Digital Innovation

INTERNET CONNECTIVITY

WE TALK TO GABRIELE BARTOLUCCI, HEAD OF PROCUREMENT AT EOLO

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WELCOME

Welcome to the bumper February edition of Digital Innovation Magazine, our first for 2021! Is it too late to send our readers good wishes for the year ahead? With news of a vaccine rollout, we can allow ourselves a glimmer of hope that normal life may soon return, so we have decided to kick off 2021 in style – with four exclusive interviews for you! I have been privileged to chat with Gabriele Bartolucci, Head of Procurement at EOLO (**p6**); Andreas Braun, Managing Director at Accenture (**p26**); Angel Cachon, Director of Digital and Commercial Development at Securitas Direct (**p60**); and Diego Mombelli, Global Supply Chain Director at Asmodee Direct (**p90**). We would like to thank all of our interviewees for their valuable time – it was a pleasure to talk to you all.

So, what else have we got lined up for you this issue? We discuss the role of AI in revolutionising hospital disinfection on page **36**. Thanks to UVD Robots, tech now has a part to play in fighting the spread of Covid-19 and reducing Hospital Acquired Infections (HAI). And we tackle the question of how to attract more women in STEM on page **46**. What can we do to recruit and retain our future female tech leaders?

We love a top 10 round-up, so we bring you some of the most promising European AI start-ups on page **76**, along with a list of our favourite influential European tech Instagrammers (**p116**).

Plus, we present an intriguing article on how the IoT can help in our sustainability efforts to save the planet (**p104**), as well as our carefully selected start-up of the month feature (**p128**)… It's a good one!

Happy reading!

Anna

CONTENTS

EOLO

OVERCOMING THE DIGITAL DIVIDE

Gabriele Bartolucci, Head of Procurement at EOLO, explains why internet connectivity should be available to everyone, regardless of geographical location.

Written by **Anna McMahon** • Produced by **Jennifer Davies**

Italian telecommunication company, EOLO, specialises in internet connectivity, with its own ultra-wide band network, independent from the main Italian service providers.

Founded in 1999, 20 years later, it is now able to reach 6,500 municipalities countrywide, with a network of more than 3,000 BTS (radio repeaters) and 10,000 kilometres of optical fibre backbones.

The mission of EOLO is simple – to guarantee everyone's right to connectivity by keeping the person at the centre, with the aim of improving their quality of life and bringing value to organisations. The company has more than 490 employees at its Varese headquarters, as well as a network of over 10,000 collaborators, technicians and commercial partners, connecting over 500,000 households and businesses in Italy, with a growth rate of over 12,000 new customers per month. In the last financial year, EOLO's revenue was 170 million euros, including a 25 per cent increase compared to the previous year.

Gabriele Bartolucci has been Head of Procurement for the last three years. He believes what makes EOLO's proposition so attractive is its unique business model. He explains, "We own a network of millimetric waves with which we connect the small cities of our country, where the main ISP doesn't reach. For

490
Employees at EOLO's Varese headquarters

500K+
Households and businesses connected in Italy

€170m
EOLO's revenue last year

> "We believe in teamwork and we are continuously asking ourselves how we can do it better"

Gabriele Bartolucci, Head of Procurement at EOLO

€200,000

EOLO invests more than 200,000 euros each year in the development of its workforce

example, C and D clusters, also known as market failure areas. To better understand why this is a key factor to our success, you have to understand the orography of Italy. 35% of the land is covered by mountains, and 60% of the Italian people (36 million citizens) is living in small cities and villages where the fiber doesn't reach. The digital divide has been an issue for years and was dramatically highlighted by the Covid-19 pandemic. Many people and students were forced to work and study from their homes. The lack of connection was a truly significant issue, so we spent 2020 boosting both our backbone network and our supply chain."

Thanks to the vision of Mr Spada, EOLO's CEO, daring to bring connectivity to areas where other operators did not intend to go, the company has established itself on the market as the fifth national telecom operator. Gabriele says, "Our strength has always resided in people and in the ability to manage relationships. The organisation is made up of people with different skillsets, along with our partners and suppliers. We are among those companies where business is H2H (human to human) end to end, rather than B2B or B2C."

EOLO invests more than 200,000 euros each year in the development of its workforce. Gabriele explains, "We believe in teamwork and we are continuously asking ourselves how we can do it better. The

DEVELOPING INNOVATION, DELIVERING EXCELLENCE FOR 5G NETWORKS

EOLO CONNECTS HOUSEHOLDS ACROSS ITALY WITH 5G SPEEDS USING MARKET-PROVEN INTRACOM TELECOM TECHNOLOGY

Intracom Telecom is a global telecommunication systems and solutions vendor operating for over four decades in the market. The company has become the benchmark in Fixed Wireless Access (FWA) and innovates in the 5G/4G wireless fronthaul, midhaul and backhaul. Intracom Telecom invests significantly in R&D programs, thus developing cutting-edge products and competitive solutions. It has strong participation in the EU flagship initiative for 5G and has been significantly involved in the EU Horizon 2020 research framework. The company operates own R&D centers, one of which in Italy, and production facilities in the EU, and employs 1,800 highly-skilled professionals worldwide. Since 2014, Faini Telecommunication Systems, a world known Italian antenna manufacturer, has become a member of the Group. Intracom Telecom also offers a comprehensive portfolio of Telco & Enterprise Software & ICT Services, under the Platform as a Service (PaaS) concept.

Key Solutions for EOLO's Success

EOLO's ambition is to become the first internet service provider offering 5G ultra-broadband speeds on a fixed wireless network in Italy. For this reason, the company has acquired, on a national scale, the usage right for 224 MHz at the 28 GHz spectrum band, which is ideal due to transmission and capacity characteristics. EOLO's undertaking is mainly in suburban and rural areas, serving large parts of the population impacted by the digital divide.

