited landmark, after all, and an important site of pilgrimage in Europe. Keep an eye out for the Shrine of the Three Kings and the bold stained-glass windows in the south transept—they consist of 11,500 identically sized pieces of coloured glass and were installed in 2007 by Gerhard Richter, arguably Germany's most celebrated living

thing for everyone. A Segway tour will take you through, and beyond, the inner city, whereas a guided brewery tour will help you to discover the hidden, hoppy lanes of the historic city centre. You can explore the social fabric of Cologne by taking a "Love stories of Cologne" tour, or an LGBTQ tour. What role has mustard played in the history of Cologne? What is carnival really all about? And are people in Cologne actually obsessed with chocolate? Visiting one of the city's many specialty museums may answer these questions, while posing many others—visit tripadvisor.com for more information on these activities.



◀ Chickpea-falafel-balls with white sauce and pita-bread.



Useful information

Organisers

Koelnmesse and the Society for the Advancement of the Dental Industry (GFDI), the commercial enterprise of the Association of the German Dental Industry (VDDI)

Venue

- ▶ Koelnmesse, Messeplatz 1, 50679 Cologne, Germany, for in-person attendance
- ▶ The IDScnect digital platform for virtual participation

Exhibition opening hours

- ▶ 22-25 September 2021
- ▶ Daily from 9:00-18:00 for visitors
- ▶ Daily from 8:00-19:00 for exhibitors

Admission price

- ▶ Day ticket: €13.00
- ▶ Day ticket for students: €7.50
- ▶ IDScnect: Free with registration

Ticket distribution

In line with the Coronavirus Protection Ordinance of the German state of North Rhine-Westphalia, central registration is obligatory before entering the venue to ensure the collection of the contact data. For this reason, no admission tickets for IDS 2021 will be offered on-site, and ticketing will be paperless.

Tickets must be purchased online and will be available from the end of July 2021. To obtain an admission ticket, all visitors, exhibitors or journalists must upload a recognised digital proof of complete vaccination, testing or recovery.

In-person visitors are eligible for limited free public transport to and from the exhibition venue. See the event website for more information.

IDScnect

In tandem with the physical exhibition, the IDScnect digital platform will offer information on prod-

ucts and system solutions and will enable the streaming of webinars, press conferences, events and one-to-one conversations between company representatives and current/prospective clients.

Hygiene protocols

Face masks must be worn to enter the trade fair ground. Face masks will be provided at entrance areas for visitors and exhibitors who do not have their own. Additional masks and disinfectant products are available for purchase in Koelnmesse shops at the venue.

Full or partial face shields are not a substitute for mouth and nose protection, as the shields only stop aerosols to a limited extent. Therefore, transparent visors are permissible only in verified individual cases.

In accordance with the Coronavirus Protection Ordinance, people with COVID-19 symptoms—coughing, sniffles, loss of smell or taste, fever, etc.—are not allowed to enter the exhibition grounds.

Koelnmesse's #B-SAFE4business concept includes a comprehensive catalogue of protective hygiene measures. Personalised tickets and contactless identity checks and bag searches at the entrances will be available, while trained personnel will be present to ensure that all hygiene regulations can be easily observed and followed at each exhibitor's booth.

Visitors to IDS 2021 will be required to install the eGuard mobile application. This app is designed to guide visitors so that they can best avoid crowds and maintain appropriate social distancing.

Approved vaccines

The following vaccines are currently approved in Germany and the European Union: BioNTech/Pfizer, Moderna, AstraZeneca and Johnson & Johnson.

Any individuals who have been vaccinated with another vaccine that has not been approved in the

EU are additionally required to present a valid PCR test or another test taken within 48 hours prior to their journey's commencement.

Visa requirements

Schengen regulations mean EU nationals do not require a visa to enter the Federal Republic of Germany. Additionally, passport holders of 62 other nations may enter the country without a visa for business and travel purposes and remain for up to 90 days. All other foreign nationals must hold a valid visa to visit the country. Visit the website of the Federal Foreign Office for the most current information.

Since the German Federal Government classifies trade fair exhibitors and visitors as "business travellers with an important reason", there are no longer any formal, fundamental obstacles to participating in a trade fair in Germany.

Getting to Cologne

Travellers from around Europe and further afield can get to Cologne by air, rail or car. Cologne Bonn Airport is served by most European and international airlines and is located just outside of the city. Düsseldorf Airport is 65 km from Koelnmesse and the European aviation hub of Frankfurt Airport is located around 180 km from the showground.

Travellers arriving by air can take advantage of special prices being offered by the Lufthansa Group, the IDS's official airline, and those travelling by rail can make use of discounted fares offered by the German train service Deutsche Bahn. See the IDS site for comprehensive travel information.

Getting to and from the show

IDS 2021 ticket holders can use public transport within both the Rhein-Sieg and the Rhein-Ruhr transport areas free of charge. The Koelnmesse grounds are well con-

nected to the city's transport network. Suburban (S-Bahn) Lines 6, 11, 12 and 13 depart from the Köln Messe/Deutz train station (opposite the south entrance) and reach Cologne main station (Köln Hauptbahnhof) in just a few minutes. Underground Lines 1 and 9 stop at the Bahnhof Deutz station (3 minutes' walk from the south entrance), and 3 and 4 stop at the Koelnmesse station (east entrance). Taxi ranks can be found at all four main entrances, while the Hohenzollern Bridge offers an open-air alternative if the weather is fine.

Internet

Wi-Fi is available free of charge via the WLAN network #hotspot.koelnmesse after registering on the portal site.

Money

Germany uses the euro as legal tender and the exchange rates as at

26 July were €0.85 to US\$1, €1.17 to £1 and €0.0077 to ¥1.

Contactless payment will be accepted throughout the venue.

COVID-19-related cancellation

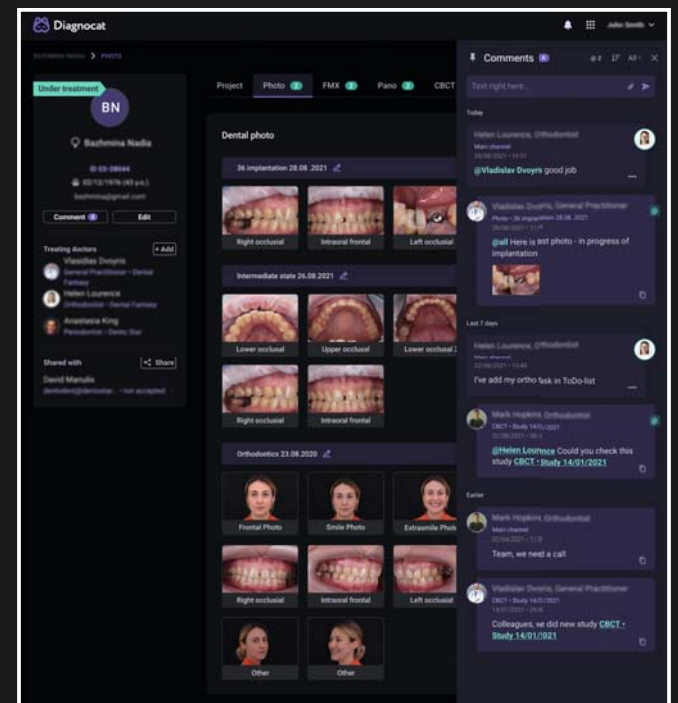
If IDS 2021 is postponed or cancelled by Koelnmesse, prospective attendees will be reimbursed for all tickets already paid for. Voucher codes will no longer be valid; new codes will be made available for the new date.

