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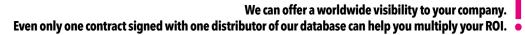
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The most important part of constructing effective marketing communications is being able to adapt, and marketers must be ready to change their approach when old strategies start to look obsolete. With the introduction of new technologies, cultural shifts, and the evolution of customer expectations, the digital age never pauses. With the advent of Big Data, the most revolutionary change was the shift from the Age of the Seller, which meant pushing the next "big thing" that could better satisfy needs, like comfort, luxury, or convenience of customers, towards the Age of the Customer where consumers, more connected than ever, actively started to demand tailored, personalized experiences, rejecting brands that they consider irrelevant to their needs. The balance of power has shifted from businesses to customers.

But how did we get to the Age of the Customer? At the beginning of the 1900s, Europe and the United States were coming to the end of the Industrial Revolution, and companies with massive manufacturing operations were dominating the market, dictating the entire buying process. Since mass-distribution wasn't available, they could only reach customers in their near-by areas, all they needed was to make sure these people were happy and willing to return to them.

In the 1960s, modern transportation made it possible to deliver products all over the world: the "Age of Distribution". Businesses started to think globally in terms of distribution, focusing on revenues and customer acquisition. Since they could reach more customers, they could also afford to make more mistakes. After all, there was no internet for customers to complain.

The industry started to retrace its steps once we entered the "Age of Information", where consumers had access to the internet and could voice their opinions about different products and companies. At this point though, the power between businesses and customers was still not even. The information customers could share was not in real-time nor was it organized enough to make a real impact on the business.

Some analysts mark the "Age of the Customer" as 2013, but we really entered this era in 2008 with the rise in popularity of social media platforms like Facebook, Twitter, and more. They suddenly created a world where consumers from all over the globe could talk with one another about their experiences. They could reply to marketing messages in real-time and post their own content on a brand's social media page. If a customer has a poor experience, they do not just tell the business. They tweet about it to their friends who reply and retweet until hundreds of people know about it, putting brands in a delicate balance where, if the post starts to go viral, that hundreds of followers can quickly turn into a few thousand or even a million. Content is no longer only created and controlled by a brand, because customers can churn out their own content that runs parallel. And, if a product fails to impress, contrary to that of marketers, it can generate as much, if not more, publicity.

So, in the Age of the Customer, it is imperative to commit to your customers' specific needs, to listen and build a true relationship with them. It is no longer the time to treat the customer with one-size-fits-all marketing promotions. Earning your customers' trust and loyalty comes from putting your customers' needs first, providing constant and excellent customer service, even if, sometimes, that might come at the expense of vour own business.

Infodent International has dedicated its entire existence in customized marketing solutions and services, acquiring all the tools and knowledge to help companies find new business partners around the world. You might be wondering what comes after the Age of the Customer and, although it is hard to predict the future, we passionately believe that we will continue to put the customer first. For sure we will not go wrong!

Baldo Pipitone

CEO Infodent S.r.I. baldo.pipitone@infodent.com







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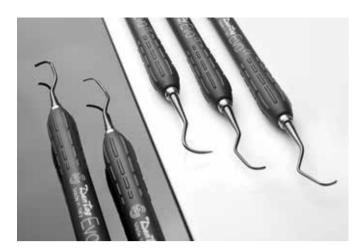


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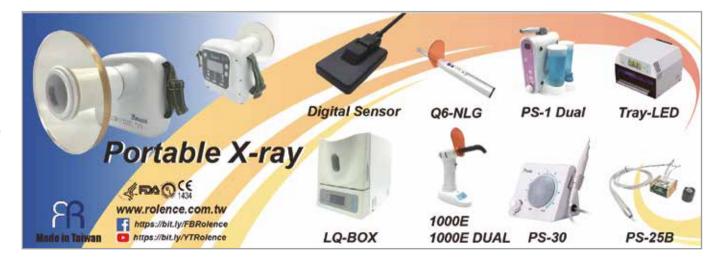
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Author: Silvia Borriello silvia.borriello@infodent.com

Thailand's Lesson on Universal Healthcare

With its 513 115 km², Thailand is the world's 51st-largest country in terms of total area, slightly smaller than Yemen and slightly larger than Spain

> Third-largest country in South-East Asia, after Indonesia and Myanmar. Bangkok or "Krung Thep" is the capital city

With a population of 69.6 million people, an overwhelmingly large majority (96%) is of Thai ethnicity. The rest are Chinese, Malay, Khmer, Mons, and other minorities including hill tribes

Based on official national estimates, poverty declined substantially over the last 30 years from 65.2% in 1988 to 9.85% in 2018 As of 2017, the current health expenditure per capita was USD 247, primarily funded by general income tax

One of the five founding members of the Association of Southeast Asian Nations (ASEAN) in August 1967, contributing to the development of the ASEAN Free Trade Area (AFTA) which entered into force on 1 January 2010, eliminating import duties on products manufactured in ASEAN countries

Gross National Income per capita, 2018, current US\$ 6,600 Thailand is gaining worldwide recognition for the quality of its healthcare services, after the US magazine CEOWORLD placed Thailand sixth in its 2019 list of countries with the best healthcare systems

The country's official language is Thai. Buddhism is the main religion (93%)

Siam was renamed Thailand in 1949; and the absolute monarchy was transformed into a constitutional monarchy after the 1932 democracy Revolution. The prime minister is head of government and the monarch is head of state

While moving towards universal healthcare coverage is still a goal for many countries, Thailand is internationally recognized for its successful implementation, where, a welldesigned system, a dedicated leadership and sweeping healthcare reform have contributed to efficiency, cost containment, and equity in healthcare Over the last four decades, Thailand has made remarkable progress in social and economic development, moving from a low-income to an upper-income country in less than a generation. As such, Thailand has been a widely cited development success story, with sustained strong growth and impressive poverty reduction. Lauded globally as among the most prepared to deal with an epidemic, Thailand has been successful in stemming the tide of COV-ID-19 infections, performing better than much of the sub-region, but the economic impact has been severe and has led to widespread job losses, affecting middle-class households and the poor alike and threatening hard-won gains in poverty reduction. According to the World Bank, 2020 is expected to close with a contraction of economic growth, which is among the sharpest projected declines in the East Asia and Pacific region, due to a decline in external demand affecting trade and tourism, supply chain disruptions and weakening domestic consumption.

In 2001, Thailand introduced the Universal Coverage Scheme (UCS). **Described as one of the most ambitious healthcare reforms ever undertaken in a developing country, the UCS, which spread to all provinces the following year, provides outpatient, inpatient and emergency care, available to all according to need.** By 2011, the program covered 98% of the population. In 10 years, its plan reduced infant mortality, decreased worker sick days and lightened families' financial burdens, including robust healthcare access to rural people. In 2000 the country was in fact going through a

healthcare crisis; about one-quarter of people in Thailand were uninsured, and many other people had policies that granted incomplete protection. As a result, more than 17,000 chil-

Thailand has been successful in stemming the tide of COVID-19 infections, performing better than much of the sub-region

dren younger than five died that year, about two-thirds of them from easily preventable infectious diseases and about 20% of the poorest Thai homes fell into poverty from out-ofpocket healthcare spending. By January 2002, due to huge political pressure, Thailand's UCS was implemented in every province, but this level of comprehensive care had taken decades to develop.