↘ Ultra-Broadband Access

EOLO selected **WiBAS™**, after a careful and lengthy process of evaluation. WiBAS is a FWA product line, operating at microwave and millimeter wave bands (10.5 GHz, 24.25-29.50 GHz). It follows a hub and spoke architecture with base stations implementing wide service area footprint and ultra-broadband connectivity to the respective remote terminal stations.

The architecture of WiBAS is based on radios which can either operate as Point-to-Multipoint hub or as a Point-to-Point node, offering high capacity reaching modulation 1024-QAM or higher. Besides the advanced IP connectivity and sophisticated QoS features, the total aggregate capacity delivered from a fully equipped WiBAS base station site is 4 Gbit/s and serving up to 480 subscribers.

The WiBAS product line provides for a variety of subscriber terminal options. These devices must satisfy the demand for high capacity connections as well as allowing for quick and easy installation. WiBAS terminals can satisfy both these requirements because

they are compact and lightweight radios that can deliver several hundreds of Mbit/s to each subscriber. Employing the sophisticated Quality Of Service and networking features that WiBAS supports, it is the perfect fit for operators that want to follow a direct (single WISP) or wholesale (multiple WISPs) access model. The zero touch provisioning features and ease of installation leverage the operator need for fast and effortless deployment. EOLO took advantage of these benefits and managed very quickly to launch a service that is delivering 5G speeds to households.

↘ 5G Backhauling

To provide backhaul for the WiBAS base stations, especially in locations where fibre is not available or expedient to deploy, EOLO after careful study selected **UltraLink™-GX80**, Intracom Telecom's state-of-the-art, all-outdoor E-Band radio (71-76 / 81-86 GHz). UltraLink-GX80 delivers a throughput of up to 10 Gbit/s full duplex while offering industry-leading system gain, resulting in exceptional performance in terms of link range and availability.

The UltraLink-GX80 radio features an integrated Ethernet bridge with a rich set of Carrier Ethernet features for satisfying EOLO's backhaul networking needs in terms of service deployment, QoS and OAM. UltraLink-GX80's compact size and convenient fully outdoor design allows it to be easily and quickly deployed on rooftops or telecommunication towers, while requiring minimal space and supporting infrastructure. Furthermore, its unique integrated Radio Link Quality Monitoring and Diagnostics functionality expedites link impairment determination and troubleshooting, thus enabling EOLO to optimize its deployment and maintenance operations.

↘ Service Provisioning Automation

To accelerate the network roll-out for scales of several hundred thousand WiBAS devices, EOLO selected the **uni|MS™** SON Gateway, a FWA-specific rollout module of the uni|MS Network Lifecycle Management Platform, which enables Zero-Touch provisioning capabilities. Following the physical installation

and alignment of WiBAS Terminal Station, the uni|MS SON Gateway performs auto-discovery and auto-provisioning with the appropriate service profile for each subscriber's service plan, eliminating manual and error-prone configuration actions.

In this deployment option, the uni|MS SON Gateway is seamlessly integrating with EOLO's OSS/BSS infrastructure via REST API to enable status monitoring, performance collection & firmware upgrades. In another deployment option, the uni|MS SON Gateway can interwork with the uni|MS platform's planning and management application modules realizing Network Lifecycle Automation.

Committed to Innovation

Intracom Telecom continuously invests in innovative solutions for Access and Transmission to fulfill the challenging requirements of 5G and beyond. WiBAS is entering now its advanced 5th generation with WiBAS G5, a platform that operates in TDD and FDD mode. The WiBAS G5 can deliver speeds per household exceeding 550 Mbps. The new generation of terminal devices, **WiBAS™ G5 Connect+**, is a new ultra-light & compact terminal station that is capable of operating both in **FDD** or **TDD** duplexing modes and maintain compatibility with the previous WiBAS generation of base stations. Furthermore, Intracom Telecom continues to evolve the UltraLink E-Band radio series with ever higher capacity and enhanced networking features, such as IP/MPLS functionality and SDN-based management. Its next generation all-outdoor radio, **UltraLink™-XR80**, enables a single unit to host a dual E-Band radio offering up to 30 Gbit/s full duplex air capacity, while supporting a disaggregated networking architecture. ■

EOLO philosophy is pervasive. It is very noticeable when you walk around our 18,000 square-metre headquarters."

When Gabriele took on the responsibility for EOLO 's procurement department, he focused on the improvement of three critical areas, as he explains, "The supply chain was mainly based on single sourcing suppliers. This is extremely effective at the onset, but inadequate in safeguarding the company from the risk of shortage or dependency. Meanwhile, we adapted our logistics department to manage several 'no core' activities, as it was continuously overloaded. I especially mean the management of the RMA (Return Merchandise Authorisation) and the refurbishment of the devices swapped from the installed assets. Finally, our process of supplying was systematically delayed in terms of

the requirements of the deployment. The installation process of a BTS takes from six to nine months, from the site choice phase to the confirmation of the installation phase, but the procurement has always been less than three months to provide materials. This process time is often lower than the lead time, and the uncertainty of the supplying reflects on the fixed assets of the warehouse in the balance sheet."

These three streams of improvement were recognised by the management as mandatory for EOLO, applying the principles of Lean Manufacturing, as well as the Constraint Theory, to those streams to highlight the real path of EOLO's value chain, and isolating the Muda (all the possible wastes, re-working, re-design activities) and eliminating them, one by one.

The application of the results of the analysis has taken time to be

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> "SIAE is an Italian company with whom we have enjoyed a longstanding relationship. Our historical network is based on their technology"

implemented in EOLO's systems, but it has already led to clear improvements in the care of the data at the beginning and at the end of project activities, and in the evaluation of the constraints relating to the available installation capacity, as well as the immobilisation value. Gabriele says, "We have started to develop a specific analysis of supply chain risk, launching Kaizen (continuous improvement activity), which is dedicated to the redundancy of the most critical supply lines. The process has been extended to the indirect high spending suppliers (logistic, time and material contracts etc.) because the evidence is that a successful analysis of requirements is time-saving at first, but can also lead to changing a bottle-neck supplier into a leverage one, which is very cost-effective indeed."