Important numbers

- ▶ Police, fire and ambulance: 112
- ▶ Medical centre, Hall 7: +49 221 821-3517
- ▶ medical centre, Hall 11.1: +49 221 821-2608
- ▶ Koelnmesse visitor hotline: +49 180 677-3577
- ▶ Security Office North: +49 221 821-2551 or -2552
- ▶ Security Office East: +49 221 821-2549 or -2550

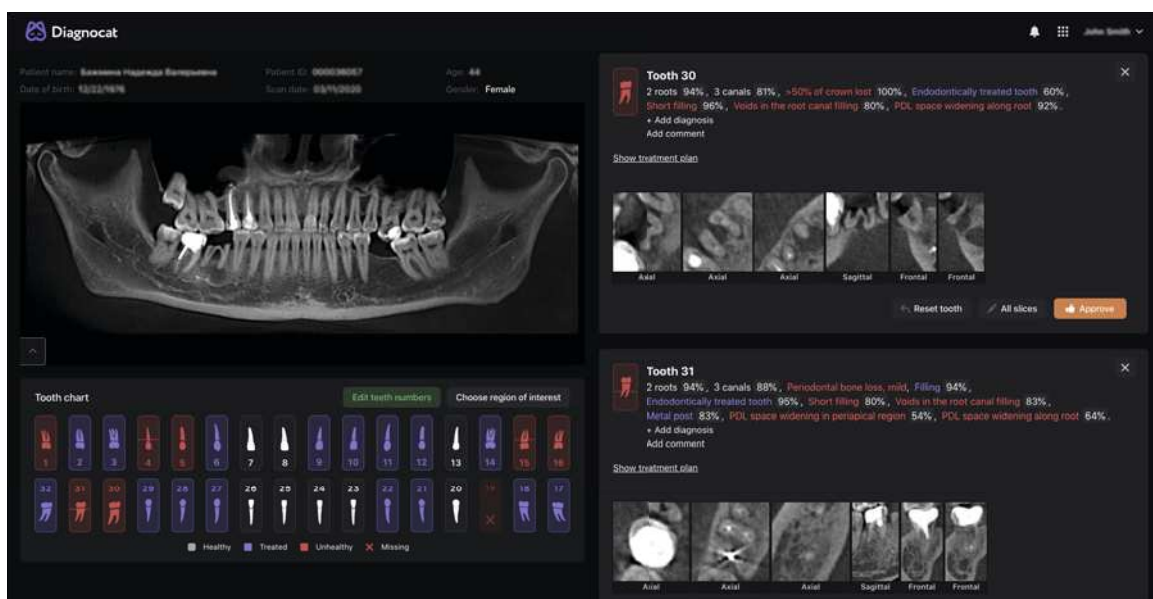
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of every dental
team in diagnostics
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planning

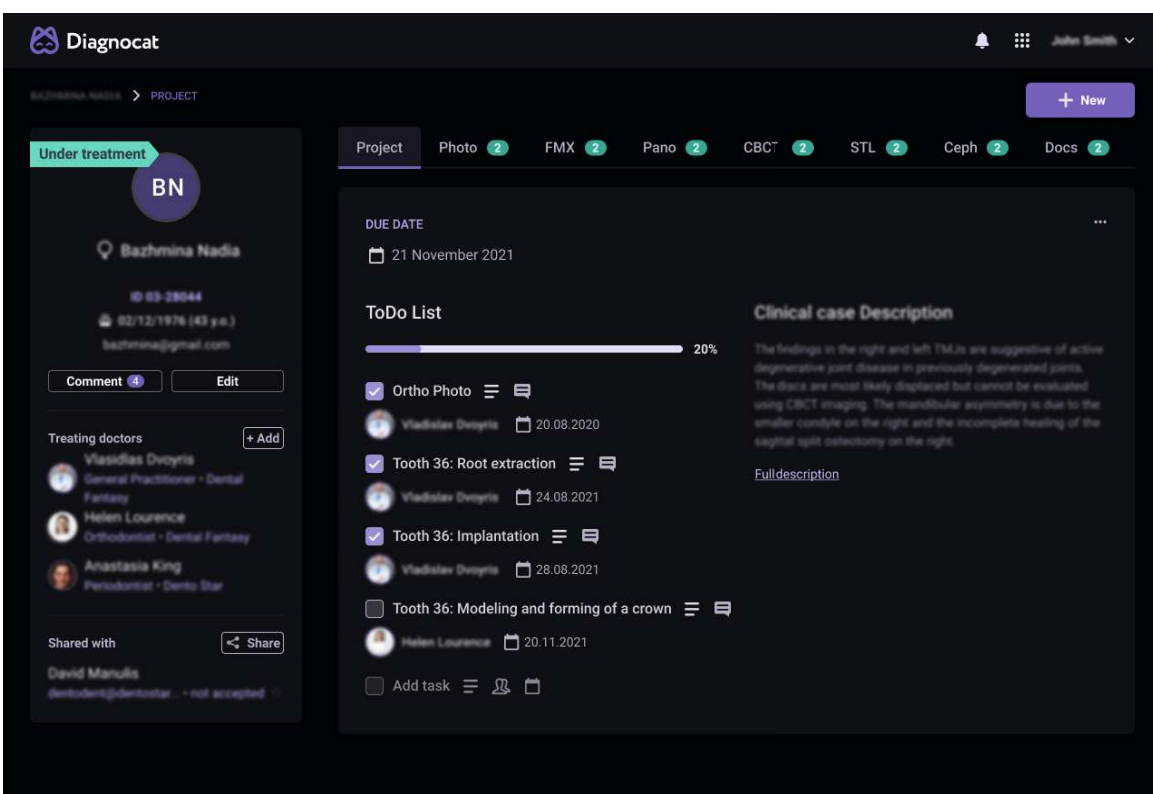


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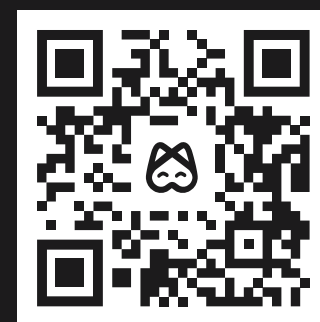