Since the 1970s, high level of continued political commitment, as well as significant and strategic investment in health infrastructure - in particular primary healthcare, district and provincial referral hospitals- and the functioning of the health system through increasing the healthcare workforce, resulted in full geographical coverage in all sub-districts, districts and provinces, contributing to favorable pro-poor outcomes in terms of healthcare utilization, benefit incidence and financial risk protection against catastrophic healthcare expenditure and medical impoverishment. Before, patients paid a fee to their doctors when they visited the hospital. After 2001, the government paid hospitals, including salaries for staff, and financially incentivized medical professionals to serve unpopular rural areas. With a comprehensive benefit package free at point of service, every Thai citi-

Insurance Scheme	Population Coverage	Population Coverage	Financing Source	Mode of provider payment	Access to service
Civil Servant Medical Benefit Scheme (CSMBS)	Government employees plus dependants (parents, spouse and up to two children age <20 years)	7%-9%	General tax, noncontributory scheme	Fee for service, direct disbursement to mostly public providers and DRG for inpatient care	Free choice of public providers, no registration required
Social Health Insurance (SHI)	Private sector employees, excluding dependants	16%-18%	Tripartite contribution, equally shared by employer, employee and the government	Inclusive capitation for outpatient and inpatient services plus additional adjusted payments for accident and emergency and high-cost care, utilization percentile and high-risk adjustment	Registered public and private competing contractors
Universal Coverage Scheme (UCS)	The rest of the population not covered by SHI and CSMBS	73%-75%	General tax	Capitation for outpatients and global budget plus DRG for inpatients plus additional payments for accident and emergency and high-cost care	Registered contractor provider, notably district health system
Private health insurance	Additional health insurance scheme for those who can afford premiums	2.2% (additional insurance)	Health insurance premiums paid by individuals or households	Retrospective reimbursement	Free choice of healthcare providers, either public or private

DRG: diagnosis-related group.

Source: The Kingdom of Thailand, Health System Review (Health System in Transition, Vol. 5 No. 5 2015) / National Health Security Office

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zen is now entitled to essential health services at all life stages, proving that a well-researched system with dedicated leadership can improve health, and in an affordable way.

The Ministry of Public Health (MoPH) is the national health authority responsible for formulating, implementing, monitoring and evaluation of health policy. Such role has changed in the years as several autonomous health agencies were established through legislation. Among them, the advent of National Health Security Office (NHSO), in 2002, has had a major impact in transforming the integrated model where MoPH plays purchaser and service provision role, to NHSO as purchaser and MoPH as a major service provider.

By 2002, the entire population was covered by National Health Insurance, overseen by three different schemes: (i) the Civil Servants' Medical Benefit Scheme (CSMBS), which receives funds from the yearly fiscal budget of the Ministry of Finance, covering civil servants, pensioners and their dependents (5.7 million people); (ii) the Social Health Insurance Scheme (SHI), covering private sector employees which gets its budget from employer and employee contributions plus subsidy from the labor ministry (12.3 million people); and (iii) the Universal Coverage Scheme (UCS), under the public health ministry, covering the rest of the population (48.3 million people). All of Thai citizens in the three health coverage schemes get free healthcare cost on conditions and criteria set by the NHSO.

The Thai government allocates around 15-17% of its total budget on public health services, accounting for 4.3-4.6% of its GDP, the highest among ASEAN countries. With the achievement of universal coverage, public expenditure on health significantly increased from 63% in 2002 to approximately 80% of total health expenditure today, with curative expenditure dominating total health spending, about 70% of total. While out-of-pocket (OOP) expenditure reduced from 27.2% to less than 12% of total health spending.

Health insurance schemes cover all essential services in preventive, curative and palliative care for all age groups, with a few exceptions such as cosmetic surgeries, and services of unproven effectiveness. Extension of coverage to high-cost services, such

as renal replacement therapy, cancer therapy, an-

Benefit Packages of the Three Public Health Insurance Schemes

	UCS	SHI	CSMBS
Health service utilization	At contracting unit of primary care (CUP) both public and private	At registered main contractor hospital (>100 beds), public or private	At any public hospital for outpatient services; or private hospital, except accident and emergency. Only public hospitals for admission services
Health service	Ambulatory and inpatient care including accident and emergency and rehabilitation services, and preventive and health promotion services Note: prevention and health promotion for beneficiaries in all three schemes	Both ambulatory and inpatient care, including accident and emergency and rehabilitation services. No preventive services are provided, but NHSO manages prevention and health promotion for beneficiaries in all three schemes	Both ambulatory and inpatient care, including accident and emergency and rehabilitation services. No preventive services are provided, but NHSO manages prevention and health promotion for beneficiaries in all three schemes
Medicines	Limited; only essential drugs (ED)	Limited; only ED	Limited; only ED, but the use of nonessential (NED) can be approved by 3 doctors in the hospitals
Maternity (Delivery)	Limited; only 2 deliveries	Limited; only 2 deliveries and payment in cash (lump sum 13 000 Baht per delivery inclusive of ANC and PNC services)	No limit
Renal replacement therapy (RRT)	Covered and start with peritoneal dialysis, patient must pay if choose haemodialysis	Covered; both haemodialysis and peritoneal dialysis, liable for copayment if beyond the ceiling	Covered; both haemodialysis and peritoneal dialysis, liable for copayment if beyond the ceiling
Antiretroviral therapy for HIV/ AIDS	Included	Included	Included
Organ transplantation	Kidney and bone marrow covered for treatment of certain cancers	Kidney and bone marrow covered for cancer; corneal covered	No exclusion list
Dental care	Covered, both preventive and cura- tive dental services	Reimburse no more than twice a year (max 300 Baht/treatment)	Covered, no limitation specified
Medical devices	Covers 270 items	Covers 88 items	Covers 387 items

Note: UCS = Universal Coverage Scheme; SHI = Social Health Insurance; CSMBS = Civil Servant Medical Benefit Scheme; ANC= antenatal care; PNC = postnatal care. Source: The Kingdom of Thailand, Health System Review (Health System in Transition, Vol. 5 No. 5 2015)



tiretroviral treatment, and stem-cell transplants, has improved financial protection for patients. Well-coordinated district health systems enable individuals to seek care or referral at health units close to home. The resultant increase in service utilization has contributed to a low prevalence of unmet needs for outpatient and inpatient services.

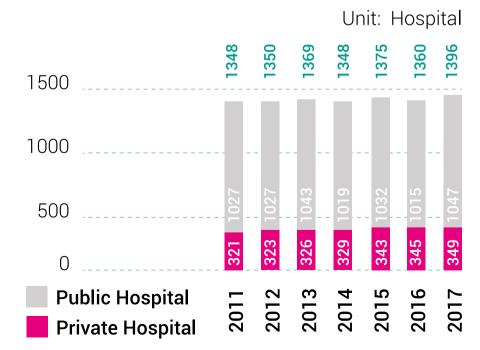
The eligibilities of the three benefit packages are however linked to employment status. Furthermore, they differ from one another because of different paces of historical evolution of the schemes. Although non-competing, each insurance scheme operates under its own legal framework with the inevitable disparities that not all groups of the population have equal access to similar packages of healthcare. Despite its low gross national income per capita a bold decision was made to use general taxation as the most equitable and efficient way to finance the Universal Health Coverage Scheme without relying on contributions from members. Thus, while direct payment by households has consistently declined, the

Government significantly increased spending from tax revenues. The cost of the policy (US\$ 14 809 million: 17% of the total US\$ 89 415 million government expenditure in 2017) is one of the highest among low-and middleincome countries, with the limitation that noncontributory financing via general taxation offers the welfare policy little flexibility to accommodate rising demands in the face of continuing rises in healthcare costs. Furthermore, heavy reliance on general tax runs the risk of incurring shortfalls especially during the cyclical economic crunch. Even if affordability is not currently an issue, though the cost of the program as a proportion of general income tax is rising yearly. Still, the UCS continues to have wide support from the country's government, health workers and wider population.

