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MEDIWORLD

Middle East



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*A novel approach in
putting on gloves simpler*

Feature

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MedTech industry in the MEA region*

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inaugurates
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Editorial

A whole new care pathway

Last year in August, the UAE became the third country to open diplomatic ties with Israel, others being Egypt (1979) and Jordan (1994), in a US-brokered deal.

Moreover, both the countries also agreed to enhance bilateral corporation in the healthcare sector as well. The health ministers of the two countries discussed corporation on pharmaceutical, medical research as well as covid-19. Since the deal, the two countries have also signed a few agreements on technologies to fight covid-19. Several smaller scale medical and defense collaborations were followed in the weeks preceding the normalization agreement.

AIDOR is a startup active in inventing, producing and marketing innovative products that enhance the quality of consumer life while saving the environment at the same time.

IGIN is AIDOR's latest invention, a state of the art solution that makes tedious task of putting on disposal gloves simpler. The team of AIDOR were at the GITEX technology week held in December to showcase their novel approach that makes putting on gloves easy. Orna Goldberg, CEO of IGIN took time out of her busy schedule to talk about IGIN and how this innovation will rock the traditional disposable gloves market in our this month's cover story.

Adoption of digital health tools has grown significantly among all physicians since 2016 when American Medical Association first benchmarked the integration of emerging health technology into clinical practice. MECOMED serves as the voice of digital health across the Middle East and Africa. The association spearheads initiatives to work closely with healthcare officials in the MEA countries.

Rami Rajab, Chairman shares some insights into how they are known to be the voice of international medical technology across the region.

Sweden is known to have one of the best and most well-developed healthcare system in the world. The Swedish population enjoys a good health overall. The country spends about 11% of its GDP on health and medical services, which is on par with most other European countries. As Sweden has a population that is one of the oldest in the world, there will be an increasing demand for medical equipment and supplies. We take a tour of the Swedish healthcare sector in our medical destination sector.

As always we are always open for your feedback, and if you would like to be featured in our magazine you can get in touch with me at ayesha@mediworldme.com. We are also spread across social media (Facebook, Twitter, LinkedIn and Instagram) so be sure to LIKE and FOLLOW us there as well.

Sincerely,

Ayesha Rashid
Editor, MediWorld ME



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IGIN-A novel approach in putting on gloves simpler

“IGIN's novel approach is making the world a better place through different elements of use. It helps you use the exact amount of gloves, meaning less harm to the environment while creating a sterile, non-contact process that upgrades cleanliness and hygiene, in our health outlets, in food and drink manufactures and more and more. It's the first time ever you can have full visibility of use and quantity of gloves used, while saving money and reducing waste. Also, it helps in reducing environmental damage due to less waste of plastic,” says Orna

M

Medical gloves are disposable gloves used during medical examinations and procedures in preventing cross-contamination between caregivers and patients. Medical gloves are made of different polymers including latex, nitrile rubber, polyvinyl chloride and neoprene; they come un-powdered, or powdered with corn

starch to lubricate the gloves, making them easier to put on the hands.

There are two main types of medical gloves: examination and surgical. Surgical gloves have more precise sizing with a better precision and sensitivity and are made to a higher standard. Examination gloves are available as either sterile or non-sterile, while surgical gloves are generally sterile.

Besides medicine, medical gloves are widely used in chemical and biochemical laboratories. Medical gloves offer some basic protection against corrosives and surface contamination. However, they are easily penetrated by solvents and various hazardous chemicals, and should not be used for dishwashing or otherwise when the task involves immersion of the gloved hand in the solvent.

Furthermore, Understanding how to wear medical gloves properly, is the final step to ensuring that your gloves are providing the optimum protection for you and your employees.

The global disposable gloves market was valued at \$6,858.07 million in 2019, and is expected to reach \$18,885.88 million by 2027 at a CAGR of 13.1% during the forecast period, according to Allied market research.

The disposable gloves market is positively impacted by the pandemic. In addition, owing to the quick spread of the virus, healthcare professionals associated with collection of specimens require proper protection including gloves to prevent themselves from getting infected. In addition, disposable gloves form a crucial part of the personal protective equipment (PPE) worn by healthcare professionals. Therefore, growth in prevalence of contagious diseases and COVID-19 is anticipated to fuel the growth of the disposable gloves market during the forecast period. Although, the COVID-19 pandemic continues to transform growth of various industries, immediate impact of the outbreak varies. Moreover, the market has witnessed an unexpected growth due to COVID-19

The global disposable gloves market was valued at \$6,858.07 million in 2019, and is expected to reach \$18,885.88 million by 2027 at a CAGR of 13.1% during the forecast period, according to Allied market research.

outbreak, owing to the increasing demand for disposable gloves across the globe.

Ayesha Rashid from Mediworldme got an exclusive one to one interview with Orna Goldberg, CEO of IGIN, who was here in the UAE to showcase her state of the art technology IGIN at the Gitex 2020, held on December 6th – December 10th.

Orna explains why IGIN is a novel approach in putting on gloves simpler?

Tell us in detail about your device Igin?

IGIN is a fully automated device that puts on disposable gloves automatically and makes the tedious task of putting on gloves much easier. It saves time, reduces waste up to 50% and allows you to control data in real time, for example: when used in a hospital, the cloud-based CRM can tell you at any given moment how many devices are at each floor of the hospital, which ones are loaded, how many gloves were used today etc.

It can be used in stores, hospitals etc., and comes in various sizes and storage quantities. No human contact needed ever, a new level of efficient use of gloves, never seen before.

How is it a novel approach in putting on gloves simpler?

IGIN's novel approach is making the world a better place through different elements of use. It helps you use the exact amount of gloves, meaning less harm to the environment while creating a sterile, non-contact process that upgrades cleanliness and hygiene, in our health outlets, in food and drink manufactures and more and more. It's the first time ever you can have full visibility of use and quantity of gloves used, while saving money and reducing waste. Also, it helps in reducing environmental damage due to less waste of plastic.

Describe its fully automated process?

The process is simple: After sanitizing and hand scanning, the gloves inflates, making it ready for wearing purposes (the inflation is also a way to detect damaged gloves and providing ability to control damaged gloves stock), 3 seconds and the gloves are on your hand, no hassle and no human touch. All u have to do is load the gloves into the machine ahead of time and put your hands inside the device.

What made you come up with a device like this?



Orna Goldberg
CEO of IGIN

It is our original innovation, deriving from a personal experience of a doctor that was trying to take care of his wife in the hospital and realizing the process is absurd. The process takes too long, sometimes you need to use a few gloves in order to put it on correctly. We realized we need a better, advanced solution that can change the world.

How is your device an innovation that will rock traditional disposable gloves market?

It's a first of its kind, sophisticated and useful in so many different aspects: It gives you a clear, real time ability to respond to stock and quantity, its gives you information about the damaged gloves that will go to waste, about the actual gloves being used, it also gives you a bird's eye view, ability to collect data, process it and make decisions that saves money and waste based on real data, all thanks to our cloud based CRM system.

Why did you choose UAE to launch IGIN?

We are excited to take part at Gitex, an historical, tech driven. Plus, it's a device we wanted to show face to face because of the impact of the demo and showcasing it to people arriving from all over the world to a global market of business and innovation like the UAE.

What was about the UAE healthcare sector that attracted you to come here?

UAE is a hub for many business sectors and companies, hospitals, hotels, factories and more. The UAE is also a market infused with innovation and we know the health regulations in the UAE set a high standard to the world, as we experienced ourselves even in this visit.



What could be the future of disposable gloves industry with your device entering the market? Your opinion?