GP report



Task manager

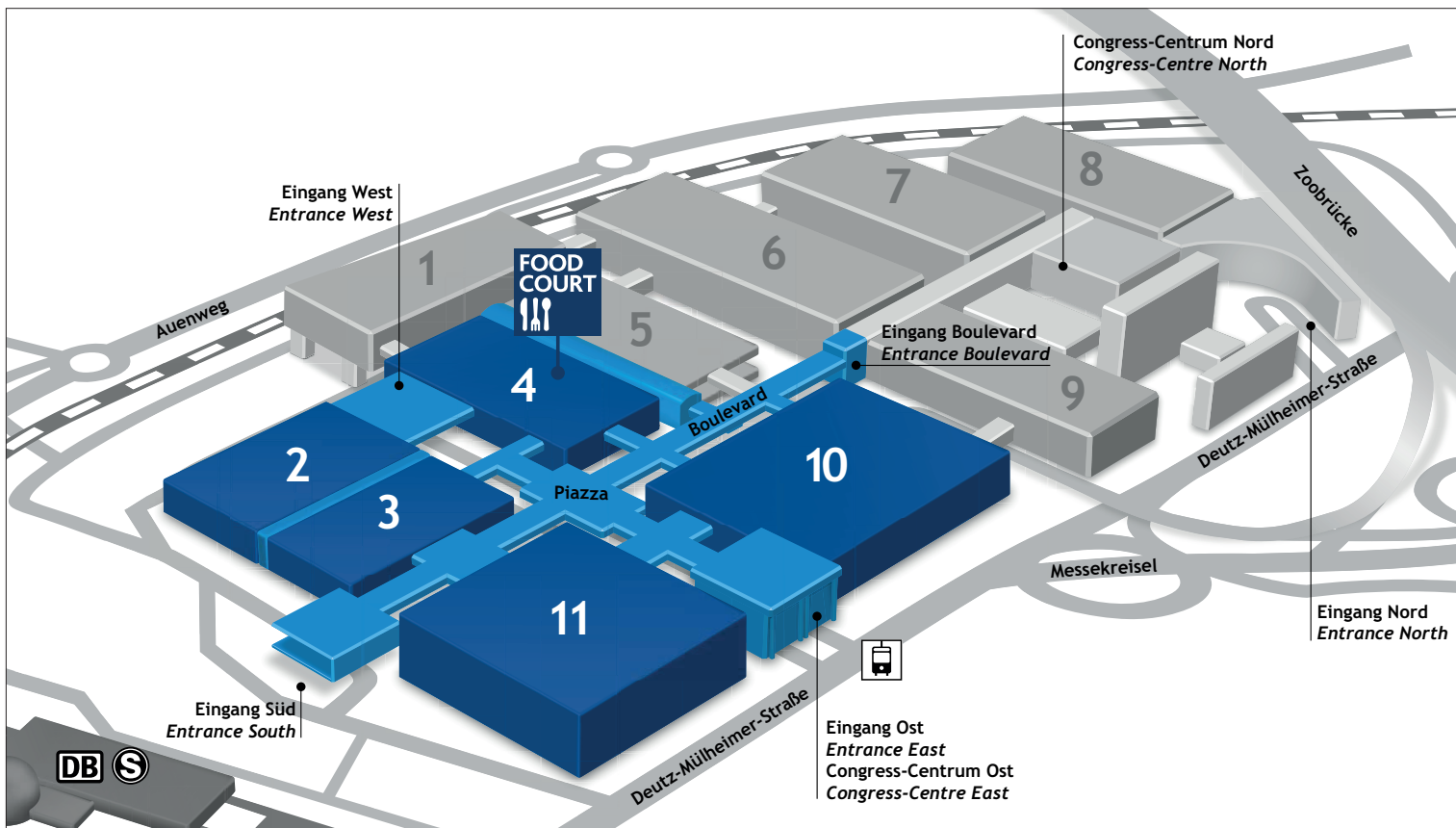
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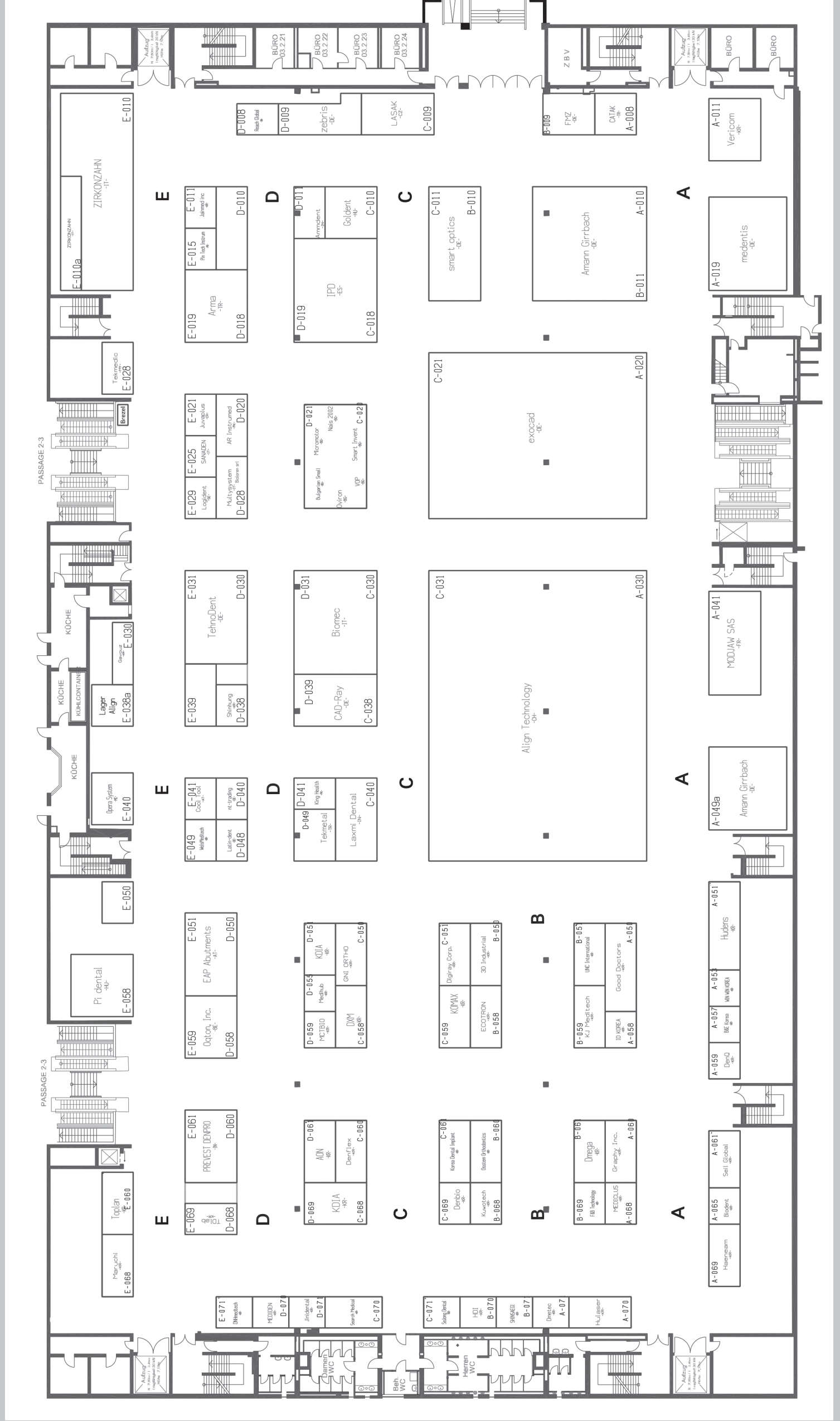