The extensive geographical coverage of Ministry of Public Health primary healthcare (PHC) and public hospital services are the foundation for successful implementation of universal health coverage, especially pro-poor health service utilization and public subsidies. Health delivery systems are thus dominated by the public sector with over 1,000 public hospitals, accounting for 75% and 79% of total hospitals and beds. Most private hospitals, around 300, are small, with 69% having fewer than 100 beds. Large private hospitals include

The market growth in the next few years will be driven by expansion of hospitals as well as new players entering the market to meet growing demand.

Number of Public and Private Hospitals



Source: Ministry of Public Health, Thailand Board of Investment www.boi.go.th

some hospital chains registered in the stock market, located in Bangkok, and offer services to mostly international patients. The market growth in the next few years will be driven by expansion of hospitals as well as new players entering the market to meet growing demand.

The Thai government considers the healthcare industry to be a priority sector for investment and further development, reiterated in the Ministry of Public Health's 2016-2025 Strategic Plan entitled "Thailand: A Hub of Wellness and Medical Services". Thanks to the government's supportive policies, Thailand has in fact become a medical hub not only for ASEAN, but also for Asia and beyond. Its medical devices sector is the 8th largest market in the Asia-Pacific region, and it is expected to grow 8-10% per year due to aging population, the increasing number of foreign patients who are both medical tourists and expatriates as well as hospital groups that have built new facilities and new players have entered into the market. Thailand ranked as the world's 17th largest exporter of medical devices (mostly single-use devices) and the world's 32nd ranked importer of medical devices. The Thai Medical Device Control Division of the FDA is responsible for regulating, controlling, and monitoring the use of medical devices in Thailand. There is neither a price ceiling nor a reference set for medical devices such as orthopedic instruments or services

Top 5 Product Groups Exported and Imported by Thailand

	Export 2018	Import 2018
1st	Single-use Devices	Electro-Mechanical Medical Devices
2nd	Ophthalmic and Optical Devices	In Vitro Diagnostic Devices (IVD)
3rd	Electro- Mechanical Medical Devices	Single-use Devices
4th	Dental Devices	Ophthalmic and Optical Devices
5th	Hospital Hardware	Hospital Hardware

Source: Medical Devices Intelligence Unit, Office of Industrial Economics, Ministry of Industry, as of 2018 $\,$

provided such as computed tomography (CT) scanners. Price is determined entirely by market demand and supply. There is no reimbursement list for medical devices. Their distribution is controlled implicitly by the suppliers. The coverage of use of medical devices varies greatly across the three public health insurance schemes. The CSMBS covers almost all medical devices using a fixed-rate fee-for-service payment, whereas the UCS and SHI schemes include use of medical

devices as part of their basic healthcare packages and support based on prepaid capitation. As a result, inequitable access to and use of expensive medical devices has been widely noted, for example, CT scans, magnetic resonance imaging (MRI) and mammography between CSMBS, UCS and SHI beneficiaries.

There were an estimated 538 local medical device manufacturers in Thailand at the end of

Number of Healthcare Providers (public and private healthcare, 2017)

Region	Medical Physician	Pharmacist	Registered Nurse	Technical Nurse
Total	35,388	13,728	160,932	5,929
Bangkok	8,865	2,544	32,497	3,264
Central Region (exclude Bangkok)	8,941	2,858	38,239	672
Northern Region	5,627	2,311	27,594	376
North-eastern Region	7,703	3,208	39,246	1,219
Southern Region	4,252	1,807	23,356	398

Source: Thailand Board of Investment www.boi.go.th

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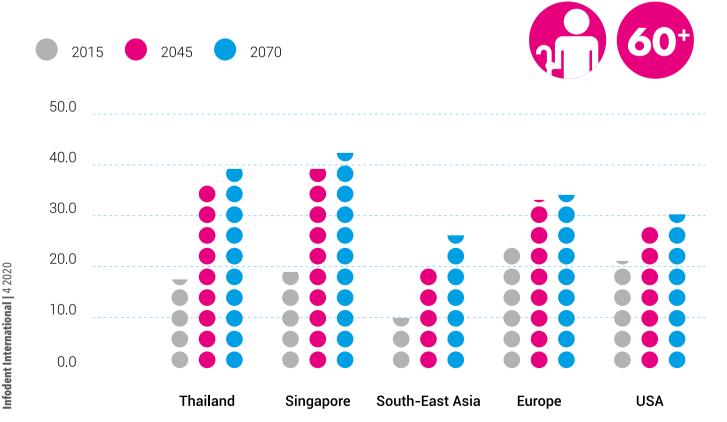
2017. The market currently comprises of two different types of medical device i.e. consumable and diagnostic imaging devices such as basic medical products / patient aids, and the more sophisticated (and generally imported) devices. It is the latter whereby there is most potential for investment opportunities from foreign manufacturers.

According to Thailand Board of Investment, Thailand's import value of medical devices grew from 735 million USD in 2015 to 962 million USD in 2018. Over the same period, the export value grew from 735 million USD to 843 million USD. This trend reflects a growing size of domestic market and the country's importance as an export base. 20.5% of imported medical devices comes from the USA, followed by China (13.2%), Germany (9.8%), Japan (8.8%), and Ireland (6.1%). Local manufacturers of medical devices make mostly single-use devices, such as disposable test kits and syringes, surgical gloves, and catheters. Over 80% of domestic production is exported.

Thailand is also one of the strongest-performing pharmaceutical markets in the Asia-Pacific region, accounting for almost 20% of all domestic health expenditures, with the majority of this being distributed through Thailand's public and private hospital system. Thailand's aging population, as well as its UCS and the continued growth of medical tourism lead to an increasing demand for pharmaceuticals. Except for essential medicines sold to government bodies, prices are governed by market forces.

This has had profound impacts on health- and social-service development and financing, which needed to respond to a rapidly greying society. Thailand is self-reliant in healthcare workforce production with high quality standards. There is however a geographical and publicprivate maldistribution of healthcare workforce, worsened by government policy on promoting Thailand as a regional medical hub. As it stands the health system seems to be overburdened and understaffed. Furthermore, the 2015 emergence of ASEAN Economic Community, facilitates free flows of people, goods and services across ASEAN countries, including the risk of internal and external migration of healthcare professional in response to increased demands for health services by international patients within ASEAN.

Despite the already large healthcare sector, the rise of Thailand's aging population is driving further need for healthcare services in the years to come. In relation to other ASEAN countries, the proportion of citizens aged over 60 is one of the highest in the region. It is also forecasted that, by 2045, such proportion will exceed that of other regions such as Europe and the United States, further driving domestic healthcare demand in the decades



Share of Population Aged Over 60

Source: The World Bank: Thailand Economic Monitor - June 2016: Aging Society and Economy. Taken from Thailand Board of Investment www.boi.go.th

Only 85% of 15-year-olds are expected to live past age 60.

ahead. In terms of demographics, Thailand has evolved from the status of high fertility and high mortality to low fertility and low mortality, with the fertility level of 1.6 in 2010 being below the replacement level, and the crude mortality being 7.4 per 1000 population. This has had profound impacts on health- and social-service development and financing, which needed to respond to a rapidly greying society. Consequently, financing and service-provision policies for older people remain an issue.

