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BUSINESS MAGAZINE FOR INTERNATIONAL ENTERPRISES - ONE HUNDRED AND EIGHTH EDITION 2022

ONE HUNDRED AND EIGHTH EDITION 2022

BUSINESS trends



Michael Hülsen, Director of Product Management at Webasto PAGE 35

108 BUSINESS MAGAZINE FOR INTERNATIONAL ENTERPRISES



Mavenir supports Open RAN in Europe PAGE 63

Kavalan has composed a symphony of single malt whiskies PAGE 47

Merck doubles capacity of HPAPI production PAGE 69

Forescout enhances capabilities of its leading Continuum platform PAGE 59



Table of contents

AGRICULTURE AND AGRITECH	
Seed-X	41
CONSULTING, BUSINESS SERVICES & FINANCE	
AirPlus International	72
Aramark	16
EY	28
Slalom	43
Tquila Automation	39
ELECTRONICS	
Nippon Electric Glass (NEG)	73
Quanergy	24
ENERGY	
Loop Energy	33
SOLAVINEA	45
ENGINEERING, MANUFACTURING & INDUSTRIAL SERVICES	
Cepsa	15
Exolum	26
Flint Group	13
Hanhwa Aus Pty Ltd	21
OHB SE	30
Vesuvius	51
Virgin Orbit	37
HEALTHCARE & LIFE SCIENCES	
altona Diagnostics	66
EVERSANA	7
Humatics	27
ICS Medical Devices	42
Merck	69
ProductLife Group (PLG)	25
MOBILITY	
Aiways	19
Wallbox	49
Webasto	35
RETAIL & E-COMMERCE	
Charles & Colvard	17
Dole	55
OLFA North America	11
Spread Group	58
The Kavalan Distillery	47
SECURITY	
Forescout Technologies	59
Mitek Systems Inc.	54
SOFTWARE	
Amplitude, Inc.	74
Celsior Technologies	18
Coralogix	62
JFrog Ltd.	46
Keylane	52
Mavenir	63
N. Harris Computer Corporation	29
Samsara	9
Seedtag	67
Vendavo	68
WorkJam	53
TELECOM	
IEC Telecom	44
TRANSPORT & LOGISTICS	
Dematic	23
dentsu Tracking	3
Frisbo	5
Nippon Express	31

Make the right digital product bets

Amplitude, Inc., the pioneer in digital optimization, announced in May 2022, the launch of Experiment Results, a new feature of Amplitude Experiment. Experiment Results empowers teams to plan, track, and analyse experiments to make smarter decisions while using their existing feature flagging system. Daniel Bailey, Vice President, EMEA at Amplitude explains that with Experiment Results, teams can use their own feature flagging system but layer Amplitude's world-class, scalable experimentation analysis capabilities on top.

More than 1,700 customers rely on Amplitude to help them innovate faster and smarter by answering the strategic question: "How do our digital products drive our business?" The Amplitude Digital Optimization System makes critical data accessible and actionable to every team — unifying product, marketing, developers, and executive teams around a new depth of customer understanding and common visibility into what drives business outcomes. "Amplitude is the cockpit for companies' apps and websites," says Bailey. "What Adobe is for marketing teams and Salesforce is for sales teams, Amplitude is for product teams. And today, products don't just support the business, they are the business." He further explains that one of Amplitude's key differentiators is its Behavioural Graph. The Behavioural Graph is the

most intelligent, highest performing database for digital behaviour on the planet, built by Amplitude's Chief Architect. Built for the scale, speed and complexity of modern digital products and teams, it provides a fundamentally new way of joining complex user and product data so organisations can understand the impact of any set of customer actions. The Behavioural Graph is the foundation on which Amplitude's product suite — Amplitude Analytics, Amplitude Recommend, Amplitude Experiment, and Amplitude CDP — sit. Experiment Results delivers the data and analytics for teams to set goals, determine if experiments reach statistical significance and achieve their goals, and automatically provides recommended next steps. The top product teams test all new features — often running tens of

thousands of experiments to understand the impact of each product change. The biggest barrier to scaling product experimentation is having data and analytics to analyse the results of experiments. Many companies already have the infrastructure to deliver new experiments, but rely heavily on data science teams and home-grown infrastructures to formulate the results and provide recommendations on what to do next. Experiment Results removes those bottlenecks with self-service experimentation so that more teams can run more experiments quickly and efficiently. Companies can now pair their existing feature flagging infrastructure with Amplitude's sophisticated experimentation analysis capabilities to inform product decisions, accelerate innovation, and drive revenue. Amplitude aims to offer the most comprehensive set of tools available to product and marketing leaders and also plans to continue its investment in Europe. "Most recently, we opened new offices in London and Paris. Our growing team and footprint will serve its customers in more than 40 markets in EMEA as the demand for first-party product analytics in the region continues to rise," Bailey ends.





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business trends

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Dear readers,

Battery electric vehicle (BEV) forecast charts in Europe point at a 45-degree angle between now and 2030 showing sales burgeoning up to 10 million new cars. Still, there are many unanswered questions about the future of BEVs. Will there actually be enough batteries to supply this market? Will there be enough electric power? Will there be an adequate charging structure? Innovation in this space is happening at an accelerating pace in an effort to answer those questions, which we're happy to report on in this issue of Business Trends.

You can read about global automotive roof systems specialist Webasto, which has integrated a total of 25 sensors from Bosch, together with multiple additional functions, into the roof of a car. Four radar sensors, four lidar sensors and 16 cameras of various types find place in this Roof Sensor Module (RSM) from Webasto. The sensors reliably monitor the vehicle's surroundings with the aim of enabling level 4 autonomous driving in future. "We're the first to introduce a panoramic roof for autonomous driving. With Bosch we've succeeded in integrating sensor technology into the car roof in a visually attractive way," says Michael Hülsen, Director of Product Management at Webasto.

Meanwhile Shanghai-based personal mobility provider Aiyways has been active in the European Union virtually since it first launched five years ago. The BEV manufacturer has worked to disrupt the established order with its unique blend of smart technology and manufacturing together with international styling and quality. The company's first generation vehicle, the spacious, family friendly U5 SUV first graced European roads during the summer of 2019. Meanwhile the company is preparing for the European market launch of the U6 SUV Coupé, as Bernd Abel, Director of Communication/PR and Political Affairs Europe for Aiyways, reveals.

We hope these stories provide you with the inspiration to supercharge your business.

Ellen Groen
Editor in Chief

Unlocking the value of supply chain visibility & control

In May 2019, the EU TPD (Tobacco Product Directive) went into force. dentsu Tracking collaborated with the European Commission and 27 Member States to design and operate the central platform for supply chain control across the European tobacco industry. Today it is by far the world's largest digital track & trace platform in terms of products tracked and data intelligence gained. Now, dentsu Tracking has also provided the United Kingdom with a new Track & Trace system for tobacco products. The systems provide governments with digital, data-driven traceability functionality across the entire tobacco supply chain. "Our systems form an important pillar of governments' anti-illicit trade strategy," says Jan Hoffmann, Head of Government Business at dentsu Tracking. Mr. Hoffmann emphasises that providing visibility and control into global supply chains is now more important than ever.

A specialised company of the dentsu International Group, Switzerland-based dentsu Tracking operates the world's first and largest regional supply-chain control solution across an entire industry (for tobacco). No other platform is connecting this volume and complexity of data, according to Mr. Hoffmann, who has

been closely involved in the EU project. The EU selected dentsu Tracking to develop and operate a technical solution to support the Tobacco Products Directive (TPD), which sets the framework for the tracking and tracing of the movements of tobacco products on the EU market in the fight against illicit trade.

Across the EU, governments and law enforcement agencies now have a tool that enables full visibility and control across the total tobacco supply chain. Country governments and authorities can use the data intelligence generated by the EU system to identify out-of-normal trade patterns, thereby supporting more effective actions in the fight against the different forms of illicit trade. dentsu Tracking's solution ensures real-time data reporting and intelligence, enabling governments to carry out macro-level investigations, (for example, identification of trends and anomalies, or market statistics) and micro-level investigations (for example, inspection and verification of a single cigarette pack, a specific warehouse, or a specific truck). This solution is more rigorous than comparable systems due both to its size and to the regulatory requirement for real-time data reporting enforcement. Real-time data reporting enforcement means that data is not just being passively stored. Instead, at every step there is a process of data reporting and analysis that is subject to advanced validation and compliance mechanisms all happening in milliseconds. This enables control over billions of tobacco packs at thousands of sites from manufacturers to retailers across Europe.

As the United Kingdom is no longer part of the EU, it needed to put its own system in place and after a competitive tender process, it appointed dentsu Tracking as provider, with a five-year concession contract. dentsu replaced the UK's previous provider, De La Rue.

"Following a transition phase after Brexit, the UK was looking for an experienced long-term partner that



helps to secure the tobacco supply chain and support enforcement actions with the help of advanced digital intelligence tools," Mr. Hoffmann clarifies. "We were selected among multiple applicants in a tender process that focused a lot on expertise and experience."

On that note, he emphasises that there is no such thing as a one size fits all approach in track & trace. "Each product and each country is different. And Track & trace solutions are implemented for different reasons. Which issues need to be addressed? Which factors need to be taken into account, and which steps need to be traced? What is the regulatory framework that needs to be complied with? All of this varies from one use case to the next, and each solution needs to be tailored to specific requirements."

dentsu Tracking doesn't 'just' provide track & trace solutions for tobacco, he adds. "We focus on providing solutions for all sorts of products, from tobacco to beverages to luxury goods, facilitating a high level of visibility and control, along

the entire supply chain. Supply chain control is crucial not only in the fight against illegal and non-compliant products, but also in other areas where there is a need to monitor the supply chain more actively. For example, we're working with one of the world's largest beverage companies to help them meet their target for the recycling of plastic bottles while, at the same time, enabling them to gain valuable insights into consumer behaviour."

The ongoing pandemic has highlighted to both the public and the private sector that there is a lack of real insight into our supply chains, Mr. Hoffmann adds. "At dentsu Tracking we leverage the advantages of digital technology combined with data analytics to address that issue. Through digitisation we connect the different stakeholders in supply chains, and ensure that data are reported in the right way. We then use advanced data intelligence tools to translate those data into meaningful information. This arguably is the real value add of our solutions: we provide a true understanding of how supply

chains work to meet government and brand needs."

The EU and UK contracts have cemented dentsu Tracking's reputation as a global leader in this field. "It helps to have those references as they show that governments trust us," says Mr. Hoffmann. "We have established systems in place that work and that have proven their value, and without a negative impact on the supply chain, or on legitimate businesses. The UK and EU projects also showcase how strong dentsu Tracking is in operating data-driven traceability solutions involving large groups of different stakeholders."

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TRACKING

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Fast growth for Europe's largest e-fulfilment partner

CEE e-fulfilment platform Frisbo plans to expand its operations in Belgium, the Netherlands, Luxembourg, Estonia, Lithuania and Finland this year. "We now operate a network of fulfilment centers in Romania, Hungary, Bulgaria, Moldova, Slovakia, Czech Republic, Poland, Germany, Spain, Italy and the UK. By the end of the year we should be covering most of Europe, and will be able to serve any merchant in their expansion across the continent," says Frisbo founder Bogdan Colceriu. At this point Frisbo is the largest fulfilment network in Europe, and it is expanding faster than anyone else, according to Mr. Colceriu. "We offer online merchants the possibility to keep their stock anywhere in Europe and deliver their orders next day, at local shipping costs in any market. This is a huge advantage for merchants as up until this point, fulfilment was a major show-stopper in their regional expansion. Over 90% of merchants do not sell in other markets than their home market."



Frisbo is a shared economy fulfilment solution founded by entrepreneurs Bogdan Colceriu, Laura Frincu and Vlad Târziu. Before he founded Frisbo, Mr. Colceriu was cofounder of the first Romanian streaming platform, one of the first Romanian startups to be valued at several millions, back in 2007. Later he co-founded the largest English bookstore in Romania and then Risky Business, a pre-seed fund engaging investors and startups.

"Frisbo initially started as a spin-off from our online book store where logistics was key," he explains. "Soon we discovered that fulfilment is not very scalable as it needs more space

and more people as you grow and therefore very few fulfillers take the chance to scale in multiple countries. Frisbo's vision was to connect local fulfillers into a network of fulfilment centers, available to merchants via one contract and one integration. In 2019 we discontinued fulfilment in our own warehouse and completely moved to a shared economy model and started expanding our fulfilment network. "

The company attracted so far 3.7 mil euros in investments from Eleven Ventures, GapMinder, RocaX and local angels. Frisbo now has an international network of 25 fulfilment centers, through which it aims to solve the

problem of international scaling of online stores, making development accessible in other markets. With that it meets a real need. Although EU countries are part of a single market, there is still large fragmentation when it comes to cross-border e-commerce. 90% of online stores in the EU don't sell beyond their home country's border.

To support these retailers, Frisbo serves as an end-to-end solution provider for e-commerce logistics which covers storage, picking and packaging, invoicing, and delivery. The company has developed a web platform with a dynamic dashboard that can be integrated with all major sales channels such as Shopify and Allegro. The way Frisbo works is by integrating with the Warehouse Management Systems (WMS) of local fulfillers as well as by integrating with marketplaces and e-commerce platforms. If local fulfillers do not have a WMS set in place, Frisbo provides them with one. From a business perspective, the company has a shared revenue model with the warehouses. Frisbo provides online shops with very good rates that they can't outperform even if they choose to go direct and take full control of their fulfilment operations.



"Local fulfilment centers welcome our business model and integrating new centers in our network is not difficult, especially since there is zero disruption in their activity," says Mr. Colceriu. "Our next step is to focus on expanding in the BeNeLux area and the Baltics while strengthening our position in current markets."

Among Frisbo's customers are companies such as the official representative for Xiaomi in Romania and Hungary, Bitdefender, Aosom, Morphy Richards, Meli Melo, I.D. Sarriero and Intercars. "We want to make fulfilment a commodity for merchants," says Mr. Colceriu. "Our efforts are dedicated to creating friendly integrations that can offer merchants seamless onboarding and instant access to a fulfilment center in any city they desire. As we prepare to grow globally, we aim for Frisbo to become the norm in fulfilment for both merchants and local warehouses."

Frisbo's fast growth coincides with what continues to be a difficult time for logistics. The aftermath of the pandemic coupled with the war in the Ukraine has resulted in supply chain blockages despite a high growth potential of the industry. In many industries, delivery times have increased dramatically, and as online retail is more of an inventory-intensive business, this has affected many businesses. This is where Frisbo believes it can play a valuable role.

According to the company, among the expected market trends in 2022 is the direct-to-consumer (D2C) model, so more and more companies will outsource this service to e-fulfilment



services. Also, to meet growing customer demands and to protect the environment, many online companies as well as logistics service providers will make sustainability a priority. This could involve using recyclable packaging, reducing carbon dioxide emissions, and using more energy efficient equipment, among others. Frisbo plans to adapt to these trends.



Frisbo
Website: Frisbo.eu

European growth for global life sciences partner

EVERSANA™, the pioneer of next-generation commercial services to the global life sciences industry, has opened a new office in the heart of London's Holborn district to serve the company's growing client and team needs. The spacious open-concept London facility will be home to a rapidly increasing European team and serve as a destination to connect clients throughout Europe with EVERSANA's growing commercialisation services. Mike Ryan, Executive Vice President, EMEA, will be based at this office, which includes experts across EVERSANA's commercialisation solutions, including global pricing, consulting, and medical communications. "We have built great relationships with several clients in the region, and our pipeline of opportunities for future growth is also at record levels," Mike comments. "Our goal is to bring regional experts from across Europe together who can help navigate the complexity of therapy launches in this region and around the world. This is our greatest opportunity, to really help these organisations bring therapies to market."



Mike leads EVERSANA's commercial and operations team in Europe and is responsible for helping more clients connect with the company's services. He brings more than 25 years of experience in the life sciences industry to customers and has held global leadership positions in both clinical development and life-sciences software companies. Given this experience, he is highly experienced in the use of technology and understands its impact in simplifying the process of developing and delivering novel therapies and making them more accessible to patients around the world.

Mike explains EVERSANA officially launched in October 2018 when Water Street Partners and JLL Partners introduced the new name and brand that consisted of six premier service providers in the life sciences industry to address the shift to value-based, patient-centred care and deliver long-term sustainable value for payers, providers, channel partners and patients. The company's vision is to create a healthier world for all and this is brought to life by its mission of transforming the life sciences industry with unmatched digital and data-

driven commercial solutions that improve patient care.

This vision has come to life rapidly over the past four years since the original six companies came together. EVERSANA has added ten more companies to the platform, including a leading data & analytics platform, value & evidence experts, field deployment teams, and most recent, enhanced marketing services through the addition of Intouch Group. The company has also grown its footprint across the Asia Pacific region with multiple offices, as well as across Europe, where today they have more than 50 employees.

The London office is the latest addition to EVERSANA's expanding global network. "We have had a growing team in Europe, and we already had an office in the region with a few team members," says Mike. "But as our needs evolved the past two years, it became imperative that we have a larger presence, and the heart of London really jumped out. It is centrally located, and we have many clients in the region. The office is easily accessible within a few hours from other colleagues across other parts of Europe."



He clearly believes EVERSANA is well positioned for continued growth. "Many companies in the life sciences industry offer aspects of commercialisation services. What makes EVERSANA unique is we can do every aspect of commercialisation on a global level through a single point of contact and can bring in experts in different areas of commercialisation who know what it takes to get a product priced appropriately, out through channels, distributed to patients, and much more. On a global level we do this through our talented team as well as partners in some parts of the world."


Mike highlights EVERSANA's work with Evoke Pharma. "This is a company based in the U.S (United States) that has launched a new innovative treatment option for gastroparesis. Their initial market for the therapy – a nasal therapy where all previous treatment options for the condition have been oral – was in the United States. The EVERSANA team helped with every stage of commercialisation. From submitting approvals through the government



regulating bodies to helping develop pricing strategies, payer strategies, healthcare provider educational and engagement strategies to connect with stakeholders and much more. And once the drug was approved, we led efforts to support patient engagement and support, distribution, pharmacy services, and ongoing marketing and communication through our agency team. We have helped this brand come to market by understanding their needs and the impact this therapy can have on patients, and we are now working with them to understand how and where

global expansion opportunities may exist to help more patients."

The new London office will serve as a growing hub for EVERSANA to attract both new clients and employees, he adds. "We have several members of our global pricing team in the UK, and they will be based here. Plus, several of our EVERSANA CONSULTING team members are here, helping develop strategies for pharma and biotech companies across Europe to bring therapies in market and to the rest of the world. It is an exciting time at EVERSANA as we grow to meet the demand of our customers, and we do so knowing that our solutions really help create a healthier world."



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See better and operate smarter

Samsara's mission is to increase the safety, efficiency, and sustainability of the operations that power the global economy. As the pioneer of the Connected Operations Cloud, Samsara allows businesses that depend on physical operations to harness Internet of Things (IoT) data to develop actionable business insights and improve their operations. Speaking to Philip van der Wilt, VP EMEA at Samsara we learnt that Samsara's biggest competitor is simply pen and paper.

Samsara was founded in 2015 by Sanjit Biswas and John Bicket, who previously co-founded Meraki (now part of Cisco Systems). Today, Samsara operates in North America and Europe and is headquartered in San Francisco with offices across Europe and Asia. The company serves tens of thousands of customers across a wide range of industries including transportation, wholesale and retail trade, construction, field services, logistics, utilities and energy, government, healthcare and education, manufacturing, and food and beverage. Phillip adds: "In Europe we have quickly expanded, with offices in the UK, France, Germany, the Benelux and soon to open in Italy."

Efficiency can often mean the difference between a business that's

succeeding or just getting by. That's why Samsara built technology that supports productivity without costing extra time. Its technologies streamline business by helping customers to reduce operating costs, save time, simplify data, go paperless, gain visibility and prevent downtime. Phillip explains: "You can connect anything you like to the Internet. But then, where does it all come together? The more you bring two things together, the more synergies you create with more synergies. And that goes back to the platform. There is no one like us who's bringing it together like we do on one single platform."

Samsara's Connected Operations Cloud consolidates operations data on one unified platform so that customers can

drive safer operations, increase business efficiency, and advance sustainability initiatives while improving the lives of their employees and the customers they serve. Samsara recognizes a tremendous opportunity to transform the world of physical operations with technology, but many organizations still run their businesses with pen-and paper processes and spreadsheets. Pioneering the Connected Operations Cloud is about to change this. Samsara enables businesses to harness IoT data to develop actionable insights and improve operations by connecting disparate data sources together in one place, providing a single pane of glass for customers to visualize their entire operations.

Samsara's mission is to increase the safety, efficiency, and sustainability of the operations that power the global economy. "Almost any conversation is also about sustainability," says Phillip. "Whether you have a fleet or you rent a fleet, it has an impact on your carbon

The Connected Operations Cloud



footprint. How do we measure that? How can we minimize that? How can we report on that? Wonderful and amazing discussions and having a platform where all of everything comes together is a great start."

At Samsara, everything that is done is in support of the people serving the world. In the company's Environmental, Social, and Governance (ESG) report 2022 it states that physical operations represent more than 40% of the global GDP, and link us to the products and services we need most. Samsara's customers span mission-critical industries, including transportation, wholesale and retail trade, construction, field services, logistics, utilities and energy, government, healthcare, education, manufacturing, food and beverage, and more. These industries are also larger emitters of global greenhouse gases. For example, Statista estimates that the global transportation sector alone produced 7.3 billion metric tons of CO2 emissions in 2020. "It's clear that physical operations industries have a significant opportunity to reduce the world's environmental footprint."

Technology has a role to play in ESG progress and business resiliency. Phillip adds: "How to use technology to innovate, to build new services for

clients, how to build new revenue streams? That's what we talk a lot about with our clients. Take for example the transformation to electric cars, which is another big one that comes up in almost every conversation." Electric Vehicles (EVs) have the potential to dramatically reduce the environmental impact of transportation, one of the largest contributors to greenhouse gas emissions and are becoming increasingly popular for consumers, and Samsara is seeing new options arrive for the commercial market. Transitioning to EVs, and operating a fleet successfully, requires new intelligence about how vehicles are used on the job. Samsara provides a range of reports to help organizations determine which vehicles make sense for electrification and what a fleet's overall health looks like at any given time.