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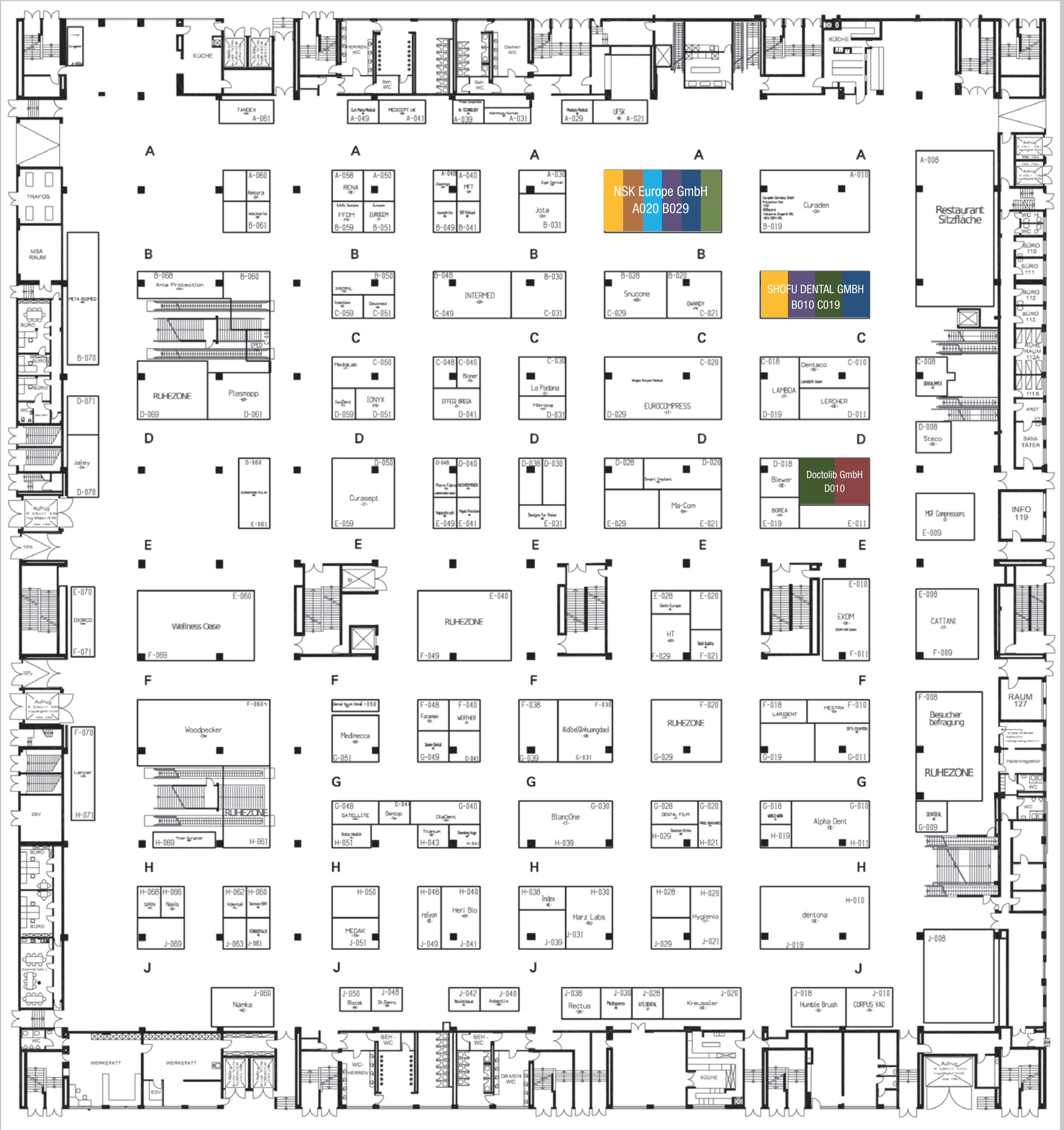
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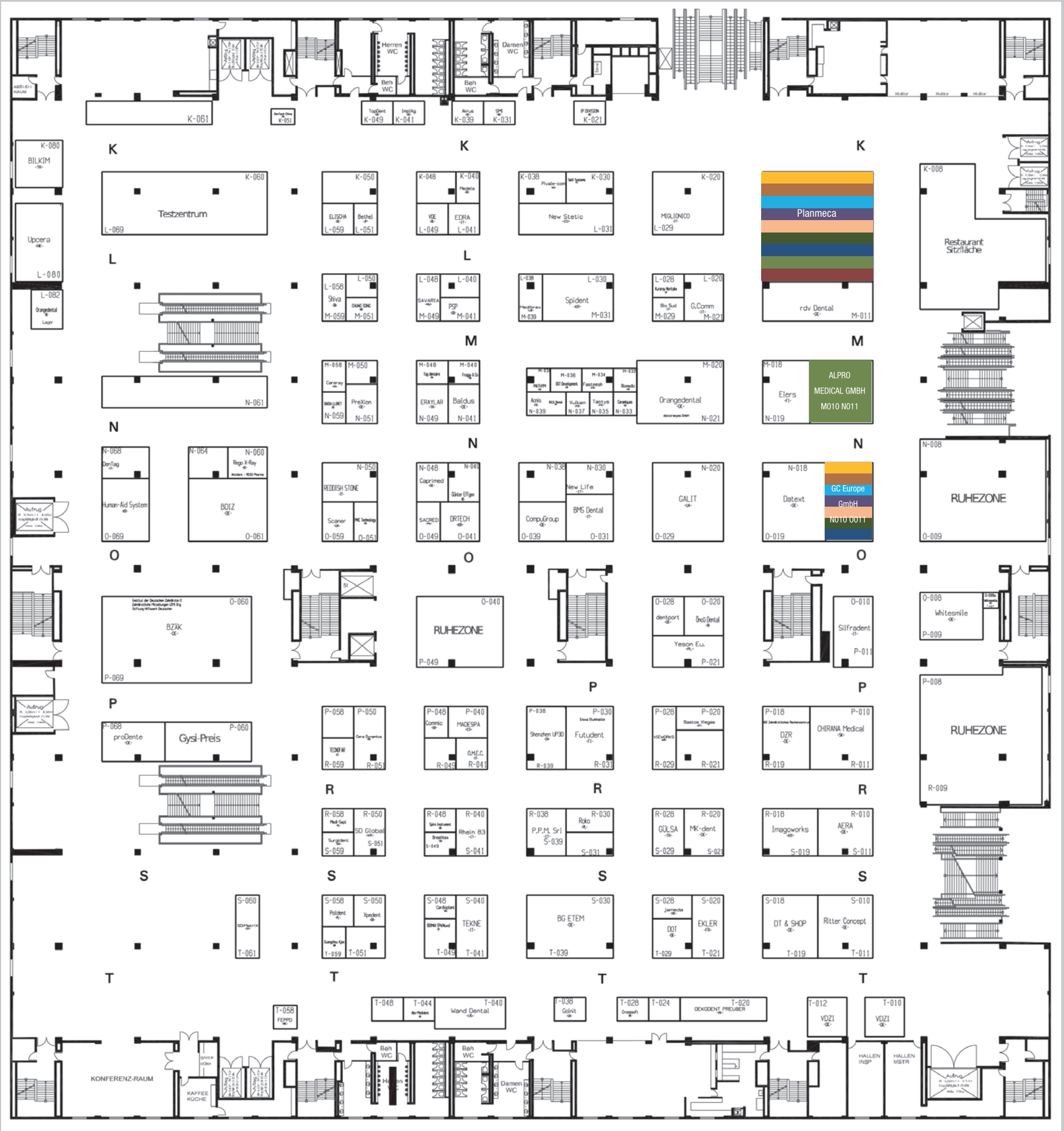