We believe IGIN technology will establish itself as a leader in the industry and eventually work together with the gloves manufacturing for different usages. It will also change the industry because less gloves will be manufactured so we will create less waste, recycle more gloves due to designated disposable bins and also we will be able to pin point damaged gloves easier, making it easier to demand refunds and at the same time making less mistakes in the process.

The disposable gloves market is positively impacted by the pandemic. In addition, owing to the quick spread of

the virus, healthcare professionals associated with collection of specimens require proper protection including gloves to prevent themselves from getting infected.

Where does IGIN come in?

IGIN provides a tailored made solution to a problem that is effecting the whole world, small store or big chain, they can all benefit from the use of the device. Less gloves will be used all over the world, manufactures will deal with less infections and recalls, hospitals will have control on the amount of gloves used and enjoy a higher standard of sterile protection, less pollution and strive in creating a cleaner, safer world with a higher level of hygiene we all need, now more than ever.

About I G I N

IGIN is Aidor's latest invention. A state-of-the-art solution that makes the tedious task of putting on disposable gloves, easy! AIDOR's innovation rocks the traditional disposable gloves market with IGIN's fully automated process that also reduces waste and cost.

Mecomed - The voice of MedTech industry in the MEA region

The UAE medical device market will record single-digit CAGR growth over the 2019-2024 period, with imports supplying much of the market. It will benefit from an overall strong economic performance over the next five years, despite a tough short-term outlook for 2020 due to Covid-19



As one of the most economically developed and diversified markets in the Middle East, the United Arab Emirates has a strong healthcare infrastructure. The creation of a world-class healthcare infrastructure is a top priority for the UAE government and, as a result, the sector has advanced and expanded significantly during the past few years.

Both federal and emirate level governments regulate healthcare in the UAE. Federal-level legislation began in the 1970s and 1980s and there are pending legislative reform initiatives to facilitate the development of the healthcare industry. The UAE Government is liberalizing policies to attract foreign investments to improve the healthcare standard and boost the healthcare industry.

Government commitment to the healthcare sector is one of the key drivers of growth within the UAE's healthcare market, particularly given that public spending accounts for over two thirds of overall healthcare expenditure. In the 2019 federal budget, a total of Dh60.3 billion was approved for public spending, up 17.3 percent from Dh51.4 billion from the 2018 budget.

In terms of medical devices, the UAE is an import driven market that is growing rapidly to keep pace with the country's expanding healthcare infrastructure. The government and private healthcare sector are investing heavily to provide countrywide healthcare solutions to the residents, expats, and medical tourists.

The United Arab Emirates' medical device market will record single-digit CAGR growth over the 2019-2024 period, with imports supplying much of the market. It will benefit from an overall strong economic performance over the next five years, despite a tough short-term outlook for 2020 due to Covid-19. With rising healthcare costs, the government will increase private sector participation. Population growth, a changing epidemiology, a growing medical tourism industry, healthcare infrastructure developments, an expanding health insurance, digital transformation and new technologies will all remain key market drivers, according to Fitch solutions.

Mecomed

Since its inception, Mecomed, the Middle East and Africa Medical Device, Imaging and Diagnostics Trade Association, has strategies, initiatives and activities that are based on key values aiming at keeping the patients first and help shape the Healthcare environment to the best aspirations of society.

Mecomed is the Voice of its almost 40 corporate members, representing in value around 80% of the Medical Devices, Imaging and Diagnostics purchased in the MEA region.

Rami Rajab, Chairman, LivaNova International Fellowship (LIFE), International Corporate Social Responsibility shares with Ayesha Rashid of mediworldme some insights into how they are known to be the voice of international medical technology across the Middle East and Africa region?

Overview of Medical devices, imaging and diagnostics market in the UAE?

UAE is one of the top five countries in the MEA region medical device

market with total sales of \$1088 million (Fitch Worldwide Medical Device Factbook, 2018), where the best in class products are available to the patients through a balanced regulatory policy which is encouraging innovation while ensuring that the safety and efficacy of the approved products are met. In addition, the capacity increase in both the Private and Public health sectors encourage the Medical Devices, Imaging and Diagnostics companies to showcase latest products especially during key events like Arab Health. The new policy to encourage and attract Medical Tourism will also contribute to the acceleration of the introduction of the latest available technologies.



How do you serve as the voice of international medical technology industry across the MEA region?

Over the years, Mecomed has established solid working relationships with various Healthcare stakeholders across the Middle East and Africa and beyond. This positive cooperation, in addition to our partnerships with Local and International Organizations, is aimed towards supporting the transformation of our markets towards a better regulated and compliant healthcare landscape. We have been the credible voice of the industry in ensuring the establishment of solid channels of communication between the Industry and all stakeholders to ensure a safe transfer of knowledge and innovation to better serve society and the patients. Mecomed members discuss issues and opportunities in all transparency and work together on proposed solutions and suggestions through their various committees and these are openly brought up to the concerned authority.

How do you spearhead initiatives and work closely with healthcare professionals in the MEA countries?

Mecomed's role of 'Shaping the Healthcare Environment, Keeping the Patient First' is translated through various initiatives which are clearly defined by Mecomed's Leadership, then approved by the Board and finally executed via our various specialized steering groups: Regulatory, Compliance, Market Access, Talent and Human Capital, Legal and Government Affairs & Communications. The initiatives will affect all Healthcare Professionals whether they are Regulators, Medical Doctors, Technicians or Nurses, Procurement officials, budget officials, as these are targeting the betterment of the whole health care system. Through regular scheduled meetings we do keep a high level of communication and cooperation with all stakeholders. Over the years, Mecomed has gained the trust of the regional authorities and we are working with several bodies and countries to instill the Code of conduct and ensure that we train various sectors on Compliance, regulation and to build local capacities with the cooperation with local and international resources like the WHO experts.

Can you highlight your initiatives in details?

Our current approved Initiatives/Priorities are,



1 - Impact Analysis: Assessment of regional impact for key regulatory topics: UDI, MDR, Brexit working with peer associations and international bodies to align regional activities with worldwide regulatory developments

2 - Cooperation with the Regulators: Sharing Expertise with the Regulators on various points of MD regulations and engaging in key regulatory events in the region

3 - Monitoring: Ongoing Regulatory Intelligence & updates across the MEA

4 - Publishing: Industry Position paper around the importance of Post-Market Surveillance for patient safety

5 - Revised Code: Communicating revised Code of Ethics and training sessions for members, their business partners, HCPs and PCOs

6 - Certification: Certified partners project (online training and certification of PCOs and HCOs)

7 - CVS Expansion: Enhancing CVS for the third-party events, including booth, education grants etc.

8 - Cooperation with Authorities on Code: Reaching out to authorities to get the Code's endorsement

9 - Business Health Analytics: Updating and creating healthcare maps for the region

10 - Training and Education: Promoting Value-based healthcare and Engaging into a MEAT "Value-based procurement" strategy

11 - Publishing: Reflection paper on Value-based healthcare

12 - Cooperation with Authorities on addressing market access challenges

13 - Sustainable Development: Reducing the gender gap in MedTech industry in the region

14 - Internal Legal Advice: Providing ongoing legal support to the association and its groups or publications, contracts, positions/statements, as well as guidelines and internal policies in line with local laws and policies

15 - Communication: Mecomed Brand strengthening within various stakeholder groups, Communication partner for committees, Social media engagement reinforcement

16 - Government Affairs: Value of MedTech innovation and generation of local data, Privacy laws and Healthcare Funding Reforms monitoring, addressing Parallel Trade challenges.

How do you help in shaping an ethical and sustainable healthcare environment?

Since Mecomed inception, we have set Business Compliance and Ethics as our key motivation to attain a sustainable healthcare environment. We have set our code and updated it to meet the minimum requirements towards a healthy interaction between the industry and HCPs and the Patient.