The BTS and CPE devices, even when installed, remain EOLO's property and can be re-used if adequately refurbished. The importance of this fact in the balance sheet is closely related to the value of the assets of the company, and to the saving that re-usable devices can generate on investments and revenues. Furthermore, outsourcing this process has allowed the company to focus on its core activities i.e. service delivery and nothing more.

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Gabriele Bartolucci, Head

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d of Procurement at EOLO

EOLO has built strong relationships with its strategic suppliers in fulfilling its goals. Gabriele adds, "We work with a number of respected suppliers including AVM, who are our main supplier of routers. They are well-known in Europe as a producer of one of the best routers on the market in terms of quality. This adds value to our proposition. SIAE is an Italian company with whom we have enjoyed a longstanding relationship. Our historical network is based on their technology. We have also been in partnership with Intracom Telecom since 2017. They are helping us to build the technology of the future. In terms of the quality of

"We work with a number of respected suppliers including AVM, who are our main supplier of routers. They are well-known in Europe as a producer of one of the best routers on the market in terms of quality"

12,000

New customers per month

"ADB is a strategic partner of ours for home routers and repeaters. Its people have been strongly supporting our plans to strengthen our supply chain and protect our business from any risk of shortage, long before the effects of Covid-19"

the connection, they are the best on the market. And last but not least, ADB is a strategic partner of ours for home routers and repeaters. Its people have been strongly supporting our plans to strengthen our supply chain and protect our business from any risk of shortage, long before the effects of Covid-19.

"When we refer to AVM, SIAE, Intracom and ADB, we often talk about the revenue generated with them as a consequence of an intersection of market demand, and, obviously, product quality, supply chain reliability, and efficacy of the people involved. AVM will be participating with us in the sponsorship of the professional bicycle teams, EOLO Cometa and Fundación Contador, as proof of the strength of the relationship that goes beyond the revenue generated over the years."
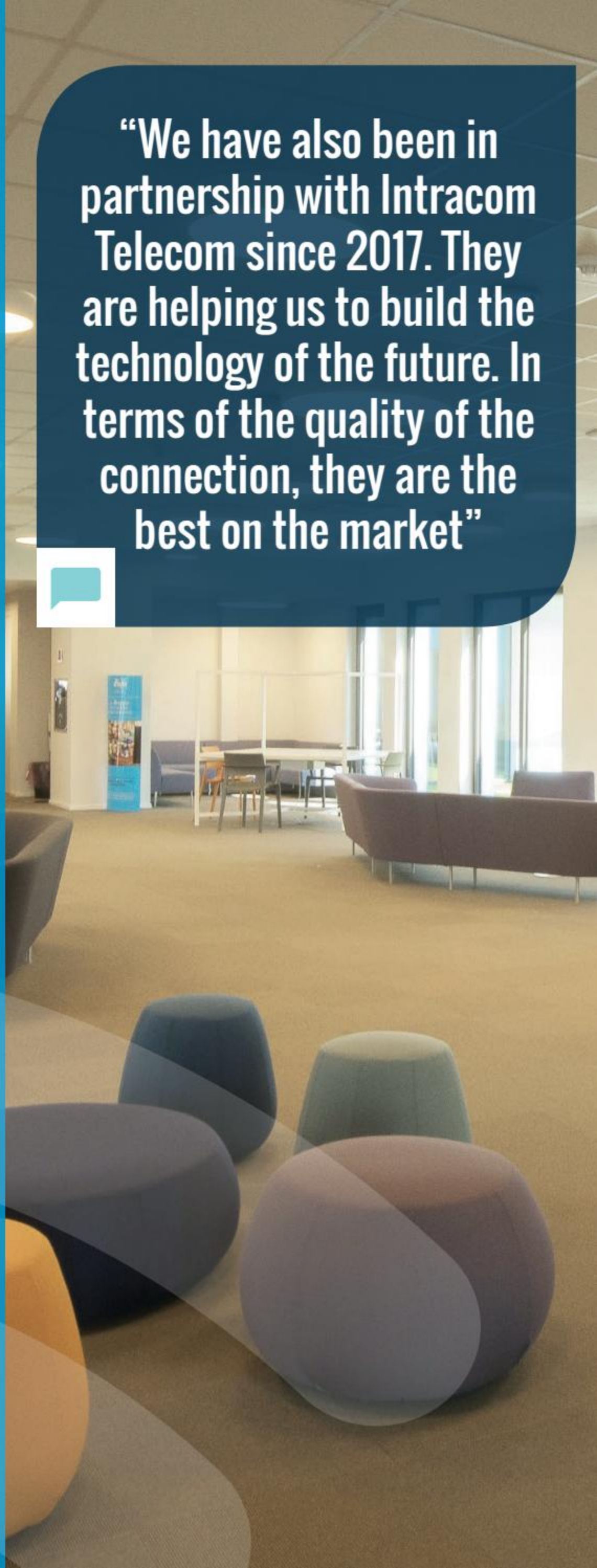
Looking ahead to the future, Gabriele says, "Each company has a gold mine inside that lies in the unexpressed and untouched potential of improving itself and becoming more efficient and effective. The three streams that we have described go together with the responsibility of EOLO towards the environment and people. We believe in the value of interdependence as the foundation of sustainable development – an organisation

cannot regenerate the environment and the society alone. It needs everyone in the value chain to make a real commitment to a better future and share the principles on which this commitment is based."