"What we want to get to with Samsara in Europe is customers saying 'there's no one like Samsara that is truly understanding what we're trying to do from a business perspective and help coach us towards that outcome with the help of technology'. Just shipping technology in is not going to change any outcome, because technology is there to serve people," Phillip summarizes. "If you really want to change the way you do business, if you think about ESG and how you can

reduce your footprint, then it is about changing behaviours with the help of technology. It is not about just providing them with cameras, but also the whole program around it, that will drive real change through an organization."



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A cut above

As the original inventor of the Snap-Off Knife, OLFA has maintained a standard of cutting excellence for quality and durability. The company today is a global leader in the utility cutting tools industry. One of the latest additions to the OLFA family of products, the SK-16 Quick Change Concealed Blade Safety Knife, was engineered for ease of use and safe application, and uniquely comes with a touch-safe blade that requires no activation: you can simply pull through materials to start cutting. The limited blade exposure is designed for optimal hand safety, to prevent cuts and lacerations common with other products. This fits in with their commitment to quality, ease of use and safety according to OLFA's Senior Brand Manager, Cassie Donnelly.

OLFA's origins can be traced back to 1956, when Mr. Yoshio Okada, the founder of OLFA, invented the world's first snap-off blade cutter. The inspiration for this innovative idea came from breaking off segments of chocolate bars and analysing the snapped edges of broken glass. This invention sparked a series of original products, including the world's first rotary cutter. It revolutionized how people cut fabric by switching them from using scissors to rolling a circular blade over the material. OLFA's rotary cutters are used around the world today by quilters.

Since then, OLFA® has been committed to making tools that improve how

people cut materials by developing products that not only attain an inimitable level of sharpness but that are also practical to use from the user's standpoint. This includes, for example, professional-grade tools used at construction sites, in packaging and shipping operations, and office work, as well as tools used in the artistic world for papercrafts, quilting, modelling and more. OLFA® makes a wide range of products that are used in diverse ways.

OLFA® brand blades are made with top quality materials, forged with technologies that stem from traditional Japanese sword-making, sharpened

with technologies that give a blade life, and ultimately finished with the craftsmanship that brings all of this together. The holders and handles that allow users to gain the full cutting performance of these high-quality blades are designed, developed and manufactured in Japan and subjected to stringent quality checks throughout the process. OLFA® is proud of the unwavering quality that goes into every product it makes.

"There are lots of copycats now, but we continue to differentiate ourselves by focusing on quality: the blades don't snap when you don't want them to, and we use the highest quality steel," says Ms. Donnelly. "The tip is designed with a very precise angle, which helps to reduce breakage. We keep standards high as we market to the pros, on both the trade side and craft side. Our experience is that when you create a product worthy of professionals, the DIY market will follow."

OLFA's new product, the SK-16 Quick Change Concealed Blade Safety Knife, can cut any thick material, from rubber to paperboard through to carpets and cardboard, with ease. Ms. Donnelly points out that the SK-16 was designed with professionals in mind that need to replace blades often. "But as it has a concealed blade it's also very safe to use by people without experience: it's impossible to cut yourself with it, when you're using the knife or changing the blade. This is important particularly in the workplace. There are many risks of injury for anyone working with cutters, and workplace safety has become a serious business concern in recent years. Employers want to make sure that when they bring in new staff, for example, they don't injure themselves."

Uniquely, the SK-16 touch-safe blade requires no activation – you don't have to flick open a blade, and instead simply pull through materials to start cutting. The SK-16's blade's guard tips guide the cut while protecting the materials or surface underneath. The durable fiberglass-reinforced handle can withstand repeated accidental drops and tough work environments. The curved ergonomic handle reduces wrist fatigue with prolonged use projects. The handle's heel includes a metal tape splitter which reduces wear, creating longer blade life.

While the SK-16 is slightly more expensive than competing products, its price is fully justifiable in Ms. Donnelly's view. "The quality and ease of use alone justifies it. When you hold it in your hand it feels like a proper tool. In contrast, most other safety knives are disposable, and they feel that way, too. This also means our cutters are more environmentally friendly. You don't throw away the actual cutter: you replace the blade."



Ms. Donnelly emphasises that they never innovate for innovation's sake. "We have made it our business to truly engage with our end users: we physically watch what they do on the jobsite, and how they use our tools. We talk to them about what they like and don't like about their current processes. Based on what people were telling us, we created a wider channel for the SK-16, for example, making it ideal for safely cutting a wide variety of materials. For our heavy-duty scraper,

we created an easy, tool-free blade change mechanism that features a simple safety screw locking system. We heard that people were injuring themselves when changing the blade. When the blade falls out, people instinctively want to grab it, and that's what we want to avoid. We're just so focused on giving people a better cutting experience and result."

With an MSRP of \$15.99, the OLFA Quick-Change Concealed Blade Safety Knife is part of a new generation of products designed for lasting comfort, safety, and efficiency.



OLFA®

OLFA North America
Website: olfa.com

Bringing products and colours to life

Flint Group, including all business units within its Packaging and its Commercial Publication & Web divisions, has achieved a Silver status from EcoVadis, the world's largest and most trusted provider of business sustainability ratings with a global network of over 85,000 rated companies. In a press statement the company states that it is incredibly proud to receive the silver rating from EcoVadis. "It is a prestigious award that recognises the work we have done to embed sustainability into our business."

Flint Group is dedicated to serving the needs of the global Flexible Packaging, Paper & Board, Narrow Web and Publication industries. The company develops, manufactures and markets an extensive portfolio of printing consumables and equipment, including: a vast range of conventional and energy curable inks, coatings and additives for Flexographic, Gravure & Offset

applications; pressroom chemicals and printing blankets. Furthermore, Flint Group designs and manufactures digital printing presses for labels, corrugated packaging, document and commercial applications. The company is a leader in colour management solutions which are supported by a Global Colour Centre to ensure colour consistency and standardisation.

Flint Group strives to delight its customers through a relentless focus on developing innovative products, exceptional levels of service and security of supply. Headquartered in Luxembourg, the company employs some 5,600 people. Revenues for 2020 were €1.5 billion. On a worldwide basis, the company is the number one or number two supplier in every major market segment it serves.

The company notes: "There are many trends driving the packaging printing industry. At the macro level, we see technology development, market consolidation, digitalisation of customer experiences and automation, all driving changes in the industry but the stand-out trend continues to be a focus on sustainability. At Flint Group, we are doing everything we can to make our offer as transparently sustainable as possible. This is good for our customers and good for the planet. Interestingly, this is also driving the importance of colour management. Colour management is not just about making sure that a brand's colours are precisely replicated on every substrate used, it is also about minimising waste and errors, which has further sustainability benefits. Having the correct ink for a range of substrates is one reason many of our customers choose Flint Group."

Flint Group ranked in the top 21% of companies rated by EcoVadis in the manufacture of paints, varnishes and similar coatings, including printing inks. It was included in the top 9% of companies in the Sustainable Procurement category, as well as in the top 7% for Ethics. Flint Group explains: "EcoVadis takes a holistic approach when evaluating companies – they



measure performance against 24 criteria covering environment, human rights, ethics and procurement - assessing how well a company performs across a range of key sustainability topics. Companies must be more than compliant to earn an EcoVadis rating - they must commit fully to changing the culture of the business, adopting sustainable practices at every level. Testing the business against such exacting standards helps us keep improving for our customers, and our customers' customers."

Flint Group employs a diligent sustainability framework covering ecological, social, and governance aspects of the business' activities and, in 2020, became a signatory to the United Nations Global Compact. This commitment aligns the company's operations with the UN's universal principles on human rights, labour, the environment and anti-corruption in addition to the 17 United Nations Sustainable Development Goals. EcoVadis provides the leading solution for monitoring sustainability in global supply chains. "The business uses its innovative technology and sustainability expertise to support Flint Group in adopting sustainable practices and we were delighted to secure Silver status; a 10-point improvement over our 2020 score."

EcoVadis uses an in-depth process to independently certify the sustainable credentials of Flint Group's business. "Given EcoVadis is an independent 3rd party assessment of our sustainability work, it gives our customers greater confidence in the assessment, they know they can use these credentials to help assess how suppliers are performing and how suppliers can support their own sustainability goals. The EcoVadis assessment is comprehensive and robust. Silver ratings are earned, not given, so customers can come to us safe in the knowledge that we are one of the most sustainable and transparent companies in the printing and packaging industry."

As an ink and coatings supplier, Flint Group knows that it has a role to play in helping the wider packaging and print industry to become more sustainable. "Our inks and coatings can help reduce product waste and improve recycling processes. We have ambitious targets out to 2030 that will see the business reduce its impact through reductions in energy consumption and driving positive change in areas such as workforce diversity. The EcoVadis assessment helps us understand where we are on that journey and where we need to improve."

Flint Group aims to be the best-performing ink supplier to the printing

and packaging industry and sees the EcoVadis silver rating as the latest step on its continuous journey to improve its offering. "As ever, making progress on our sustainability journey would not be possible without the hard work, creativity and dedication of all our employees."

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Promoting decarbonisation and energy independence

To encourage the commitment to green hydrogen, an indispensable energy source for the global energy transition and European energy independence, Spanish-based Cepsa joins the Spanish Hydrogen Association (AeH2). Carlos Barrasa, Director of Commercial & Clean Energies at Cepsa says: “Our goal is to transform ourselves to reduce Scope 1 and 2 CO2 emissions from our business by 55% by the end of this decade, while facilitating the decarbonisation of our customers and the industry around us.”

Cepsa is a leading international company committed to sustainable mobility and energy with a solid technical experience after more than 90 years of activity. The company also has a world-leading chemicals business with increasingly sustainable operations. In 2022, Cepsa presented its new strategic plan for 2030, Positive Motion, which projects its ambition to be a leader in sustainable mobility, biofuels, and green hydrogen in Spain and Portugal, and to become a benchmark in the energy transition.

The company places customers at the heart of its business and will work with them to help them advance their decarbonisation goals. ESG criteria inspire everything Cepsa does as it advances toward its Net Positive objective. This decade, it will reduce its

Scope 1 and 2 CO2 emissions by 55 percent and its Scope 3 emissions by 15 to 20 percent, with the goal of reaching net zero emissions by 2050.

Cepsa is one of the main Spanish hydrogen producers and, within ‘Positive Motion’, the company aims to lead the production of green hydrogen in Spain and Portugal by the end of this decade, with an equivalent production capacity of 2 GW and to be the gateway to Europe. In this way, it will become a benchmark for this energy source on the European continent, thanks to the privileged location of its facilities on the Iberian Peninsula.

Also, Cepsa will promote the demand for green hydrogen in road transport, for which it has set the target for 2030

of establishing a refuelling station every 300 kilometres in the corridors connecting Spain with Europe

Cepsa joins AeH2 as a promoter partner to promote innovation activities and development of technologies that accelerate the process of green hydrogen generation. Barrasa states: “Green hydrogen is the key to achieving this. For this reason, we are partnering with AeH2, with the hope of building synergies and jointly promoting the development of technologies that will accelerate the implementation of this energy, in which Cepsa will be a leader by 2030”

The Spanish Hydrogen Association, a non-profit organization, increases with Cepsa its number of members and strengthens its position as a benchmark association in the sector both nationally and internationally. AeH2 finds it great news that a major company like Cepsa has joined AeH2’s list of members. “This collaboration agreement demonstrates Cepsa’s strong commitment to hydrogen technologies and their potential to achieve the climate goals set by the United Nations.”

Carlos Barrasa, Cepsa’s director Commercial & Clean Energies and Antonio González, AeH2 vice-president




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Sharing a passion for hospitality

Aramark, a global hospitality, facilities management and uniforms leader, announced in April 2022, that it has signed an agreement to acquire a collection of premier Forever Resorts destination properties, providing hospitality services throughout North America, in conjunction with the company’s rebrand of its Leisure division to Aramark Destinations. Bruce W. Fears, President and CEO of Aramark Destinations, comments: “This acquisition strengthens the position of the newly branded Aramark Destinations business in North America and supports the company’s strategy to grow its portfolio of destinations and cultural attractions across the country.”

Aramark proudly serves the world’s leading educational institutions, Fortune 500 companies, world champion sports teams, prominent healthcare providers, iconic destinations and cultural attractions, and numerous municipalities around the world with food, facilities, and uniform services. The company was founded in 1936, when Davre and Henry Davidson began by providing vending services to plant employees in the aviation industry in Southern California. Today, united by a passion to serve, Aramark’s more than 270,000 employees deliver experiences that enrich and nourish the lives of millions of people in 22 countries around the world every day. Aramark Destinations’ diverse collection of properties and activities at America’s

greatest national parks and protected lands, offer unforgettable and memorable experiences. Outdoor adventures can range from rock climbing classes at Yosemite National Park and boat excursions on Lake Powell to enjoying stunning lake views at Isle Royal National Park in Lake Superior Michigan. The rebranding of Aramark Leisure to Aramark Destinations is a natural progression of the company’s operations and commitment to delivering curated visitor experiences while honouring the numerous protected lands at which it manages guest services. Fears explains that Aramark Destinations’ acquisition of 12 unique and iconic Forever Resorts properties is another step in its long-term strategy to

serve as a leader in the hospitality industry, increasing Aramark’s portfolio of unique attractions and destinations across North America. They include Grand Canyon Lodge–North Rim, The Lodge at Bryce Canyon, Red Canyon Village, Signal Mountain Lodge & Marina, Chisos Mountain Lodge, Big Bend Resort & Adventures, Cedar Pass Lodge in Badlands National Park, Minute Man RV Park & Lodging, Rock Harbor Lodge at Isle Royale Resorts, Mad River Boat Trips, Scenic Safaris at Jackson Hole and Mormon Lake Lodge.

“Both companies share a passion for hospitality and service, and the cultural similarities between us will make this a natural transition. We look forward to enhancing the visitor and guest experience at these destinations through the recreation and food & beverage options offered. Our leadership team is also dedicated to providing continued hospitality training and career development for Aramark Destinations’ newest staff members.” “Following the height of the pandemic, we have seen consumer behaviours shift toward an emphasis on engaging experiences – making outdoor adventures even more desirable for individuals and their families. Families and outdoor enthusiasts are looking for exciting, memorable and educational experiences,” Fears concludes.




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Gemstones that are Made, Not Mined™

Charles & Colvard is the original pioneer of lab-created moissanite, a rare gemstone formed from silicon carbide. The company brings revolutionary gemstones and jewelry to market through its pinnacle Forever One™ moissanite brand and its premium Caydia® lab grown diamond brand. As part of U.S. Soccer's annual Fan Week, U.S. Soccer announced that players and staff from the USA's 2015 and 2019 back-to-back Women's World Cup champions will receive commemorative championship rings designed and created by Charles & Colvard. "It is an honor to create championship rings that recognize and celebrate the tremendous accomplishments of the 2015 and 2019 U.S. Women's National Teams," said Don O'Connell, President and CEO, Charles & Colvard.

Consumers seek Charles & Colvard fashion, bridal and fine jewelry because of its exceptional quality, incredible value and shared beliefs in environmental and social responsibility. Charles & Colvard was founded in 1995 and is based in North Carolina's Research Triangle Park. A company spokesperson explains that Charles & Colvard gemstones are Made, Not Mined™, with limited environmental and ethical impact. "One of our unique differentiators, moissanite – The World's Most Brilliant Gem® – is core to our ambition to create a movement around environmentally and socially responsible fine jewelry. We believe that we are leading the way in delivering the premium moissanite brand through

technological advances in gemstone manufacturing, cutting, polishing, and setting. By coupling what we believe to be unprecedented moissanite jewels and our goal to use only recycled precious metals, we are delivering a uniquely positioned product line for the conscious consumer."

Charles & Colvard's commitment to sustainability and ethics was one of the deciding factors in U.S. Soccer choosing to partner with Charles & Colvard. The championship rings symbolize the incredible achievements of two historic teams, and it was important to Charles & Colvard that the brilliance and quality of the gemstones and finished products were reflective of the individuals receiving them. Charles & Colvard was proud to present these commemoration pieces to the players, coaches and staff to acknowledge their crowning achievements in 2015 and 2019. This partnership served to showcase Charles & Colvard's unique position as a Made, Not Mined™ fine jewelry manufacturer and expanded international awareness of the Charles & Colvard brand as a globally recognized fine jewelry company specializing in lab grown gemstones.

Charles & Colvard's Caydia® lab grown diamonds are hand selected by its Gemological Institute of America (GIA) certified gemologists and validated by



independent third-party experts. Its Caydia® lab grown diamonds are available currently in E, F, and G color grades (based on the GIA's color grading scale) with a minimum clarity of VS1 along with excellent cut, polish and symmetry. All of the Caydia® lab grown diamonds are set with mostly recycled precious metals. As the original creator of moissanite, Charles & Colvard has been setting the standards for lab grown gemstones for more than 25 years and developed into a premier provider of fine jewelry set with exquisite created gems.



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Consulting- top talent that you can trust

Pyramid Consulting, Inc., helps businesses compete and win in global markets through Staffing, Technology, Training, and RPO solutions. The company announced the creation of a stand-alone business called Celsior Technologies in early 2022. Celsior is building on 26 years of experience in the services business, positioning itself as a leader in the digital transformation space across both applications and infrastructure services with an emphasis on data & insights, applied automation and integrated security & network. "We are in the perfect position to increase focus on the services business with a new brand and leadership," said Sanjeev Tirath, CEO of Pyramid Consulting in a press statement.

Sanjeev co-founded Pyramid in 1996 after garnering more than 15 years of software development and marketing experience, serving in senior management roles for several leading software consulting firms, including Wipro, TCS, and Unisys. Today, the company delivers staffing and solutions support to enterprises from its headquarters in Atlanta to client partners around the world. At Pyramid, you get more than just its tools and teams—you get attention from the top experts in the company that will find the right combination of talent and solutions to fit any company's unique environment.

Celsior Technologies comes to market as a new business unit that aims at helping F1000 companies elevate and maximize return on their digital transformation journey, with proven industry implementation experience in Banking, Financial Services, Insurance, Healthcare, Manufacturing, Retail, Communications and Technology. With one of the strongest talent sourcing engines in the industry driven by its partnership with Pyramid Consulting and GenSpark, Celsior offers clients an edge with faster access to hard-to-acquire talent and technical areas of expertise.

More and more companies are focused on integrating digital into all aspects of their business – from customer support to operational processes and into the

culture of the company. Celsior has a unique opportunity to bring a cost effective and timely suite of digital, data and infrastructure solutions combined with the human resource talent that can deliver on a successful digital future.

Raghu Puri, a 30-year industry veteran, will lead the new business. Prior to Celsior, Puri held leadership roles at Sprint, Scientific Atlanta/Cisco, Accenture, and DXC Technology serving as a trusted advisor to enterprise clients, bringing global P&L experience in Sales, Service Creation & Delivery. Celebrating the occasion, Raghu Puri said: "At Celsior Technologies, we are excited to offer an elevated client experience in the

services business by leveraging our relationships and industry leading capabilities. Celsior means 'elevated,' and we chose the name to show our ongoing commitment to every client, every time."

Celsior Technologies helps organizations build their digital future and transform how they work, live and play. The company provides customers with the industry's broadest and most innovative technology and services portfolio for the data era. As certified Minority Business Enterprise the organization can assist clients and society with inclusive diversity through hiring or developing talent with diverse backgrounds.



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Powering ahead in Europe

Shanghai-based personal mobility provider Aiways is celebrating its five-year anniversary this year. Since its inception in February 2017, the battery electric vehicle (BEV) manufacturer has worked to disrupt the established order with its unique blend of smart technology and manufacturing together with international styling and quality. The company's first generation vehicle, the spacious, family friendly U5 SUV first graced European roads during the summer of 2019. Since then, it has gone on sale in 15 European countries (and Israel), with further market growth planned in 2022/2023. Meanwhile the company is preparing for the European market launch of the U6 SUV Coupé, which, according to Bernd Abel, Director of Communication/PR and Political Affairs Europe for Aiways, is a sportier car for a younger generation.

Aiways Automobiles Company Ltd is a Chinese automobile manufacturer of electric cars founded in 2017. Today the global Aiways network comprises a highly innovative, digitalised plant with an annual capacity of 300,000 vehicles, an R&D centre and a design centre, in China. The company has its European headquarters in Munich, Germany.

"Aiways currently focuses uniquely on China and in the EU," says Mr. Abel. "Most Chinese electric vehicle

manufacturers sell only in a select few EU markets, so it's unique that we're already active in 15 countries. And we continue to expand, taking into account the unique characteristics of each country when we develop our go to market strategy. In Spain and Portugal, for example, we have partnered with Astara, who used to operate as the Bergé Group. In Switzerland, we have a cooperation agreement with Alcomotive (now Astara Group as well) and in Germany with electronics retailer store

chain Euronics. In addition to selling our cars through local partnerships, we also develop other channels. In the Netherlands, for example, we have a partnership with Sixt for a car sharing programme. Our strategy overall is to find the best partners and to be quick to market, without setting up our own infrastructure."

Aiways' first generation vehicle, the U5 SUV, as such becomes more and more of a common sight on European roads. The car is quite big: it stretches over a length of 4.68 metres and is very spacious inside. The boot holds 432 litres, which becomes 1,555 litres with the back seats folded down. In terms of features and quality it stands in comparison with the VW ID.4, according to Mr. Abel, "but at a significantly lower price point. You won't get a more affordable electric vehicle with the same features."



The spaciousness of the U5 SUV underscores that it targets families and people who want an electric vehicle as a second car. With its spacious interior and large trunk, it is also perfect for longer trips away. Thanks to its 63 kWh lithium-ion battery, it offers an electric range of 400 kilometres and can be charged from 30 percent to 80 percent in just 27 minutes on longer journeys.