In your opinion what are the issues facing the healthcare industry in general and how can they be overcome?

The growing and ageing population and increased demand are exerting a high pressure on the healthcare systems and this is reflected on the whole health sector therefore the Industry. Some of the issues we face are:

- 1-Increased pricing pressure as demand is growing and budgets are not following proportionally.
- 2-Increased demand and dependence on Technology is associated with Cybersecurity, Data privacy and Safety concerns
- 3-Healthcare transformation whereas Digital Health and innovation are changing the Healthcare landscape and Industry needs to meet new realities and requirements while patients are becoming more empowered to manage their health
- 4-Regulation /Technology asynchrony: With communication and data analysis high development traditional regulation is struggling with keeping up hence accumulated delays in the horizon

We as an Industry and Mecomed are working very hard with our partners/members to tackle these challenges and some of the actions we are working on are:

i-On the pricing pressure we are in a dialogue with competent authorities to shift to Value-Based solutions versus pricing-based procurement and where we look at the Big Picture including efficiency and Patients Outcomes.

ii-The Industry is tackling cybersecurity and data privacy very seriously and is committed to develop the appropriate measures and incorporate them for the safeguard of the patients' well-being and privacy

iii-The industry is going through a major transformation to meet the current and future demands and many companies have already established digital platforms to research and develop the interfaces allowing our industry to become increasingly interactive with the emergent digital revolution.

iv-With regards to regulation and as we have shown above, we have and are building a very strong cooperation basis to anticipate current and future requirements and we are advocating a pre-approval program where the industry and the regulatory authorities hold meetings prior to submit new devices to have a comprehensive analysis and assimilation of the new applications.

Do you operate internationally as well?

Mecomed entertains a network of cooperation on the Global Level. Although our focus is on the Middle East and Africa we have a strong Collaboration with other MedTech associations and



international bodies (GMTA, GDA, MedTech Europe, AdvaMed, ApacMed, SAMED, WHO, AHWP) this network extend across the world and allows us to exchange best in class practice, experiences and resources. We discuss common challenge in an open and ethical atmosphere and we voice our concerns and opportunities to authorities. One good example is the joint statement published in January 2018 by MedTech Europe, AdvaMed China, APACMed and Mecomed announcing the suspension of direct sponsorships of HCPs to congresses and meetings. These were substituted with more transparent and targeted programs in cooperation with health authorities and medical associations.

How do you bring all healthcare professionals under one roof to improve the quality of people's health through timely introduction of meaningful medical tech innovation?

Since 2014, Mecomed has held four editions of the regional MedTech forum where all Healthcare Landscape stakeholders from HCP's to Healthcare Authorities, Providers, Payers, and the Industry meet under one roof to discuss, learn and debate about all aspects of Health care challenges , opportunities and future innovations and policies. This truly International event divided between plenary sessions and specialized workshops is a must-attend and an eye opener of the future of healthcare.

How do healthcare professionals benefit from initiatives and your association?

Our initiatives are multi-faceted and each healthcare professional is a stakeholder and would benefit from the whole cycle of initiatives we conduct. For instance, the Regulators benefit from the wide experience our Regulatory Team has and that is shared through various symposia and sessions, enhancing the cooperation between the industry and the health authorities which helps introducing Innovative technologies. Medical Personnel benefit from the innovative technologies so that their patients can be diagnosed earlier, get treated more efficiently and get well faster with better outcomes. They also have access to the training and education programs our members organize for the usage and application of these products in addition to the regular scientific updates during our Forum and other public activities targeting young

Medical Professionals. All these activities are conducted within the scope of the business Ethics and Compliance code our members have signed up to while cooperating on transparency laws where applicable.

How do you facilitate the ideal atmosphere for mutual growth among its members, in compliance with regulations?

Our members observe a strict code with regards to communication and cooperation in respect to competition and locally observed laws. Through our general meetings and through the various committees meetings, calls, forums and other activities our companies discuss means and ways to increase cooperation with local health authorities, the healthcare dynamics in various territories and to review the common issues and voice their concerns and propose solutions to the authorities where applicable. Mecomed serves as the voice of the industry and acts in many instances as the neutral bridge with various stakeholders with the Patient always as an apex point.

As a trade association what do you think could be the future of medical tech industry in the MEA region?

The MEA region is and will be witnessing one of the highest growth rates with regards to demand for various healthcare services due to the extraordinary increase of geriatric population, and the increasing incidences of conventional diseases such as diabetes and obesity.

Other major drivers include technological innovations and increasing demand and acceptance of such technologies in general and mostly in UAE, Saudi Arabia and others. Moreover, Patients are becoming more self-conscious about their diseases and about the latest solutions and many are demanding to have the best available technical products used in their case.

The MEA region is also witnessing a surge in the reimbursement pathways adapted in various and increasing number of countries to ensure higher quality healthcare. Major advances are witnessed in the regulatory landscape where Mecomed is supporting many countries in even the set up phases and capacity building with the help of our members and internationally recognized experts.

All these factors are increasing demand on the Medical Technology and we believe our members will greatly contribute to and benefit from this growth.

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Next generation patient care

“The UAE is home to some of the world's most advanced healthcare technology, making it the number 1 country for health tourism, in line with the UAE's digital vision for 2021. An increasing number of visitors worldwide are travelling to the UAE for medical reasons, the provision of world-class patient care and the use of advanced technology is a huge draw. We expect to see more smart hospitals in the UAE this decade,” says Amer, VP and Regional Manager at Xerox MEA

Mohammed Amer
VP and Regional Manager
at Xerox MEA

According to FDA, the term digital health includes mobile health (mHealth), health information technology (IT), wearable devices, telehealth and telemedicine and personalized medicine.

From mobile medical apps and software that support the clinical decisions doctors make every day to artificial intelligence and machine learning, digital technology has been driving a revolution in health care. Digital health tools have the vast potential to improve our ability to accurately diagnose and treat disease and to enhance the delivery of health care for the individual.

Digital health technologies use computing platforms, connectivity, software, and sensors for health care and related uses. These technologies span a wide range of uses, from applications in general wellness to applications as a medical device. They include technologies intended for use as a medical product, in a medical product, as companion diagnostics, or as an adjunct to other medical products (devices, drugs, and biologics). They may also be used to develop or study medical products.

The global digital patient monitoring devices market size was valued at \$38 billion in 2018 and is expected to expand at a CAGR of 27.9% over the forecast period. Rising attention towards fitness and healthy lifestyle among consumer is anticipated to fuel the growth. Lifestyle-associated diseases such as hypertension and diabetes demand round-the-clock surveillance of patients. High prevalence of these disease is anticipated to further propel the product demand, according to GrandView Research (2019-2026).

Mohammed Amer, VP and Regional Manager at Xerox MEA speaks with Ayesha Rashid, editor at Mediworldme about digital patient and how it alleviates pain points across patient experience through workflow automation.

Tell us in detail what digital patient is and how Xerox offers it?

After months in the global spotlight, there is no doubt that healthcare resources are hard-pressed: staff are stretched, costs are rising, and time is short. Frontline healthcare workers are tending to patients whilst weighed down by slow administrative processes. The pandemic is pressuring healthcare organizations to review costs and technology investments and embrace adaptable, quick, and robust systems.

Xerox Services for Digital Patient empower healthcare organizations through digitized processes, automated workflows and patient communication services that improve the patient experience, simplify administrative processes and reduce costs. Instead of investing time in physical paperwork, healthcare workers can access the information they need with a click of a button.

How can it alleviate pain points across patient experience through workflow automation and digital cataloguing?