Despite good health at low cost, adult mortality is still high, compared to neighboring countries, given the socioeconomic and health systems development. Thailand has performed better in terms of maternal and child health as compared with other low- and middle-income countries. Its survival rate between ages 15-60 is lower than over half of the countries where such data is available. Over the past 15 years, Thailand's prevalence of diabetes and hypertension have tripled and quadrupled, respectively, and combined with high rates of road injuries, has negatively affected adult survival rate. Only 85% of 15-year-olds are expected to live past age 60. While rural health services are well established with equitable access and financial risk protection, urban health systems are dominated by hospital-oriented care, private clinics and hospitals, and lack of effective primary healthcare systems catering chronic noncommunicable diseases.

Thanks to its high reputation of quality medical treatment at reasonable costs, Thailand is a leading Asian country for medical tourism growing over 10% each year. In 2014 there were 2.35 million international patients including medical tourists, general tourists and foreigners working or living in Thailand or neighboring countries and an estimated 3.42 million in 2018. Medical tourists coming to Thailand accounted for 38% of such visitors to Asia.

This high-level of demand from patients from abroad has provided the impetus for a range of technological advances, innovations, and clinical research studies, as well as business opportunities for new medical companies to enter the Thai market. The government actively promoted medical tourism for a decade, but it was implemented mainly by private hospitals with foreigners contributing 30% of private hospitals' revenues in 2017. Recently, many university hospitals have requested additional budget to invest in infrastructure to respond to medical tourists. Civil society groups have expressed concerns on the negative impact of this policy on access to care by Thai citizens, especially when Thailand still has a shortage of physicians. Patients from Japan, China and Myanmar are on the rise, while arrivals from the Middle East are decreasing. Private hospitals are equipped with the latest medical facilities and patients do not have to wait to obtain treatment. Doctors in the country are very well trained in the latest treatments and procedures, and hospitals are outfitted with the most cutting-edge medical technology. As of May 2019, Thailand has 66 hospitals and healthcare institutions certified by the Joint Commission International (JCI). Healthcare in Singapore costs three times and Malaysia costs two times more than Thailand.

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Marketing

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To say that the last several months have been a whirlwind would be an understatement. In a matter of days, live events and conferences that had been planned months ahead were suddenly postponed or cancelled, and the storm is yet to finish. The uncertainty caused by the ongoing Corona crisis is changing business and it is also noticeable within the dental industry where international event organizers, and the dental industry as a whole, seem to agree that most events going forward will have a component of a virtual audience. Virtual events became the new normal and to think that virtual attendance won't continue after the crisis ends is unrealistic.

During this time, we all had to become fluent in virtual event technology and we had to learn how to create effective programs. We navigated through the storm and learned a lot of lessons along the way. One of the most important lessons the industry learned was that while virtual events certainly have their benefits, live events will always be an important part of any robust event program and of business. We now know the benefits of attending online events, as much as we are aware of the limitations. So, it is definitely time to think about a different type of event - hybrid events, or events that combine both in-person and virtual experiences, that will be an essential part of the new normal in future business. All this is achieved through techniques like live streaming, webinar broadcasting or setting up a virtual space that mirrors the ongoing physical event. There will be situations, such as this global pandemic, where a virtual event is the only option, so attendees can remain safe and comfortable. During this time, we have also all realized that some meetings in person are completely unnecessary. Traveling for thousands of miles polluting the environment for a two-hour meeting is a waste of resources and money few will be able to afford. On the other side though, there will also always be situations where an inperson event will be the most effective way of collecting leads and engaging your audience. Being hybrid events a new concept, many people

might find them intimidating but, if done well, virtual events can lead to more immersive (content) experiences for attendees, offer longevity

The Future Is Definitely Hybrid

I foresee a digitalization of business in any sector and therefore also in the dental sector. The formulas on how to economically support 'the virtual exhibition space' and 'quality virtual events' probably already exist, but I am convinced that there will be a phase of great reshaping of the parameters in the coming times. To all this we must add the possibility of a physical encounter. This can always be done with some basic rules. It will not be drugs or vaccines that will provide psychological security. In times of uncertainty, it will be calm, common sense, personal and social

hygiene that will make the difference. Growing knowledge on the SARS CoV-2 virus and on the COVID-19 disease - and this will also be true for any virus unknown today but tomorrow ready to hit man and his biological, economic, political and social environment - will lead to the modulation of basic behaviors and the selection of appropriate care. When all this shall be considered and when we will put 'health above wealth', nothing and no one forbids organizing a real meeting of people.

...The fact is that we have to train to be 'remote live instructors' and 'remote live controllers'. This requires knowledge and discipline; intrinsic elements for an intellectual medical profession. Control guarantees the passage of information; it must never become, nor be perceived as, an instrument of the 'blaming philosophy'."

The ultimate challenge? How to compensate empathy and compassion, so far missing in a virtual world. - Dr. Gerhard K. Seeberger, dentist and international opinion leader -



through recordings and provide an even stronger sense of community... there's no way that you can lose out on an audience by providing a more convenient mode of participation and rather by giving passive attendees a taste of your compelling content online. A successful digital event will not only require a great virtual streaming provider but, most importantly an engaging and quality content. Make sure that all your speakers and moderators are prepared to be recorded and to speak in front of a camera and that their presentations are entertaining, so that your virtual attendees should be involved throughout the event. We cannot think to plan virtual events with an agenda made for live only. It is much more difficult to keep virtual attendees engaged in front of a computer screen. "Entertaining" is the key word. Short attention spans online will need to be taken into consideration, no one wants to sit through a five-hour keynote speech. To keep content engaging, make sure that it will translate well over video. Incorporate live polls or Q&A to keep virtual attendees involved. Your virtual attendees may have to take more breaks throughout the day, or they may only be able to join the event for an hour or two at a time. Make sure that most of your content is offered on-demand so that they can access it at a more convenient time.

When combined with the right technology, digital events offer marketers an unprecedented opportunity to vastly expand audiences and transform their event into a formidable engagement vehicle. By implementing virtual elements and creating opportunities for worldwide audiences to consume your event content yearround, you can grow your attendance, optimize your event strategy, and gain powerful insights to continually improve your event.

What is MEDICAL FAIR

The Smart Medical Fair is an international virtual exhibition open all year round that gives you the power to connect with a global audience and virtually showcase your products and services to meet your business objectives. The Smart Medical Fair is made up of the following pavilions:

- Dental Technology;
- Laboratory Equipment, Diagnostics, Test;
- Physiotherapy, Orthopaedic Technology, Sport;
- Electromedical Equipment, X-Ray, Medical Technology;
- Communication Technology & Software;
- Commodities & Consumer Goods;
- Technology Components;
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Thailand's Performing Dental Market

Government's policies to promote Thailand as medical hub of Asia, capable of providing world-class healthcare, are set to turn its dental market into one of the most

attractive sectors.



With its 69.6 million people, just behind Indonesia, the Philippines and Vietnam, Thailand has the 4th largest population amongst South East Asian nations. Considered to be a middle-aged society, the highest proportion of the Thai population is made up of adults and senior adults, with each accounting for about 22% of the total population. People older than 60 account for about 17.14% while only about 37.9% are below 30 years old. Due to the rapid growth in its aging population, demand for quality dental services in Thailand is projected to increase, requesting, this group of the population, more complicated dental services. Public dental services, through the three national

Public dental services, through the three national health insurance schemes, are available in all levels of public healthcare facilities, including health centers, community hospitals, provincial hospitals, and regional hospitals. Dentists and Considered to be a middle-aged society, the highest proportion of the Thai population is made up of adults and senior adults, with each accounting for about 22% of the total population.

dental nurses provide dental treatment and prevention services at hospital level; in health centers primary dental care is mainly provided by dental nurses. **However, half of all Thai dentists work in private dental clinics and private hospitals. Thus, the private sector plays an important role in providing services, especially in Bangkok and municipality areas.** The Thai Dental Council is the main actor for quality control of dental services through accredited curricula of dental schools and national licensing mechanism. Academic-based hospitals such as Chulalongkorn's Faculty of Dentistry and Mahidol University's Faculty of Dentistry are the most specialized in dental services.