That is precisely why EOLO invites its suppliers to be part of this journey and co-create a truly transparent and sustainable supply chain. As for exciting projects in the pipeline, EOLO's 'Overcoming the Digital Divide' initiative is a priority. Gabriele concludes, "Overcoming the digital divide of Italy is our first task. The Italian market is made of small companies based in small cities, and in those small cities, lies the future of our country, young girls and boys that deserve a good quality connection to study and work. Leonardo Da Vinci and Raffaello Sanzio were born in villages of Renaissance Italy. We don't want to lose the next ones because of a bad connection! After that, we will be applying the business model of EOLO to all growing countries of Europe with an orography similar to Italy's. Important private equities companies are interested in our services, and we are ready to roll out."

For further information on EOLO, visit www.eolo.it

"We have also been in partnership with Intracom Telecom since 2017. They are helping us to build the technology of the future. In terms of the quality of the connection, they are the best on the market"

THE NEW OIL?

WE TALK ALL THINGS DATA WITH ANDREAS BRAUN, MANAGING DIRECTOR AT ACCENTURE.

> accenture

Written by **Anna McMahon** • Produced by **Danielle Harris**

Q. WHAT IS IT ABOUT BIG DATA THAT PEAKED YOUR INITIAL INTEREST?

A. Originally, I came to what was later called 'big data' via distributed systems/file systems at university. Some of the data we were working with became very big, way too big for the computers available to us at the time. Also, computational power was very limited, so I worked on sharing computational workloads between computers/processors, as well as distributing data over computers in an efficient way. This started in the 1990s, but my interest was, in fact, very much driven from the computer science angle.

Q. WE STARTED TALKING ABOUT BIG DATA IN 2006. WHY IS IT NOT YET THE NEW OIL? WHAT WENT WRONG?

A. Big data brought us the technology to store and process large data. Initially, people thought if the data was available, the business value would come automatically. It didn't. Data in itself has no big value (unless you sell the technology). The value comes via the use cases, but they need to be tailored to the respective industry and make business sense. Consequently, one requires a diverse set of skills; data science, engineering, business etc., plus the need for the right data, legally accessible, and curated.