The ultimate goal of technology is to alleviate pain points and help get tasks done. Digitizing paper processes, such as patient check-in forms, medical records and automating labour-intensive and highly repetitive tasks including patient scheduling and test ordering eases the back-office burden, providing a better patient experience.

Improving the healthcare industry is a top priority as the pandemic has revealed how fragile we are without solid healthcare systems in place. The healthcare industry went above and beyond the call of duty over the last year. But now is our time to make sure we provide them with streamlined processes and technology that empower the industry, so they can focus on improving health outcomes.

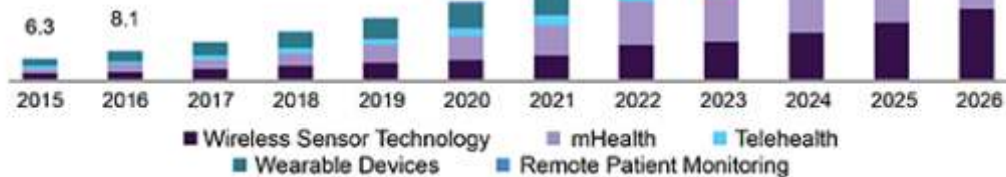
How does it empower staff and create a consistent improved experience for the patient?

When patient data and information are available online, healthcare workers spend less time on administrative tasks and more patient care. Digital Patient enables healthcare organizations to give healthcare workers access to digital health records at the point of patient care. Enhanced patient communications support better outcomes for the empowered patient with appointment reminders in print and digital, and preventative health updates supporting better patient outcomes.

Is it possible that this vision can soon turn into reality in the UAE? Why?

The United Arab Emirates (UAE) is home to some of the world's most advanced healthcare technology, making it the number 1 country for health tourism, in line with the UAE's digital vision for 2021. An increasing number of visitors worldwide are travelling to the UAE for medical reasons, the provision of world-class patient care and the use of advanced

U.S. digital patient monitoring devices market size, by type, 2015-2026 (USD Billion)



Source: www.grandviewresearch.com

We're working with majoo UK hospitals to support the provision of better healthcare. And we're keen to share our expertise and learnings with other healthcare organizations globally committed to improving the patient experience.

technology is a huge draw. We expect to see more smart hospitals in the UAE this decade.

We're working with major UK hospitals to support the provision of better healthcare. And we're keen to share our expertise and learnings with other healthcare organizations globally committed to improving the patient experience.

Is this the right investment that health systems must make?

At all times, healthcare providers balance the duties of compassionate patient care with the requirements of onerous administrative tasks. Pandemic induced pressure has heightened the need for hospitals and other healthcare providers to make sure their systems are adaptable and robust. So, healthcare staff can swiftly process high volumes of critical information testing, patient admissions, and communications, as well as claims processing. As a longtime partner to customers in the healthcare space, we're committed to speeding up this process. The digital patient

offering can make healthcare more precise, personalized, and preventative by equipping healthcare workers with the right insights at the right time.

What are the key benefits of opting Xerox's digital patient experience?

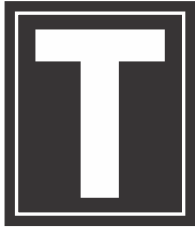
The last year has seen the healthcare industry in the global spotlight glare and step up to the challenge. As everyone struggled to find effective ways to help the healthcare workers, so did we. We understood that there is no one-fits-all solution, and that is why we created Xerox Services for Digital Patient. It is a package of services tailor-made for healthcare organizations. We have identified the communication, clinical, and business process pain points, and directly aligned our services to alleviate them. By capturing, digitizing, and compiling data from physical documents and various digital sources, healthcare workers can have easy and robust access to essential information.

How are workflow and digital patient experience related?

Workflow automation solutions for healthcare providers offer a means to the best patient care possible. Despite advances in healthcare technologies, poor record-keeping can still hinder great patient care experiences. By simplifying and centralizing patient data, healthcare workers spend less time and effort managing information, and more on improving care and the overall patient experience. The healthcare industry's workflow automation solutions can bridge traditional print and cloud-based digital processes to digitize paper forms for seamless data collection. By incorporating digital patient services into the work cycle, even quicker and more efficient patient admissions are guaranteed.

Sweden's robust healthcare industry

E-health is an integrated part of the healthcare sector. Swedish County Councils spend about SEK 10.6 billion (\$1.2 billion) annually in healthcare IT, of which SEK 8 billion (\$0.9 billion) is used for the procurement of services, software, equipment and supplies. It is estimated that 95% of all documentation in primary care is made in electronic healthcare records (EHRs), while the corresponding figure for specialized hospital care is estimated at 69%. E-prescriptions have become very popular, and it is estimated that 99% of all pharmaceutical prescriptions in Sweden are issued electronically



The official Kingdom of Sweden, is a Nordic country in Northern Europe. It borders Norway to the west and north, Finland to the east, and is connected to Denmark in the southwest by a bridge-tunnel across the Öresund Strait. At 450,295 square kilometers (173,860 sq mi), Sweden is the largest country in Northern Europe, the third-largest country in the European Union and the fifth largest country in Europe by area.

The capital city is Stockholm. Sweden has a total population of 10.4 million and a low population density of 25 inhabitants per square kilometer (65/sq mi). 87% of Swedes live in urban areas, which cover 1.5% of the entire land area. The highest concentration is in the central and southern half of the country.

Sweden is part of the geographical area of Fennoscandia. The climate is in general mild for its northerly latitude due to significant maritime influence. In spite of the high latitude, Sweden often has warm continental summers, being located in between the North Atlantic, the Baltic Sea and the vast Eurasian Russian landmass. The general climate and environment vary significantly from the south and north due to the vast latitudinal difference, and much of Sweden has reliably cold and snowy winters. Southern Sweden is predominantly agricultural, while the north is heavily forested and includes a portion of the Scandinavian Mountains.

The country is a constitutional monarchy and a parliamentary democracy, with legislative power vested in the 349-member unicameral Riksdag. It is a unitary state, currently divided into 21 counties and 290 municipalities. Sweden maintains a Nordic social welfare system that provides universal health care and tertiary education for its citizens. It has the world's eleventh-highest per capita income and ranks very highly in



Healthcare sector

Sweden's healthcare system is one of the best and well-developed in the world. The population of 10 million enjoys very good health overall. Sweden spends about 11% of its Gross Domestic Product (GDP) on health and medical services, which is on par with most other European countries. The infant mortality rate is less than 2.6 deaths per 1,000 in the first year of life and the average life expectancy is 80 years for men and 84 years for women. As Sweden has a population that is one of the oldest in the world (20.37% are 65 years or older), there will be an increasing demand for medical equipment and supplies, as well longer-term medical treatments, to meet the health needs of an aging population.

The responsibility for health and medical care in Sweden is shared by the central government, the regions, and the municipalities. Sweden is divided into 290 municipalities and 21 regions. The regions have the primary responsibility for providing health and medical services. They decide on the allocation of resources to health services and are responsible for the overall planning of the services offered. It is also the regions that own and run the hospitals, health centers, and other institutions. Regions are responsible for dental care for residents up to the age of 23. The 290 municipalities are responsible for the disabled, home healthcare of the elderly, and nursing homes. They are also responsible for providing care for people with psychological disorders, support and services for people released from hospital care, and school healthcare. Private healthcare, accounting for 12% of total healthcare costs, mainly offers primary care, such as healthcare centers or homes for the elderly.