Approximately 10% of the Thai population re-

DENTAL COVERAGE WITHIN THE THREE NATIONAL INSURANCE SCHEMES

1. Universal Coverage Scheme (UCS)

Thai citizens under the Universal Coverage Scheme (those not covered by SHI or CSMBS) are eligible to have free preventive and curative dental services covering the following:

Dental Treatment:
Filling
Extraction
Scaling
Plastic Prosthesis
Baby Tooth TreatmentNasoalveolar Molding for Child who has Cleft Lip and Cleft Palate
Oral Health Protection and Support:
Oral Health Check Up
Dental Consultation
Supplemental fluoride for person who is at risk of tooth decay
Dental Sealant

2. Social Health Insurance Scheme (SHI)

Under the SHI, Thai Citizens (private sector employees) have the right for dental services covered under following criteria: In the case of tooth filling, extraction, and scaling, approx. Baht 250 will be covered per one time of service. The cost must not exceed Baht 500 per year. In case of acrylic dentures;

-1-5 teeth; Baht 1,200 to cover the cost within five years from installing dentures

-More than five teeth; Baht 1,400 to cover the cost within five years from installing dentures

3. Civil Servant Medical Benefit Scheme (CSMBS)

Public servants and government officers have the right to withdraw funds to cover dental services for standard treatments such as tooth extraction, filling, and scaling (no limitations specified). Orthodontics care is also included but only in case of an accident.

Source: www.unidi.it/images/documenti/Final_Report_Dental_Thailand_gen_2019.pdf / The Kingdom of Thailand, Health System Review (Health System in Transition, Vol. 5 No. 5 2015).

ceives public dental services. However, utilization is increasing, especially as The Ministry of Public Health (MoPH) is addressing policies to increase awareness, as well as the number of dental care personnel, especially dental nurses, at Primary Healthcare (PHC) level or in health centers. Long waiting lists are also an issue in public dental care. **Private clinics and community hospitals are major providers of dental services, accounting for 31% and 34% of total dental visits respectively, while only around 11% are provided in PHC unit or health center. Extraction, descaling/periodontitis treatment, and filling are major services of those dental care services.**

The Bureau of Dental Health, Department of Health is the key institute responsible for technical support and monitoring of the dental prevention program. Funding for dental services from the Universal Coverage Scheme (UCS) is bundled with the capitation outpatient budget to contracted hospitals. The National Health Security Office (NHSO) sets the dental fund to support comprehensive dental care, aiming to increase accessibility to services and to control oral health disease focusing on schoolchildren, pregnant women, dental prosthetics in older people, and improved oral health behavior in the population. Inequity of access to dental care both among insurance schemes and income groups is still challenging. Unlike UCS, beneficiaries in CSMBS and SHI are reimbursed on a fee-for-service basis. These differences have resulted in inequity of dental care accessibility among the three main health insurance schemes.

The high-income groups who live in urban areas with concentration of dental care facilities and dental health personnel tend to have more accessibility than lower-income groups. More efforts are still needed to supply rural areas with dental care as there is disproportionate access to dental services between rural and urban populations as well as maldistribution of dentists among regions.

Between 1971 and 1995, the proportion of dentists in the public sector declined, while they increased in the private sector, mostly in urban centers. Dentist density in the poorest Northeastern region has improved consistently as a result of the three-year mandatory rural service by all healthcare professional graduates, including dental doctors; despite this improvement, however, density in Northeastern region remains the lowest across regions.

Expansion of the workforce has been a key feature of government policy as there is general shortage in the number of oral health personnel in Thai government service, with a report in 2015 revealing that there were 13,215 dentists in Thailand, composed of 5,140 dentists working in the MoPH, 1,553 in other government services, and 6,522 in the private sector. The proportion of dentists to the population in each part of Thailand was 1:1,005 in Bangkok, 1:6,445 in the central region, 1:6,668 in the north region, 1:7,181 in the south region, and 1:10,745 in the northeast region, whereas the proportion of dentists to the population nationwide was 1:4,913 (compared with an average of 1:2,000 in most developed countries), which demonstrated an important public health problem in the distribution of dentists, especially in rural areas.

	2010	2019
Number of dentists	11,847	16,547
Number of Dental Prosthetic Technicians		5,375
Dental Assistants and Therapists		6,981

Note: number are approximate. Each source, even if reliable, has slightly different numbers Main source: World Health Organization (WHO) https://apps.who.int/gho/data/node.main.HWF2 / world data Atlas Infodent International | 4 2020

Thus, the MoPH has implemented several policies over the past few decades to increase the distribution of dentists in rural areas, such as recruiting students from rural areas and sending them back to their hometown after graduation or locating dental schools outside major cities for rural students. A policy to increase the production and distribution of graduated dentists to rural areas was introduced in 2005, and all dental schools in Thailand carried out this project from 2005 by increasing the number of dental students in the following 10 years. According to the 2015 – 2030 National Education Council Plan, over the next decade, the population number per dentist will keep decreasing, with the rising number of new graduates in dentistry, in 2025, the Thai population per dentist is expected to be 3,395 people. In 2010, there were 5,375 dental technicians in Thailand. They increased from 3,693 in 2006, at an average annual rate of 10.86%. In 2010, dentists in Thailand were around 11,847, growing at an average annual rate of 16.02% since 1979. According to projections the number of dentists is predicted to rise by 11.26% in 2025 with 24,922 total dentists.

Recognizing the importance of dental auxiliaries, including dental nurses, who can provide a wide range of basic public dental health services, such as health promotion and prevention to the population, especially schoolchildren in remote areas, the MoPH has scaled up the education program. This has resulted also in an increase in the number of dental nurses working in health centers. In addition to dental schools in universities, Praboromarajchanok Institute for Health Workforce Development (MoPH) is also responsible for producing dental workers, especially dental nurses. One study found that the dental health budget was allocated insufficiently for oral care delivery, there were inappropriate guidelines for supporting the primary care network, and rapidly increasing demand for dental services. Preventive and promotional oral services have remained unchanged from the period prior to universal health care coverage.

In the 1970s dentists were found to be in short

supply in Thailand. As a result, plans were implemented to increase the annual output of dental graduates by increasing first year enrollments in the existing training programs and by opening new dental schools. At present, there are ten universities in Thailand offering a total of 14 dentistry programs. A Bachelor of Dentistry program requires students to study for six years. Newly dental graduates must work with governmental hospitals for three years after graduation then, they can work full-time for private clinics and/ or private hospitals. The number of new dental graduate on average is around 600-800 per year. Thailand has around 4,556 dental clinics (as of September 2017), of which about 35% located in Bangkok. Bangkok and the Central Region, together, account for more than 50% of total numbers of dental clinics in the country.