To appeal even more to the holiday and leisure market, Aiways has partnered with Campwerk, who developed the iKamper Skycamp, a roof tent that can be easily fitted onto the roof of the Aiways U5, turning the SUV into a micro camper. "You just pull out the ladder and it folds out automatically. When set up it sleeps two adults and a child," Mr. Abel explains. "Right now it's available only at Campwerk in Germany, where we are working on a special deal for Aiways owners. But camping is incredibly popular particularly in Northern Europe, so I expect that it will appeal to people in many other countries."

Mr. Abel points out that Aiways itself developed a retrofittable, detachable trailer hitch for the Aiways U5 SUV.

Thanks to the high towing capacity and the best vertical load in the segment, it makes the battery-electric SUV even more versatile and a practical all-rounder. "Adding features such as the roof tent and a trailer hitch isn't something electric vehicles normally offer," says Mr. Abel. "For us it's another way to stand out from the crowd."

Meanwhile Aiways is preparing for the launch of its second generation vehicle, the U6 SUV-Coupé. The pre-production phase began in May 2021. Mass production for the Chinese market and delivery is underway, while market launch in Europe will be later this year. According to Mr. Abel, the U6 SUV-Coupé targets a younger generation with a sporty design. What the U6 SUV-Coupé shares with its sibling U5 SUV is Aiways' proprietary MAS (More Adaptable Structure) platform, a unique system that supports high-range electric vehicles to suit a variety of lifestyles, functions and configurations. The U6 SUV-Coupé capitalizes on the relatively low weight of the MAS platform, combining it with a light motor, battery pack and interior to further improve vehicle range.

Europeans can't pre-order the U6 SUV-Coupé yet but Aiways' sales partners are receiving plenty of enquiries about it already, says Mr. Abel. Similar to pretty much all other electric vehicles, the company is still battling with the supply chain challenges that have resulted from Covid-19 lockdowns, he adds. "Thankfully we have our own state of the art manufacturing facilities so we're in a better position than most." A challenge in Europe, specifically, in his view, is that in some countries the infrastructure for electric vehicles is yet to mature. "Especially in Southern Europe it's an issue to find fast chargers. The infrastructure must grow."



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Driving automotive innovation forward

Hanhwa, an established player in global automotive technology, has signed an agreement with GEM Global Yield LLC SCS, a Luxembourg-based investment group, to access a share subscription facility of up to AUS 140 million ahead of its planned listing in the public markets through the renown Australian Securities Exchange (ASX). With access to the commitment of capital from GEM, the company will continue to advance on its multiyear plan to become a leading automotive manufacturer in Australia with a global presence, and accelerate the company's rich research and development pipeline, according to Mr. Korosh Farazad of Farazad Advisory, a London based Advisory firm acting on behalf of Mr. Ryan Lee, CEO Hanhwa Aus Pty Ltd, in a company announcement.

Founded in 2016 in Victoria, Australia, Hanhwa Aus Pty Ltd. is a leading designer and manufacturer of state of the art automotive and consumer electronics solutions aimed at suppliers and developers. The company operates on a primary direct distribution model, and leverages flexibility on special request by top global automotive companies. In its short lifespan,

Hanhwa's technology has allowed it to partner alongside the top names in automotive technology, such as Isuzu, Toyota, Mercedes-Benz, Fuso and Volvo. Hanhwa is a subsidiary of Hanhwa Hightech Co. Ltd, based in Korea and established in 1998. The parent company got its start in the industry as a key supplier of car audio components and



accessories for Japanese manufacturers, as well developing and supplying car audio wiring harnesses. Hanhwa Hightech is a key player in manufacturing, which has allowed Hanhwa become a leading automotive parts supplier in terms of sales volume, and will also support its plans for a global expansion.

Through its solutions design service, Hanhwa has been able to execute over 100 projects, supplying nearly 700,000 parts to more than 1,700 clients. This has been possible thanks to the work of a highly qualified and innovative workforce, who partner closely with clients to develop and create cutting-edge solutions. The company is able to bring its know-how to many different stages of production, from design to prototyping, and from testing to manufacturing.

The company's verticals cover all automotive electronics technology related to infotainment, telematics, and electronic parts. Over the last two years, Hanhwa has also worked in the eco-friendly electric vehicle segment, developing electric vehicle control solutions and displays for the in-demand electric truck market, which has greatly expanded as global consumers demand more sustainability



Hanhwa Aus Pty Ltd.

Backed by the know-how and resources of its Korean parent company Hanhwa Hitech, Hanhwa Aus is a well-regarded manufacturer, producer and designer of automotive technology, bringing innovation and quality to the burgeoning industry. The company has a multiyear plan for global expansion, and plans to join the public markets through a listing in the Australian Securities Exchange in 2023.



from their products of choice — and as companies seek for fuel-efficient ways to accelerate their supply chains.

Recently, Hanhwa made a significant stride toward its plans for global expansion with the announcement of a new partnership with GEM Global Yield LLC SCS. GEM, an alternative investment group based out of Luxembourg, will provide Hanhwa with access to a share subscription facility of up to AUS 140 million in a 36-month term following its public listing. Hanhwa plans to gain access to public capital in 2023 through its listing in the Australian Securities Exchange (ASX).

GEM is a \$3.4 billion alternative investment group with operations in Paris, New York, as well as the Bahamas. The group manages a diverse set of investment vehicles, with a focus on emerging markets. Thus far, the firm has completed over 520 transactions in 80 countries.

Through this share subscription facility, Hanhwa will draw down funds by issuing shares of common stock to GEM. The automotive equipment provider will control the timing and the maximum size of such drawdowns, and has no minimum drawdown obligation, as part of the deal.

“The AUD \$140 million Capital commitment from our partners GEM significantly strengthens and accelerates our five year growth plan in becoming one of the leading Australian automotive manufacturers and distributors to further expand into the global stage,” said Mr. Ryan Lee, CEO Hanhwa Aus Pty Ltd, in an official company release announcing the deal. “Our technology and platform will be powered further with this financial arrangement and GEM will closely aid on the business strategy to meet the long-term vision and objectives of the company.”

The financing deal with GEM, alongside the plans for public listing through

ASX, will enhance the company's infrastructure and product development pipeline, Mr. Ryan said. Bolstered by the financing, Hanhwa will unlock value and expedite its plans for global expansion, improving on the successful operating model which saw the company year-on-year revenue growth of 174% in 2021.

“The Hanhwa executive team are excited to leverage our prospects upon listing on the ASX to allow our existing and future customers to have the best equipment and value in this sector.” Mr. Lee said.

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The future of supply chain optimisation

A subsidiary of the global intralogistics provider KION Group, Dematic aims to bolster supply chain resiliency and deliver go-to-market solutions by combining Dematic's supply chain expertise with Google Cloud's cutting-edge cloud, Artificial Intelligence (AI) and Machine Learning (ML) technologies. Raja Ramnarayan, Senior Vice President, Systems & Software R&D at Dematic, believes that their partnership with Google will help companies accurately forecast, plan, and orchestrate resources to optimise order fulfilment, utilising AI and ML. "Customers will be able to flex with disruptions, so their consumers get what they need, when they need it. Dematic and Google are going to digitalise the supply chain end-to-end, which will give companies – and consumers – more flexibility with the capability to analyse and apply algorithms to solve future problems."

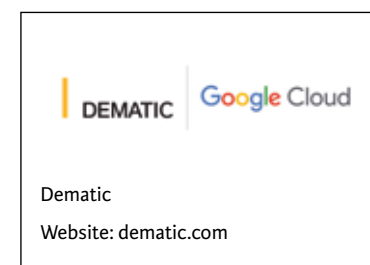
Dematic was acquired by KION, one of the world leaders in industrial trucks and supply chain solutions, in 2016. Since then, the company has enjoyed

both sales and revenue growth, going from a \$1B company to a \$5B company in a few short years, helped by a number of strategic acquisitions including that of global logistics automation software specialist Digital Applications International Limited (DAI). With KION's suite of services, Dematic can now outfit the whole warehouse – from forklifts to high automation – which has expanded their sales solutions and positioned Dematic as a true full-service provider.

"To address current supply chain problems, Dematic – and frankly anyone who is in the warehouse automation space – must create solutions that are adaptable to changing product profiles, a multitude of fulfilment requirements and capacity constraints, while also integrating seamlessly into other solutions within a company's existing ecosystem," says Mr. Ramnarayan, explaining why they decided to combine their technology with Google Cloud. "When you pair these requirements with the need for speed and agility, it's necessary to move operations to the cloud so performance optimisation can happen at any time. In an era where consumers are demanding everything faster, we also need the ability to see current

state and solve for future state. Right now, we have an unbalanced system without visibility that creates either a lack of inventory or too much inventory. Visibility alone isn't enough, though. What matters is what you do with the information you get – using algorithms to help your business make decisions in real time. With digitalisation, you can ensure your goods will arrive on time because you have insight into where they are in the supply chain and what levers to pull to move goods more quickly. And with the ability to make real-time modifications, we can create more consistent delivery to consumers."

The partnership with Google Cloud fits in perfectly with Dematic's vision for the future of supply chain optimisation, as Mr. Ramnarayan emphasises. "We are seeking to transform the supply chain industry through accelerated cloud and AI innovation, addressing unprecedented challenges in the warehouse automation space and fortifying the supply chain of the future."



Solutions for real world challenges

Quanergy, a leading provider of LiDAR sensors and smart 3D solutions, announced in April 2022 that the San Francisco Municipal Transportation Agency (SFMTA) has deployed its 3D LiDAR Flow Management solution integrated with TNL's traffic flow management platform, to improve the travel time of San Francisco's light rail vehicles as part of a Proof of Concept. "LiDAR is at the core of development in the future of smart cities," says Gerald Becker, VP of Market Development and Alliances at Quanergy. "We help government agencies and developers create smart city applications to improve infrastructure and impact their bottom line with our lower TCO, while preserving the privacy of citizens, with zero PII risk."

Quanergy Systems' mission is to create powerful, affordable smart LiDAR solutions for automotive and IoT applications to enhance people's experiences and safety. Quanergy has developed the only true 100% solid-state CMOS LiDAR sensor built on optical phased array (OPA) technology to enable the mass production of low-cost, highly reliable 3D LiDAR solutions. Through Quanergy's smart LiDAR solutions, businesses can now leverage real-time, advanced 3D insights to transform their operations in a variety of industries, including industrial automation, physical security, smart cities, smart spaces, and much more. Quanergy solutions are deployed by over 350 customers across the globe. Becker explains that Quanergy's 3D LiDAR Flow Management solution is an

integrated hardware and software platform that combines Quanergy's MQ-8 LiDAR sensor with QORTEX DTC™ (Detect, Track, Classify) perception software for reliable, real-time people and vehicle tracking in security, smart city, and smart space applications. "The solution uses 3D perception algorithms to scan the sensor's field of view, analyze point cloud data, and provide anonymized information on detected objects. This enables automated flow



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management that is both cost-effective and easy to operate." The SFMTA deployed a signal timing program from July to August 2021 using Quanergy's Flow Management solution consisting of its M-Series sensors and its QORTEX DTC™ 3D perception software. The goal was to reduce transit vehicle travel times so riders could avoid waiting at red lights and get to their destination faster while not delaying other road users. The SFMTA compared travel times for trains both prior and post installing the new technology. Working with TNL, Quanergy provided The SFMTA with a smart 3D LiDAR solution to help them measure and optimize traffic in real time.

- Quanergy's smart LiDAR solutions allows users to:*
- Identify and classify objects as people or vehicles, as well as types of sub vehicles
 - Track individual people and vehicles and provide real-time, centimeter-level accurate location, speed and direction information
 - Configure rules to trigger point cloud recordings, network actions and/or automatically control PTZ camera movement to follow selected individuals
 - Broader Coverage Area Than Cameras at a Low Total Cost of Ownership (TCO)
 - High Accuracy and Low Rate of False Alarms
 - Automated ID Handover
 - Zero Personal Identifiable Information (PII) Risk



PLG expands its consulting capabilities

After establishing operations in the USA, India and Czech Republic in 2021, fast-growing ProductLife Group (PLG), a global leader in regulatory and compliance services for the life sciences industry, recently expanded its quality and technical consulting capabilities with the acquisition of Quoretex. “With Quoretex we bought into a valuable skillset. It helps us achieve our ambition to cover everything in the regulatory space, for life sciences companies of all sizes. From start-ups to major pharmaceutical companies, we can release them of the burden of having to manage all regulations worldwide,” comments Xavier Duburcq, PLG CEO.

First established in 1993, PLG has evolved to become a specialist in life sciences consulting. It provides consulting and outsourcing services in the areas of regulatory affairs, quality and compliance, vigilance and medical information, covering both established products and innovative therapeutics & diagnostics.

Mr. Duburcq says that after a change in ownership and leadership, they have grown significantly over the past two years. “We want to become a global leader, and that’s what we’re investing in. The life sciences industry is a heavily evolving regulated market so there is growing demand for our services.” Previously focused on Western Europe,

PLG now also has operations in the US and in the Asia-Pacific with more than 800 employees worldwide.

The Quoretex acquisition expands the Quality, Chemistry Manufacturing & Controls (CMC) and technical consulting capabilities of PLG, one of the key priorities behind the Group 2025 Roadmap. Quoretex, a life sciences consulting company established in France and Belgium, will be integrated into PLG’s Product Compliance Business Unit. Quoretex specializes in Quality management and Regulatory Compliance in Europe with a focus on GMP. Over the past four years, the company has developed a range of methods aimed at improving

the quality practices within the pharmaceutical industry, reducing time to market and production stoppages.

Quoretex’s varied customer base and global reach fits in with PLG’s mission to serve customers worldwide along every step of the regulatory pathway, as Mr. Duburcq emphasises. “We believe that we are well positioned in this space as we uniquely serve the life sciences industry, and have a global presence. Our own employees cover more than 50 countries worldwide, and with partners we cover 150 countries. We offer an end-to-end regulatory compliance solution all along the product Life Cycle”.

Mr. Duburcq expects additional build ups in the coming months. “The market is still very fragmented and PLG is a driver of its consolidation. We are achieving 3 main targets via M&A: expand our global footprint, further reinforce our expertise, and accelerate on innovation & digitalisation of our services”.




ProductLife Group (PLG)
Website: productlifegroup.com

A sustainable response to the energy transition

As the successful bidder of a tender organised by LAP (Lima Airport Partners), Spanish-based Exolum, is set to build a new fuel storage plant at Lima airport to increase its capacity, as well as a new hydrant system (LIMFuel project) and will also carry out maintenance and into-plane fuelling activities. Jorge Guillén, Spain Region Lead of Exolum comments: “The award of the contract to build and operate the new fuel supply system at Lima airport is a new milestone in the internationalization strategy that we are developing at Exolum.”

Exolum manages the most extensive network of refined products in Europe, occupying the first position in Europe by volume of storage capacity and the seventh worldwide. The company is dedicated to the transport and storage of a wide range of liquid bulk, especially refined, chemical and bi-fuel products, in a sustainable and efficient way.

According to Guillén, winning the tender at Lima airport also implies a recognition of Exolum’s high level of background and expertise in this field. “I would like to emphasize that we are one of the leading global companies in the storage, distribution and on-board delivery of aviation fuels to aircraft, a service we provide with the highest standards of quality and safety. This new project is in addition to those we already have in airports in countries such as Spain, Ireland, Panama and Ecuador.”

Lima International Airport is the main airport in Peru in terms of volume of operations. In 2019, it recorded 23 million passengers and operated approximately 198,000 flights. Its aviation fuel requirements amounted to 1,278,328 cubic metres.

The new facility will comprise four storage tanks with a capacity of 8,700 cubic metres each, two defueling positions, two loading positions for apron into-plane fuelling units, the most

advanced safety systems and a station for receipt and connection to a future dedicated pipeline.

Guillén adds: “Our commitment to geographic and activity diversification has allowed us to become a benchmark company in the sector and the award of this contract strengthens our approach. It also responds to one of our pillars for responding to the energy transition, which is none other than bringing energy more efficiently to new countries. This new facility will reduce tanker traffic at the airport, helping to improve the quality of life of people and the environment by reducing CO2 emissions through the use of the hydrant, electric vehicles and the digitization of supply management.”

Guillén emphasises that Exolum is immersed in an ambitious growth and diversification plan. In the case of renewable gases, the company is building a green hydrogen production and

dispatch plant for mobility in the Community of Madrid, which is expected to be fully operational in the second half of 2022. “In addition, we have formed the Win4H2 alliance with the energy company Naturgy, the first major hydrogen agreement in Spain to promote green hydrogen in the field of mobility, with which we will develop 50 hydrogen plants distributed homogeneously throughout the country.”



Jorge Guillén, Spain Region Lead of Exolum



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Industry recognition for innovative railtech

The team of Humatics and Hitachi Rail was selected as a finalist for the RailTech 2022 Technology & Design Innovation Award for deploying the Humatics Rail Navigation System (HRNS) in Naples, Italy. The HRNS is the industry leading navigation system based on sensor fusion algorithms that leverage the optimal sensors to solve challenging navigation problems. The project with Hitachi Rail demonstrated the improvements that can be achieved over traditional Communication Based Train Control (CBTC) odometry systems, according to Aaron Whittemore, the Director of Product and Strategy at Humatics.

Humatics was co-founded by MIT professor Dr. David Mindell in 2015, leveraging his experience in deep ocean robotic navigation where there is no GPS, a dynamically changing environment, and zero visibility. The company has developed sophisticated sensor fusion algorithms that can be deployed on any vehicle and any transit line with less software tuning than traditional solutions and better positioning performance. Its breakthrough products include the Humatics Rail Navigation System (HRNS) which enables transit systems to improve their train navigation capabilities and the first-ever microlocation-on-a-chip technology for mm-scale tracking in industries such as manufacturing, medical robotics, and industrial applications.

Humatics' HRNS is a drop-in replacement for traditional positioning and odometry systems that is faster to install, easier to maintain and capable of providing precise positioning. This allows operators to increase their total

passengers per hour and unlock additional value through advanced features that traditionally required independent solutions such as platform screen door status and control. These features are software enabled modules built-in to the HRNS. Humatics creates a versatile and expandable solution with one up-front capital expense. Humatics customers typically are signalling providers. "We embed ourselves with our partners and end customers working shoulder to shoulder in a collaborative manner to ensure we're solving the problem at hand and not just deploying cool technology," Aaron emphasises.

The company has established partnerships with Siemens in New York City and with Hitachi Rail in Naples, Italy. "Europe is an incredible market that is committed to rail and is investing heavily in innovative solutions. We are fortunate to have some really great partners in Europe, such as Hitachi Rail, who have bought into our product and share a

mutual passion for improving rail services," says Aaron.

On the Naples project, Humatics worked collaboratively with the Hitachi Rail team almost entirely remotely due to the pandemic. Humatics and Hitachi Rail executed all test cases and scenarios and performed independent evaluations of the data completing over 200 test runs. Both Humatics and Hitachi Rail were in agreement that Humatics met all desired criteria required for the project with Hitachi Rail claiming the system exceeded their technical expectations. Building on the success of the Naples project, Hitachi Rail and Humatics are planning a deeper integration with Hitachi Rail's CBTC system. The collaboration between the two companies will continue as additional signalling applications involving commuter, freight and light rail applications are being explored, additional sensors are being evaluated, and new capabilities are being developed.



Humatics
Website: https://humatics.com/mobility_solutions/



EY joins Alliance to End Plastic Waste

The EY organization has joined the Alliance to End Plastic Waste, alongside more than 90 companies, project collaborators, allies and supporters who are committed to ending plastic waste in the environment. EY experience across chemicals, manufacturing, supply chain and finance, will help the Alliance develop more effective environmental, social and governance (ESG) measurement criteria for its work on the ground, which will help the Alliance to catalyse funding for Alliance-led projects. Clear and consistent metrics will form the foundation of sustainable, commercially viable business models that can be scaled for greater impact. "EY is committed to building a better working world and you simply can't do that without sustainability," states Dr. -Ing. Frank Jenner – EY Global Chemicals & Advanced Materials Industry Leader and Global Advanced Manufacturing & Mobility Supply Chain Leader.

Dr. Jenner points out that the EY Climate Change and Sustainability Services team has been helping businesses around the world to understand and respond to the risks and opportunities of climate change for over 20 years. It was the first of the Big Four to introduce a global vice chair role for sustainability in Steve Varley and continues to make great strides. In October 2021 it became carbon negative, and the ambition is to become net zero by 2025. This means reducing its total emissions and offsetting and removing more carbon than it emits. To achieve this, the EY organization has set an aggressive target to significantly reduce its emissions by 40% by 2025 through seven key actions. This represents one of the most ambitious decarbonisation plans not just in professional services, but across global industry.

"EY is making significant investments globally to drive a value-led sustainability agenda," says Dr. Jenner. "EY teams are developing new global sustainability solutions for EY clients. The solutions will be focused around value-led sustainability, helping EY

clients capture the business opportunities from sustainability and decarbonisation, while protecting and creating value. EY teams are also helping clients to integrate environmental, social and governance (ESG) disclosure into their wider strategies."

Since Dr. Jenner has established the chemicals & advanced materials industry on a global sub-sector level, the focus on the Alliance to End Plastic Waste caught his attention from the start. "Now, while the Alliance is being established, it makes a lot of sense to support the initiative to gain global momentum and recognition. The total amount of projects supported by the alliance will increase significantly in the months to come and for this scale up of global activities a global professional service firm with a wide range of



EY
Website: ey.com

services, from legal support to accounting and traditional consulting to sustainability and circular economy service offerings, just to mention a few. All this will be in demand throughout the Alliance as it scales up and we are here to support them and their projects with respect to our EY tag line: Building a better working world."

In a first project, EY will consult with the Alliance in building out their external KPI performance metrics system to report all their project successes in a transparent and comparable fashion over time.



Software acquirer expands in D-A-CH region

Canada-based Harris, a global vertical market software provider and acquirer, continues to grow its portfolio on a global scale. One of the most recent additions to its portfolio in the D-A-CH region, is the school IT administration and full-scale software portal provider AixConcept GmbH (AIX). Sebastian Kubsch, who leads Harris' M&A team in the DACH region, explains why AixConcept is a good strategic fit for them.