Two factors limit success in my experience. Companies struggle with their data legacy, i.e. IT and beyond (e.g. processes for data management and governance). Also, they fail to set up data value teams for success, as well as a use case roadmap, with continuous successes built on one another.
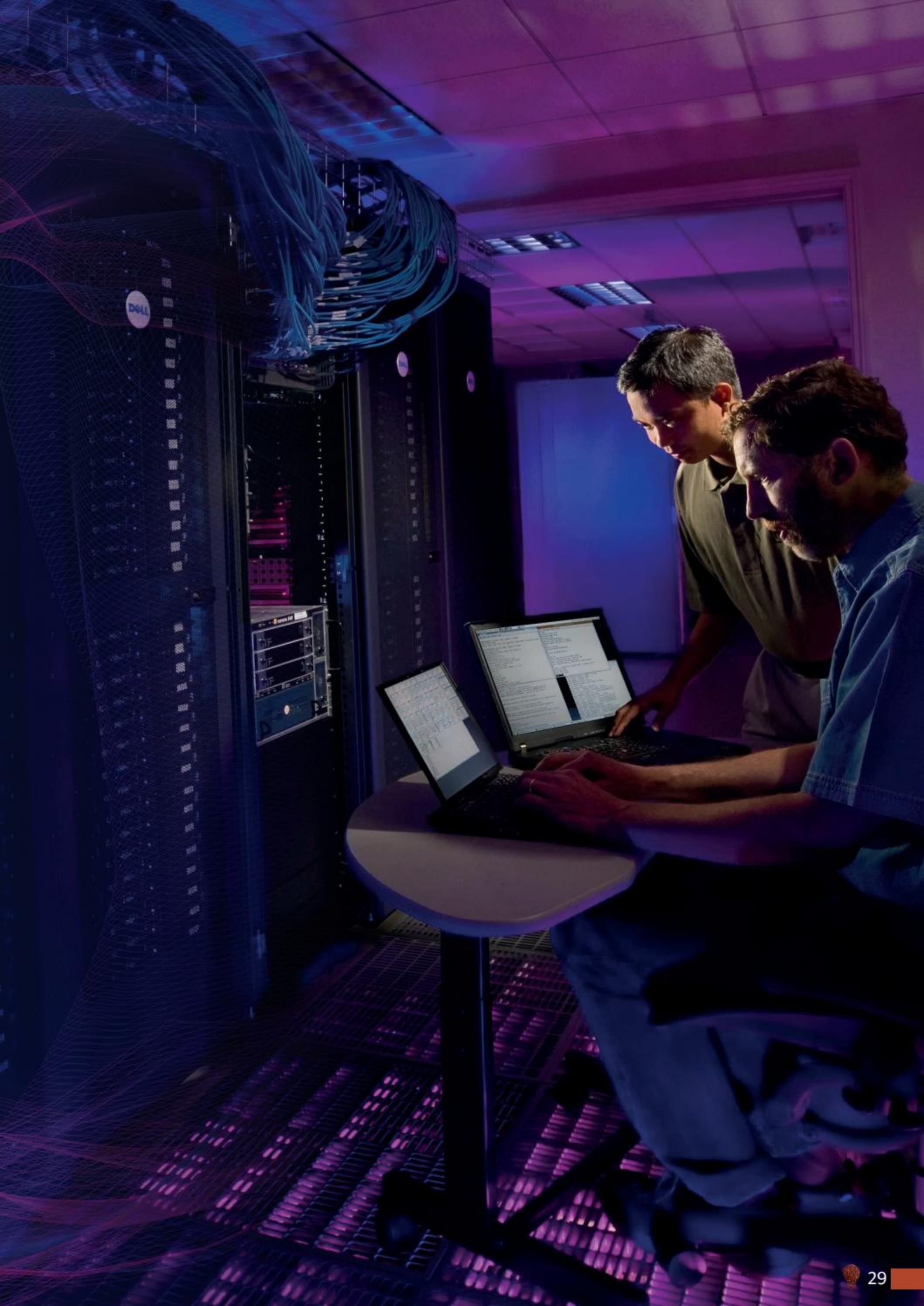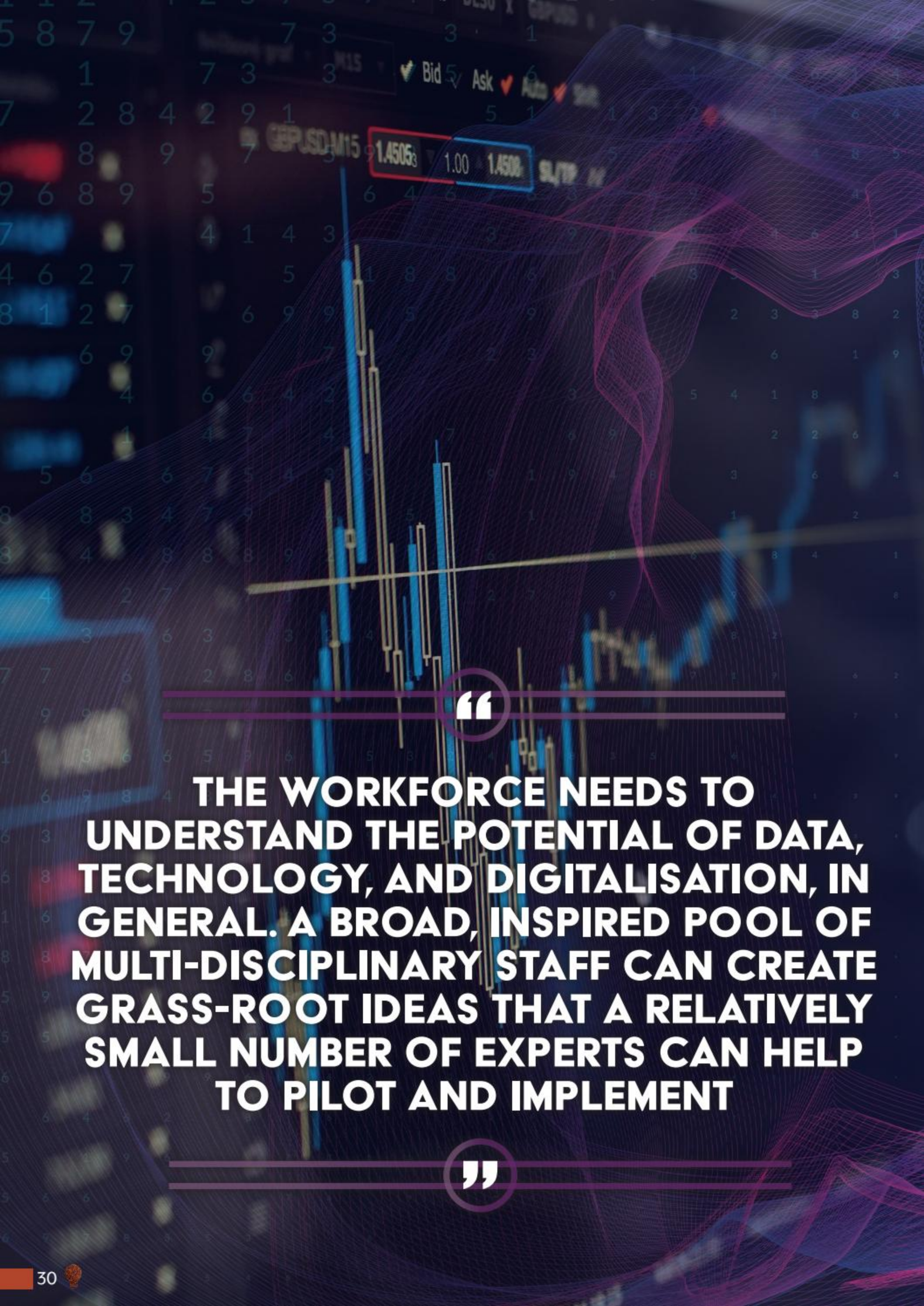
> **THE WORKFORCE NEEDS TO UNDERSTAND THE POTENTIAL OF DATA, TECHNOLOGY, AND DIGITALISATION, IN GENERAL. A BROAD, INSPIRED POOL OF MULTI-DISCIPLINARY STAFF CAN CREATE GRASS-ROOT IDEAS THAT A RELATIVELY SMALL NUMBER OF EXPERTS CAN HELP TO PILOT AND IMPLEMENT**

Q. CAN YOU DISCUSS THE ROLE OF BIG DATA AT ACCENTURE?

A. As a business entity, big data plays a continuously growing role. Initially, it was an enabler for data science/analytics, Machine Learning (ML) and AI. Then it became a discipline in its own right. With the advent of cloud, it is increasingly understood that the cloud as such is basically a big data system, so it now spans all these disciplines.

Q. WHAT DO YOU BELIEVE ARE THE MAIN DRIVER OF ANALYTICAL EXCELLENCE?

A. Data, its orchestration and technology, frankly. Data science is a solvable problem. It fails when data is inaccurate, outdated, inaccessible, biased or wrong. Major data science and ML problems are connected usually to data problems, such as data shift or model under specification. To solve these issues, data technology needs to move towards in-situ ML and single data stores.

Q. HOW ARE MACHINE LEARNING AND AI DRIVING SUCCESS AT ACCENTURE? CAN YOU PROVIDE EXAMPLES?

A. To be clear, we implement data science and ML/AI for our clients' business success. And here we see significant benefits. Studies show that the leaders in AI outperform the laggards by over 35 per cent.