According to data from the Bureau of Sanatorium and Art of Healing, most dental clinics are concentrated in Bangkok and the major cities of each region. Bangkok has almost five times more dental clinic than Chonburi the province with the 2nd highest numbers of dental clinics. Most dental clinics in Thailand are individually owned by dentists while dental service centers are usually made up of more dentists with fixed operational hours, at least one x-ray machine as well as all necessary dental supplies and instruments. The largest groups of dental clinics are: Dental Corporation, LDC Dental, Bangkok Smile, and Dental Hospital (targeting mostly international patients). These companies are key players in the market with several branches for dental services, specialists available for dental treatment, and advanced dental equipment and material.

Oral Health Status - **Data taken from the 7th Thailand National Oral Health Survey** (**TNOHS, 2013**) **indicate that socioeconomic inequality in oral health is still persistent**. Data included 1,518 working age adults (35-44 years old age group) from different areas of residence. About four-fifths of the population in the survey had an average income at 0–15,000 baht

Between 1971 and 1995, the proportion of dentists in the public sector declined, while they increased in the private sector, mostly in urban centers.

per month. Almost 40% of the population had completed secondary education with agriculture being the most popular occupation. There were more females than males, with about 80% of them being married. More than 85% brushed their teeth twice a day and used fluoride toothpaste, while only 10.7 % used additional cleaning tools. Surprisingly, only 37.7 % went to the dentist in the past year. More than 70% went to a public provider indicating a high percentage of the population with universal coverage. For dental caries status, 35.2 % of the population presented one or more dental caries. Education was the most significant factor among socioeconomic variables compared to income and occupation. Lower educated individuals showed a significantly higher risk for dental caries, although area of residence. oral health-related behavior and access to dental service are also related.

Based on a health survey conducted in 2014, about 55% of Thais aged 60 and above have fewer than 20 teeth, and of these, only about 28% have their teeth replaced with artificial ones. 7.2% of them are edentulous.

To improve inequity in access to oral care and to improve the oral health of the Thai older people, the Thai Government launched, back in 2005 the Royal Denture Project to provide free complete dentures or removable dentures to those in need, as well as further prevention programs. The project has resulted in approximately 405,300 older patients having been delivered with complete dentures during the 2005 – 2015 period and approximately 35,000 edentulous patients being treated every year. The project has also been added to all Thai health benefit schemes therefore it is one of the regular dental healthcare services in Thailand's health system.

The same National Oral Health Survey (2013) also shows differences over time in the prevalence and quantity of dental caries between urban and rural school children. A significant reduction was observed in urban areas however very recent declines in rural children give reason for optimism. More effort needs to be given to supply rural areas with dental care to have fair and equal access of all citizens to medical services.

Dental Market - Thus, the dental market has been growing steadily. According to a study made by the Italian Trade Agency (Bangkok office), the market value of Thailand dental equipment and oral care products was estimated at EUR 629 million for the

Health professional	Schools	Study Duration (years)	Regulatory body	Degree
Dentist	10 Dental schools (9 public, 1 private)	6	Thai Dental Council	Bachelor: Doctor of Dental Surgery (DDS)
Nurse	75 nursing schools (65 public, 10 private)	4	Thailand Nursing and Midwifery Council	Bachelor: Registered Nurse (RN)

Source: The Kingdom of Thailand, Health System Review (Health System in Transition, Vol. 5 No. 5 2015).

Socioeconomic Inequality and Dental Caries Among Thai Working Age Population, 2013

Variables	n=1,518	%
Gender: - Male - Female	726 792	47.8 52.2
Marital status: - Previously married - Married - Single	83 1,215 220	5.5 80.0 14.5
Area of residence: - Bangkok - Other urban - Rural	134 465 919	8.8 30.6 60.5
Region of residence: - Central - North - Northeast - South - Bangkok	317 257 554 256 134	20.9 16.9 36.5 16.9 8.8
Having diabetes mellitus: - Yes - No	49 1,370	3.5 96.5
Occupation: - Business - Wage-earner/ freelance - Agriculture - Housekeeper - Others*	191 310 568 90 359	12.6 20.4 37.4 5.9 23.6

Behaviors	n=1,518	%
Frequency of tooth brushing - Less than 2 times/day - At least 2 times/day	127 1,391	8.4 91.6
Use of fluoride toothpaste: - No - Y es	197 1,317	13.0 87.0
Use additional cleaning tools: - No - Y es	1,355 163	89.3 10.7
Smoking status: - Smoker - Non-smoker	422 1,096	27.8 72.2
Access to dental service		
Frequency of dental visit: - Less than once a year - At least once a year	945 573	62.3 37.7
Place for dental service: - Public provider - Private provider	443 140	76.0 24.0
Health insurance coverage: - CSMBS - SHI - UCS	206 226 1,058	13.8 15.2 71.0
Oral health outcome		
Dental caries: 0 ≥1	984 534	64.8 35.2

Note: SHI=Social Health Insurance Scheme; CSMBS=Civil Servant Medical Benefits Scheme; UCS Universal Coverage Scheme *Others in occupational groups include employee/government worker, associates of network/clubs, elderly with income, studying and finding a job. year 2017. About 72% of the overall estimated market is for the retail oral care products including toothpaste, mouthwashes, mouth fresheners, and dental floss. For dental equipment, including artificial teeth and plaster used in dental clinics and hospitals, the value is estimated to be about EUR 178 million, or 28.3% of the total estimated market. Rising standard of living, growing urbanization and an expanding middle class are supporting the growth of dental clinics as well as increased expenditure on dental care services primarily for dental cosmetics and oral care products. Thailand's aging society, especially in a decade's time, will further increase oral health spending. The rising number of international tourists is the main growth drivers for expansion of premium medical clinics and dental clinics in Bangkok and critical spots for tourism such as Pattaya and Phuket. For dental clinics in rural areas, the rising number of dentistry graduates and the government initiative of "One District One Dentist" would be the primary growth driver of the expansion of the dental industry.

The importation of dental equipment is regulated by the Medical Device Control Division, Food and Drug Administration, Ministry of Public Health, Royal Thai Government. To import dental equipment into Thailand, the importer needs to apply for and receive an import authorization/registration permit from the Thai FDA before the actual shipment. The permit needs to be renewed every three years. The Thai FDA also requires manufacturers or their representative companies to register in person. The Thai FDA accepts medical devices that pass the following standards: USFDA (U.S. Food and Drug Administration - USA), CE Mark (European), PAB (Pharmaceutical Affairs Bureau - Japan), TGA (Therapeutic Goods Administration - Australia), and SPAC (State Bureau of Pharmaceutical Administration of China - China). Although most dental products are imported into Thailand, oral care products such as toothpaste or dental consumable products such as plaster is mainly supplied by companies with local manufacturing facilities. Europe, the USA, Japan, Korea, and China are the primary sources of imported dental equipment.

THE DENTAL ASSOCIATION OF THAILAND

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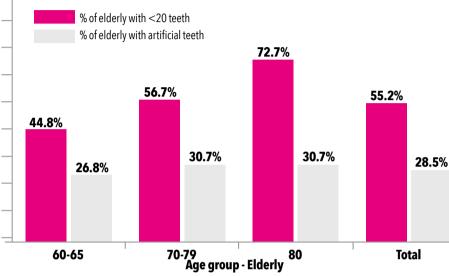
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Source: Thailand National Health and Examination Survey 2014

Total number of children examined, dental caries prevalence and mean dmft/DMFT by age group and year of study.