Mr. Kubsch joined Canada-based Harris at the beginning of 2020, just before COVID disrupted the world. "Thankfully the people of Harris were already used to working from remote locations all over the world so that wasn't an issue," says Mr. Kubsch. "It did become more difficult to introduce Harris to Germany. As a company, we're not that visible: people know our brands but not necessarily the company behind those brands. But we have managed to approach over 1,000 software company owners in the D-A-CH region over the past two years."

Not all software companies want to sell up, of course, as Mr. Kubsch readily admits. "We're primarily focused on vertical market software specialists that are active in a niche sector and as such will never become huge companies. Companies of that size tend not to have the resources to hire dedicated staff for human resources, for example. That's where we can help. We can take over these responsibilities so that they can focus on what they do best – providing mission-critical software to their loyal customer base. Harris has completed nearly 200 acquisitions; I think it's safe to say we know how to successfully run a software company, from a management and best practises point of view."

The software company owners who tend to be interested in selling their business to Harris are either people

who are nearing retirement and who want to ensure that their company finds a good home forever and continues to do well after they leave, or the younger generation who believe not only that Harris can help grow their business, but also that they themselves can grow within Harris' global organisation. "This regularly happens," says Mr. Kubsch. "People who after their business was acquired by Harris join us and become portfolio leaders."

AixConcept, which Harris recently acquired, had three owners. "One of them retires soon and the other two were worried about keeping up with growing demand: digital education is a big growth market as a result of the pandemic. They now feel more comfortable with our support."

Harris plans to support AixConcept in solidifying its leading position in Germany, which has a highly fragmented education landscape. Education is one of the markets Harris has historically focused on, but according to Mr. Kubsch they're interested in all verticals. "We are looking forward to expanding our presence worldwide and with a dedicated focus in the D-A-CH region. We plan to grow the D-A-CH portfolio significantly in both size and across additional verticals over the next years. And we're actively looking for people to join the Harris team as we



need talented professional particularly in software and sales."



N. Harris Computer Corporation
Website: harriscomputer.com

Creating space with a vision

The listed space and high-tech group OHB SE is one of the three major space systems companies in Europe. To the company belong nearly 3000 committed and creative minds that work on all the current major European space programs. In April 2022, the Group signed a memorandum of understanding (MoU) with the US space company Sierra Space to explore possibilities for cooperation in the use of the new space station Orbital Reef. Dr. Timo Stuffer, Director Business Development for OHB-System AG, asks: "How can we best attend to the replacement of the International Space Station (ISS) in the future?"

Headquartered in Bremen, Germany, the systems specialist OHB System AG is one of the leading independent forces in European space. Within its core business, comprising low-orbiting and geostationary satellites, the company is developing and executing some of the key projects of our times such as the Galileo navigation satellites, the SARah reconnaissance system, the MTG meteorological satellites, the EnMAP environment satellite, the Plato scientific expo planet finder and the Hispasat H36W-1, ELECTRA and EDRS-C telecommunications satellites. Starting his career in 1993 as project and system engineer for all kind of space projects -learning the business from scratch- Dr. Stuffer today is responsible

for new programs and projects within OHB-System AG. He says: "We are moving on further in exploration, technologies and earth observation, delivering more and more valuable data on a global scale for environmental purposes and also on curiosity, to understand where we come from. To connect all this with the business field and with an international, global character is the most exciting aspect of my daily business." Together with the US space company Blue Origin and other partners, Sierra Space is developing and building the new commercial space station "Orbital Reef", which is to be used in orbit from 2027 and could represent a possible successor to the ISS. With the MoU, OHB has

secured the opportunity to use the station for European purposes in the field of astronautics and research. The aim of the cooperation is also to work out cost-efficient and sustainable services that are beneficial for German and European space travel. OHB Group states that Orbital Reef is the future of exploitation of near-Earth space for materials research, bio-medicine, chemistry and similar applications on a commercial basis. "ISS has a limited lifetime," Dr. Stuffer explains. "Orbital Reef is expected to be the premier mixed-use space station in Low Earth Orbit (LEO) for commerce, research, and tourism by the end of this decade." Designed for use cases and ideas never before possible, Orbital Reef unlocks LEO by reducing cost and complexity for new kinds of customers, providing end-to-end services, standard interfaces, and technical support needed by space flight novices: planning, payload development, training, transportation, data analysis, and security for people and payloads. "This means that private entities will make a full service offer with NASA, who are no longer involved in this process to build and manufacture the space vehicle."

OHB Management Board member
Dr. Lutz Bertling (right) and Tom Vice, CEO
Sierra Space, sign the MOU. © OHB



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New green logistics offering for pharma

Nippon Express Co., Ltd., a group company of Nippon Express Holdings, Inc., has become the first Japanese logistics company to collaborate with EMBALL'ISO, a French company with a proven track record in vaccine transport, by launching a new international air freight service using environmentally friendly isothermal packaging produced by EMBALL'ISO. Homare Kato of Nippon Express Group's Corporate Communication Division, in charge of Public Relations for the Japanese company, explains that EMBALL'ISO's environmentally friendly operation with reverse logistics is a good fit with Nippon Express Group's corporate strategy, which has identified pharmaceutical logistics as a growth market, and which focuses on green logistics.

Nippon Express Group is a Japan-based logistics company with a global reputation. It began working as a logistics provider more than 80 years ago, and its ground transportation business dates back to 1872. It is one of the leading global logistics companies as well as the number one logistics company in Japan.

"We are one of the very few global logistics companies that can independently provide air, sea and land transportation," says Mr. Kato. "Our global network, comprising over 49 countries/regions, 311 cities, and 731 locations, allows us to smoothly connect the world through advanced logistics."

The Nippon Express Group has identified five key industries in its Business Plan: electrical and electronic equipment, automobiles, apparel, pharmaceuticals and semiconductors. "Our aim is to grow the Group's core business by building 'new logistics services as social infrastructure in accordance with the environment and characteristics' for each industry," Mr. Kato elaborates. "While the societal shift towards more environmental awareness and CO2 reduction is relatively recent, we have been active in reducing our environmental footprint long before this shift actually took place. For example, we previously set a goal to reduce our CO2

emissions by 30% between 2013 and 2030. Fortunately, we already achieved that goal."

For the medical and pharmaceutical industries, Nippon Express Group delivers pharmaceuticals safely and in a reliable manner using its rigorous in-house quality controls. The company coordinates optimal transport methods by product, including drugs undergoing clinical trials that require a high level of security and certain pharmaceuticals that require temperature control or vibration countermeasures.

"We have two GDP (Good Distribution Practice) certified facilities at import/export hub airports in Japan as well as four GDP-certified warehouses dedicated to pharmaceuticals," Mr. Kato points out. "We also have GDP-certified facilities at 30 overseas locations, forming a global network that is responsible for the stable supply of pharmaceutical products. In addition, in order to realize GDP-compliant pharmaceutical logistics reliably and efficiently, the Group has developed a logistics platform that uses IoT devices to



manage logistics quality information on an individual unit basis, and a commercial platform that utilizes blockchain technology and is equipped with settlement functions and asset sharing functions. A two-tier 'digital platform' is also under development. In the future, the aim is for this digital platform to become an open platform that can be freely used by organizations and people involved in the pharmaceutical industry."

Nippon Express Group recently became the first Japanese logistics company to partner with EMBALL'ISO, a world leader in the design and manufacture of high performance temperature-controlled packaging systems for the transport of pharmaceutical products, and an expert in turnkey Reverse Logistics and Rental solutions. Nippon Express Group has developed a new service combining EMBALL'ISO's reusable passive (non-powered) high-performance isothermal packaging with international air transport, thereby enhancing its temperature-controlled transport services. Mr. Kato is confident that this new environmentally friendly service will help reduce their customers' CO2 emissions while strictly maintaining the required temperatures during transport. "We have been aiming to expand our temperature-controlled transportation services for our customers in the

medical and pharmaceutical fields, which we have identified as a priority industry," he adds. "In addition to container quality, we have been considering the development of services that can solve environmental issues in logistics, an area of growing concern in recent years. In 2021, when EMBALL'ISO, a company with strengths in reverse logistics, entered the Japanese market on a full-scale basis, we have been preparing to establish a partnership with them."

Mr. Kato points out that traditionally, passive packages used in temperature-controlled international transportation are disposable, as there is no established scheme for collecting and reusing them. The disposal of the packages and heat storage materials are an issue, in terms of cost and disposal, as well as an environmental issue. EMBALL'ISO addresses this.

"They have a well-established reverse logistics programme for the reuse of the packaging," Mr. Kato explains. "Once an EMBALL'ISO's package is used and has arrived to the final destination, EMBALL'ISO will collect it from the customer's warehouse. Subsequently, EMBALL'ISO waits until the collected volume is sufficient for a 40ft container to return the products by ship (which emits less CO2 than other transport modes) to one of its service centers. At

the service center, the packages are cleaned and repaired, and quality controlled before they are resold. EMBALL'ISO has a global and unique network which enables the collection of packages in over 80 countries and regions."

EMBALL'ISO's premium model "VYPE" is officially introduced to Nippon Express's solution. VYPE has a wide selection of capacity from 8L to 100L with three different temperature ranges (Freeze/Cool/Temperate). Thanks to its highly insulating material (so called VIP) and high performing coolant, the temperature can be kept as long as 120 hours.

Nippon Express Group's combined offer with EMBALL'ISO is the first service in the NX-SOLUTION series to be validated under the ISTA7D international packaging standard, making it suitable for international air transportation of a wide range of commercial products, including pharmaceuticals



**NEX NIPPON
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Nippon Express Group
Website: nipponexpress.com

Emerging leaders in growing hydrogen market

Hydrogen fuel cell developer Loop Energy signed a multi-year supply agreement with Tevva Motors, which includes delivery commitments in excess of US\$12 million through 2023 through 2023. Tevva will integrate the fuel cell systems by Loop Energy into its manufacturing process while scaling its Hydrogen-Electric Trucks production. The latest order builds upon Tevva's previous orders for 2022. For Loop Energy, this order marks a significant increase in order volume for 2023. "The market for zero-emissions commercial vehicles continues to develop quickly, and this supply agreement with Tevva puts Loop Energy on the path to not only technology leadership, but fuel cell market leadership," says Loop Energy President & CEO, Ben Nyland. "This is amongst the largest fuel cell product supply agreements in recent years. Tevva is quickly establishing itself as a leader in the zero-emission commercial vehicle market in Europe, and we are looking forward to providing the fuel cell systems they need to succeed."

Loop Energy's Journey to support the global clean energy transition began in 2000, when it was established with the sole purpose of decarbonizing the commercial vehicle industry. During the

research and development phase, Loop Energy collaborated with Canada's National Research Council and various OEMs to ensure its products are optimized for the needs of commercial



fleet operators. Born out of this innovative process was Loop Energy's patented eFlow™ technology, designed to improve performance and economics for both OEMs and end-users.

Mr. Nyland was appointed as President of Loop Energy in 2015 and Chief Executive Officer in 2016. Under his leadership, Loop Energy has grown its operations internationally, with facilities in China and Europe to serve its growing customer base in Asia and Europe. In 2021, the rise in interest in clean technology saw the company take the opportunity to raise \$100 million CAD on the Toronto Stock Exchange.

Mr. Nyland believes their competitive differentiator is their patented eFlow™ fuel cell architecture, which delivers new levels of fuel efficiency, peak power and durability. At the core of this innovation is its signature trapezoid bipolar plate design that ensures improved uniform current density across the entire active area and increases gas velocity throughout the plate to deliver superior performance and water management.

With a focus on reducing the Total Cost of Ownership (TCO), eFlow delivers up to 16% higher fuel efficiency and up to 90% more peak power in the same size stack versus same class alternatives, providing higher payload capacity and extended operating range. Testing also indicates that Loop Energy's bipolar plate architecture delivers up to 10 times better current density uniformity than conventional bipolar plates, resulting in lower service and maintenance costs. Through meticulous design and engineering, Loop Energy has achieved a fuel cell that increases performance, delivers

lower TCO and gets vehicles on the road faster for its customers.

Loop Energy works alongside OEMs, integration partners and sub-system suppliers to support the integration of high-efficiency and affordable fuel cell systems into electric vehicles for fleet operators. Vehicles such as transit buses, logistics fleets, delivery trucks and specialty vehicles utilize Loop Energy's proprietary eFlow technology as a zero-emissions power solution.

"Our Customer Adoption Cycle is a key component of our go-to-market strategy," Mr. Nyland adds. "It ensures Loop Energy supports its customers and partners, who are committed to scaling the production of hydrogen-electric vehicles and power applications. Throughout the cycle, our focus is on supporting our customers to bring their product(s) efficiently and sustainably to market. We achieve this by focusing on quality testing, scaling production and determining supply chain options across the Pilot, Scale-Up and Full Production phases."

Loop Energy is extremely excited about the growth of its relationship with Tevva Motors and proud of all the work its team has put in to foster it. As a result, Tevva becomes the first customer to move into the Full Production Phase of Loop Energy's Customer Adoption Cycle.

"The contract with Tevva is indicative of the surge in interest we see in Europe for hydrogen-electric vehicles and the fuel cells that power them," Mr. Nyland comments. "It is important to understand that this supply agreement is distinctly different from the typical low-volume purchase orders the



industry generally sees. We believe the growth in order volume indicates the commercial mobility sector's willingness to adopt hydrogen fuel cell technology as a zero-emissions solution."

In his view, the agreement also shows that Loop Energy's fuel cell solutions compete exceptionally well in the market. Tevva, which is serious about launching a hydrogen-electric commercial vehicle into the market, selected Loop Energy's products over all others, following an exhaustive selection process and manufacturing audit. The first Hydrogen-Electric Trucks are expected to hit the road this year.

Commenting on how this market will evolve, Mr. Nyland says he believes the market is already showing strong signs of evolution and sustainable growth. "From Loop Energy's perspective, in Q1 2022, we surpassed our total purchase

orders for 2021. We have also seen growth in new markets such as Australia as well as continued growth in Europe, China and North America. The agreement with Tevva shows we have the technology and production capabilities to supply OEMs dedicated to manufacturing the next generation of commercial vehicles as we move towards meeting zero-emissions requirements."



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Panoramic roofs for autonomous driving

Global automotive roof systems specialist Webasto has integrated a total of 25 sensors from Bosch, together with multiple additional functions, into the roof of a car. The vehicle was unveiled to the public for the first time at Plug and Play's EXPO2022 "Startup Autobahn" innovation platform on July 7 in Stuttgart. In detail, four radar sensors, four lidar sensors and 16 cameras of various types find place in this Roof Sensor Module (RSM) from Webasto. The sensors reliably monitor the vehicle's surroundings with the aim of enabling level 4 autonomous driving in future. "We're the first to introduce a panoramic roof for autonomous driving. With Bosch we've succeeded in integrating sensor technology into the car roof in a visually attractive way," says Michael Hülsen, Director of Product Management at Webasto.

Headquartered in Germany, Webasto has a presence in all major automotive markets. The Group achieved sales of 3.7 billion euros in the 2021 financial year. Roof systems account for the largest percentage of sales, followed by fuel-operated heaters and cooling systems. Business with solutions for electromobility doubled and contributed with four percent to the Group's sales. Mr. Hülsen confirms that the latter business area is of increasing importance

to the Group. He joined Webasto in 2016 and has seen the company go through quite a transformation process with investments into electromobility and new mobility solutions including autonomous driving. "Our core business is to provide quality, design and comfort through our roof systems. We are convinced we can add value to autonomous driving, too. Autonomous driving requires sensors that are integrated into the roof. This enhances



comfort for drivers, and gives OEMs more design freedom, all while complying with the most stringent safety requirements, of course."

Mr. Hülsen knows Bosch well from previous occupation. "Bosch covers the full range of sensors and driving functionality all the way up to level 4 autonomous driving, so it makes sense for both companies to partner up together. And we in turn add value by integrated their sensors into fully-fledged roof systems, as a packaged solution ready for OEMs."

As a mechatronic system integrator, Webasto works closely with market-leading supplier such as Bosch, Hesai, Innviz Technologies, Luminar and Robosense, which provide innovative solutions in the relatively new field of lidar technology. In addition, Bosch is also a specialist in environment detection using camera and radar technology. In order to guarantee the functionality of the sensor technology in all weather conditions and with all kinds of dirt, various cleaning systems with water and air are integrated into the Roof Sensor Module. Here, for example, Webasto relies on the expertise of dlhBowles and Röchling. Also important is a de-icing function. Delta Electronics components are integrated into the RSM's intelligent thermal management to ensure optimum operating conditions, while National Instruments contributes a reliable measurement system.

With this concept, sensors, cameras and related features can be integrated into the roof systems in a visually appealing way. Thanks to this, open and transparent roofs are also possible

for autonomous driving vehicles. Sliding roof systems, solar technology, ambient lighting or switchable glazing are examples of features that can be additionally added with the individual selection of sensor technologies.

The demonstration also showcased a Bosch vehicle motion and position sensor (VMPS), which uses Safe GNSS receivers (for navigation satellite data) and accelerometers (inertial sensors) to determine absolute and relative vehicle positioning.

The presentation at EXPO2022 was extremely well received, according to Mr. Hülsen. He emphasises that Webasto's partnership with Bosch is open-ended. "We're just starting out. We want to scale up the concept to automotive grade autonomous driving. To that end we aim to expand our offering and mature our solutions, focusing on bringing the weight and cost down."

The Group has already signed its first development contracts for the roof concept. While some deals are confidential, Mr. Hülsen does share details regarding their partnership with Lotus for their all-electric SUV. Lotus' so-called "Hyper" SUV is equipped with the world's first retractable roof sensor module. Alongside the Lidar sensor, the system of Webasto also integrates sensor availability technologies into the roof in a visually appealing manner. The cleaning system and the movement and drive mechanism, among others, ensure best possible system availability under a range of different conditions. This is where the core mechatronics design and systems



Autonomous driving (Level 3-4): A total of 14 sensors are integrated in a slim, elegant panoramic roof to enable autonomous driving.



Automated driving (Level 2-3): The world's first retractable Roof Sensor Module integrates lidar and sensor redundancy systems on the roof for improved aerodynamics and aesthetics.



Fully autonomous driving (Level 4): Four radar, four lidar and 16 camera sensors of different types from Bosch are integrated in this Roof Sensor Module.

integration competencies of Webasto come to the forefront. The module was developed in collaboration between the German and Chinese Webasto sites.

These developments underscore that things are moving fast in the world of autonomous driving, according to Mr. Hülsen. "I expect level 4 autonomous driving to become a reality in the next ten years."



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Japanese radar constellation selects Virgin Orbit

Virgin Orbit, a leading satellite launch provider, recently announced the signing of a launch services agreement with Japanese earth observation constellation operator IQPS. The satellite is expected to join Virgin Orbit's manifest for early 2023. Selected for LauncherOne's proven ability to provide direct access to diverse orbits, Virgin Orbit expects to launch the QPS-SAR-5 satellite into a tailored mid-inclination orbit to allow IQPS to expand the coverage of its constellation and revisit rate. By directly injecting the QPS-SAR-5 into the desired orbit on IQPS's schedule, LauncherOne's flexibility should allow for IQPS to rapidly commission the QPS-SAR-5 and begin collecting information from areas of key interest to its customers. Jim Simpson, Chief Strategy Officer at Virgin Orbit, is delighted to support IQPS. "Our vision is to open space for good for everyone from anywhere."



Jim is an industry leader helping Virgin Orbit keep laser focus on meeting its commercial and government customers' needs in the dynamic, global market for responsive launch. His celebrated career in space gives him experience in both the launch and the satellite industries, working with governments, start-ups, and everything in between.

He says that Virgin Orbit, which was established in 2017, has come a long way in a short amount of time. "Only five years ago our factory was empty, and from that empty factory in just four short years we were able to successfully launch an air launched liquid rocket, an accomplishment that had never been

performed. We're very proud of our team. They're the greatest resource we have. We've established ourselves as a leading satellite launch company; completing three commercial launches, successfully deploying 26 customer satellites into orbit for multiple commercial, government and military customers. We're currently working full force to launch "Straight Up" no earlier than June 29th from the Mojave Air and Space Port in California. We'll also be launching internationally for the first time later this year from the United Kingdom's Spaceport Cornwall. We consider we're shaking up the launch industry, addressing demands that have yet to be

met, and are inching closer to opening space for everyone from anywhere."

Crucially to Virgin Orbit's mission, LauncherOne, their two-stage orbital launch vehicle, carries the world's first ever orbital-class, liquid fuelled rocket engine designed for air launch.

"Our launch pad is mobile, and allows us to launch from virtually any location in the world with a runway that can accommodate a 747 airplane," Jim elaborates. "There are 77 countries with Space Agencies, however only 10 have the ability to launch from their own soil. We want to make any nation a space ferrying nation because our launch system is deployed from a 747, we are



substantially more weather resistant than traditional land launch vehicles, since ground winds and other weather conditions do not affect us. Effectively, if a commercial airplane can fly, we can launch. Finally, our launch system has the ability to fly to multiple inclinations from one launch site, radically different from launch systems that are restricted to corridors to avoid populated areas. We can fly away from populated areas and deploy without interference. A perfect example was our last launch, in which we flew at a 45-degree inclination – an inclination never flown before from the West Coast of the United States, since we were able to fly out to sea and avoid launching over Central America. The ability to fly anywhere, anytime, and to any orbit is enabled by our unique launch system and provides substantial benefits to our customers."

Japan-based IQPS chose Virgin Orbit as their launch partner for LauncherOne's proven ability to provide direct access to diverse orbits, as Jim explains. "We're working towards operating from locations all over the world in order to best serve each customer's needs. Plans are currently underway to launch satellites from the Oita Airport Spaceport in Japan so that is complementary to this launch partnership. Our customers have a strong passion to 'launch satellites

manufactured in Kyushu from Kyushu' and we are grateful to support them on this mission. We are grateful to work with innovators, such as IQPS. The IQPS team is on the cutting edge of space technology and their products are critically needed to provide new capabilities for: disaster prevention, infrastructure management, agriculture, marine/fishery, and the realization of autonomous driving. Coupled with LauncherOne, trailblazing operators like IQPS can tailor their launch needs around their mission, and not the other way around."