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		R031	Good Doctors Co., Ltd.	3.2	A050	Industria Zingardi SRL	11.1	A010			H021
Enviro GmbH & Co. KG	10.2	N045	Graphenano Dental s.L.	3.1	H040			B019			C030
EnvisionTEC GmbH	3.1	M039			J041	Infodent SRL International Infodent	2.2	D010			C008
EPED Inc.	11.1	C060	Graphy Inc.	3.1	H051			E011			D048
E-Procs Co.,Ltd	3.1	L060			A060	Innovapharma Brasil	11.1	J008			C008
Eraylar Akriklik San. Ins. Taah. Ve Dis Tic. A.S.	11.2	N049	Greater New York Dental Meeting	10.2	P008	Innovative Material and Devices Inc.	10.2	S047			C018
ESQUIRE SAS	10.2	L050	GRS Guide System, Inc.	10.2	R048	Institut der Deutschen Zahnärzte (IDZ)	11.2	O060			D019
Esro AG	10.2	L023	Guangdong Launca Medical Device Technology Co., Ltd.	10.2	P018			P069			S018
		L023a	Guangzhou Ajax Medical Equipment Co., Ltd	11.2	T059	Intensiv SA	10.2	N040			T019
Eur-Med Slovakia s.r.o.	10.1	C030	GUANGZHOU HEYGARS IMC. INC	10.1	C059	Interdent d.o.o.	10.2	O060			F070
EUROCEM s.r.l.	11.1	B051	Guilin Woodpecker Medical Instrument Co., Ltd.	11.1	F060	INTERMED S.A.	11.1	B048			H071
Eurocom di Poletto Renato	11.1	B051	GÜLSA TIBBI CIHAZLAR VE MALZ. SAN. TIC. A.S.	11.2	R028			C049			R057
EUROCOMPRESS di Garofalo Rag. Giuseppe	11.1	C020			S029	International Medical College (IMC)					F018
		D029	Günter Effgen GmbH	11.2	N040	MIB GmbH	2.2	E008			C009
EVE Ernst Vetter GmbH	10.2	S029	Haenaem Co., Ltd.	3.2	A069	IONYX	11.1	D051			R056a
ExamVision ApS	10.2	S020	Hager & Meisinger GmbH	10.1	A010	IOS International Orthodontic Services	10.2	P046			G041
		T021			B011	IP Division Technische Produkte GmbH	11.2	K021			A011
exocad GmbH	3.2	A020	Hager & Werken GmbH & Co. KG	10.2	R020	IPPI SRL	3.1	L028			L038
		C021	Hamer	2.2	D070	i-ProDens GmbH	10.2	R028			D048
F&B Technology	3.2	B069			E071	iRay Technology Company Limited	10.2	T018			A038
F1 Dentalsysteme GmbH	10.2	R030	Hangzhou PengWu Medical Equipment Co., Ltd	3.2	D048	iRES SAGL	2.2	C060			C040
F1 Dentalsysteme Deutschland GmbH	10.2	R030	HANS Korea Co., Ltd.	2.2	C040	IsoDent OY	11.1	D059			R050
FAG	11.2	M048	happybrush GmbH	11.1	E049	i-System NOVODENT SA	10.2	M028			D010
FairImplant GmbH	2.2	A050	HASS: Human-Aid System Supplier	11.2	O069	iTOP	11.1	A010			E011
Fasteesh	11.2	M034	HATHO GmbH	10.1	B018			B019			A048
FEPPD	11.2	T058	hawo GmbH	10.2	O049	Jainmed inc	3.2	E011			M069
FERROCRTALIC d.o.o.	11.1	J061	HD ACADEMY GbR	10.1	F012	Jaley solution Ltd.	11.1	D070			L038
FFDM Tivoly	11.1	B059			G015	jameda GmbH	11.2	S028			A011
FIDE Federation of the European Dental Industry	10.2	P008	HDI Inc.	3.2	B070	JDentalCare srl	3.1	H031			L038
FIMET OY	10.2	R030	HDX WILL Corporation	2.2	D041	Jiangsu Dynamic Medical Technology Co., Ltd	2.2	C071			A011
FINO GmbH	11.2	S018	Heka Dental A/S	10.2	P030	Jinidental Ltd.	3.2	D071			A011
		T019			R031	Jota AG	11.1	B031			F040
FiteBac	10.2	S057	Helmut Zepf Medizintechnik GmbH	10.1	B030	Juvaplus SA	3.2	E021			K010
Flotecno srl	10.2	L058a			C031	Karl Kaps GmbH & Co. KG	10.1	F050			E029
FMZ GmbH	3.2	B009	HEPHZIBAH CO., LTD.	3.1	M030	KDIA	3.2	A058g			F040
FOLLOW-ME! TECHNOLOGY GmbH	3.1	L018	HERIBio	11.1	H040			B059g			C010
		M019			J041	KEMMER PRÄZISION GmbH	2.2	C049			H011
Fonic Dental LLC	10.2	P042	HL Technology SA	11.1	A039	KENDA AG	10.2	P010			D058
For You High Quality S.r.l.	10.2	M059a	HORICO – Hopf, Ringleb & Co. GmbH & Cie.	10.2	M009			R011			F025
FORAMEN SL	11.1	F048	Hospimed Mfg	10.2	L035	Kerox Kft.	3.1	L008			E021
Formlabs GmbH	3.1	H030	HT Co., Ltd.	11.1	F029	KIDS-E-DENTAL LLP	10.2	L040			P040
		J031	Hudens Bio Co., Ltd.	3.2	A051	Kimia Parto Dandan	3.1	H078			A012
Forumtec	2.2	E040	Hufschmied Zerspanungssysteme GmbH	3.1	M020	King Health Dental Instruments	3.2	D041			L062
Fraga Dental	2.2	A050	Hulaser, Inc.	3.2	A070	KJ Meditech Co., Ltd.	3.2	B059			T012
Franken GmbH & Co. KG Fabrik für Präzisionswerkzeuge	3.1	M021	Hygienio Srl	11.1	H020	Koelnmesse GmbH	digital	digital			E041
Frasaco GmbH	2.2	D010			J021	Koelnmesse GmbH		digital			E068
		E011	I.C. LERCHER GmbH & Co. KG	11.1	D011	Koelnmesse GmbH Messseteam	digital	digital			M038
Fraunhofer-Institut für Keramische Technologien und Systeme IKTS	3.1	M040	ic med EDV-Systemlösungen für die Medizin GmbH	10.2	R038	Koelnmesse Pte Ltd	10.2	P008			R040a
Froggy & Co	11.2	M040	IC Medical GmbH	10.2	N049	Koelnmesse s.r.l.	10.1	A040g			M030
FTB Filtertechnik Brockmann GmbH & Co. KG	10.2	L032	Icanclave Europe S.L.U	11.1	C059			B041g			D059
Fussen GmbH	10.2	T026						A048g			R015
Futudent Novocam Medical Innovations Oy	11.2	P030						B049g			F020
		R031						A050g			G021
								B051g			H022
											J051