The infant mortality rate is less than 2.6 deaths per 1,000 in the first year of life and the average life expectancy is 80 years for men and 84 years for women. As Sweden has a population that is one of the oldest in the world.

quality of life, health, education, protection of civil liberties, economic competitiveness, income equality, gender equality, prosperity and human development. Sweden joined the European Union on 1 January 1995, but has rejected NATO membership, as well as Eurozone membership following a referendum. It is also a member of the United Nations, the Nordic Council, the Council of Europe, the World Trade Organization and the Organization for Economic Co-operation and Development (OECD).

According to Business Monitor International, the Swedish market for medical equipment was estimated at \$2.47 billion in 2019.



E-Health

The Swedish government launched a national strategy for e-health in 2006, updated in 2010, which emphasizes that information and communication technology will be used as a strategic tool at all levels in the healthcare sector. It also states that 'citizens must also be able to contact care services via the internet for assistance, advice or help with self-treatment.' In 2017, for continued development work in the field of e-health, the Swedish government and the Swedish Association of Local Authorities and Regions endorsed a common vision for e-health by 2025. The vision replaced the latest strategy from 2010 and will continue to build on the ideas and approaches to make use of the opportunities of digitization in social services and health care. The vision states that, 'in 2025, Sweden will be best in the world at using the opportunities offered by digitization and eHealth to make it easier for people to achieve good and equal health and welfare, and to develop and strengthen their own resources for increased independence and participation in the life of society'.

Today, e-health is an integrated part of the healthcare sector. Swedish County Councils spend about SEK 10.6 billion (\$1.2 billion) annually in healthcare IT, of which SEK 8 billion (\$0.9 billion) is used for the procurement of services, software, equipment, and supplies. It is estimated that 95% of all documentation in primary care is made in electronic healthcare records (EHRs), while the corresponding figure for specialized hospital care is estimated at 69%. E-prescriptions have become very popular, and it is estimated that 99% of all pharmaceutical prescriptions in Sweden are issued electronically.

Medical devices market

The variation of medical devices includes advanced technologies with invasive treatment methods to items used for daily care such as bandages or test strips and even IT-systems. Effects of medical devices are generally reached without the aid of pharmaceutical, immunological or metabolic substances.

According to Business Monitor International, the Swedish market for medical equipment was estimated at \$2.47 billion in 2019, and it ranks Sweden as the fourth most attractive market in Western Europe in which to commercialize a medical device. The medical equipment market is expected to grow around three percent annually. While most of the domestic manufacture is for export (estimated value at \$1.7 billion in 2018), the medical equipment market is dependent on imports. In 2018, imports were estimated at \$2 billion.

U.S. firms interested in entering the Swedish market will find that the market is competitive and, therefore, should establish a local presence, either through local agents and distributors or sales subsidiaries.

The medical device manufacturing industry in Sweden is relatively small and employs approximately 18,000 people. Domestic manufacturers are small to mid-sized companies, but many multinational medical device companies maintain subsidiaries in Sweden.

Healthcare spending per capita is high in Sweden – almost \$5000 – and it is home to a large aging population – 18% of Swedes are over 65. As such, the local healthcare industry is receptive to innovative technologies that are effective at treating and mitigating chronic and age-related diseases. There is consistent demand for diabetes products, user-friendly home care, orthopedic and implantable devices, minimally-/non-invasive equipment, and e-health products.



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LICENSALÉ® Mobile – First mobile registration system for Medtech services

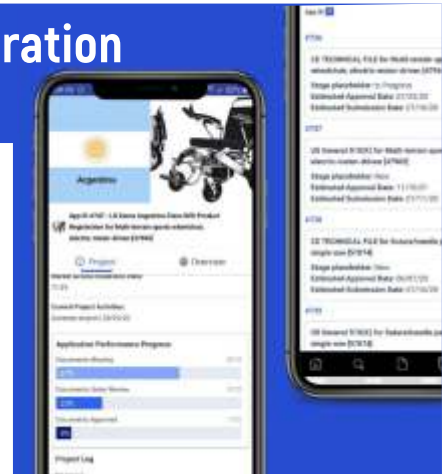
Arazy Group Consultants Inc. have just released the first ever mobile application for global Medtech registration, LICENSALÉ® Mobile. This new mobile application is an extension of their successful online global registration system for medical and IVD device manufacturers called LICENSALÉ®.

With LICENSALÉ® Mobile, users can view their products' real-time marketing status, registration progress and documents in review as well as communicate with their team on-the-go. LICENSALÉ® Mobile ensures professionals are always on-top of their regulatory projects. Users simply login with their portal registration credentials to view their registration projects from anywhere.

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New endoscopy technique to steer laser beam for minimally invasive laser surgery

the study. "With its large range of articulation, minimal footprint, and fast and precise action, this laser-steering end-effector has great potential to enhance surgical capabilities simply by being added to existing endoscopic devices in a plug-and-play fashion."

The system uses a series of small mirrors that can be articulated to control the path of the laser through the device, which it enters through an optical fiber. The major challenge was creating a working mechanism within such a small space – the cylinder used to house the components is approximately the diameter of a drinking straw.

"We found that for steering and re-directing the laser beam, a configuration of three small mirrors that can rapidly rotate with respect to one another in a small 'galvanometer' design provided a sweet spot for our miniaturization effort," said Rut Peña, another researcher involved in the project. "To get there, we leveraged methods from our microfabrication arsenal in which modular components are laminated step-wise onto a superstructure on the millimeter scale – a highly effective fabrication process when it comes to iterating on designs quickly in search of an optimum, and delivering a robust strategy for mass-manufacturing a successful product."

Applying an energy source, such as a laser, to cut through or cauterize tissue is already widely used in external surgeries, such as laser eye surgery, but using this technology safely and accurately during minimally invasive internal procedures is difficult. Current endoscopic technology does not permit lasers to be steered and manipulated with sufficient precision.

Now researchers at the Harvard Wyss Institute have developed a new technique to accurately steer a laser beam at the end of an endoscope for minimally invasive laser surgery. The approach relies on three small mirrors that move within a tiny cylinder to accurately steer the laser path within a significant range of motion. The entire device resides within the working channel of an endoscope, allowing a surgeon to precisely control laser movement inside the body.

"To enable minimally invasive laser surgery inside the body, we devised a microrobotic approach that allows us to precisely direct a laser beam at small target sites in complex patterns within an anatomical area of interest," said Peter York, a researcher involved in

Band-aid like patches to deliver electrical pulses to stimulate spinal cord nerves

Researchers at the University of Washington have trialed a minimally invasive electrical stimulation technique that has resulted in remarkable improvements in the hand and arm function of spinal cord injury patients. The approach involves sticking band-aid-like patches onto the back of the neck of patients to deliver electrical pulses, helping to stimulate the nerves below.

Spinal cord injuries typically have serious consequences for patients in terms of mobility and independence in performing everyday activities. Many such patients have very limited hand and arm control, making it difficult to live without significant support. Physical therapy can help, but sometimes isn't enough to provide significant gains in hand function.

"We use our hands for everything – eating, brushing our teeth, buttoning a shirt," said Fatma Inanici, a researcher involved in the study. "Spinal cord injury patients rate regaining hand function as the absolute first priority for treatment. It is five to six times more important than anything else that they ask for help on."

Some research has shown that implanted electrical stimulators can help spinal injury patients to regain some function, but the approach is invasive. This latest study chose a minimally invasive approach, where band aid-like patches are placed around the injured area on the skin on the back of the neck, and the subsequent electrical stimulation occurs through the skin.

The study recruited spinal cord injury patients and asked them to perform physical tasks with and without electrical



stimulation. "At the beginning of our study, I didn't expect such an immediate response starting from the very first stimulation session," said Inanici. "As a rehabilitation physician, my experience was that there was always a limit to how much people would recover. But now it looks like that's changing. It's so rewarding to see these results."