Jim points out that historically, small satellite operators have had little to no control over their launch schedules, and too often never get an opportunity to launch at all. "It's clear that rideshares alone aren't enough to provide the level of service and flexibility small satellites demand. We think it's about time the launch industry caught up. Virgin Orbit is here to set a new pace. We just announced we're expanding our fleet. We're modifying a second 747 airborne satellite Launchpad, which was previously the Prime Minister of Japan's aircraft to join our Cosmic Girl in the skies. We plan on launching from countries that have never launched on their own soil, such as the UK this year, working closely with our allied

international partners to accomplish mission success together. We are excited about the opportunity to field a Spaceport in Japan, and are in serious discussions with 11 other countries. We are proud of the variety of customers to date and we want to build upon and extend from International Governments, the US Government, NASA and innovative commercial satellite providers like IQPS. We'll continue to innovate on the production side to minimize costs, while also scaling up our launch rate to an unprecedented frequency. At the same time, we're keeping our ears to the ground to keep up with our customers and the market's rapidly changing needs. We want to ensure we're enabling their next generation of world-changing space technology, while also bringing new space players into the fold."



Virgin Orbit
Website: virginorbit.com

Growth for Intelligent automation specialist

Tquila Automation, a leading intelligent automation consultancy, has opened a new Global Service Delivery Center in Bucharest, Romania, to meet the needs of a growing client base in North America and Europe. Plans to open a new Global Service Delivery Center were accelerated following unprecedented client demand in North America and a multi-million-dollar investment from a new equity partner in May 2022. To lead the delivery center, Tquila Automation have hired ex-Cognizant leader Ana-Maria Masoud as country manager. Ana-Maria is an experienced consultant with over 20 years in digital consulting, transformation and innovation and most recently led digital sales and delivery departments at Cognizant and CGI. Tom Abbott, Tquila Automation's CEO & Co-Founder says, "We're very excited to expand our capabilities in Bucharest, home to some of the most experienced UiPath talent in the world and a perfect place to support our AMER and EMEA operations. With Ana-Maria's leadership, the center will continue to uphold high service excellence standards and drive true customer success."



The company has grown fast from the outset. In its first year of trading, and during global 'work-from-home' mandates, it opened two offices in UK (London and Cardiff) as well as working with some of the best developers in Romania. In late 2020, the business expanded into North America and formally moved headquarters to Austin, Texas. In May 2022, Tquila Automation received multi-million dollar funding from Delta-v Capital, a leading growth equity firm that invests in high-growth, tech-enabled services and software companies. In 2022, it

Following several chance meetings at automation events, Tom Abbott and Richard Denton founded a UiPath service delivery business in 2019 that eventually became Tquila Automation. The company deploys Robotic Process Automation (RPA) software with Artificial Intelligence (AI) and other technologies to "help forward-thinking organisations dramatically improve the way they work". Analysts estimate the RPA market

is expected to reach \$23.9 billion by 2030, growing annually by 27.7% (CAGR). In this context, Tquila Automation passionately believes that automation has the power to transform businesses, grow their value and make work more rewarding. Tquila Automation partners with RPA software vendor, UiPath, to achieve this and Tquila Automation was awarded UiPath Industry Solutions Partner of the Year in 2021.



formally opened a Romanian-based delivery center.

Ana-Maria Masoud will lead Delivery Center. She is a senior digital Consulting Leader with 20+ years of leadership experience in Digital Consulting, Transformation, and Innovation. She worked previously for big corporations like Cognizant, CGI, and IBM where she had various roles: people manager, delivery manager, digital sales lead, and others.

Ana-Maria explains that Tquila Automation's new Global Service Delivery Center will be home to RPA Developers and Solution Architects who will support the delivery of intelligent automation projects in clients across Europe and North America. Her immediate priority is to add at least fifteen UiPath specialists to the current team based in Romania. Moving into 2023, she will continue to attract and grow UiPath talent as well as driving high service delivery standards to ensure customer success.

"There are so many talented developers in Romania, and Tquila Automation is already working with many of them," she comments. "The talent pool is well-known across the globe for its innovative mindset,

customer-centric approach, and strong technical skills. Before UiPath moved its headquarters to New York, its home was Romania and as result it is extremely talented and experienced UiPath specialists. We already have a team of developers based here who excel in technical capabilities like RPA, Machine Learning, Artificial Intelligence and to formally grow that team was a no-brainer. I am very excited and eager to grow our delivery center from Bucharest."

It will use the full suite of UiPath's capabilities such as robotic process automation, machine learning, and artificial intelligence to support businesses add value. It will also help to support and maintain automations as well as supporting product development for specific industries.

Explaining what value they can add for their clients, Tom Abbott highlights that for one of them, Bristol Water, they automated the billing process for its commercial business which allowed it to scale without additional cost. As that side of the business has grown to 20+ customers, the robot manages most of the process with only 2-3 hours of manual work per month. "That's one of fourteen processes that we have supported them on which has enabled

growth while flatlining operating costs," adds Tom.

Other success stories include saving a retailer 23k hours in their eCommerce returns process; supporting a healthcare solutions firm to 'make work better' by saving their team 2.5 million minutes of 'cut and paste work'; and support service excellence and faster billing in a magic circle law firm.

The plan for Tquila Automation now is to continue to grow in its core markets of North America and Europe, attracting more talent and winning more clients. In the short term, the company is opening a new go-to-market team in Amsterdam, Netherlands, where they will be focused on supporting clients across Benelux, Nordics and DACH regions.



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Next generation seed sorting

Seed-X, an innovative AI-driven Agtech company, and Advanta Seeds, a UPL group company, are joining forces to apply new technology in seed processing. The collaboration between the global seed company and the Israeli Agtech startup aims to set a new standard in seed lot quality by disrupting the conventional seed processing. “We use AI and computer vision to provide accurate, real-time classification of a wide range of genetic traits in seeds and grains – with zero seed destruction,” says Sarel Ashkenazi, Seed-X CEO. “Our mission is to rescue lost seedlots and to help farmers cope with the pressure they’re under to increase yield and cope with climate change.”

Conventionally, seed sorting is a mechanical process in which the goal is to achieve a high level of purity and quality in the final product. Traditionally it is done by detecting unwanted colours, subtle discoloration, size and shape defects but there are considerable inaccuracy issues with this. Seed-X improves the quality of the sorting process by using computer vision and artificial intelligence. Prior to commercialising the technology, the company tested it extensively, in the field. “We quickly found out that it works,” says Mr. Ashkenazi. “We can easily upgrade seed quality by training

our algorithm in detecting what the high and low quality seeds are, going beyond the parameters that conventional seed sorting looks and focusing on germinability, usable plant and many other important use cases. Consider that with conventional methods, fifty percent of the produced seed lots are not meeting quality standards and are considered dead inventory. With our technology you can optimise even these discarded seed lots.” Seed-X’s unique software is embedded in the GeNee™ Sorter - the first sorting machine that facilitates seed segmentation powered by Seed-X’s



GeNee™ technology. The technology can be integrated into existing processing lines, which is what Advanta Seeds is now doing. Advanta Seeds expects the use of the new generation sorter to strengthen production capabilities, at the same time allowing it to provide customers with highly germinating and vigorous seeds produced in a greener, more cost-efficient manner.

“Producers of sorting machines are our partners, they implement our technology into their existing machines and adding enormous sorting capabilities for different use cases,” Mr. Ashkenazi explains. “We’re very pleased to partner with Advanta as they’re a significant player in this industry and ideally positioned to prove that our technology works.”

Based out of Israel, Seed-X has an additional presence in the Netherlands and in the US, underscoring its focus on the North American and European market, but as the Advanta Seeds deal proves, Asia is also a growing market for them. “We’re addressing a global issue,” says Mr. Ashkenazi. “Farming and seed production is under a lot of pressure, to deal with climate change, and to increase yield. The industry is in a race to increase yield, and at the same time ensure food safety. That’s exactly where we play a role. By upgrading seedlots, we give farmers the opportunity to significantly increase their yield.”



Catheter technology partner expands

ICS Medical Devices, a leading catheter design & manufacturing services provider, recently announced a significant expansion of its operations in Galway, Ireland. The company is moving into a new 16,000- square-foot manufacturing facility, more than doubling its current footprint to enable the company’s continued growth and the creation of new job opportunities. “Our expansion allows ICS Medical devices scale with our customers, and ensure that we have the necessary capacity to support their next steps and milestones,” says Seamus Fahey, CEO of ICS Medical Devices.

ICS Medical Devices was founded three years ago with the distinct intention to support the innovative start up and SME medical devices companies in Ireland and Europe. “Before we founded ICS Medical Devices, we saw a growing early stage innovative community that needed efficient and high quality service which was not always accessible with the larger service providers,” says Mr. Fahey. “Our proposition was to put together a strong and experienced leadership team, a skilled and dynamic engineering pool coupled with a large investment in facilities and equipment and technologies to allow us support our targeted customer base with excellent service solutions. Our vision is to facilitate our customer success.”

ICS Medical’s technology expertise is the catheter shaft, he adds. “We apply our experience and skills in shafts from the micro neurovascular shafts to the significantly larger shafts found in structural heart devices. But we can also add handles, loading stents, and packaging, among others. We are here to support our customers with the development off full catheter systems. Our process and people are our key differentiators. For example, for us, fast turn prototypes are fast turn prototypes; once we have the materials on site, there are no excuses. We have multiple shifts and equipment dedicated to prototyping. We work two shifts and dedicate

resources to the sole function of turning over prototypes. And we have over thirty technical and engineering staff on site with serious engineering experience.” As ICS Medical’s customers grow and move from prototypes to trials to commercial, the company hopes to grow with them. “We also expect the entrepreneur and innovator to become more common in Europe and we plan to be an excellent choice for these start-ups when selecting the catheter technology partner,” says Mr. Fahey. “We are currently moving from development prototyping solutions to production solutions, and are already on this route with quite a few customers, whose

clinical trials and early production releases we support. In parallel, over the next one to two years, we plan to scale our current offering but also add new technologies to complement our catheter shaft technologies and look for opportunities to differentiate ourselves further in our field.”

The recent expansion of their Galway facility fits in with that strategy, Mr. Fahey adds. “Our plan was always to grow and build a company that is scaled and capable of providing a complete service for our customer. We are well ahead off our plan and this is driven by our customer demand and fuelled by our engineering service delivery.”



Global consultancy opens office in Germany

Slalom, a global consulting firm focused on strategy, technology, and business transformation, recently announced its country opening in Germany. Heather Sneddon is the interim market leader for Slalom Germany. She has been with the company for 17 years, starting as a consultant in 2005 and moving up the ranks in various leadership positions. In her new position, Heather is responsible for creating and executing the go-to-market strategy for Germany, including initial launch of the market in Munich, hiring top German talent, establishing a strong rhythm of business with local and global teams, developing key partner relationships, developing the sales pipeline, and successfully transitioning the business to the identified executive leader for Germany.

Slalom is currently active in 43 markets around the world. The firm has organically grown to over 12,500 employees. To Germany, it brings its reputation as a best place to work; the culture has earned numerous awards

informed from feedback of those who know the company best—its people. “We aspire for each team member to love their work and life—empowered to bring their authentic selves to our inclusive, flexible environment,” adds Heather.

Already working with notable companies in Germany, Slalom expects to hire up to 75 team members in Munich by the end of the year to support customer transformation initiatives, including development of new digital products leveraging modern and agile ways of working. Slalom Germany will serve customers throughout the country. In addition to the recently opened Munich office, the firm expects to quickly expand to other locations including Frankfurt and Cologne/Dusseldorf.

Heather believes Slalom has a lot to offer to the German market. “We have deep technology and business expertise from strategy through execution allowing us to deliver the highest priority programs with speed and precision. What makes us unique, however, is the experience in working together. Our intimate connection to local communities across the globe allows us to seamlessly blend with clients to achieve their desired outcome.”

She adds that Slalom is focused on strategy, technology, and business

transformation. “We provide end-to-end business and technology services, including our innovative Build team. We design and build strategies and systems to help our clients solve their most complex and interesting business challenges. Our clients range from leading global brands to ambitious start-ups. We know their industries, and share ideas, methodologies, and knowledge across industries.”

Germany is especially attractive to Slalom because of its central location in the region and the potential it promises for them to expand to Switzerland, the Netherlands, and other countries in Europe, the Middle East and Africa. As Heather explains, “We believe Germany is an ideal fit with our business culture, the industries we focus on, and the local professionals we are hiring as Slalomers.”

Digital transformation, cloud technology, and customer experience are of key focus to Slalom in Germany. “There are also evolving business needs in sustainability and green energy, new ways of manufacturing, and a mainstream market for e-mobility. Slalom has deep expertise in these areas and can help enterprise and mittelstand companies transform.”

slalom

Slalom
Website: slalom.com



Digitalisation partner to the fishing industry

With the increased emphasis on sustainability, catch traceability, and compliance in the modern Spanish fishing industry, satellite communication is undoubtedly making an impact on the efforts to digitalise operations and crew welfare services. As a reliable international service operator, IEC Telecom is committed to empowering vessel owners with integrated and scalable communication services that ensure improved safety for the crew and better working conditions onboard small and mid-sized vessels, as highlighted by Gwenaël Loheac, President, Europe and West Africa at IEC Telecom and also Chief Procurement Officer for the Group. Mr. Loheac also shares his thoughts on the future of satcom and IEC Telecom's changing role in the satcom ecosystem.

With international offices in Denmark, France, Kazakhstan, Norway, Singapore, Sweden, Turkey, and UAE, IEC Telecom Group serves not only the maritime industry but also offers solutions for remote units on land, where GSM coverage is not available. For urban networks, the company provides a powerful satellite backup to ensure the business continuity of customer enterprises.

The fishing industry in general and the Spanish fishing sector, in particular, is an important market for the company. In 2018, the Spanish fleet comprised of 8,972 vessels, with 96% in the fishing sector. At Navalia 2022, the most important trade show for this sector in Spain, IEC Telecom notably showcased Iridium GMDSS, which delivers safety services at 25% of the cost of current equipment, enabling more fishing vessels to access life-saving and efficient sea-to-shore communications. In addition, IEC

Telecom presented its VSAT offer for mid-sized vessels over the GX60 NX Ka/Ku terminal, which can easily be installed and quickly deployed.

“Digitalisation enables the fishing sector to have more control over its vessel operations and benefit from many of the advances, previously reserved for large VSAT-equipped vessels,” says Mr. Loheac. “Thanks to recent developments such as compact, easy-to-install antennas and versatile network management systems, fishing vessels and other workboats are able to enjoy high levels of connectivity over least-cost routing, utilising lower bandwidth connections and GSM to maintain connectivity whether the vessel is close to shore or deep at sea.”

While committed to future-proofing the fishing industry, IEC Telecom itself is also readying itself for the future of satcom. There is a lot going on in this industry: the increasing number of satcom players is expected to lead to an oversupply of

satellite services, notably. Mr. Loheac expects that airtime will no longer be seen as an exclusive resource but rather a service expected by default. He sees the emergence of the Metaverse and the younger generation of digital natives entering the maritime sector as two other major developments boosting the demand for ever greater levels of connectivity. “In this ever-evolving landscape, we are gradually shifting focus from the material world (hardware) to a virtual space (via an innovative range of applications and digitally-driven services) provided on an As-a-Service mode. Moving incrementally in this direction, we expect that the next big thing in satcom will be the broad adoption of AI-driven platforms. Capable not only to process and transfer data, AI will also offer operational suggestions for human decision-makers. In this context, IEC Telecom envisions itself as a service enabler, making the latest technologies available to all vessel types through advanced network optimisation.”

IEC telecom

IEC Telecom
Website: iec-telecom.com



The pergola as an electricity generator

The SOLAVINEA team has developed an award-winning, louvered pergola with an integrated photovoltaic system that meets the highest technical, functional and aesthetic requirements. The PV modules with the best material quality consist of monocrystalline, dark and therefore inconspicuous solar cells that are laminated under a special solar glass. This not only looks very elegant, but also enables the highest possible efficiency according to Felix Gerhardt, SOLAVINEA's CEO. "Our mission is to electrify every garden and patio in the world."

SOLAVINEA built the first prototype of its unique solar pergola in 2017. Five years on, the company is selling the product across Germany with plans to increase production and serve initially Europe, and later the whole world.

"We perfected the increasingly popular system of louvered pergolas and combined it with the use of solar panels on top of the slats," Mr. Gerhardt explains. "Thanks to the rotatable slats, there is no heat accumulation below the shading system and you are able to customize your light/shadow intensity. While you are not using your area, you can set the slats to automatic-mode, where the sun tracing system lets the slats follow the sun to increase your energy outcome." He is convinced that no other shading system on the market makes these things possible. "And, due to the fact that the sun won't send you any bills, you can use all the sun energy and refinance your shading solution over the years to make it even cheaper than a simple umbrella in the long run."

While he sees residential as their main market, Mr. Gerhardt emphasises that the solar pergola can be installed to replace any conventional shading structure. "I walk on the beaches of Nice and see a lot of beach bars and restaurants who use slat roofs as shading solutions. Our solar slats would be perfectly suitable and would create enough energy to have the kitchen and most likely the air condition run on solar power alone. Roof terraces of large office towers all over the world have a large potential of spaces and areas to be used for solar power production. We enable those companies to combine the solar production with the luxury of good design and a pleasant area for employees or customers to enjoy shadow or traces of sunlight."

SOLAVINEA recently won a federal award for 'Outstanding innovations in the field of handcraft' and over the years picked up a number of other awards. This is helpful as the company continues to spread the message about its innovative product.

"Our next step is to start our serial production, so we can decrease our delivery times to a minimum and then reach out to all markets all over Europe." Says Mr. Gerhardt. "We want people to become as passionate about our products as we are and become part of the energy revolution together. I personally hope that our products will also help put the focus back on the 'common good' for everyone, and away from selfishness. I want to leave the planet better than it is right now."



Pioneering the science of continuous updates

JFrog Ltd., the Liquid Software company and creators of the JFrog DevOps Platform, in May 2022 introduced a new Docker Desktop Extension for JFrog Xray. The Extension allows organizations to automatically scan Docker Containers for vulnerabilities and violations early in the development process. Stephen Chin, Vice President of Developer Relations, JFrog notes: "At a time when software supply chain attacks are on the rise, we're glad we can empower developers to have greater insight into any exposures early, so they can engage the necessary teams for timely response and remediation."

JFrog developed the world's first universal artifact management platform, ushering in a new era in DevOps – Continuous Updates. Today, with thousands of customers, and millions of users globally, JFrog has become the "Database of DevOps" and de-facto standard in release and update management software. Stephen Chin notes: "As a platform, we provide this really high performance, broad distribution of packages, which really understands the metadata, the types of things which are being deployed and allows you to also layer security, so you have full visibility into what you're deploying."

Available through JFrog's free tier subscription, the new Xray integration with Docker Desktop helps increase productivity, reduce risk, and speed time-to-deployment. New integrations for JFrog Xray is with ServiceNow's Lightstep Incident Response and Spoke products for IT Service Management. Available immediately, the JFrog Xray integrations with ServiceNow provide IT leaders with real-time insights on security vulnerabilities and compliance issues to quickly engage necessary team members from across the organization for more immediate response and remediation.

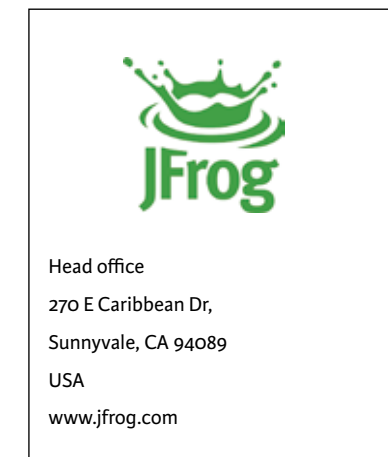
According to Chin, open-source supply chain security is a major trend. "JFrog is building a next generation open-source

package distribution system. If you look at the past year, it's been marked by a series of software attacks. For instance, the U.S. government's 2021 Executive Order requires government agencies to do better tracking of their software dependencies. We participated in the May 2022 White House Open source Software security summit to identify challenges, share ideas, and determine an action plan to enhance the resilience of supply chain security. One of the things we're doing in this realm, which I think is very unique, is building a next generation open source package distribution system, which fundamentally solves some of these problems."

In May 2022 JFrog introduced Project Pyrsia, an open-source software community initiative that utilizes

blockchain technology to analyze software packages (A.K.A Binaries) for vulnerabilities and malicious code. Project Pyrsia is a decentralized, secure build network and software package repository aimed at helping developers establish chain of provenance for their software components, creating greater confidence and trust.

"While we provide some of the best security solutions with X-ray and our JFrog platform, we also want to help make sure the open source community has access to modern tools that will help them take the right steps to stop a large portion of the supply chain attacks, right where they're starting," Chin concludes.



A symphony of single malt whiskies

First launched in 2011, King Car Conductor is the first Kavalan whisky released that pays tribute to its parent company King Car Group. Matured and vatted from multiple oak barrels, this expression delivers delicate notes of papaya, banana, and green apple with rich and floral complexities. The label design presents “King Car Conductor” written in a semi-cursive Chinese calligraphic script in gold, paired with flowing lines referencing the Snow Mountain where Kavalan sources its mineral-rich meltwaters. “We want Kavalan to be all about quality and the flavour profile. When you taste Kavalan, you’ll find it is incredibly smooth, mellow and creamy with a rich fragrance of tropical fruity and sweet characters. In particular, apple and mango, and also orchids, which are native to Yilan County,” says Kaitlyn Tsai, a Kavalan Brand Ambassador and Global PR Officer.

The Kavalan Distillery has been pioneering the art of single malt whisky in Yilan County, Taiwan since 2005. In 2006, Kavalan’s parent company King Car began with two Scottish pot stills

with an annual output of 2 million bottles. It has continued to purchase equipment and further expand. In 2016 the second distillation and maturation plants started operating. Now, there are



10 Scottish pot stills in total with an annual output of 10 million bottles, making Kavalan one of the world’s 10 largest whisky distillers.