Firma Company	Halle Hall	Stand Booth	Firma Company	Halle Hall	Stand Booth	Firma Company	Halle Hall	Stand Booth	Firma Company	Halle Hall	Stand Booth
Medcem GmbH	10.2	T030	Nichrominox S.A.S.	11.1	D040	proDente e.V.	11.2	P068	Shanghai Smartee Denti-Technology Co., Ltd.	10.1	F052
Medela Medizintechnik GmbH & Co. Handels KG	11.2	K040	Noris Medical Ltd.	2.2	A019	Prodways Tech	2.2	D070 E071	Sharpfield Company B.V.	10.2	O053
Medency S.R.L.	10.2	L061	Novamind P.C.	10.2	M037	Proimtech Sag.Hizm.San.veTic.Ttd.Sti.	2.2	D021	Shenzhen Up3D Tech Co., Ltd.	11.2	P038 R039
Medental International	10.2	S053	Novotissue	11.1	J042	Promarket Tasarim ve Teknoloji A.	3.1	L020	Shinhung Co., Ltd.	3.2	D038
medentis medical GmbH	3.2	A019	Novodent SA Monoimplant	10.2	M028	PROTECT-Laserschutz GmbH	10.2	S031	SHINIL DENTEC Co.,Ltd.	3.1	L050
Medi Loupes	10.2	R058	NSI srl	10.2	L060	Provita Medical GmbH & Co. Kg	10.2	T028	Shining 3D Technology GmbH	3.1	L040 M041
MEDIADENT Stahlmöbelwerk Austria GmbH	10.2	L039	NSK Europe GmbH	11.1	A020 B029	PSP Dental Co. Ltd.	11.2	M041	SHINSAEGI MEDI-TECH Co., Ltd.	3.2	B071
MEDIADENT Stahlmöbelwerk Germany GmbH	10.2	L039	NTA IMPLANT TICARET VE SAN.LTD.STI.	2.2	B070	QUART X-Ray QA Solutions	10.1	F048	Shiva Products	11.2	L058 M059
MediaLab	11.1	C050	nt-trading GmbH & Co. KG	3.2	D040	Queen Dental GmbH	11.1	G049	SHOFU DENTAL GMBH	11.1	B010 C019
Medibrex S.A.L.	11.2	L038 M039	NURIKON International Pvt Ltd.	2.2	E049	QUEST Corporation	2.2	D040	SIA ORTHODONTIC MANUFACTURER S.r.l.	10.2	L066a
Medical Precision Implants, S.A.	2.2	D010 E011	NWT Dental GmbH	10.1	G023	Rapid Shape GmbH	10.1	B020 C021	Silfradent s.r.l.	11.2	O010 P011
Medical Trading S.R.L.	10.2	L068 M069	O.M.A.R. di Cericola Giorgio	10.2	L068 M069	RDT GmbH	10.2	S038	Sinocera Technology USA	10.2	P040a
MEDICEPT UK LTD.	11.1	A041	O.M.S. S.p.A. Officine Meccaniche Specializzate	10.1	E028 F029	RDV DENTAL GmbH	11.2	M011	Sino-Dental 2022, Int. Health Exchange and Coop. Center, National Health Commision of P. R. China	10.2	P008
MEDICLUS Co., Ltd.	3.2	A068	ökoDENT GmbH & Co. KG	11.2	T020	Reach Global India Pvt Ltd.	3.2	D008	Sirin Dental LTD, Sti	11.1	H068
Medicom Healthcare BV	10.1	F040	Oley Tibbi Ürünler ve Medikal Malzemeler San.Tic.Ltd.Sti.	2.2	A078	Rectus Nordic ApS	11.1	J038	SIRIO DENTAL S.R.L.	10.1	F026
MEDIDEN CO.,LTD.	3.2	D070	OLIDENT Sp. Zo.o., Sp. K.	10.2	S024	REDDISH STONE S.R.L.	11.2	N050	Sisma spa.	10.2	M067a
MEDIFIVE Co., Ltd.	3.1	L080	Öncü Dental Tibbi Ma. ve Dis. Tic. A.S.	11.2	O020	Redon Teknoloji A.S.	3.1	J020 L021	Sistem Dental Medikal San. Tic. Ltd. ti.	2.2	A071
Medihub Co., Ltd.	3.2	D055	Oneday Biotech Co., Ltd.	3.1	M059	Rego X-Ray GmbH	11.2	N060	Smart Implant Solutions S.L.	11.1	D020
Medimecca Co., Ltd.	11.1	G051	Opera System/Euromax Monaco	3.2	E040	REITEL Feinwerktechnik GmbH	10.1	B021	Smart Invent Ltd.	3.2	C020 D021
MEDISEPT Sp. z o. o.	11.2	R058	OptiWaves	3.1	J050	relyon plasma GmbH	11.1	H048 J049	smart optics Sensortechnik GmbH	3.2	B010 C011
Medisporex (Pvt) Ltd.	11.1	J030	Oqton, Inc.	3.2	D058 E059	Remedi Co., Ltd.	2.2	E080	SMI SUTURES	11.2	K031
MEDISTOCK	10.2	T039	orangedental GmbH & Co. KG	11.2	M020 N021	RENA Technologies GmbH	11.1	A058	Smile Line SA	10.2	T020
MediThinQ Co., Ltd.	10.1	G051	Organical CAD/CAM GmbH	10.2	S019	Renfert GmbH	10.1	B010 C011	SMILE-Dental GmbH	10.1	B040 C049
Medosis Medical Devices Ltd.	11.1	A029	Osnrgy Srl	10.1	B047	RESISTA - Ing. Carlo Alberto ISSOGLIO & C. Srl	10.2	T011	SMILER PRO srl	10.2	L068 M069
MedPark Co.,Ltd.	2.2	B068 C069	Osstem Implant Co., Ltd.	2.2	A010 C011	Reverberi Arnaldo S.r.l.	10.1	F049	SNUCONE.CO., LTD	11.1	B028 C029
MEGADENTA Dentalprodukte GmbH	10.2	T038	OSSTEM ORTHODONTICS Inc.	3.2	B060 H029	Rhein 83 S.R.L.	11.2	R040 S041	Soltec S.r.l.	10.2	S028
megadental italia	10.1	A052	OST Development	11.2	M036	Richmond Medical & Dental	10.2	R058a	SPEIKO-Dr. Speier GmbH	10.2	S010
MegaGen Implant Co., Ltd.	10.2	M050 N059	OTEC Präzisionsfinish GmbH	3.1	M031	Ristek Instruments	11.1	J050	Spident Co., Ltd.	11.2	L030 M031
MELAG Medizintechnik GmbH & Co. KG	10.2	N028 O029	Otto Leibinger GmbH	2.2	D008	Ritter Concept GmbH	11.2	S010 T011	Spire Instrumentation Ltd	11.2	R048
Merz Dental GmbH	10.2	S011	OVERMED SRL	10.2	L068 M069	Roboice Makina Teknolojileri San. ve Tic. LTD. STI.	3.1	H006	Spring Health Products Inc.	2.2	D010 E011
MESA ITALIA SRL	10.1	A050	Oviron Ltd.	3.2	C020 D021	Robots and Design Co., Ltd.	3.1	J060	SprintRay Europe GmbH	3.1	J018 L019