ML/AI use cases at Accenture are classified in four dimensions:

1. Efficiency and cost reduction, including customer/employee convenience and new work

2. Growth, including new business, retention etc.
3. Meeting regulatory requirements
4. 'Moonshots; e.g. new products, services

Examples:

- In banking and insurance, AI is now capable of identifying bad risks, fraud or criminal acts (such as money laundering) before they even happen. While this is a standard procedure with most banks, this knowledge is

**DATA WILL AI
SIMPLER, THAN
DATA BASES, HT
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DATA WILL EVEN
BETTER AND
ANALYTICA**

now increasingly used in other industries (e.g. online stores), or with new purposes (attracting good risks etc.)

- AI is used to reduce workloads (filtering/routing/prioritising of mail, email)
- Improving customer convenience (faster response and resolution cycles)
- Data-driven products/offerings, e.g. to mitigate challenges from demography and address young customers in traditional industries (banking, insurance)

"

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Q. HOW IMPORTANT IS IT TO UPSKILL THE WORKFORCE?

A. Well, originally, we thought everybody needs to be a citizen data scientist. That turned out wrong and even dangerous (e.g. with respect to data protection or false results). We now know that there is a variety of best practices. You can hire someone to implement and collect the benefits.

However, some digital and data literacy is needed (and trainable). The workforce needs to understand the potential of data, technology, and digitalisation, in general. A broad, inspired pool of multi-disciplinary staff can create grass-root ideas that a relatively small number of experts can help to pilot and implement.

Q. HOW DO YOU MONITOR CUSTOMER SATISFACTION?

A. We run surveys and NPS studies on various levels. We also increasingly analyse our data, like touchpoints, sales, journeys etc.

Q. WHAT ARE THE KEY TRENDS FOR BIG DATA AND ANALYTICS FOR 2021 AND BEYOND?

A. Data will go to the cloud in a big but safe way, including application data. This will rapidly unlock the trapped value, as best tools will be immediately ready to be used on your business' data. Data will also become simpler, thanks to hybrid data bases, HTAP, and, once more, the cloud. And better data will eventually enable better and applicable analytical results.

> **WE RUN SURVEYS AND NPS STUDIES ON VARIOUS LEVELS. WE ALSO INCREASINGLY ANALYSE OUR DATA, LIKE TOUCHPOINTS, SALES, JOURNEYS ETC.**

For further information on Accenture, visit www.accenture.com

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UVD ROBOTS HAS BEEN DEPLOYED TO FIGHT THE SPREAD OF COVID-19 AND REDUCE HOSPITAL ACQUIRED INFECTIONS (HAI).

REVOLUTIONISING DISINFECTION

UVD ROBOTS IS A UNIQUE BRAND OF ONE OF THE WORLD'S LEADING GROUPS IN THE DEVELOPMENT OF PROFESSIONAL SERVICE ROBOTS, BLUE OCEAN ROBOTICS.

The company is headquartered in Odense, Denmark, where it develops, produces and sells service robots. UVD Robots has recently been selected by the European Commission directorate-Generale for Communications Networks, Content and Technology (EU Commission) to supply 200 of its autonomous disinfecting robots to European Union hospitals fighting the coronavirus, helping to combat the spread of infection.

The UVD Robot is an autonomous disinfecting robot equipped with UV-C light that kills viruses and bacteria on surfaces and in the air. The General Hospital 'Dr. Ivo Pedisic' Sisak in Croatia deployed a UVD Robot in its 15 operating

99.99%
OF PATHOGENS ELIMINATED

10 MIN
DISINFECTION TIME

100%
AUTONOMOUS

theatres, where results showed no existence of microorganisms after disinfection. At the start of the pandemic last year, the robot was moved to treat Covid-19 departments, where only one staff member has since tested positive for the virus, compared to 37 employees in other departments.

At Gruppo Poloclinico Abano in Italy, six doctors had been infected with Covid-19 before a UVD Robot was deployed, but no cases of Covid have appeared among doctors, nurses or patients following its deployment.

The UVD Robots have now been rolled out to more than 60 countries worldwide. UVD Robots' tender ranked first in the EU Commission's review of disinfecting robots, evaluating technical excellence and maturity of technology, quality of approach in deployment, response time in technical support and maintenance, and overall value.

President of the European Commission, Ursula Von Der Leyen, said, "With this order, we are going even further to help protect healthcare staff, patients and relatives at hospitals at a critical moment.

"With EU funds, the European Commission is buying 200 disinfection robots, which will be delivered to hospitals across Europe to help disinfect patient rooms. We do all we can to support hospitals and patients in these difficult times. And more will follow."

Per Juul Nielsen, CEO of UVD Robots, said, "We are thrilled that our UVD Robots were selected by the EU Commission, which we believe to be the