Kavalan has not only won best distillery honors at international competitions for multiple years, but has also been named Distillery of the Year several times. The brand has won over 650 gold medals at major competitions. Today, it is sold in over 60 countries, making Yilan, Taiwan the new home of whisky.

The global market for whisky is highly competitive but Ms Tsai is confident that the Kavalan brand is uniquely positioned. “Our climate in Yilan is unique with hot summers and cool winters. It enables us to develop our rich and complex whisky in just a few years. Our late technical consultant, Dr Jim Swan, called this process “maturation redefined.” In the intense heat of Yilan’s summer, our whisky extracts the flavour compounds from the oak much more quickly than in cold temperatures. In winter, we get cool winds and average temperatures that can drop below 10 degrees, which help maximise the process of oxidation. The two are the key processes in maturation. In fact, Yilan happens to be the first place in Taiwan where the Siberian winds hit, meaning the ‘breathing in’ process of our maturation is extended, making it the best place on the island to make whisky.”

She adds: “Alongside our climate, there is our water. We located our distillery in Yilan County for Taiwan’s purest water source, Snow Mountain. In fact, just behind our distillery, we can tap some of its abundant, cool and pristine natural spring waters. Snow Mountain is



Taiwan’s second largest mountain at more than 3800m high. Our water is not only very pure, but remarkably smooth with a natural sweetness because as it makes its way down Snow Mountain, it’s naturally filtered through hard and tightly packed layers of earth rich with minerals. The water ends up absorbing a super potion of minerals, which creates the best conditions for our yeasts to ferment and create flavour.”

Ms. Tsai points out that all Kavalan ranges have been named to the theme of classical music. “The founder of King Car Group, Mr. TT Lee, is a fan of classical music. The very first whisky released in 2008 was called Kavalan Classic Single Malt Whisky, because of this passion of his. We think of our maturation warehouses as orchestras.

The individual casks, the “Solists” (made from single casks), play individual notes, but when struck together, they are Conductors or Concertmasters. If Kavalan hits the right note with all these expressions, then we create a symphony.”

Kavalan recently released new packaging for ‘King Car Conductor’, which was the first expression they launched in the name of King Car. According to Ms. Tsai, the single malt represents the company’s diversity and multi-faceted business. “It is diverse with complex flavours, delicate aromas and multiple layers of background fruitiness. You will find rich vanilla, banana but also coconut, a slight pleasant bitterness balancing the sweetness.”

King Car Conductor was first launched in 2011 without the Kavalan logo. This time, the company put the Kavalan logo in the upper section of the label and box. The new look brings Conductor’s label and box more in to line with Kavalan’s other expressions. The label design presents “King Car Conductor ()” written in a semi-cursive Chinese calligraphic script in gold, paired with flowing lines referencing the Snow Mountain where Kavalan sources its mineral-rich meltwaters.

Kavalan will continue to add to its family of whiskies, Ms. Tsai adds. “Earlier this year, we officially launched Kavalan Batik Solist Vinho in collaboration with Singapore Airlines, presenting the elegance of the batik motif and the world’s best single malt whisky Kavalan Solist Vinho Barrique.” At the moment the item is only available online on KrisShop.com.

The company also plans to continue to expand its global presence and bring more surprises to excite whisky drinkers. “And in the coming years you can expect many more additions to our ranges, and in terms of the different casks used, as well as our gin range. In addition, new peated malt whiskies are undergoing maturation which should satisfy fans in the future,” says Ms. Tsai.



The Kavalan Distillery
Website: kavalanwhisky.com

Award-winning charger design

Wallbox, a leading provider of electric vehicle (EV) charging and energy management solutions worldwide, has been awarded the IF Design Award for its first public fast charger, Supernova. IF is one of the most prestigious design awards in the world. "These awards prove that we are at the cutting edge of design and style, and are testament to the emphasis we put on design," comments Andrés Nadal, Head of Design at Wallbox. "We believe that good design is for everyone, so design has always been a key pillar of our product development. We also design for use - Supernova is the first public charger developed by the company. Following the lines of the other Wallbox products, it has a subtle and minimalist design that integrates it very discreetly into public spaces."

Wallbox creates advanced electric vehicle charging and energy management systems that redefine the user's relationship with the grid. The company's mission is to go beyond electric vehicle charging, giving users the power to control their consumption, save money and live more sustainably.

Founded in 2015, Wallbox has over the years created a complete portfolio of charging and energy management solutions for residential, semi-public and public use in over 100 countries around the world.

Mr. Nadal highlights Wallbox's best-selling home charger worldwide, the

Pulsar Plus. The 22kW charger was designed to make home charging, where at least 80% of charging happens, smart, simple and stylish. Commander 2 is Wallbox's most user-centric 22kW EV charger. It's user-centric touchscreen has been embraced by businesses around the world. Wallbox has recently expanded Commander 2's offering to provide out-of-the-box 4G connectivity to ease installation and guarantee the highest up-time, as well as offering users a myWallbox Business subscription to more efficiently manage multiple chargers. Copper SB, the latest iteration of the Copper family, is designed to provide versatility,

reliability and elegance for businesses looking to electrify their commercial parking. The Copper SB charger guarantees EV drivers' satisfaction thanks to its integrated socket, enabling EV charging for any electric vehicle on the market. Choose who accesses your charger with the RFID card reader and easily connect to the charger with the myWallbox app.

These Wallbox chargers are optimised by proprietary Wallbox technologies including Eco-Smart Solar EV Charging, an Energy Management System (EMS) that makes your Wallbox charger a key part of any sustainable home energy system. Users can use the green energy generated from their solar panels (PV) to charge their electric vehicle in an efficient and sustainable way. Wallbox's Power Boost is designed to allow installation of a more powerful charger where the home's electrical capacity might otherwise require limiting the power available for EV charging. Power Boost measures the real-time energy usage of a household and dynamically adjusts EV charging power.

In the past seven years Wallbox has experienced rapid growth and currently employs approximately 1,000 people across its offices in Europe, Asia and the Americas. The design value of Wallbox chargers has won industry recognition across the globe.

Mr. Nadal has been leading the Wallbox design team for the past four years. During his tenure, the company has won at least one major design award each year including three of the world's most prestigious design awards, the RedDot award for Copper, a Good Design Award for Quasar, the world's



announced plans to expand the charging network, committing millions in funds to that end.

All Wallbox chargers are available through the company's own e-commerce store, and from local suppliers.

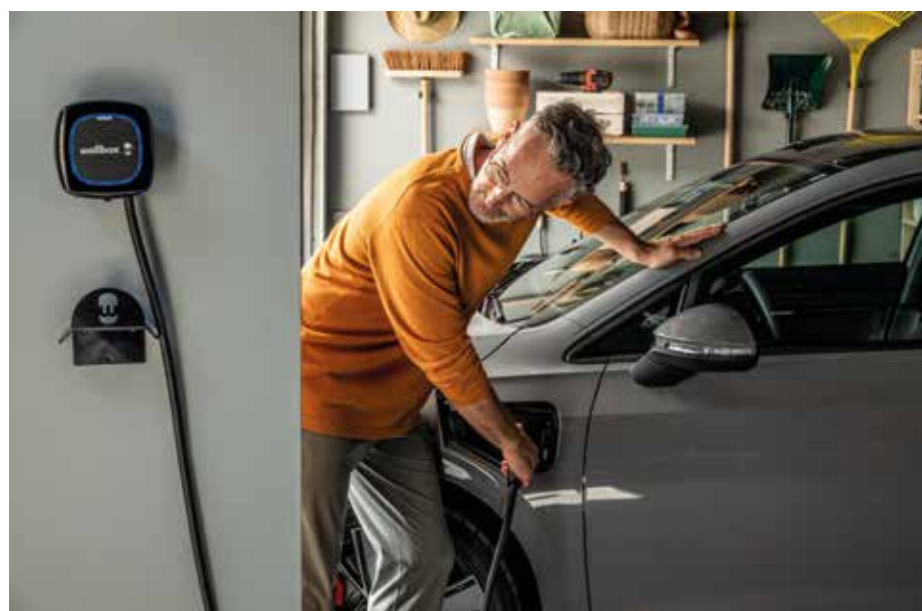
first bidirectional charger for the home and most recently the Good Design and IF Design award for Supernova, their first public charger.

Supernova is composed of 6 modules that work together to provide maximum power while maintaining their operational independence. In addition, this modular and lightweight assembly makes it easy to transport, install and maintain. Supernova has been designed to benefit not only the end user, but also charge point operators. Supernova has a charging speed of 60kW. In terms of performance, it can provide 100km of range for an electric vehicle in less than 15 minutes, making it the ideal charging solution for both public and semi-public locations (for instance, in a restaurant).

"We know that a lot of consumers are hesitant to transition to electric vehicles because of range anxiety, often caused by unreliable public charging," says Mr. Nadal. "So it was key that Supernova, our first public charger, could offer operational stability."

Wallbox's entry into the public charging segment complements its existing products and services offering for residential and semi-public charging that are currently available in

over 40 countries globally. The sector, currently valued at 11.7 billion, will grow exponentially in the next few years, driven by extensive investment globally to expand public charging networks. Europe is installing 1 million public charge points by 2025 and France alone is committing to 100,000 chargers next year. Germany is aiming for 1 million chargers this decade. The Chinese government has announced in March a stimulus package that allocates \$1.4B to EV charging and aims to install 600,000 new chargers, a 50% increase to the country's current structure. In the US, some states such as New York and California have



Support for growing foundry market

As the outlook for the metal casting market is on the upswing in North America, Vesuvius is at the forefront of industry-leading solutions to support the growth of its steel and metal foundry customers throughout the NAFTA (USA, Canada, Mexico) region. Through its Foseco brand, the company recently announced additional investments in manufacturing and engineering initiatives. “By continuing to invest in innovative solutions we are helping our customers reduce their delivery time, improve casting quality and optimize their production costs,” comments Iuliana Nita, Marketing & Technology director for the Vesuvius NAFTA Foundry division.

Vesuvius is a global leader in molten metal flow engineering and technology, principally serving process industries operating in challenging high temperature conditions. Vesuvius’ foundry division, operating under the Foseco brand is a world leader in the supply of consumable products, technical advice and application support to ferrous and non-ferrous foundries around the globe.

In recent years Vesuvius has made strategic investments to increase its manufacturing capabilities and improve sustainable processes throughout North America to support the region’s foundry customers. Construction has already begun on a new state-of-the-art manufacturing facility, which, similar to its existing facilities is being outfitted with updated technology and sustainable initiatives that reduce

carbon emissions and improve overall speed and delivery of production processes.

In 2021, Vesuvius Group also made a strategic acquisition of U.S.-based Universal Refractories Inc., which significantly expands its North American presence amongst electric-arc furnace (EAF) steel producers, while further strengthening its commitment to foundry customers in the region.

“Despite a number of challenges that plague the metal casting industry in our region, including a severe worker shortage, surging costs and inflation levels that reached new highs, we are very optimistic about the rebound of the business to pre pandemic levels,” says Ms. Nita. “Two of the sectors that drive the casting demand in our region are automotive and infrastructure. The bipartisan infrastructure package in the

US will drive the output in US foundries. North America is also home to three megacities, which will lead to a rise in demand for construction related casting production, with iron cast in particular benefiting from this development. We remain cautiously optimistic on the outlook of the automotive industry; historically low inventories provide support as US demand and North American production levels have effectively been constrained at recessionary levels over the past 12+ months.”

She adds: “Another positive trend is the fact that in order to reduce their vulnerability to supply shortages and bottlenecks, companies have started to reconfigure their global value chains, leading to a more regionalized world economy organized around three major productive hubs: North America, Europe, and East and Southeast Asia. This shift has already started to prove beneficial for the Mexican economy with significant investment in the manufacturing of metal products, machinery and equipment, and auto parts —industries that have been hit hard by supply shortages and bottlenecks.”

She emphasises that their ultimate goal remains the same: creating value for our customers. “We think beyond today to create solutions that will shape the future for everyone.”



VESUVIUS

Vesuvius
Website: Vesuvius.com

Helping insurers get on pace with digitisation

Keylane is a leading SaaS platform provider for the insurance and pension industry. Having established market leadership in the Benelux, the company is currently expanding across Northern Europe with a focus on the Nordics and DACH. It has over 225 customers in these regions including many of the leading names in the insurance industry. Rob van Esch, Principal Consultant and Solution Architect at Keylane, highlights the work they’ve done for Univé, a valued partner of many years who transitioned to Keylane’s full SaaS solution in 2021, and recently achieved a new major milestone by moving the administration of their disability insurance policies and claims (AOV) to Keylane’s Axon platform.

Mr. van Esch is primarily responsible for consulting with Keylane’s customers on how to get the most out of Axon, Keylane’s all-in-one SaaS platform. Axon digitises operations for insurers, which helps them to increase customer satisfaction and reduce time to market for the launch of new products. Axon provides and implement continuous upgrades at no additional costs, guaranteeing that customers are able to comply with the latest rules and regulations.

One of Keylane’s strategic objectives now is to expand Axon on an international scale, which, of course, requires localisation. Mr. van Esch is confident of the platform’s international appeal, however. “The core technology is solid, as underscored by the many successful implementations we’ve completed.”

The insurance industry has been relatively slow when it comes to digitising their value chain, he agrees. This is an issue particularly at a time when new, digitally native players such as Amazon are entering the field; and they are introducing new products at a much quicker pace. “The Netherlands and the UK are modernising fast, but the German insurance industry, among

others, is not quite as far along. So I see great growth potential for Axon.”

One of the companies that has successfully implemented Axon is Univé, a large insurance cooperative in the Netherlands. In October of 2021, Univé achieved the first of two major milestones by selling policies for the new income protection product: disability insurance. This was quickly followed by the second major milestone: the successful migration of customer information, policies and claims of the disability insurances to Keylane’s Axon platform. As of this landmark migration, Axon will now handle approximately 5,100 insurance protection policies and over 600 active claims, with Univé being Keylane’s first

customer to make full use of Axon’s calculation models for the income protection administration: from the actuarial premium calculation, through to policy management and full claims handling, including periodic payments.

Mr. van Esch emphasises that Keylane supports insurers throughout their digitisation process. “When they reach out to us, insurers typically have a great deal of accumulated legacy, not only within technology, but also in the underlying business processes and in the organisation. What Univé appreciates about us that we have helped them every step of the way. I am confident that this approach works outside of our home market, where we work with established partners to help with project delivery.”



keylane
Website: Keylane.com

Keylane / Interview

“We have helped Univé every step of the way”
Rob van Esch, principle consultant

More info here →



Keylane #UnlockTomorrow
www.keylane.com

Frontline productivity specialist expands in Europe

WorkJam is the world's leading digital frontline workplace. It is designed to connect HQs with their frontline staff with functionalities that include communication, upskilling, shift scheduling, and task management all in one app. WorkJam engages employees while driving operational efficiencies and productivity. Already well established in North America and with an existing customer base across 22 European countries, the organisation aims to increase its investment in the EMEA and respond to rising demands at a time when labour shortages make employee engagement more important than ever, as Mark Williams, Managing Director, EMEA at WorkJam, explains.

Founded in 2014, WorkJam offers a digital frontline workplace designed to help employers manage their frontline workforce. This powerful app can function as a standalone solution or seamlessly work within other employee engagement or productivity platforms. WorkJam's tech provides task and shift management, communication, training, and staffing, and is available in 45 languages and countries across the globe. According to a report by independent research firm Forrester, WorkJam generates an ROI of 410% on average.

Mark joined WorkJam from Shell, where he oversaw the company's global product management lifecycle — including WorkJam. He was, in fact, responsible for the global success and roll-out of WorkJam across 35+ global business units. "Shell's retail network is extremely large and diverse, and it was challenging to communicate with frontline workers, who in turn sometimes felt a disconnect

to the Shell brand. In WorkJam, we found the ideal platform to remedy this. Frontline workers can use the WorkJam app on their personal devices such as their smartphones, and it has a similar look and feel to the platforms they already use privately. What I like about it is that it doesn't push down on the workers: it communicates with them, educates them, and encourages them in a very positive way. It's also extremely quick and easy to deploy."

Mark sees considerable growth potential for WorkJam across the EMEA region, where companies are struggling with labour shortages. "Employee retention has never been more important. The WorkJam platform can help as it adds to an employer's value proposition. It increases employee engagement and makes educational opportunities accessible to the workforce, ensuring that employees are confident in their skill development," he says.

WorkJam's modular, scalable architecture



and the fact that millions of employees across the globe use it lends itself to localisation as well as adaptation to local labour laws and business practices in the region, he adds. "This is important as European employers must comply with high standards, notably around data privacy with GDPR. They can trust us to be in full compliance."

Mark further states "That's exactly why we keep strengthening our team with local experts like David Rogers, who recently joined us from Reflexis. As VP of Sales, EMEA, his expertise and profound understanding of the challenges our European customers face will be integral to helping us solve their challenges and revolutionise their frontline workforce in the process by helping them to build a people-first culture."

Mark believes the one challenge of his job is to explain the true value of WorkJam to employers. "Our unique value proposition is that we offer a complete and unified solution for frontline staff. Competitors may provide learning tools or shift management and do that one component very well. But no one brings it all together in one place like WorkJam."



Identity is evolving. Stay in control.

Mitek Systems Inc., a global leader in digital identity (ID) verification and fraud prevention, acquired UK's leading KYC (know your customer) technology pioneers, HooYu. The early 2022 acquisition helps to ensure businesses know the true identity of their customers by linking biometric verification with real-time bureau and sanction database checks. Sanjay Gupta, SVP and Managing Director at Mitek emphasizes: "Our mission is to provide our customers with the technology and solutions they need to provide instant and secure digital access to their consumers."

Mitek's digital identity verification is built on the latest advancements in computer vision and artificial intelligence. The company's identity verification solutions enable organizations to verify an individual's identity during digital transactions to reduce risk and meet regulatory requirements, while increasing revenue from digital channels. More than 7,500 organizations use Mitek to enable trust and convenience for mobile check deposit, new account opening and more. Mitek is based in San Diego, California, with offices across the U.S. and Europe. Post-acquisition, the company's new, easy-to-deploy Mitek Verified Identity Platform (MiVIP) identity was announced in 2022 to help address growing

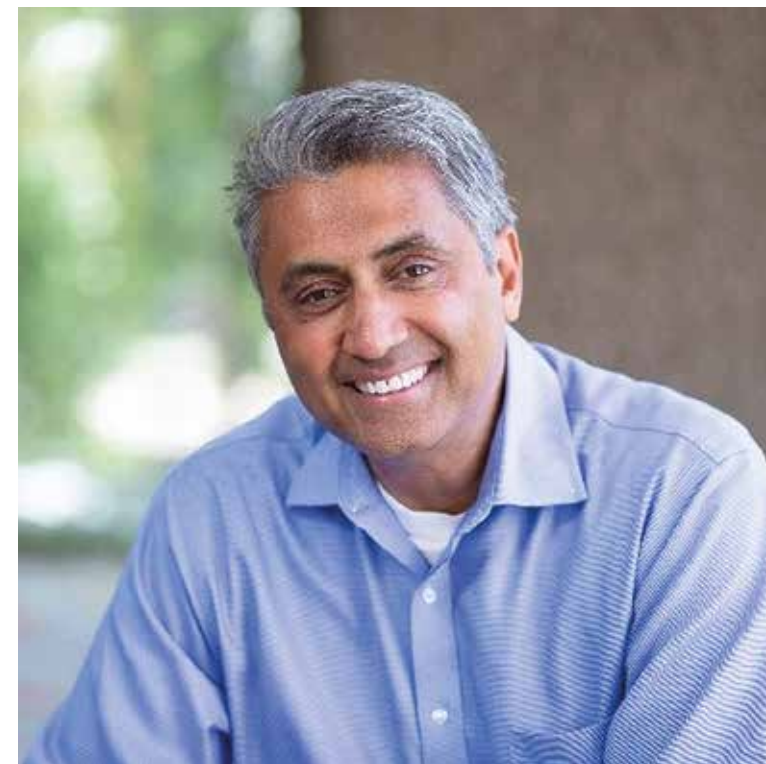
concerns about identity theft. "We consider our platform to be the most comprehensive because it combines the breadth of Mitek's proprietary technology across all the areas of identity verification and authentication; document, biometrics and the most relevant data signals such as geolocation, PEPS and sanctions as well as bureau checks," Gupta explains. "These all work together to make the consumer experience effortless and fraud management, stringent."

The United Nations (UN) estimates that up to three percent of the world's GDP — or nearly two trillion dollars — is money laundered annually. As business continues to move online at a record pace, the role of identity takes on ever

greater importance. Consumers want to transact with companies they trust. Consistently and securely protecting a person's identity in all its forms requires integrated, multi-layered identity and cybersecurity systems that reduce fraud while simultaneously delivering seamless user experiences across multiple channels.

With the new MiVIP platform, organizations can gain a more complete picture of the consumer by marrying biometrics, ID document validation, geolocation and identity confidence scoring with real-time data signals such as bureau checks or matches to politically exposed person or sanction lists. Its innovative orchestration capabilities will enable Mitek customers to optimize workflows and accelerate the deployment of identity solutions across channels.

Gupta summarizes: "Identity is personal and we are on a mission to protect it. MiVIP allows us to make identity management and Know Your Customer journeys a smooth, yet integral part of a company's business processes. Over the next couple of years, we will continue to add features and functionality to extend MiVIP to provide additional functionality around re-verification and authentication. Thus, supporting the consumer lifecycle with identity access management."



Sanjay Gupta, SVP and Managing Director at Mitek

Alliance for a better world

Dole Sunshine Company, a name recognized the world over in the produce industry, has partnered with The Ocean Race, a legendary sailing race and leader in sports sustainability, to raise awareness on the looming threats to the ocean, as well as the critical role organizations and individuals can play to drive actions for a better planet. The partnership is a recent effort to find new, innovative solutions to save our ocean, as well as work towards creating a universal declaration for ocean rights, said Pier Luigi Sigismondi, president of Dole Packaged Food & Beverages Group.