MESTRA - TALLERES MESTRAITUA S.L.	11.1	F010	Owandy Radiology	11.1	B020 C021	ROEKO	10.2	P010 R011	SSP Politool GmbH & Co. KG	11.1	B041
META BIOMED CO., LTD.	11.1	B070	P.P.M. srl di Manuele e Monica Giacomini	11.2	R038 S039	Roko s.c.	11.2	R030	starmed GmbH & Co. KG	10.2	S018
METASYS Medizintechnik GmbH	10.2	P049	Panadent Corporation	10.1	F040	RPE S.r.l.	10.2	L070	steco-system-technik GmbH & Co. KG	11.1	D008
MFT	11.1	A040	Pascal	10.2	R046	RTI Group AB	2.2	A058	Steritrays	10.1	A041
MGF SRL	11.1	E009	Pastelli Srl	10.2	L066	Runyes Medical Instrument Co., Ltd.	11.1	C020 D029	Steros GPA Innovative, S.L.	2.2	B030 C031
MHC Technology	11.2	O051	PD - Produits Dentaires S.A	11.1	G020 H021	S&S Scheftner GmbH	3.1	H020 J021	Stiftung Hilfswerk Deutscher Zahnärzte für Lepra- u. Notgebiete (C.H. Bartels Fund)	11.2	O060 P069
Microcopy	10.2	R059	PDT, Inc. Paradise Dental Technologies	10.2	R040	S.A.R.L Scorpion	11.1	B059	Studio plan bau GmbH	10.1	C048
MICROLAY 3D Printers	2.2	D068	Pearl, Inc.	10.2	L034	SACRED INTERNATIONAL	11.2	O049	STYL FRIGO S.N.C. Di Manias Giorgio E.C.	10.1	A040
Micro-Mega SA	10.2	P010 R011	Photocentric Ltd.	3.1	M011	SAE Dental Vertriebs GmbH - International - SAEG srl	10.2	S019 G049	Sudemed Dental ve Medikal Pazarlama Ith. Automatrix	10.1	G044
Micromotor Ltd.	3.2	C020 D021	Photolase Europe Ltd.	2.2	D048	Saeshin Precision Co., Ltd.	2.2	A070 B071	SUNSHINE - Dr. Hopf GmbH & Co. KG	10.2	M008
MICRO-NX CO., LTD.	3.1	L064	PhotoMed	10.2	P056	Saeyang Microtech Co., Ltd.	3.1	M065	Sunstar Dental Laboratory Spain SL	10.2	T031
Miele & Cie. KG	10.2	R019	Pi dental Manufacturing Co. Ltd.	3.2	E058	Salli Systems/Easydoing Oy	11.2	K030	Surgident Co., Ltd	11.2	S059
MIGLIONICO SRL	11.2	K020 L029	PIERRE FABRE MEDICAMENT	11.1	D048	SAM Präzisionstechnik GmbH	10.2	O041	Suvison America Corp.	10.2	S057a
MIKRONA GROUP AG	11.1	D031	PIERRE PHARMA srl	10.1	B024 C025	Samico Industries	2.2	E074	Swiss & Wegman SRL	10.2	L070
MK-dent GmbH	11.2	R020 S021	Pin Tech Instruments	3.2	E015	SANADEN di Panarello Andrea	3.2	E025	SwissLoupes Sandy Grendel AG	2.2	D030
Modern Me GmbH	10.2	R039	PISTIS Corporation	2.2	C061	SARATOGA S.p.A.	10.2	L070	SycoTec GmbH & Co. KG	10.2	O051
Modjaw SAS	3.2	A041	Pivale-com Pty Ltd.	11.2	K038	SATELLITE INDUSTRIES	11.1	G048	Tactys	11.2	N035
MORSA Wachswarenfabrik Sallinger GmbH	10.2	N048	Planmeca Oy	11.2	K010	SAVARIA-DENT Kft.	11.2	L048 M049	TA-Dent Zahnimplantate Handels-GmbH	2.2	E048
MPE Medical GmbH	2.2	A059	Planmeca Oy	11.2	K010	Scanner Science & Engineering Company	11.2	O059	TALLADIUM Inc.	10.2	T019
Multysystem srl	3.2	D028	Plasmapp Co., LTD.	11.1	D061	Scantist 3D Scanningspray Vertriebs GmbH	3.1	M050	Tandem A/S	11.1	A061
Mutsumi Chemical Industries Srl	10.2	S036	Pluralux Lichtsysteme + Leuchten	10.2	M039	SCHEU-DENTAL GmbH	10.1	B040 C049	TDIab	3.2	D068 E069
MVK-line GmbH	10.1	A031	PointNix	10.2	M041	Schick GmbH	10.2	O030 P031	Technology in Biomaterials S.L.	2.2	D010 E011
MYTRONIC GmbH	10.1	E030 F031	Poldent/Endostar	11.2	S058	Schick GmbH	10.2	O030 P031	Tecniche Nuove SpA	2.2	E059
Nadir & Co.	10.2	O055	Polident d.o.o.	10.2	S021	Schütz Dental GmbH	10.1	F010 G011	TECNOFAR S.p.A.	11.2	R059
Nais 2002 Ltd.	3.2	C020 D021	Porter Instrument	10.2	R040a	SciCan GmbH	10.2	P010 R011	TehnoDent GmbH	3.2	D030 E031
Namka Product Ltd	11.1	J060	PPH CERKAMED Wojciech Pawlowski	2.2	E031	Score BV	10.1	F038 G039	Tek Metal San. Ve Tic. A.S	3.2	D049
NAVADHA ENTERPRISES	2.2	A051	Pracownia Techniki Dentystycznej	10.2	N035	SD Global Co., Ltd.	11.2	R050 S051	TEKMEDIC (m) SDN BHD	3.2	E028
Naxis Medical GmbH	11.1	H066	Almadent Aleksander Orzelowski	10.2	N035	SDiMatriX GmbH	11.2	S060 T061	Tekne Dental s.r.l.	11.2	S040 T041
NCT	3.1	M080	Preat Corporate	11.1	A039	Search Medical	3.2	C070	Temca GmbH & Co.KG	11.2	L059
NEODENT S.A.	10.1	C038	Prevention One	11.1	A010 B019	Seil Global Company Limited	3.2	A061	Terrats Medical S.L.	2.2	C008
NEOLIX SAS	10.2	L027	Prevest DenPro Limited	3.2	D060 E061	Se-Jong Dental	3.2	C071	The Cool Tool GmbH	3.2	E041
NEOSIL Co., Ltd.	2.2	C048	PreXion Europe GmbH	11.2	N051	Sentes-BIR A.S.	11.1	H060			
Neoss GmbH	2.2	C010	Primacon GmbH	3.1	M020	Seoklab Co., LTD.	3.1	L014			
NEW IDEM SRL	11.1	A010 B019	PRISMAN GmbH	2.2	C051	Shandong Huge Dental Material Corporation	11.1	H041			
New Life Radiology S.r.l.	11.2	N030	Pritidenta GmbH	10.2	R028						
New Perfect Dental Lab	10.2	P061	Pro Safe Professional Linens, Inc.	10.1	F040						
New Stetic S.A.	11.2	L031	pro3dure medical GmbH	10.1	D049						
Newmed - A Midmark Company	10.1	G042	Prodent Italia S.r.l.	10.2	L070						