After a couple of months of training and electrical stimulation, many of the patients demonstrated remarkable enhancements in hand and arm control, with one being able to play a musical instrument for the first time in years. Strikingly, the enhancements appeared to remain with the patients when the researchers checked in on them six months later, suggesting the technique could lead to long-term improvements.

FDA clears Siemens Healthineers' Cios Flow mobile C-arm

Siemens Healthineers just announced FDA clearance to introduce its Cios Flow mobile C-arm in the United States. Developed for use in orthopedics, vascular surgery, trauma, spinal surgery, and other fields, it's intended to be a general purpose C-arm that can be easily used in a variety of cases.

The Cios Flow is a relatively compact and lightweight (606 lb (275 kg)) C-arm that features touch screen controls with an intuitive interface. As an example, when the operator clicks on a part of the body, the so-called SpotAdapt function of the interface automatically sets parameters such as brightness and contrast to achieve the clearest images. It also detects motion, enhances edges, and makes metal parts look sharp and clear.

Thanks to our interconnected world, even C-arms have to have digital security, which in this case comes via Windows 10



security functions that limit access to the system and data within. Imaging and patient data can be encrypted using BitLocker and a log is kept on all system changes.

"With the Cios Flow, Siemens Healthineers proudly offers customers a mobile C-arm system with broad multidisciplinary functionality as well as a robust level of cybersecurity to help enable secure, efficient operations in the OR," said Lara Barghout, Senior VP of Advanced Therapies at Siemens Healthineers North America, in a press release.

US researchers develop system combining brain-computer interface and a robotic arm for stroke rehabilitation treatment

Stroke rehabilitation as a field of research holds great promise in improving how patients recover. Unlike other organs, the brain's neuroplasticity allows it to functionally reshape itself in beneficial ways. But it doesn't do it on its own, so targeted interventions that require patient participation are key to optimal outcomes.

There has been a slew of mechanical devices that promote arm movements in a structured way, focusing the training of the affected limb to improve therapy. While reasonably effective, such systems don't correlate movements with patients' true intentions and therefore miss out on a more direct training regimen.

Now, researchers from a number of medical research institutions in Texas, spearheaded by a team at the University of Houston, have developed a system that combines a brain-computer interface and a robotic arm that responds to the actual intentions of treated patients. The system showed an impressive ability to improve arm and hand movements in patients who have stopped seeing benefits from conventional stroke rehab therapy. Moreover, the positive outcomes were maintained even two months after the new rehab sessions were over, pointing to long term benefits.

The volunteers in the study, who had limited arm movements following a stroke, wore EEG (electroencephalography) caps that provided access to their brain waves. An arm exoskeleton that was able to move the affected appendage was connected to a computer that detected user intentions in the EEG signal and moved the arm accordingly. If the intention was not



detected, the exoskeleton did not move, which guaranteed the brain's involvement in every motion of the device.

"This project ensures the brain is engaged," said Jose Luis Contreras-Vidal, one of the lead investigators on the study, in the announcement. "We know that if the arm is moving, it's because they are commanding it to move. That's a very powerful concept."

"This is a novel way to measure what is going on in the brain in response to therapeutic intervention," added Dr. Gerard Francisco, professor and chair of physical medicine and rehabilitation at McGovern Medical School at The University of Texas Health Science Center at Houston and co-principal investigator. "This study suggested that certain types of intervention, in this case using the upper robot, can trigger certain parts of brain to develop the intention to move. In the future, this means we can augment existing therapy programs by paying more attention to the importance of engaging certain parts of the brain that can magnify the response to therapy."

It took a few years to actually complete this trial, as finding appropriate patients willing to participate turned out to be difficult. Previous therapies did fail them and so they were not well motivated. Yet, after four weeks and a total of only 12 sessions, the novel rehab system showed impressive results that showed that 80% of the participants had improvements in clinically relevant functional outcomes.

Wavewriter Alpha line for spinal cord stimulators

Boston Scientific is releasing in the United States its Wavewriter Alpha line of spinal cord stimulators. The four Wavewriter Alpha pain management devices provide Bluetooth connectivity, allow patients to still be scanned under MRI, given certain precautions, and offer so-called Fast Acting Sub-perception Therapy (FAST).

FAST is exciting because it provides near immediate pain relief without causing paresthesia, a tingling sensations that patients commonly report when utilizing spinal cord stimulators. Paresthesia-free stimulation therapies are already in existence, but they take a few days or even weeks to finally start working. FAST is, well, fast. If all goes well, in only a few minutes after being turned on, both pain and tingling are nearly eliminated in patients newly implanted with a Wavewriter Alpha device.

"We have found that the specific targeting and stimulation parameters of FAST uniquely engage the surround inhibition mechanism to produce rapid and robust pain relief," said Warren M. Grill, distinguished professor of biomedical engineering at Duke University, who helped develop the new therapy. "What sets FAST apart from other forms of SCS



is that we understand the underlying mechanism, which helps define clinical practices to optimize patient outcomes."

According to Boston Scientific, the new devices are indicated "as an aid in the management of chronic intractable pain of the trunk and/or limbs including unilateral or bilateral pain associated with failed back surgery syndrome, Complex Regional Pain Syndrome Types I and II, intractable low back pain and leg pain."

DoH Chairman inaugurates G42 Healthcare's most advanced Omics facility



G42 Healthcare, a subsidiary of Abu Dhabi-based technology company Group 42 (G42), held an official inauguration ceremony for its Omics Center of Excellence, attended by His Excellency Abdullah bin Mohammed Al Hamed, Chairman of Department of Health – Abu Dhabi (DoH), and H.E. Dr. Jamal Mohammed Al Kaabi, Undersecretary of Department of Health – Abu Dhabi. The facility is the latest addition to G42 Healthcare's long list of initiatives, and will become home to a series of Omics projects such as the Emirati Genome Program.

Dr. Asma Al Mannaie, Director of Healthcare Quality Division, DoH, and Dr. Omar Najim, Executive Office Director at DoH, also attended the event. They were joined by Peng Xiao, CEO of G42; His Excellency Mansoor Al Mansoori, COO of G42, and Ashish Koshy, CEO of G42 Healthcare.

Located in Masdar, Abu Dhabi, G42 Healthcare's Omics Centre of Excellence is the region's largest and most advanced Omics facility in terms of technology coverage, automation, computational capacity, and throughput. The centre has the highest level of automation in sample and library prep, as well as the region's largest computational resources in terms of processing power and storage.

It features the Middle East's largest Third Generation Sequencing (TGS) platform, and is planning to add the state of the art equipment for Optical mapping to its facilities, allowing better structural variation studies in Genomics. The Omics Centre balances TGS with Next Generation Sequencing (NGS) platforms, and will also leverage the Sanger sequencing method for validating novel genetic mutations.

His Excellency Abdullah bin Mohammed Al Hamed, Chairman of Department of Health – Abu Dhabi, said: "Improving the well-being of our society and transforming healthcare is a priority of the Department of Health – Abu Dhabi. We welcome initiatives such as this one, G42 Healthcare's Omics Centre of Excellence, which result in positive outcomes for the local community while elevating the healthcare sector's ecosystem and available infrastructure. By employing the most innovative technologies to date, and with a strong Emirati representation in the centre as well as throughout the company's other initiatives, this groundbreaking facility will lay the foundation of a healthier future for all in the UAE."

Following the opening ceremony, H.E. Al Hamed and the DoH representatives were given a tour of the centre. They were provided with an outlook of the future of Multi-omics, service offerings and key projects that the centre is already involved in, such as the Emirati Genome Program and viral genome sequencing and DOH Chairman even donated his blood, becoming the first participant in the Emirati Genome Program.