With roots dating back to the 1800s, the name Dole has long been synonymous with fresh, healthy foods. What began as a modest pineapple growing business in Hawaii, founded by Horticulture and Agriculture graduate James Drummond

Dole is now a leading global player in the fresh produce industry with thousands of employees globally. Operating out of 30 countries and serving many more, the company's supply chain extends across the globe and runs about 250 facilities,

distributing over 300 lines of fresh produce to meet the world's nutritional needs.

The company has additionally been making strides toward sustainability, investing and leading efforts into having a positive impact on communities and stakeholders. In 2020, the company introduced the "Dole Promise," a set of six goals designed to create a sustainable future through initiatives such as offering sustainable nutrition to 1 billion people, eliminating processed sugars in Dole Packaged Foods, and working to cut fruit loss by 2025.

IT was the sense of purpose behind this business that led Pier Luigi Sigismondi to become President of Dole Packaged Food & Beverages Group in February 2019. Mr. Sigismondi's goal was to lead the profound transformation of the legacy brand in consumer packaged goods (CPG) into a business truly built on purpose, one that made decisions and actions launched products and measured its actions in the world based on one truth: that good nutrition constitutes a human right.

"Consumers are smart, they can see through brands that aren't actually acting on their promises and commitments," said Mr. Sigismondi. "We know our actions speak louder than our words, so we're not just talking about ending global hunger and creating a better planet for our children, we're acting on these things."

Mr. Sigismondi brings decades of experience in the CPG space to Dole Sunshine Company. For more than 20 years, he has worked with purpose-led brands including Nestle and Unilever,

creating value for the business, partners and extended communities.

The company's unique value proposition in the global food industry is its work toward creating a world where access to nutrition is equitable. Through its products and initiatives, the company has worked hard to empower consumers with knowledge and education, as well as tackling affordability, distribution and all-round supply. Part of its mission is to deliver high-quality fruit with a positive impact based on the interdependence between people, planet and prosperity.

"We believe we have done a good job of fulfilling that mission over the years," said Mr. Sigismondi. "But we also realize that there's more we can do. That's why we are doubling down on our mission to do business differently by putting people and the planet at the center of everything we do."

In a further symbol of commitment toward the planet, the company recently partnered with The Ocean Race, a global sailing competition with over 50 years of legacy in sports sustainability, to help drive action for a better planet.

As part of the agreement, Dole Sunshine Company became a Positive Change Partner of The Ocean Race. Thus, the company will play a role in ongoing sustainability initiatives, such as The Ocean Race Summits, alongside founding partner 11th Hour Racing. The events convene decision makers from around the world, helping to advance new and improved policies aimed at protecting and governing the ocean and supporting healthy seas.

Aside from the exchange in knowledge and networking the partnership



represents, DSC will be able to adapt The Ocean Race's groundbreaking approach to people and leadership into internal programs.

"Our partnership with the Ocean Race will be a collaborative effort to shed light on the state of the ocean's health, find new, innovative solutions to save our ocean as well as work towards creating a universal declaration for ocean rights," Mr. Sigismondi said. "This partnership aligns with our promise to end fossil-fuel based plastic

packaging and have net zero carbon emissions in our operation, driving action to create a better planet.

Furthermore, Dole Sunshine Company will provide support to the ambitious and urgent goal of global commitment to a Universal Declaration of Ocean Rights. The current draft principles of the Declaration would set out a global framework for the protection and governing of the ocean. An initiative led by The Ocean Race, the proposal will be presented in September 2023, in

conjunction with the United Nations General Assembly in September 2023.

“We are happy to welcome DSC, a company that is taking a leadership position in sustainability with The Ocean Race family,” said Richard Brisius, Race Chairman of The Ocean Race, in a prepared statement. “Working together, we believe we can have a positive impact on restoring ocean health by giving a voice to the ocean. DSC shares that view and will be a valuable contributor to this effort.”

Aside from its commitment to The Ocean Race, the company moves forward a number of initiatives toward sustainability. Dole Sunshine Company is joining forces with strategic partners in order to work towards the Sustainable Development Goals (SDGs) outlined by the United Nations. This strategy will improve the world in the short and long term, but will require the collaboration of experts and stakeholders across a multitude of areas, including food production, nutritional science, packaging, sustainable agriculture, and more.

“For example, to eliminate processed sugars, we are collaborating with suppliers and external partners to discover, innovate, and implement new natural ingredient reformulations to eliminate processed sugars, while also meeting consumer expectations,” said



Mr. Sigismondi. “We believe that working within our business and with the right experts is essential to achieving our overarching ambition to contribute to the highest level of sustainable nutrition for 1 billion people by 2025.”

As for the challenges ahead, the company contends with ambitious timetables for achieving its goals on sustainability, but it is strongly committed to the investments and actions that move goals forward while delivering quality goods to its customers.

“The first step on any journey is often the hardest and all initiatives embody their own challenges,” said Mr. Sigismondi. “The deadlines we have set are ambitious, however, we have already made plenty of progress. Due to the global pandemic, it’s created even more challenges that show just how important nutrition and accessibility are but we continue to strive to reach our goals and create a positive impact around the world.”




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Self Expression On Demand

Flashdance, Top Gun, Star Trek, Garfield and SpongeBob SquarePants are five of the iconic brands in the European licensing deal signed by Spread Group and Paramount Consumer Products, in June 2022. Sustainability is at the heart of this partnership with the Spread Group's print-on-demand offering meaning that an item is only printed after it has been ordered. Sven Burscher, Spread Group's Head of Licensing said: "This partnership enables Spread Group to offer a huge variety of themes to a wide audience."

Spread Group is a collection of five digital brands that empowers self-expression, enabling individuals and businesses to express themselves with print-on-demand products they can use, wear and carry. Founded in 2002, Spread Group's brands connect with customers, businesses, designers and sellers in over 170 countries via 18 domains in 12 languages. Powered by five production facilities across the United States and Europe, the company delivers on-demand printing solutions at market-leading speeds with sustainable practices.

The core of Spread Group's business model is based on the idea that it only prints what the customer wants when they want it. Consumers and businesses can customise clothing and accessories with 'Create Your Own'. In 2021, the company hit global revenue of \$206 million, printed more than 10 million items and employed over 1000 people from 50+ countries. Spread Group comments: “For several years, we have been observing that the customization idea is playing an increasingly important role in the fashion industry as a whole. The very young Gen Z clientele in particular seeks opportunities for individual expression of their style. Here we can respond quickly with high-quality articles due to our local production in Europe and USA.”

The Spread Group's print-on-demand offering means significant limits waste, because there's no overstocking and leftover sizes. The first designs from the European deal will include I Feel the Need for Speed Top Gun t-shirts, Flashdance logo and What a Feeling! hoodies, Garfield LASAGNA lunchboxes and Saturday Night Fever posters. The designs will be a mixture of image classics and newly created designs created by Spread Group. Customisation is also made easy with print-on-demand, with fans having the freedom to add a design to a product in a size, colour, and style of their choice. When fans are involved in the creation of an item it creates a greater affinity with the brand because

they will be able to add images and quotes to t-shirts, hoodies, caps, bags, aprons, mugs, water bottles, lunchboxes, pillowcases, posters, and stickers, depending on the brand. Designs will also be localised; for example, Garfield quotes in German, French and English.

“In terms of content, we strive to create an even more relevant assortment by working closely with our license partners and designer community. On the manufacturing side, we are constantly looking to invest in new technologies in order to strengthen our production and refinement methods to made-to-order capabilities, also beyond print.”



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A key coalition against cyber threats

Forescout Technologies, a leading provider of automated cybersecurity solutions for some of the largest companies and government agencies in the world, has announced the closing of its acquisition of Cysiv, a Dallas-based cloud cybersecurity innovator that uses its platform to enable customers to detect and respond to true threats. The Cysiv deal, the second acquisition to be completed by Forescout so far this year, is set to enable the company to enhance the capabilities of its leading Continuum platform, according to Ian Curry, chief marketing officer at Forescout.

Founded in 2000, Forescout is a leading provider in the global cybersecurity market. A dream started by Israeli entrepreneurs Oded Comay, Hezy Yeshurun, and Dror Comay, today Forescout is a leading provider of scalable, automated cybersecurity serving large global organisations, including several on the Fortune 100 list, as well as public sector entities and government agencies around the world.

The strategy Forescout brings to the market, and how it serves its growing customer list, is to provide the

continuous alignment of companies' cybersecurity frameworks across all asset types – information technology, internet of things, operational technology and internet of medical things – delivering automated cyber defence across the digital terrain as required by customers in a wide array of industries.

Moreover, the company's Continuum Platform, widely recognized in the industry for its flexibility and power, is able to provide customers with risk and threat management through complete asset visibility, continuous asset

compliance, network segmentation and access control, as well as threat detection and response. Forescout also leverages the world's largest cyber asset database, analysing more than 21 billion data points in order to understand the highest risk areas for companies.

Put simply, the platform allows companies to react effortlessly to the changes impacting a business' digital reality, including everyday changes such as device decay, software failure and staff turnover. But Continuum also allows companies to respond to larger, more transformational events such as corporate mergers and acquisitions. Attackers will often attempt to leverage vulnerabilities amid these types of large changes.

For Ian Curry, chief marketing officer at Forescout, the company's expertise is helping organisations and government



agencies better manage cyber risks and cyber threats through automation and data-powered insights. Mr. Curry, who holds a Master of Science in Management (MBA) from MIT's Sloan School of Management, joined Forescout in July 2021 and is responsible for the company's brand, corporate and product marketing functions to support future growth and innovation. Prior to joining Forescout, he served as VP of Products at Solink and VP of Marketing at Cord3 Innovation. Before these roles, Mr. Curry was CEO of DNA Genotek.

"We have innovative technology, amazing talent, and passionate industry leaders to help our customers address the cybersecurity challenges they face," said Mr. Curry.

Recently, the company completed the acquisition of Cysiv, a leading innovator in cybersecurity which offers enhanced threat detection and response through its powerful cloud-based platform. It was the second acquisition completed by Forescout in 2022, following the company's purchase of CyberMDX, a leading healthcare cybersecurity provider delivering visibility and threat prevention for medical devices and clinical networks. First announced in June of this year, the acquisition of Dallas-based Cysiv was completed in July.

"Security companies are guilty of adding one more agent, one more tool, when in reality, our customers don't want more, they want less. Less agents, less noise, less applications to manage," said Wael Mohamed, CEO of Forescout, in a release announcing the completion of the acquisition. "Forescout is in the unique position of helping our customers achieve this with closed-loop threat protection on unmanaged and managed assets. We now take our unparalleled, agentless visibility and automated cybersecurity and combine this with Cysiv's threat analytics and detection capabilities to assist our customers to respond more quickly."

The acquisition of Cysiv allows Forescout to extend its Continuum platform, delivering broad, data-powered threat detection and response capabilities, Mr. Curry said.

"Traditionally, Forescout has offered strong threat detection and response for OT assets and we recently added threat detection for IoMT assets through our acquisition of CyberMDX," said Mr. Curry. "While many threat detection vendors depend on agents for managed assets, the acquisition of Cysiv enables Forescout to provide agentless and complementary threat



Ian Curry,
Chief Marketing
Officer at Forescout

detection and response capabilities for unmanaged (and managed) assets using a powerful, cloud-driven analytics engine. Forescout's traditional strength in network-based actions enables automated, closed-loop detection and real response that shuts down threats in real-time."

Forescout is a global cybersecurity provider, and operates out of offices in North and South America, Europe, the Middle East, the entire ASEAN region, as well as Japan. The company is able to fully support customers across different geographies thanks to a group of regional customer and operational support centres, as well as local language specialists. The company's solutions cover many vertical markets, and Forescout has extensive experience responding to the needs of healthcare, government and financial services



customers. It also operates in verticals such as manufacturing and industrial customers.

“Cysiv was born out of the desire to uncover the truth hidden in the mountains of security data SOC teams face daily,” said Partha Panda, CEO at Cysiv, in a release. “When we first began working with Forescout as our partner and customer, we saw the potential of uniting Forescout’s high-fidelity data with our threat intelligence and AI-augmented threat analysis. We are creating a closed-loop threat protection solution truly unique in the industry.”

The security space has dealt with a number of changes over recent years.

FACT BOX

Forescout Technologies, a global provider of cybersecurity solutions, helps companies track, defend and protect their list of assets across the digital realm. The company’s Continuum platform is able to offer some of the world’s largest organisations the complete asset visibility, continuous compliance, network segmentation they need to set up a Zero Trust environment. With advanced technologies, the company is able to protect critical data and uphold operations securely for Fortune 100 companies and leading government agencies.

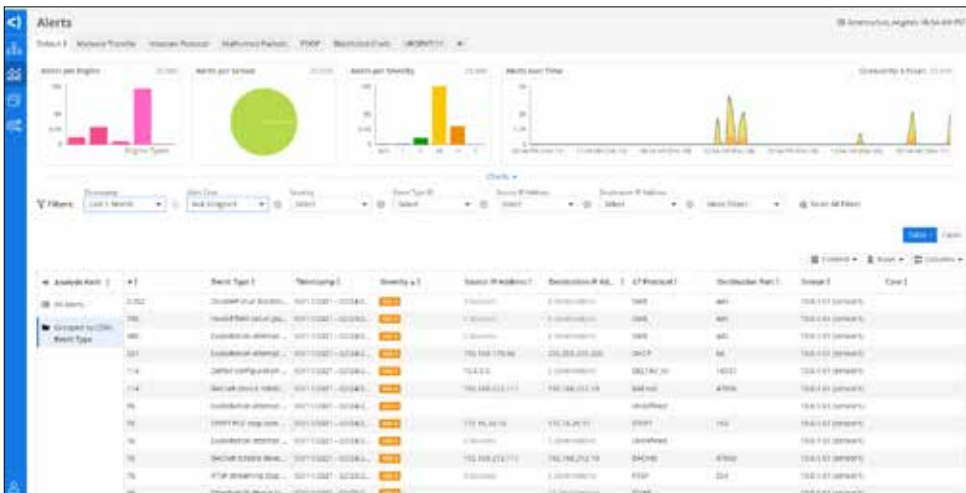
Bolstered by the increase in digital processes, and lured by the potential financial upside of system compromise, cybercriminals have evolved into sophisticated groups that pose significant threats to unprepared systems. From business email compromise to the threat of ransomware,

the enterprise world must rely on advanced tools to defend against compromise of critical data, all across the digital realm.

“Having just announced the completion of the Cysiv acquisition, we are very excited about integrating and offering extended capabilities to our customers with the new threat detection and response services,” Mr. Curry said.



Forescout
Website: www.forescout.com



Streaming the future of data

Coralogix, a company using streaming analytics to rebuild the path to observability, recently raised a \$142 million Series D funding round, bringing the company’s total amount raised to \$238 million. With proceeds from this round, Coralogix will grow its go-to-market, product, and R&D teams within the Americas, EMEA, UK, and APAC. As the company expands, they are committed to continuing to offer endless data possibilities with its one-of-a-kind 24/7 in-app support and response times under one minute. This announcement reflects the evolution of Coralogix from a best-in-class log analytics platform to a full-stack observability platform with robust capabilities for metrics, tracing, and security data, in addition to logs. With data volumes and costs growing exponentially and coverage options becoming more limited, having all data insights in a centralized platform is critical for DevOps, Engineering, and Security teams, according to Ariel Assaraf, Coralogix founder and CEO.

Mr. Assaraf is a veteran of the Israeli intelligence elite unit 8200. He has over 10 years of product and team management experience. His mission and vision for Coralogix is to provide businesses with the ideal solution for all their observability needs. “We’re rebuilding the path to observability using a real-time streaming analytics pipeline that provides monitoring, visualization, and alerting capabilities without the burden of indexing,” he explains. “By enabling users to define different data pipelines per use case, we provide deep insights with better performance and scale for less than half the cost of other solutions in the market. In short, we are streaming the future of data.”

The Coralogix platform’s underlying architecture, Streama, allows users to leverage analytics, alerting, metric generation, anomaly detection, and more – all without relying on storage – so they can achieve better performance and insights while optimizing their Total Cost of Ownership. “We also focus on maintaining an open data platform so users can send any data, query using any syntax, and visualize in any dashboard,” Mr. Assaraf adds. “This helps to facilitate

complexity that force companies to rethink how they analyse data from a performance and cost perspective. “In the current economic environment, we see even higher urgency to achieve full coverage without exceeding costs.”

From a business perspective, Coralogix is looking to expand its footprint in EMEA with four new offices. “We’ll use this funding round to further grow our R&D and world-class Customer Support teams, expand in ten new global markets, and continue developing our best-in-class full-stack observability platform,” Mr. Assaraf explains. “We plan to expand into new industries such as eCommerce, Media & Entertainment, Logistics, Education, Insurance, and more.”



Open RAN is the future

Network software provider Mavenir has expanded its capabilities in Europe with the launch of an Open RAN Centre of Excellence in Germany as it looks to build on the momentum it's gained in Open RAN technologies in the past year. Based in Bonn, with satellite teams in Düsseldorf and Munich, the Centre of Excellence is designed to support European MNOs with Open RAN engineering, planning, design, system integration and deployment. Last year, Germany's digital infrastructure ministry announced €300m in funding to develop and test Open RAN technology in the country. Dick van der Kwaak, Senior Vice President Global Business Development at Mavenir, and Maryvonne Tubb, SVP Global Marketing & Corporate Communications, explain how Open RAN fits in with Mavenir's vision of a single, software-based automated network that runs on any cloud.

Mavenir is a Global telecommunications software company, with headquarters in the US, which in its current structure, emerged in 2017 with a complete end-to-end mobile network portfolio, although having served the industry since 2008. The company develops and supplies cloud-native software to the communications service provider (CSP) market. It has globally placed offices and centres of excellence, driving the knowledge and innovation across the regions.

Mavenir is an active supporter of Open RAN principles, which present an alternative way of building networks ensuring interoperability, vendor competition, element security and reduced operating costs across the radio

access networks (RAN). Open RAN focuses on using vendor-neutral hardware and software based on open interfaces and community-developed standards, giving communication service providers the ability to use one supplier's radios with another supplier's RAN applications to ensure best in class solutions, in contrast to the existing model of being locked-in with a h/w based traditional vendor. With 5G deployment plans in full-swing, communication service providers around the globe are using the opportunity to transform their mobile network.

"We are fully committed to Open RAN; it fits in with our philosophy to building the future of networks with cloud-native software that runs on any cloud and

transforms the way the world connects," Mr. van der Kwaak confirms. "We provide full, end to end virtualised network capabilities. With our everything software approach we have already opened up voice and messaging services. The radio network is the last piece of classic architecture that we want to open up through Open RAN. Our ambition is to reduce vendor lock-in, and ultimately make it easier for operators to expand at cost efficient TCO, innovate and monetize new services."

Mavenir is seen as a disruptor: the networks space in which it operates is dominated by three traditional players, namely Ericsson, Nokia and Huawei. These three have indicated some intent to move to Open RAN in future, delay the transformation until 6G, which can be 10 years away, or not at all in Huawei's case. But even without the full support of those big three, Open RAN is seeing much momentum on a global scale.

In the European Union, open, intelligent, virtualised and fully interoperable RAN is seen as essential if the region is to meet its target of 5G for all by 2030. In 2021, the five big European operators, Deutsche Telekom AG, Orange, Telefónica, Vodafone Group and TIM signed a Memorandum of Understanding (MoU) to provide a framework for a specific commitment to support the development of a non-fragmented global Open RAN ecosystem for deployment across the European networks. Open RAN is poised to drive stronger, more resilient supply chains and platforms, as well as promote digital autonomy and continued technology leadership. Open RAN should give operators the flexibility to extend 5G to more users in a cost-effective, secure and energy efficient way.

This flexibility will stimulate greater innovation across industries in areas such as telemedicine and smart factories.

In Europe, the United Kingdom and Germany are leading the way in Open RAN adoption. In December 2021, the UK Department of Culture, Media and Sport (DCMS) announced it had agreed with the four domestic operators to fulfil a goal to boost deployments setting a target of 35% of the nation's mobile network traffic is carried over open RAN by 2030. Germany, too, last year announced financial support of 300 million euros for Open RAN. Deutsche Telekom is currently testing Open RAN in Neubrandenburg, Mecklenburg-Western Pomerania, for example. Funding for this test amounts to EUR 10.5 million. Vodafone is also in on the action. In Plauen, Saxony, the Telekom competitor wants to carry out a test funded with 1.5 million euros. The development of the new Open RAN standard is also supported by the world-renowned Fraunhofer HHI, the TU Berlin and Telefonica Deutschland. All German MNOs have committed to adopting Open RAN.

It's no surprise then that Mavenir has established an Open RAN Centre of Excellence in Germany. The Centre of Excellence in Germany is developing advanced Open RAN end-to-end technology and skills, and supporting German customers with localised support to accelerate Open RAN deployments. "The Centre will also train staff in Open RAN," Mr. van der Kwaak points out. "As we grow our organisation we want to train our own people. But we'll also work together with operators, of course. The Centre will play an important role in serving the German market as that's a key market to us, but

will also support customers in the region as a whole."

The German Centre of Excellence builds on Mavenir's leadership in Open RAN. Earlier in the year, the company launched the comprehensive OpenBeam™ portfolio of O-RAN compliant radio products, which provide MNOs with Open RAN solutions spanning micro, macro, millimetre wave (mmWave), and massive MIMO (mMIMO) use cases.

The Centre of Excellence in Germany also builds on Mavenir's growing global

presence with its network of dedicated Centres of Excellence and Innovation. It joins the Open vRAN, 5G, Artificial Intelligence/Machine Learning (AI/ML), open virtualized Multi Radio Access Technology (vMRAT), and software/system design for Open RAN Radio Units Centres located across EMEA, as well as the NFV/SDN Cloud Innovation Centres in North America, India, and the Asia Pacific.

In the US, too, Open RAN is gaining momentum, as Ms. Tubb points out. Mavenir notably partners with DISH

OpenRAN Trials and Deployments



Source: TelecomInfraProject June2022



Network, which continues its buildout of the USA's first cloud-native 5G wireless broadband network. DISH believes the open and intelligent architecture of its greenfield network will give them the ability to source a diverse technology ecosystem. Mavenir helps DISH lay the foundation for an innovative software-defined network with the flexibility, intelligence and scalability to deliver applications that should redefine the wireless industry.