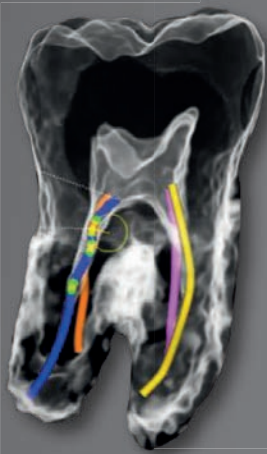
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Firma Company	Halle Hall	Stand Booth	Firma Company	Halle Hall	Stand Booth	Firma Company	Halle Hall	Stand Booth	Firma Company	Halle Hall	Stand Booth
Chempoplastic Comfort Systems, Inc. Company	X.X	D0100	USA Pavilion c/o Koelnmesse Inc.	10.2	R059g R040g	VITA Zahnfabrik H. Rauter GmbH & Co. KG	10.1	C010 D019	WORLD WORK SRL	11.1	G018
THIENEL Dental e.K. Company	10.1	B0160			S041g			C008	Wuhan Gigaa Optronics Technology Co., Ltd.	2.2	D048
Thomas Dentalgeräte GmbH	10.2	M039			R046g			C008a	xDEPOT GmbH	10.2	L025
Titan Surgical Co	11.1	H069			S049g	VOCO GmbH	10.2	N010	XO CARE A/S	10.2	L028
Titanium Textiles AG	11.1	H043			R050g			N019			M029
TM Education and Trading OU	3.1	H019			S051g			N020	Xpedent UK Ltd	11.2	S050
TopDent GmbH	11.2	K049			R058g			O021	Yesbiotech Co.,Ltd	3.1	L068
Toplan Co., Ltd.	3.2	E060			S059g	VOP Ltd.	3.2	C020	Yeson Eu.	11.2	P021
TOROSDENTAL INS.ITH.IHR.SAN.					R060g			D021	YOAT Corporation	10.2	P056a
VE TIC.A.S.	2.2	B070			S061g	Vorurdent	10.1	F054	Zaamigo AG	11.1	A048
Tressis Italia srl	10.1	B049	USTOMED INSTRUMENTE Ulrich Storz GmbH & Co. KG	10.1	B029	Voxeltek Ltd.	3.1	J058	Zahnärztliche Mitteilungen (ZM) Herausgeber:		
Tri Hawk International S.A.	10.2	R042	Van Venrooy Utility Vehicles B.V.	10.1	A020	V-stream Global Ltd.	3.1	H010	Bundeszahnärztekammer/Kassenzahnärztliche Bundesvereinigung	11.2	O060
TRUMPF Laser- und Systemtechnik GmbH	3.1	J030 L031	VDDI Verband der Deutschen Dental-Industrie e.V.	10.2	P008	Vulcan Teknoloji Sanayi ve Ticaret Limited Sirketi	3.1	M009	Zantomed	10.2	R020
TUEOR SERVIZI SRL	10.2	L070	VDE Prüf- und Zertifizierungsinstitut GmbH	11.2	L049	Vulkam	11.2	N037			S035
Tuttnauer Europe BV	10.1	B031	Vdental PFO Sp. z o.o.	11.1	H062	W.R. Rayson Export, Ltd.	10.2	S051	zebris Medical GmbH	3.2	D009
Ubrush! Enterprises B.V.	10.1	F040	VEDIA SOLUTIONS, Unit of Laxmi Dental Export Pvt Ltd	10.2	S040	Wand Dental, Inc. (a division of Milestonescientific)	11.2	T040	ZEKO DENT d.o.o.	3.1	M058
UFSK-International OSYS GmbH	11.1	A021	Veradenta Dental Mobilya LTD.STI	10.2	S044	Wassermann Dental-Maschinen GmbH	10.1	D031	Zeyco	10.2	R051
ULTRADENT Dental-Medizinische Geräte GmbH & Co. KG	10.2	L020 M021	Verdent Ltd.	2.2	C030	Wawibox	11.2	N048	ZHONGHONG PULIN	11.1	D060
UNC International	3.2	B051	Vericom Co., Ltd.	3.2	A011	Weckerle Cosmetics	11.1	B061			E061
Union Dental S.A.	10.1	E018	Vero Software GmbH	3.1	H050	WelsMeditech Co., Ltd.	3.2	E049	Zhongshan Breathtex Speciality Material Co.,Ltd.	11.2	S049
Upcera Co., Ltd.	11.2	L080	vhf camfature AG	10.1	D048 E049	WERTHER INTERNATIONAL S.p.A.	11.1	F040	ZIL FOR SRL	10.1	A030
USA Pavilion c/o Koelnmesse Inc.	10.2	P040g R041g	Viarden Lab LLC	10.2	R057a	White Laboratories	11.1	D071	Zirc Dental products Inc.	10.1	F040
		P048g	VIEWWORKS CO., LTD.	11.2	P028 R029	WHITESmile GmbH	11.2	O008 P009	Zircon Medical AG	10.1	G020
		R049g						O008a			H029
		P050g	Vigilant Biosciences, Inc.	10.2	R043	WIN WIN KOREA	3.2	A053	Zircone-Tech SARL	3.1	H070
		R051g	Vision Engineering Ltd.	10.1	E020	Wirtschaftsgesellschaft des VDZI mbH	11.2	T010 T012	ZIRKONZAHN GmbH	3.2	E010
		P058g	Vision Instruments Co.	2.2	E051	Wissner Gesellschaft für Maschinenbau mbH	3.1	H018			E010a
						Wittex International	2.2	E060	Zoll-Dental	10.2	R052
									Zubler Gerätebau GmbH	10.2	R018
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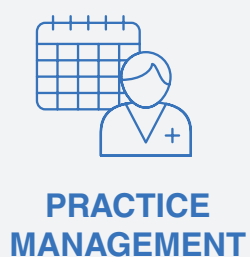
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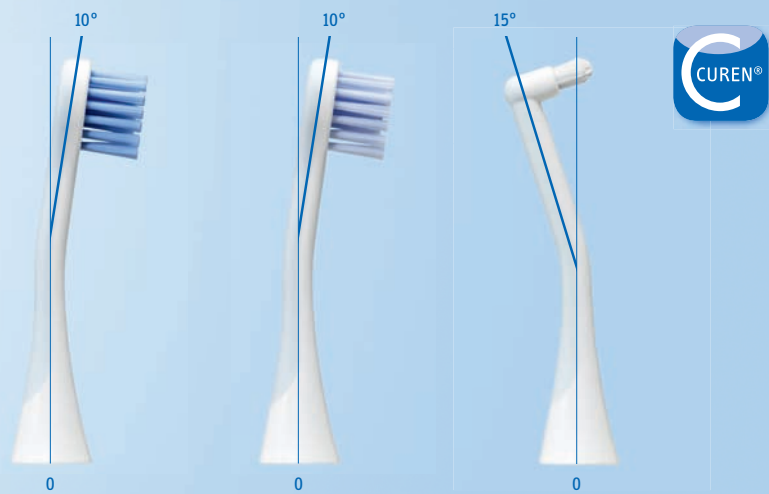


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