"WE ARE HELPING FIGHT THE SPREA
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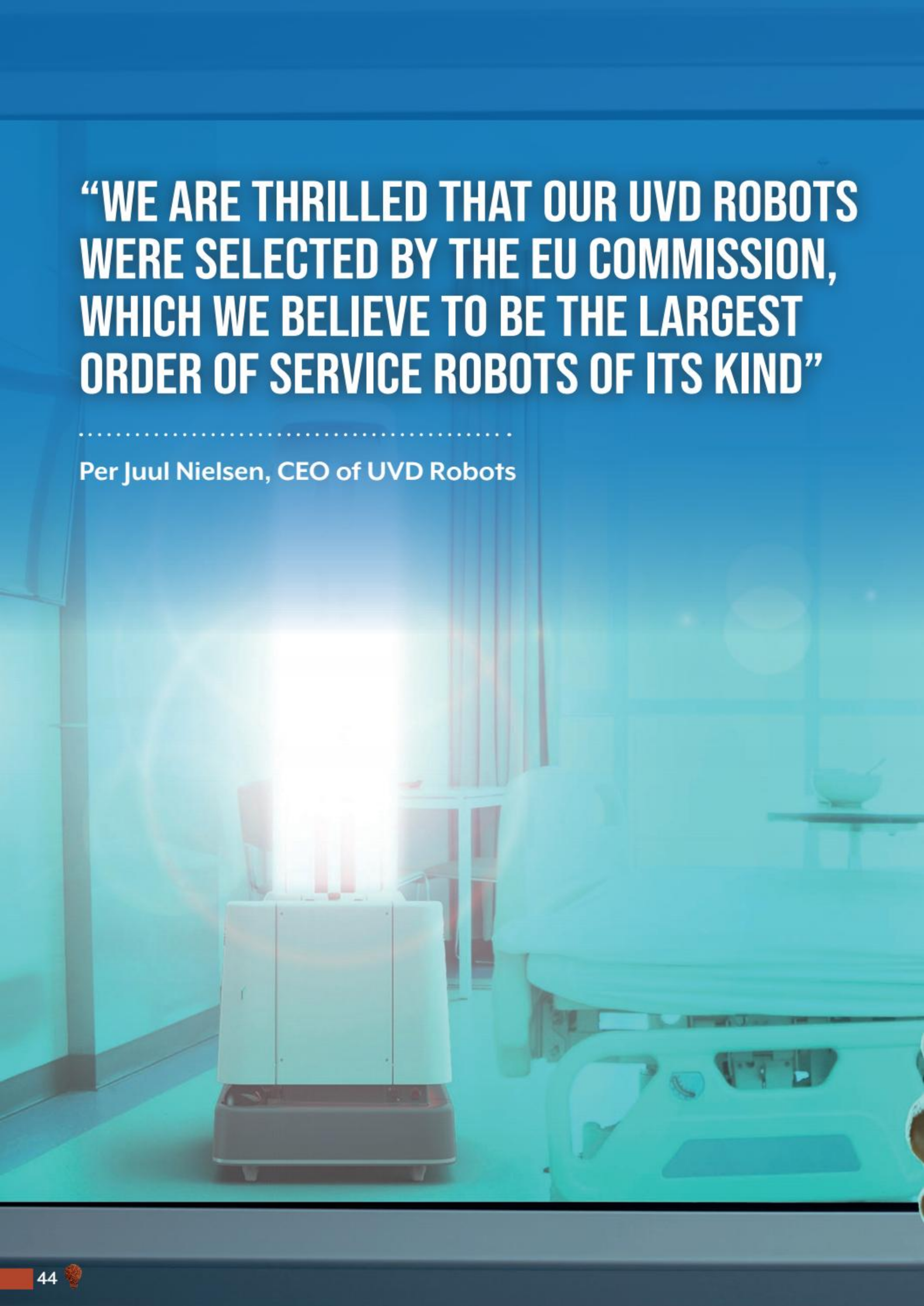Claus Risager, CEO of Blue Ocean
Robotics, UVD Robots' parent company

"WE ARE THRILLED THAT OUR UVD ROBOTS WERE SELECTED BY THE EU COMMISSION, WHICH WE BELIEVE TO BE THE LARGEST ORDER OF SERVICE ROBOTS OF ITS KIND"

Per Juul Nielsen, CEO of UVD Robots

largest order of service robots of its kind. We were the first robot in this category and have set the global standard for autonomous UVC disinfection. An order of this size further validates the effectiveness of UVD Robots."

As the UVD Robot disinfects against viruses and bacteria on surfaces and in the air, it reduces disease transmission by killing 99.99 per cent of bacteria and microorganisms within approximately 10 minutes in a patient's room.

Claus Risager, CEO of Blue Ocean Robotics, UVD Robots' parent company, added, "We are helping fight the spread of Covid-19 while also strengthening prevention against Hospital Acquired Infections (HAI) overall. With this order, we are going even further to help protect healthcare staff, patients and relatives at hospitals at a critical moment."