One of the world's most ambitious genomics programs, the Emirati Genome Program is an extension of the Population



Genome Program which was launched earlier in its pilot phase to create reference Emirati genome. The Emirati Genome Program will explore the genetic makeup of Emiratis, using cutting-edge DNA sequencing and artificial intelligence technologies to generate the highest quality and most comprehensive genomic data. The resulting reference genome will pave the way towards personalized and preventive healthcare delivery for UAE citizens.

Ashish Koshy, Chief Executive Officer of G42 Healthcare, said: "G42 Healthcare is committed to playing a key role in the provision of groundbreaking solutions for medical science, and to developing home-grown capabilities in the UAE that attract and provide opportunities for the smartest minds to achieve scientific and medical advancements. We envision a safe future for human life, and seek solutions that will benefit members of our society for generations to come. With the official launch of our Omics Centre of Excellence we mark the next stage in our journey towards improving healthcare delivery through advanced research and cutting-edge

technologies."

Since its inception in September 2020, the Omics Centre of Excellence has already been leveraged by G42 Healthcare to achieve several significant successes. These include viral genome sequencing study on a large sample size, providing better insights into virus mutations during the second COVID-19 wave in the UAE. The centre has also analyzed more than 1,000 human genomes on NGS and TGS platforms to create a standard Emirati reference genome.

G42 Healthcare plans to employ the new facility across a series of initiatives and workstreams that will support the UAE's vision for the future – such as introducing precision medicine and working closely with the pharma industry, advancing research on genomics and proteomics promoting sustainable agriculture, food security, and forensics work.

The Omics Centre of Excellence is enabled by G42 Healthcare's Biobank, which is the biggest national biorepository and functions as an integrated foundation of the facility. The Omics Centre will be critical in G42 Healthcare's ongoing efforts to develop a world-class, sustainable healthcare sector in the UAE and abroad. The company has been a key player in the race to find a solution to the COVID-19 pandemic, providing the technology to generate relevant and insightful data in a study that identified the genomic source of the virus.

Top global healthcare companies join Dubai Science Park in road to digital innovation



Marwan Abdulaziz Janahi
Managing Director of Dubai Science Park

“With a renewed sense of hope as the region shifts its focus to growth, scientific innovation will play an increasingly critical role in the UAE's knowledge-based economy. By providing a business-friendly environment with state-of-the-art infrastructure, sustainable laboratories, light industrial units and favorable rules and regulations, we have created a holistic ecosystem to support startups, entrepreneurs and multinational corporations operating across the sciences, environmental and energy sectors. Inspired by the UAE's visionary leadership, we are optimistic this year.”

More than 400 companies and 4,000 professionals are based in Dubai Science Park today, after a global push to bolster healthcare systems served as a catalyst for biotechnology, pharmaceutical and life sciences leaders to join the business district.

Top global companies joined Dubai Science Park, the region's leading science and healthcare-focused business district, last year as the importance of science, technology and medical innovation came to the fore. Many existing business partners also expanded their presence, opening new offices and innovation centres to develop new products as Dubai reinforced its position as an attractive destination for healthcare-focused companies.

New businesses at Dubai's top science district include New York Stock Exchange-listed biotechnology multinational Biogen, which makes neurological disease treatments; Dubai-based DGrade, the first bottle-to-yarn manufacturing company to make clothes out of plastic waste; and Indian's largest biopharmaceutical company, Biocon, which has a presence in more than 120 countries, employs over 12,000 staff, and develops medicine to treat diabetes, cancer and autoimmune diseases.

In addition to a raft of new companies, existing business partners including Germany's life sciences leader Bayer expanded its presence by opening a new regional headquarters in Dubai Science Park. Bayer's office design



incorporates new ways of working founded on what it dubs an 'activity-based-work set-up'. This underlying conceptual approach aims to set new benchmarks in workplace organization, productivity, efficiency, and wellbeing.

Meanwhile, US-based IFF opened earlier this year a new creation, application and innovation Centre for its Taste, Food & Beverage division in Dubai Science Park, to drive further growth in Africa, Middle East, Turkey, and India (AMETI). The state-of-the-art 1,400m² creative facility services companies within the AMETI region by offering innovative flavors, savory solutions, juice-based compounds, inclusions, colors, and food protection solutions. The new lab is supporting both the creation and application needs of all key categories, including snacks, beverages, savory, sweet and dairy. The creative center also includes a sensory facility, as well as an analytical lab. In line with the company's focus on sustainability, the facility is GOLD LEED certified.

With IFF's investment in the Dubai Creative Center, the company is reaching a key milestone in bringing a stronger emphasis on these exciting markets and providing enhanced and locally relevant support for the customers and to better meet their present and future needs.

In addition to many local and regional players, more than 60 leading global biotechnology, healthcare, life sciences, pharmaceutical and light manufacturing companies established a presence in Dubai Science Park last year, increasing the total number of business partners to more than 400.

Marwan Abdulaziz Janahi, Managing Director of Dubai Science Park, said, "The remarkable international response to this extraordinarily challenging year has reminded all of us that

science matters. It took less than a year to vaccinate the first person after the virus' genetic sequence was made public, and this will go down as a historic moment for pharmaceutical innovation. In Dubai Science Park, our business partners have been at the heart of the region's response to the pandemic, providing cutting-edge testing and disinfection services. We have continued to take great strides forward in our scientific achievements and I am delighted to be home to more than 400 leading companies and 4,000 professionals."

He added: "With a renewed sense of hope as the region shifts its focus to growth, scientific innovation will play an increasingly critical role in the UAE's knowledge-based economy. By providing a business-friendly environment with state-of-the-art infrastructure, sustainable laboratories, light industrial units and favorable rules and regulations, we have created a holistic ecosystem to support startups, entrepreneurs and multinational corporations operating across the sciences, environmental and energy sectors. Inspired by the UAE's visionary leadership, we are optimistic this year."

Established in 2005, Dubai Science Park is a vibrant business district home to leading local and international institutions including the UAE Ministry of Health and Prevention, Pfizer, Medtronic, Olympus and Mettler Toledo.

Many of these companies played a critical role in the UAE's efforts to mitigate the impact of COVID-19, with companies such as Alliance Global supplying hundreds of thousands of PCR test kits across Africa, the Middle East, and Central Asia.

As part of its commitment to supporting the community last year, Dubai Science Park continued to host a regular series of panel discussions and talks on topics ranging from mental health and well-being to clinical research, and COVID-19.

WFS signs multiple partnership deals with trucking companies for safe movement of temperature sensitive goods to Paris CDG Airport



Worldwide Flight Services (WFS) has signed partnerships with trucking companies that will help it maintain the cold chain for temperature-sensitive goods being moved to Paris CDG Airport from the French provinces.

The move comes as the global distribution of Covid-19 vaccines continues.

The temperature controlled trucks will move the goods from Bordeaux, Mulhouse, Lyon and Strasbourg to WFS' pharma hub at Paris CDG Airport.

Trucks being used on the routes can hold and transport 23 Euro pallets at temperatures between 2 and 8 degrees Celsius. Additionally, the service from Lyon can move goods between 15 and 25 degrees Celsius.

Laurent Bernard, WFS' vice president of cargo, France, commented: "WFS has launched these services to support the development of our airline customers' growing pharmaceutical volumes in these provinces. Having already made a significant investment in a world class pharma facility in Paris, these vehicles extend our temperature-controlled handling services into more regions of France and will help our customers gain a bigger share of the pharma markets in these areas by enhancing the integrity and visibility of cold chains."

WFS added that its pharma facilities — in Copenhagen, Cork, Dublin, Frankfurt, Johannesburg, London, Madrid, Miami, New York JFK and Paris CDG — are IATA CEIV or Good Distribution Practice (GDP) certified or compliant.