Year	1999	2006	2012
3 years old			
Total number	14,485	2,016	2,376
Caries prevalence (%)	65.7	61.4	51.7
dmft	3.6	3.2	2.7
5-6 years old			
Total number	24,484	1,856	2,456
Caries prevalence (%)	87.4	80.60	78.5
dmft	5.97	5.43	4.4
12 years old			
Total number	35,623	2,000	2,312
Caries prevalence (%)	57.3	56.87	52.3
DMFT	1.64	1.55	0.7

Note: dmft = decay-missing-filled teeth

Source: taken from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5694148/



Ref. 080220

Ref. 080228

Cabin entirely made of ABS of reduced dimensions maintaining the amplitude in the work area and with a substantial improvement in lighting. They have two mobile micro-blasting nozzles and, in the hopper version, a large sand tank and a 3 mm static gun.

MESTR

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Ref.	080220	080228
Height	330 mm	490 mm
Length	360 mm	360 mm)
Width	450 mm	450 mm
Weight	5.7 kg	7.7 kg
Maximum air consumption	80 Limin.	100 Limin
Operating pressure	2 to 5 bar	2 to 5 bar
Interior light	LED	LED

Entirely built in technical plastic, high strength material, easy cleaning and no oxidation. It allows to locate it in any corner of the laboratory. Tank capacity up to 8 kg of sand. Skeletals are placed in a basket that turns by the action of a motor.

Height		430 mm
Width		320 mm
Depth		310 mm
Weight		5.5 kg
Maximum	air consumption	90 Limin
Operating p	wani	2 to 5 bar
Interior	ight	LED

The blow nozzle is adjustable in the three dimensions of the space, so that the ideal angle of attack is always achieved. The basket can be easily decoupled from the motor shaft, which simplifying the preparation of the work.

Orión Work box Ref. 080214

Finishing box Eclipse Ref. 080216



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At A Glance A Decade of Digital Innovation

Ten years of exocad, from a project at the Fraunhofer Institute to the leading OEM manufacturer for dental CAD software

DARMSTADT, Germany - "A Decade of Digital Innovation" was the motto of the two-day event exocad Insights on September 21 and 22, 2020, held for the first time in a hybrid format, to comply with the safety guidelines of the COVID-19 pandemic. With approximately 300 dental technicians, dentists and over 40 partner companies, exocad celebrated its tenth anniversary at the international congress center darmstadtium in Darmstadt, Germany. A further 1,600 users of digital technologies in laboratories and practices from 55 countries followed Insights 2020 online on their PCs, tablets and smartphones. CEO Tillmann Steinbrecher and CTO Maik Gerth explain for the first time how they developed DentalCAD and founded exocad.

Mr. Steinbrecher, Mr. Gerth, you got to know each other during the doctoral project on "CAD/CAM in Dental Technology". How did the software development of DentalCAD come about? What happened to your doctorate?

Maik Gerth (MG): I actually wanted to do a research project with 3D X-ray devices for cancer detection at the Fraunhofer Institute IGD. But then I got the opportunity to work with Till on the exciting topic of CAD/CAM for dental technology. At that time, simple caps and frameworks could be milled as quickly as possible on the basis of 3D data. The development of zirconia had led to this project. So, we were also lucky enough to be in the right place at the right time. Tillmann Steinbrecher (TS): The project was supported by the CAD/CAM industry. Right from the start, we were in constant contact with manufacturers of digital hardware. We quickly found out that they were more interested in a specific software product than in a research and development service and, at the same time, that we enjoyed product development a lot more than writing scientific papers. So, one thing led to another and we began to develop a specific software product. Instead of doing a doctorate, we later founded exocad.

How long did it take you to develop the first version of *DentalCAD*?

TS: We were able to build on decades of research and development at the Fraunhofer Institute IGD. Thanks to this background, we developed our own software platform in a relatively short time. In addition, we were able to work very agile, as a small team.

MG: We developed the basic building block for the DentalCAD software in 2008 after we had rejected the first two software approaches. **TS:** At the end of the year, we already had an actual software product that could be used to process first patient cases.

How do you go about software development?

TS: We work with rapid prototyping, so we first create a software prototype without large formal specifications.

MG: We may discuss this quickly usable software prototype with the customer and give it to users for testing purposes. Sometimes, such a software approach is rejected and only the third or fourth approach brings the desired success. Only when the promising approach to prototype development is clear, do we start finalizing the software product. Iterative improvements and tests are carried out again and again until the finished software is launched. Further beta versions and release candidates will be created. This period sometimes extends over several years, depending on the feature. **TS:** As a software developer, you need a high tolerance for frustration.

What advantages did this approach have for the development of the *DentalCAD* software?

TS: With rapid prototyping, we got a good sense of the needs of dental technicians relatively early on. For them, software properties such as stability and robustness were particularly important.

Were there any other important properties that your software should have?

MG: The industrial applications, popular at the time, were difficult to understand for IT people. That is why we attached great importance to an intuitive user interface with easy-to-understand icons. In the beginning, Tillmann even designed some of these himself.

You have successfully implemented the wishes of the dental technician for a CAD/CAM software with *DentalCAD*. How did you achieve that?

TS: At the very beginning, we went to laboratories to see how they work manually and to fully understand their work requirements, ways of thinking and the needs of a dental technician **MG:** For example, the long-standing collaboration with Enrico Steger and Wilfried Tratter from Zirkonzahn, with Andreas Geier from ZFX and with Falko Noack and his team from Amann Girrbach gave me an understanding of what is important in dental technology and how dental technicians think.

Why did you opt for an open software architecture from the start?

MG: When we started developing DentalCAD at the Fraunhofer Institute IGD, we were in contact with several industrial customers. We needed a concept to process the data from various 3D scanners, CAM software and milling machines in just one application. Over time, more and more 3D scanners were added, some with their own file formats and their own milling machines. That is why we defined open standard formats ourselves in 2008. As a result, various manufacturers of 3D scanners contacted us relatively guickly and opened their hardware for our software. Today, our programs are the de facto standard for open dental CAD/CAM systems. In this context, the backward compatibility of our software is also important to us. Even a CAD/CAM system from 2009 with the corresponding open interfaces still runs with the latest DentalCAD version.

TS: Our hearts beat for open systems and this is reflected in our motto "Your freedom is our passion". Nevertheless, we basically leave it up to our customers to decide whether they want a closed or open system, although in my opinion the future lies in openness.

What was and is the greatest challenge in the development of *DentalCAD*?

MG: We have to process large and complex 3D data in such a way that it can run high speed on common PCs. In addition, we often have to resolve conflicting requirements. For example, material, milling service or milling system providers must enforce certain minimum thicknesses or crown margins so that the milling process works without problems and the stability of the restorations can be guaranteed. On the other hand, dental technicians and patients want a restoration that is as aesthetic as possible. Implementing opposite requirements in software is still one of the greatest challenges today.

First, there was the software product DentalCAD. How did the company start?

TS: The breakthrough came with IDS 2009 because companies like Amann Girrbach and Zirkonzahn presented their new CAD/CAM systems based on our software, which we had developed as employees of the Fraunhofer Institute IGD. The spin-off from the Fraunhofer Institute IGD to an independent company was the next logical step in 2010. For us, the entrepreneurial risk was manageable because we were able to sell a marketable product immediately with internationally oriented partner companies.

And how did the company develop?

TS: At IDS 2011, we presented ourselves for the first time as exocad with our own booth, even if at the farthest corner of the hall. The fair was a success for us. We realized that the exocad brand was already better known than we thought, and we met new sales partners. The same year, I flew to a dental fair in Shanghai to find local partners in Asia. This has led to successful sales partnerships that still exist today. Some partner companies were small and unknown when we started working together. Over time, they have developed into major global players. We grew together.