"Things are moving very rapidly," says Mr. van der Kwaak. "Operators are embracing open RAN architecture as they quickly understand what the benefits are. The latest Telecom Infra Project report confirmed that there are more than 37 trials and deployments, from 36 different operators, across more than 20."

As Open RAN is gaining momentum, more competitors are entering the market, but Mr. van der Kwaak and Ms. Tubb emphasise that Mavenir actually welcomes this development. "Research from Dell'Oro Group, a leading analyst and software-based networking technology provider, indicates that Open RAN revenues could account for approximately 15% of the overall 2G-5G RAN market by 2026. It also predicts that by 2025, Open RAN will account for more than 10% of the overall RAN market."

Mr. van der Kwaak expects that in three to five years, Open RAN will account for around a third of the market. "5G is a big growth driver. A lot of operators are ramping down 2G and switching off 3G as they need to modernise their networks and reduce costs. Another factor is that

hardware is more power intensive than software. So switching to Open RAN also makes sense in that respect."

He points out that Mavenir also offers campus network solutions, building on Open RAN. Last year, for example, it announced a campus network in Dallas for 4G/5G. The campus demonstrates network integration across a suite of certified solutions, integration with 3rd party vendors for interoperability testing and a new approach to Open Virtualized Radio Access Network (Open vRAN) Citizens Broadband Radio Service (CBRS)/ OnGo® Private Network deployments. Mavenir's CBRS/OnGo® certified product offerings address macro, enterprise and Industry 4.0 use cases. These solutions are being delivered as an end-to-end private network solution or as part of an Open RAN deployment to help Enterprises, Carriers, Value Added Resellers (VARs), System Integrators (SIs) and Wireless Internet Service Providers (WISPs) take advantage of the CBRS spectrum across the United States.

"This campus solution approach should also appeal to companies and organisations across Europe that want to operate their own network, particularly as more and more governments have made available 5G frequencies for industrial usage," says Mr. van der Kwaak. "We deploy these solutions in close partnership with local companies and can train people at our new Centre of Excellence in Germany."



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Helping to combat Malaria

Malaria is a severe illness in tropic and sub tropic regions. altona Diagnostics offers two in vitro diagnostic tests, based on real-time PCR technology, for the detection of pathogen specific DNA. Dr. Leonie Hecht, former molecular PCR test developer and current sales representative for Africa and Latin America at altona Diagnostics, says: "We have two CE-marked real-time PCR test kits on the market that detect malaria pathogens and distribute them worldwide. Our customers are clinicians, pathologists, and scientists from state and private labs in more than 70 countries."

altona Diagnostics is a medical diagnostic company that develops and manufactures in vitro diagnostic tests for the PCR based detection of pathogens such as viruses, bacteria, or parasites. Headquartered in Hamburg-Altona, Germany, altona Diagnostics is privately owned and employs more than 350 people worldwide. The company has been in the molecular diagnostics business for over 20 years and is ISO 13485 certified. altona Diagnostics sells its registered products to private and clinical laboratories globally through subsidiaries and more than 40 distribution partners.

Molecular diagnostic tests from altona Diagnostics are based on real-time PCR technology and are packaged as ready-to-use kits. The company's product catalogue contains over 50 CE-marked kits that are compatible with open real-time PCR platforms. In addition, altona Diagnostics offers an automated

workflow solution that is complete with instrumentation, nucleic acid extraction chemistry and a dedicated software. In 2020 there were about 241 million malaria cases and 627,000 malaria deaths worldwide (World malaria report 2021, WHO). Most of these Malaria cases (95 %) were from the WHO African region. Countries that have achieved at least 3 consecutive years of zero indigenous cases are eligible to apply for a WHO certification of malaria-free status. Nevertheless, in these countries Malaria cases might still occur from travellers coming from high-risk regions.

"Both PCR tests are from our RealStar® product line: one is a pan-Plasmodium assay, which can detect all 5 human pathogenic species which cause malaria: Plasmodium falciparum, Plasmodium vivax, Plasmodium malariae, Plasmodium ovale and Plasmodium knowlesi. The second product, a so-called screen &

type test, can detect these five species as well as differentiate which Plasmodium species is in the tested sample. This is very important because the species have different disease courses and treatments," Dr. Hecht explains. altona Diagnostics is very pleased with the feedback from its customers that these PCR tests are extremely easy to use, and that the performance is very convincing.

"For years, there has been a trend in the industry towards automation. That's why we provide a product line for the automated application of PCR tests, called AltoStar® which is a complete molecular diagnostic workflow. A malaria PCR kit that can be used with the AltoStar® Molecular Diagnostic Workflow is currently under development. This product is designed to be IVDR compliant and is scheduled to go on sale at the end of 2022," Dr. Hecht ends.

altona
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Contextual advertising specialist sets sights on US

Seedtag, the leader in contextual advertising in EMEA and LATAM, recently raised over €250M in funding from private equity investor Advent International. The company intends to use the funds to further scale its Contextual AI technology, LIZ©, as well as for innovation and worldwide operations, advancing its expansion into the US, the world's largest advertising market, and providing additional firepower for further M&A activity as Jeroen Wirz, the Country Manager of Seedtag Benelux, explains.

Seedtag has pioneered the use of AI and machine learning to create what it believes to be the best possible contextual product in the market. "The industry has typically taken quite a blunt approach to contextual advertising, focusing almost exclusively on keywords," says Jeroen. "However, our AI allows brands to create a much more evolved strategy, based on its ability to analyse articles and images the same way you and I could." He emphasises that while it has been around for a while, contextual advertising has changed dramatically over the past five years. "We want to help brands understand not only how contextual targeting works nowadays but also to understand how they can benefit from it, especially in a

digital world that keeps on changing and evolving." On that note, he sees the upcoming "death" of cookies is a massive opportunity for Seedtag. "Brands are coming to us looking for a new way to reach their target audience more effectively, with using personal data. These advertisers are also realising that the demographic profiles they have made of their consumers are now outdated and ineffective. Our solutions allow the brands we work with to understand their customers more effectively and meet them where they are, while also respecting their privacy." Seedtag is based in the EU, the most privacy conscious market in the world.

"This is also where we see the most demand for our solutions," says Jeroen. "Europe has been a pioneer in tackling the issue of user privacy, forcing countries to take regulatory measures to protect the privacy of their citizens. These changes have pushed us towards becoming leaders in contextual advertising, ensuring our solutions abide with all regulations and respect user privacy."

Seedtag sees the world as its market, however. The company recently expanded into the US, the largest advertising market in the world, and moved its commercial HQ to New York. "Our entry into the US market is obviously a key priority," Jeroen confirms. "We are also opening offices in Los Angeles, Miami and Chicago."

Seedtag plans to use the new funding to continue to expand, both organically and through acquisitions. The company recently acquired French adtech company KMTX (previously Keymantics), which specialises in building AI models to optimize and automate performance marketing campaigns. "This funding will expand our capabilities for inorganic growth even further," says Jeroen. "Besides mergers and acquisitions, the funding will also allow us to continue to invest in taking our existing solutions to the next level."

Albert Nieto & Jorge Poyatos (co-Founders and co-CEOs of Seedtag)



Seedtag
Website: Seedtag.com

Acquisition strengthens commercial excellence

Since day one, Vendavo has been committed to helping B2B enterprises improve their bottom line. Vendavo's AI-embedded pricing and selling solutions help customers price better, sell better, and negotiate better to improve top line revenue and bottom-line profits. The company recently joined forces with Market Medium to reinforce its commitment to serving manufacturing and distribution organizations on their path toward optimizing revenue growth and profitability. Now, Vendavo's customers can plan, accrue, track, and distribute channel incentives across the entire partner ecosystem more easily than ever before, according to Alex Hoff, Chief Product Officer, Vendavo.

Vendavo began as a Silicon Valley start-up nearly 20 years ago. Over the last several years, the company has undergone a significant transformation from a primarily on-premises enterprise software model to an all-cloud Software as a Service model that spans both Price Optimization & Management, and CPQ (Configure Price Quote), through both acquisitions and organic development and innovation. The company has offices in Denver, Düsseldorf, Prague, and Stockholm

Vendavo's approach to price management combines both enterprise-grade software with advanced and unique data analytics and data science. Vendavo's software enables clients to leverage a detailed understanding of

each customer's individual needs and wants so that they can identify and offer the right products, at the right prices, at the right times, and through a consumer-like commercial experience.

The recent acquisition significantly accelerates Vendavo's roadmap to enable manufacturing and distribution organizations as they optimize revenue growth and profitability, according to Alex. "Market Medium provides a much-needed capability around channel incentive management that complements much of what Vendavo offers today. Many organizations either give or receive sales channel incentives like rebates, billbacks, allowances, MDF programs, or other incentives that are off or after-invoice and are designed to drive

a certain behaviour. These kinds of programs can be a best practice in many cases as they require customers or channel partners to earn incentives through proven performance. But these kinds of programs can also be extremely challenging to administer as they require far too much effort and result in a lot of manual errors in accounting, accruals, and payments. Market Medium brings a full end-to-end channel incentive management solution to the Vendavo offering, empowering companies to create their programs, track and accrue automatically, and even generate the claims and deductions needed that result from the various programs in place. This removes the administrative burden, ensures greater accuracy, and removes revenue and margin leakage around these important aspects of B2B commerce."

Vendavo's AI-embedded solutions have driven – on average – \$26 million in annual incremental profit for B2B enterprises. Vendavo welcomes Market Medium customers like Genpak, McLane, and C&S Wholesale Grocers and is now poised to process billions of dollars in rebates and make deal management simpler. The Market Medium solution will be integrated quickly into Vendavo's existing solutions to complement and augment existing workflows in quoting and negotiations to include rebates and channel incentive programs.



Vendavo
Website: vendavo.com



Meeting growing demand for targeted cancer therapies

The global market for high-potent active pharmaceutical ingredients (HPAPI) continues to grow. HPAPI compounds have cell-killing abilities at low doses and can result in reduced side effects for patients. They are used in novel cancer therapies, including antibody-drug conjugates (ADCs), which are changing the landscape of cancer treatments. To meet growing demand, Merck's Life Science business sector has doubled its HPAPI production capacity with the expansion of its facility in Verona, near Madison, Wisconsin, USA. This new €59 million, 70,000 square foot facility will allow Merck to meet the need for key cancer treatment components, according to Matthias Bucerius, head of Synthesis & ADC CDMO at Merck.

Merck is a leading science and technology company. The company is headquartered in Darmstadt, Germany and operates as MilliporeSigma in the U.S. and Canada. Over the past decade it has continued to grow its life sciences business, notably through the 2014 acquisition of Sigma-Aldrich, which included a highly attractive set of established brands such as SAFC and BioReliance, in addition to Millipore and Milli-Q, as well as an efficient supply chain supporting the delivery of more than 300,000 products. The acquisition additionally ensured that Merck could cover every step of the biotech production chain, and create a complete end-to-end workflow with enhanced customer service, a simplified customer

interface and a leading distribution platform.

The Sigma-Aldrich acquisition also included the Verona site, a high-potent active pharmaceutical ingredients (HPAPI) production facility and center of excellence for both HPAPI and ADC compounds. Merck has now expanded the capacity with the expansion for HPAPI compounds with six new labs. The site's manufacturing capacity has been doubled.

Merck expects that global demand for these compounds will continue to grow and this expectation indeed is in line with market analysis findings. The global high potency active pharmaceutical ingredients market size is expected to reach USD 38.84 billion by 2028,

according to a 2021 report by Grand View Research, Inc. It is expected to expand at a CAGR of 8.4% from 2021 to 2028. The market is driven by an increased focus on targeted therapies and a surge in demand for cancer therapies.

The rising prevalence of cancer is a major factor expected to drive the market for high potency active pharmaceutical ingredients (HPAPIs). According to the WHO, cancer is the second biggest cause of death, causing over 9.6 million deaths in 2018 and the use of tobacco is responsible for 22% of cancer deaths. As per the CDC, the risk factors such as lifestyle changes including smoking, obesity, alcohol consumption, and exposure to UV radiation from the sun or tanning beds have contributed to the overall burden of the disease. Moreover, the cost of cancer care is anticipated to reach USD 174 billion by the end of 2020, which is anticipated to accelerate the market growth.

"As part of our commitment as a company to scientific and human progress, we play a significant role in the fight against cancer," says Mr. Bucerius. "We see increasing demand



for the key components that we produce in Verona, due to their effectiveness against cancer at lower doses and the trend towards more targeted therapeutics. Lower-doses of these therapies reduce the negative side effects for patients who are taking on this critical fight. With the increase in capacity of our Verona site, we are now positioned as one of the largest manufacturers of single-digit nanogram occupational exposure limit (OEL) CDMO providers in the world. HPAPIs are measured with the most potent registering less than 10 nanograms per cubic meter. Single-digit nanogram HPAPIs require highly

specialized handling, which is reflected by the OEL designation."

Mr. Bucerius emphasises that the Verona site has been manufacturing and developing compounds for over 30 years. "As a company overall, we have many years of experience in this field."

This experience serves Merck well as HPAPIs are highly potent and cannot be produced under normal manufacturing conditions: expanding a HPAPI site is not exactly straightforward. Both operators and the environment must be protected from exposure to compounds. The level of containment required depends on the

potency of the product, and significant expertise (and experience!) is needed to determine the level of containment necessary to adequately prevent exposure. Effective containment is achieved through a combination of appropriate facility and equipment design, including engineering and proper processes, process management systems and training. Merck's Verona, Wisconsin site was the second facility in the world to be SafeBridge®-certified and the company continues to meet these rigorous safety and containment requirements necessary to this day. As a center of excellence, Merck's expanded Verona facility has a global role.





“With the capabilities we now have in place, we are offering a very differentiated experience for our customers and for innovators around the globe,” says Mr. Bucerius. “We can help them streamline all phases of their process, and above all reduce development processes and release timelines, with the end goal of bringing therapies to patients quicker.”

In addition to HPAPI production, Merck also has extensive experience developing and manufacturing ADCs. Being the first CDMO to manufacture commercially approved ADC drugs in North America, the company recently launched new technologies to advance ADC therapies. Its unique ChetoSensor™ technology gives new promise to ADCs by alleviating solubility challenges, and Merck’s new DOLCORE™ platform significantly reduces development and manufacturing time required, increasing speed-to-market by up to a year, ultimately getting needed therapies to patients quicker. With more than 30 years of CDMO experience in the development and manufacturing of HPAPIs, linkers and mAbs, Merck offers significant expertise in both clinical and commercial manufacturing. The company also has extensive CDMO experience in viral vector, lipids, LNP and mRNA manufacturing— from pre-clinical to commercial — helping to streamline

steps of drug development and production with a single, highly experienced partner. Additionally, BioReliance® contract testing services are integrated into the overall Services offering to further streamline the development path.

As Mr. Bucerius points out, Merck has strengthened its mRNA business through two significant acquisitions. At the start of 2021 it acquired Germany-based, mRNA contract development and manufacturing organisation (CDMO) AmpTec. The deal enhanced Merck’s expertise in developing and manufacturing mRNA for its customers for use in vaccines, treatments and diagnostics applicable in Covid-19 and various other diseases. According to Merck, the success of mRNA-based vaccines for Covid-19 lays the path to accelerate the development of these therapeutics for many other diseases. By combining AmpTec’s PCR-based mRNA technology with Merck’s extensive expertise in lipids manufacturing, the company is able to provide a truly differentiated and integrated offering across the mRNA value chain, with the aim of significantly decreasing supply chain complexity and enhance speed-to-market. Merck’s Life Science business sector’s SAFC portfolio includes lipids, which serve as major components for

mRNA therapeutics formulation including for Covid-19 vaccines. In North America, Merck KGaA snapped up biopharma CDMO Exelead as part of its expansion into the quickly growing mRNA therapy market. Exelead specializes in complex sterile injectable formulations. The CDMO’s formulations include lipid-nanoparticle-based drug tech that is key in mRNA vaccines used to prevent COVID-19.

“There’s a lot happening at Merck: we operate in a very dynamic environment,” says Mr. Bucerius. “With our team and our workforce, we are passionate about following the science to tackle some of the world’s greatest health threats. Our mission is to improve lives. That’s why we come to work every day: to make a real difference, and work hand in hand with pharma and biotech to get novel treatments to patients sooner.”

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Control over long-tail spend

Global corporate payment specialist AirPlus International and Danish Fintech Mazepay have entered a strategic partnership. The two companies will jointly help corporate customers to simplify their indirect procurement processes. The focus of the joint solution will initially be on medium and large-sized European enterprises. It is planned to be extended into other regions at a later stage. The joint solution provides an easy and secure way to empower the employees to purchase in a compliant way using AirPlus Virtual Cards and the Mazepay spend management platform, ensuring that all approvals have been completed according to company policies. It helps enterprises get in control of long-tail spend. This is important as one of the main difficulties with long tail spend management is poor data visibility, as Stefan Waelde, Head of B2B payments at AirPlus International, explains.

AirPlus International is a leading international provider of solutions in the corporate payment segment. The company initially focused on cost management of business travel but has evolved to also cover other purchasing activities. It is currently positioned as the corporate world’s single payment partner to cover business travel, events and procurement expenses.

“We roughly serve 49,000 corporate clients around the world, covering 56 countries,” Mr. Waelde points out. “We are the market leader in Germany, the number two in Europe, and the number three globally in this space. Our value proposition is that we consolidate financial transaction data, and offer reconciliation services to customers. This saves time, and creates transparency. The data really adds value for corporate customers. With

AirPlus data integration solutions they are able to incorporate all billing data directly into their expense reporting or accounting systems. This greatly speeds up the handling and processing of their expenses.”

AirPlus International’s partnership with Mazepay mainly serves to address long-tail spend management issues. Long-tail spend refers to the 20% of spend that typically goes unmanaged within an organisation. This 20% tends to be spread across multiple spend categories and via a large number of low value transactions with numerous suppliers, many of which are used very infrequently. To give companies better control over their long-tail spend, AirPlus offers a virtual card solution. “Customers can empower their organisation to easily request a virtual card for each individual purchase with

specific approvals, controls and limits,” Mr Waelde explains. “We also offer an API so that other partners can link to our infrastructure on behalf of customers.”

He is thrilled about the value Mazepay adds to the AirPlus offering. “It allows us to expand our global leadership position within travel payments to the B2B area – especially within the long-tail spend segment, which we know that all our customers are really struggling with from both a cost and compliance perspective. Our joint solution will make it much easier to manage and pay both one-off expenses and recurring purchases.”

Mr. Waelde emphasises that while Mazepay is a fintech, the company’s founders have an extensive background in the payment space. “They understand both procurement and payment, which makes them a great fit for AirPlus. We will continue to build our ecosystem with the support of fintech partners such as Mazepay.”

AirPlus International
Website: airplus.com



Invisible antenna to solve 5G challenge

Japanese glass manufacturer Nippon Electric Glass (NEG) has developed a transparent antenna, which is made of a glass substrate, and a repeater, which uses radio wave lenses and does not require power supply, for 5G millimetre-wave wireless communication technology. 5G uses radio waves of two frequency bands, Sub-6 (under 6 GHz) and millimetre wave (28 GHz). To achieve high-speed communication, it is necessary to use the millimetre-wave band, which can secure a wide bandwidth. However, millimetre waves are significantly attenuated in the atmosphere. Due to strong linearity of propagation, they do not diffract behind obstacles. To cover a wide area, a mechanism to resolve these issues is required, and that's exactly what NEG has created, as Mr. Hiro Tanaka, General Manager of Sales at their Electronic Products Division, explains.

Nippon Electric Glass, also known as NEG, is a manufacturer of glass for flat panel displays (FPD) and has about 20% share in the world's production of glass for liquid crystal displays (LCD). The company is listed on the Tokyo Stock Exchange and is a constituent of the Nikkei 225 stock index.

NEG is known as an innovator in its industry and in recent years has concentrated on innovations that can help reduce emissions and reach carbon neutrality. NEG recently succeeded in demonstrating the melting of glass using only hydrogen fuel from a hydrogen-oxygen combustion burner jointly developed with Taiyo Nippon Sanso Corporation. The company also recently developed a new negative electrode

material using glass ceramic for the all-solid-state Na-ion secondary battery, and became the first to successfully operate an all-oxide all-solid-state Na-ion secondary battery integrated with a glass ceramic positive electrode and a solid electrolyte.

NEG's newly developed transparent antenna addresses issues around the adoption of 5G. Transparent antennas generally are considered useful for integrating antenna functionality in surfaces while maintaining visibility, such as vehicle windshields and windows. The new generation of IoT, 5G and automotive radar devices with unique enclosures requires advanced antenna materials that can meet strict form requirements.

The invisible antenna which NEG has created has a special antenna pattern on a

glass substrate, whose dielectric constant and loss tangent are the smallest in the world. This is a highly efficient transparent antenna. The size of glass substrates can be increased, making it possible to manufacture multiple products from a single substrate. This contributes to improving the antenna productivity and enables formation of antennas for multiple bands on a single substrate. By making the antenna transparent, the antenna functionality can be added without spoiling the design and landscape of an installation location. The antenna can be installed in various locations, such as windows, walls, displays, and vehicles. The repeater, which is the other newly developed product, consists of two radio wave lenses and a waveguide. It receives and retransmits radio waves and changes the direction of radio waves without power supply even under circumstances where radio waves are blocked by walls and window glass. By changing the shape of the lens, radio waves can be transmitted in a certain direction or over a wide range. The lens is not subject to deterioration caused by ultraviolet rays because it is made of glass. It can be used stably over a long period in various places, both indoors and outdoors.

"There are several issues of the millimetre waves, significantly attenuated in the atmosphere, not diffracting behind obstacles and absorbed in walls," says Mr. Tanaka. "Our newly developed transparent antenna and the repeater solve these issues."

GLASS FOR FUTURE

Nippon Electric Glass

GLASS FOR FUTURE

Nippon Electric Glass

Nippon Electric Glass (NEG)
 Website: neg.co.jp