Features of its pharma hubs include: specialist pharma handling teams; real-time temperature monitoring; temperature excursion alarms; transportation management systems, warehouse management systems and GPS connectivity for shipment visibility; active temperature-controlled container handling; temperature-controlled trucks, trailers and dollies; landside and airside acceptance areas for pharma goods; and CCTV monitoring and alarm systems.

WeRobotics to lead new cargo drone project for Pfizer



Pfizer has contracted WeRobotics to lead a new cargo drone project. The project comes at a time when vaccines for Covid-19 need to be distributed at scale. The new cargo drone add-on is specifically for the M300.

Their previous partnership focused on engineering a cargo drone add-on to convert DJI's highly reliable M600 industrial data collection drone into a cargo drone. The M600 cargo drone has been engineered, tested, and deployed on three continents.

While the M600 will continue to serve Flying Labs' needs, the M300 comes with additional advantages. DJI's newest industrial drone can handle even the harshest weather conditions. The platform also has multiple dedicated sensors for collision avoidance, making it extremely safe for both ground and air risks. The M300's payload capacity will be around 1.5 kilograms.

"Despite the challenges that do come with repurposing, doing so still goes a long way to keeping complexity and costs low while also enabling operators to use the same easy-to-use drone for data collection and delivery, thus increasing the services they can offer with the same drone. As such, instead of trying to build the full drone stack for delivery, we've decided to focus on building one layer, a versatile cargo drone add-on designed to work with existing industrial drones. And while the M300 costs more than the M600's, the M300 remains more affordable than most commercially available cargo drones. And the M300 is backed by a \$15 billion-dollar company, which means we can expect the M300 to still be around in 5 years, just like the M600," said WeRobotics in the company blog.

As part of this earlier project, WeRobotics' partners at Dominican Republic Flying Labs used the repurposed M600 drone to deliver essential medicines to remote health facilities. The purpose of these deliveries was to demonstrate the value-add of locally-led delivery drone projects that use affordable and locally repairable cargo drones. The M600 cargo drone add-on has since been used very successfully by Nepal Flying Labs to collect patient samples. It has also been sent to Philippines Flying Labs and is looking forward to seeing first cargo drone projects.

Siemens Healthineers introduces MULTIX Impact C ceiling-mounted digital radiography (DR) system

Siemens Healthineers won FDA clearance for its recently introduced MULTIX Impact C ceiling-mounted digital radiography (DR) system. The FDA also cleared the MULTIX Impact VA20, a new version of the existing parent DR system. Both devices are targeted toward clinics on a budget, but offer advanced capabilities, including helping to optimize settings to achieve the best acquisitions and image reconstructions.

The systems include wireless detectors, motorized tube heads, and come with free-floating patient tables. A 10" touchscreen display right on the X-ray tube make things flow easier and



allow technologists to be near the bedside while doing most of the prep work. The interface takes patient data, combines it with its own machine-observable information, and after a bit of input from the operator the optimal settings are identified and ready to be activated. Once inside the control room, a camera provides the technician a live view of the patient.

"With this FDA clearance, Siemens Healthineers pushes the boundaries of what is possible in radiography," said Niral Patel, Vice-President of X-ray Products at Siemens Healthineers North America, in the announcement. "We can now deliver both floor-mounted and ceiling-mounted options with automation, artificial intelligence, and safety features that expand our customers' capabilities in digital radiography."

Seno Medical introduces Imagio device



Seno Medical, has won FDA approval to introduce its Imagio device that utilizes opto-acoustic imaging to help physicians identify whether breast lesions are benign or malignant. It is hoped that this non-invasive and radiation-free technology will help to reduce the number of biopsies that have to be performed.

Opto-acoustic imaging combines ultrasound with laser optics to provide a combined view of tissue anatomy and the blood flow around it. Cancerous lesions commonly exhibit a high density of newly formed blood vessels (angiogenesis) and a lower oxygen saturation compared with surrounding tissues. The Imagio system offers a look at these parameters in real time and radiologists, trained and certified to have a keen eye and with the help of accompanying AI software called SenoGram, should be able to differentiate between malignant and benign breast lesions in many cases.

UPCOMING EVENTS



**International
Conference on
Obesity & Metabolic
Diseases**

08-09 March
Dubai



**World Congress on
Dermatology and
Aesthetic Medicine**

08-09 March
Dubai



**12th Abu Dhabi
Wound Care
Conference
(ADWCC)**

11-12 March
Abu Dhabi



**GCC Regulatory
Affairs Pharma
Summit (GCCRA
Pharma Summit)**

22-23 March
Dubai



**International
Conference on Medical
Environmental & Bio
-technology (ICMEB)**

22-23 March
Sharjah



**International
Conference on
Medical & Health
Science (ICMHS)**

02-03 April
Sharjah



**International
Conference of
Pharmacy and
Medicine (ICPM)**

06-08 April
Ajman



**International
Conference on
Pharmacy and
Pharmaceuticals**

12-15 April
Dubai



**4th Global Conference
on Pharma Industry
and Medical Devices
(GCPIMD)**

19-20 April
Dubai



**World Congress on
Patient Safety and
Quality Health Care**

21-22 April
Abu Dhabi



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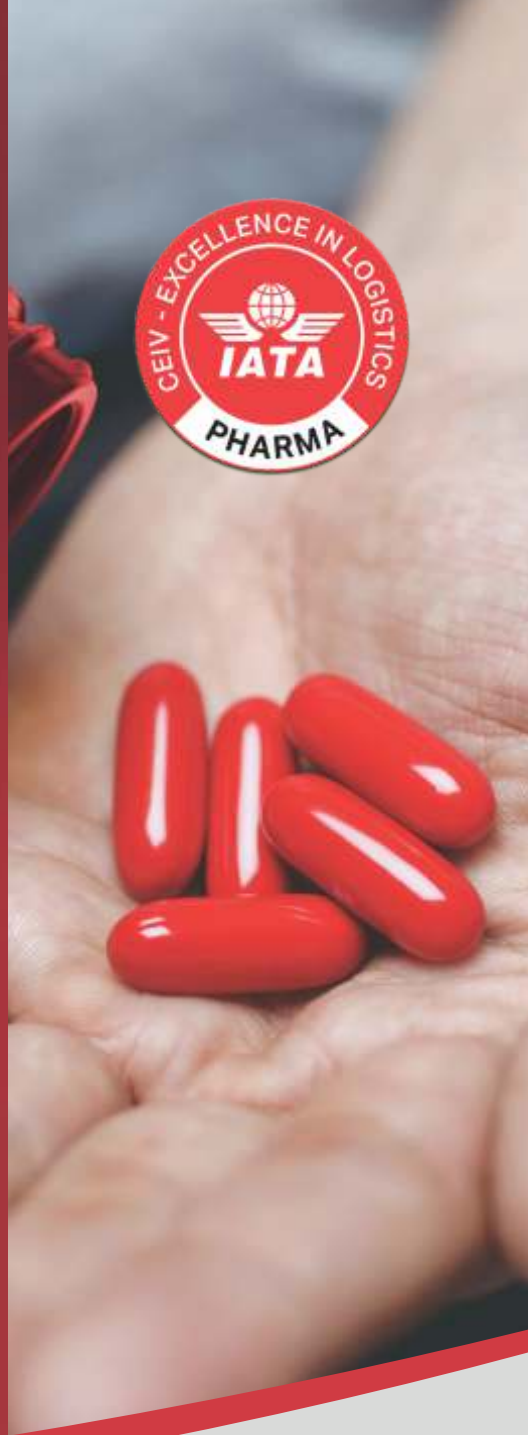
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