"exocad Insights 2020" is a good keyword. There you presented the new Galway release for exoplan and DentalCAD. What's new?

TS: Galway is a particularly big release. We are once again improving functionality, speed and automation. The user interface will be extensively revised and will then be based on





exocad's co-founders Maik Gerth and Tillmann Steinbrecher (from left)

Google's material design. We want our software to be as easy to use as a mobile phone app.

MG: The upcoming DentalCAD Release 3.0 Galway will contain the first A.I. functionalities. In the Smile Creator module, the eye and lip lines are automatically marked.

TS: However, A.I. is still far from replacing human intelligence and creativity. The ability of dental technicians to find creative solutions for aesthetic and functional restorations will continue to be essential.

What does the sale of exocad (acquired by Align Technology earlier this year) mean for the company?

TS: It opens up enormous opportunities for exocad. Dentistry is moving towards holistic treatment approaches. That is why we see great growth potential in the combination of our software solutions with Align's resources in the orthodontic area. Thanks to this synergy, we will certainly be able to have a pioneering influence on some developments in digital dentistry.

A personal question: what drives you every day?

MG: Positive feedback from our customers and users, definitely. We follow the very active exocad social media groups, for example the "exocad Experts" with over 40,000 members on Facebook. We also appreciate constructive critical feedback in order to recognize where there is potential for optimization.

TS: I feel the same way. It also makes us feel good when millions of people around the world have access to affordable CAD/CAM-based dentures - the printed denture is a good example of this. German dental technicians will rightly say that their manually manufactured full dentures are qualitatively superior to the printed alternative. But if we look at the topic globally, then the printed full denture will be an alternative to no dentures at all for millions of people. We see great progress in this. This fills us with satisfaction and motivates us.

In which direction is there still development potential for the exocad software?

MG: The requirements for exocad software solutions are becoming more complex. The number of supported restorations, applications and workflows keep increasing. The interdisciplinary treatment teams are growing. For example, a patient case is solved with DentalCAD and the implant planning software exoplan. So, the goal is a workflow that is simple and intuitive for everyone involved.

TS: The interface to the dentist is becoming more important, as well as tools for connecting to the digital hardware in the dental practice and for interdisciplinary communication. dentalshare is already a cool communication tool that DentalCAD users can use to share their 3D views with team partners. The 3D planning can even be called up on a tablet without having to load the software beforehand.

MG: In the future you will work more on tablet computers; the computing power is then provided in a cloud. Cloud-based work can reduce hardware and IT costs in dental laboratories, clinics and practices and accelerate automation processes. There is potential in even faster and more efficient work processes

Where do you see exocad in ten years?

TS: I see us as a provider of a globally unique, comprehensive open software platform on which software solutions for the entire digital dentistry are located.

MG: Dental technicians and dentists from all disciplines will communicate with each other via such a software platform in order to jointly plan patient cases using the exocad 3D CAD/ CAM technology and efficiently implement them using different digital hardware.

Thank you very much for the very interesting conversation.

Further information is available at www.exocad.com



Despite the fact that the event is online until October 25, the organisers share partial, very promising statistics. Over 2 000 participants generated nearly 20 000 visits at the virtual booths of 59 exhibitors. Visitors opened approx 6 000 links at booths and downloaded over 4 000 documents. 31 webinars, conducted by a total of 59 lecturers, were also very popular.

The analysis of the survey conducted among VDE by CEDE visitors is also very interesting. 74% of respondents are satisfied with participation in the exhibition, 82% would recommend the event. 84% expressed their willingness to participate in next editions. As expected by the organisers, the main motivating factor to participate in VDE by CEDE was the curiosity of the new formula (64%). The participants highly appreciated the substantive level of

Show Reports Virtual CEDE - time to sum up

Over 2,000 people from all over the world have already taken part in the Virtual Dental Exhibition by CEDE. The dental exhibition with a wide programme of webinars and debates took place on September 24 - October 25, 2020.

The analysis of the survey conducted among VDE by CEDE visitors is also very interesting.

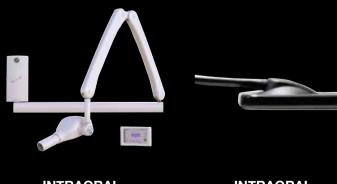
the educational part. Among webinar attendees: 20% took part in the "live" formula, 38% in the "on demand" formula and 42% in a mixed formula. The organisers also took care of the charity theme of the event. As part of the musical challenge, prepared by the dental guitar trio "Isthmus Project", composed of Dr. Bartłomiej Karaś, Dr. Wojciech Wilkoński and Dr. Hubert Gołąbek, money is raised for the purchase of toothbrushes for orphanage children. Musical dentists and their patients can join the project (read more). Collection link: https://pomagam.pl/zdroweusmiechy. VDE by CEDE partners are: GSK / Sensodyne, Polish Dental Association, Dental Tribune International and the nationwide program "Clinic without pain" by Acteon. The honorary patronage over selected projects was taken by, among others Patient Rights Ombudsman and the Institute of Patient Rights and Health Education. The event is also supported by: the President of the City of Łódź Hanna Zdanowska (Honorary Patronage), the Polish Agency for Enterprise Development, Enterprise European Network and the Łódź Tourist Organization.





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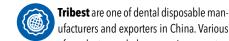
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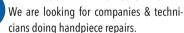
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Calendar

Here our trade shows selection. Discover all worldwide dental exhibitions at www.infodent.com/calendars/tradeshow

Given the current situation worldwide, we warmly invite you to double check trade shows dates, venues and booths location listed in this magazine.

NOVEMBER / DECEMBER

27/11-02/12 2020 Greater New York Dental Meeting 2020 (GNYDM) - VIRTUAL 96th Annual Session

New York City - USA

Greater New York Dental Meeting

200 W. 41st Street, Suite 1101 New York, NY 10036 Tel: +1 212 398 6922 - info@gnydm.com Referent: Dr. Robert R. Edwab (Executive Director) E-mail: execdirector@gnydm.com Exhibits Manager: Ms. Carla M. Borg E-mail: exhibits@gnydm.com

www.gnydm.com Infodent Int'l Digital Booth: 2345 **The Greater New York Dental Meeting will

hold its own version of a virtual event, beginning as usual, the day after Thanksgiving.





FEBRUARY

25-27/02/2021 156th Chicago Midwinter Meeting -VIRTUAL

www.cds.org/meetings-events/ midwinter-meeting

Chicago Dental Society 401 North Michigan Avenue Suite 200 Chicago, Illinois 60611-4205, USA Phone: +1 312 836 7300 / 7327 Fax: +1 312 836 7329 / 7339 E-mail: mwm@cds.org Website: www.cds.org



USA

MARCH / APRIL

10-13/03/2021 IDS 2021 39th International Dental Show (Biennial Meeting)

Cologne - Germany

*** NEW DATES: 10-13 March 2021

Organised by VDDI - Verband der Deutschen Dental-Industrie e.V. Aachener Str. 1053-1055 50858 Koeln Phone: +49 221 50 06 87 -0 E-mail: info@vddi.de Website: www.vddi.de, www.ids-cologne.de GFDI Gesellschaft zur Foerderung der Dental-Industrie mbH Aachener Str. 1053-1055 - 50858 Koeln Website: www.gfdi.de Realization: Koelnmesse GmbH Dept. Health, Lifestyle & Facilities Messeplatz 1 - D 50679 Koeln Venue: Koeln Messe/Deutz Cologne - Germany

www.ids-cologne.de



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