For further information on UVD Robots, visit www.uvd-robots.com
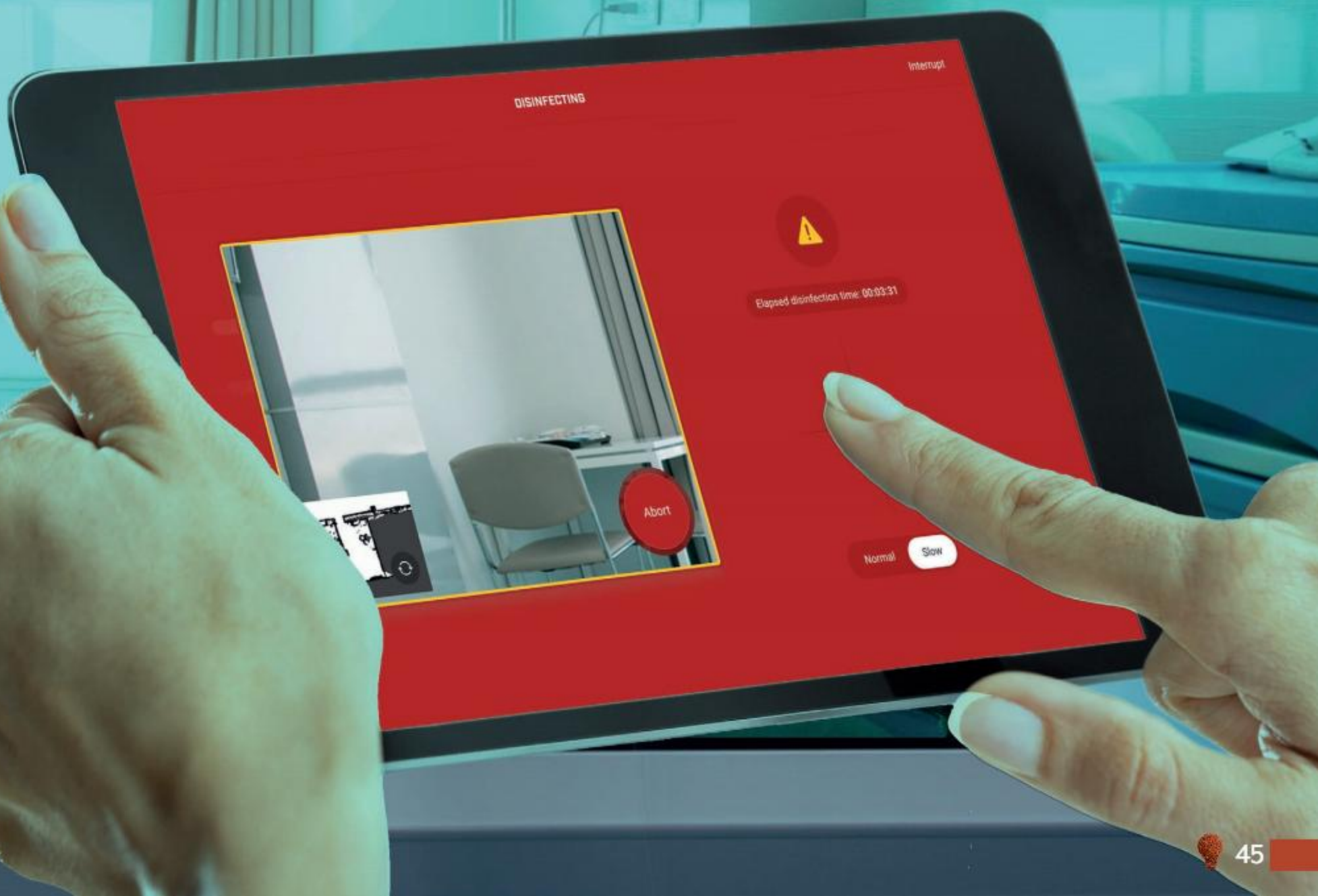
RECRUIT & RETAIN
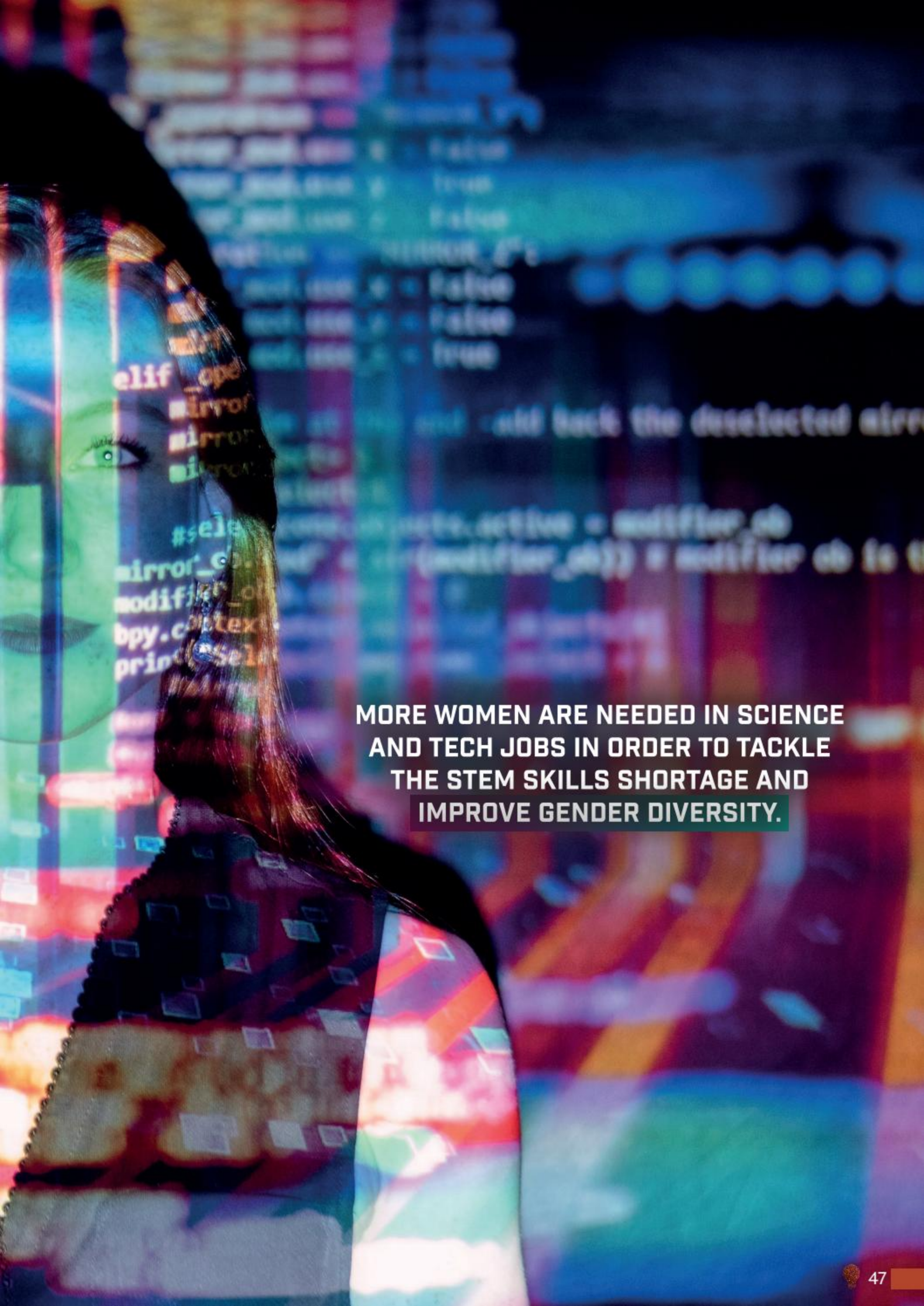
MORE WOMEN ARE NEEDED IN SCIENCE AND TECH JOBS IN ORDER TO TACKLE THE STEM SKILLS SHORTAGE AND IMPROVE GENDER DIVERSITY.

IN A TIME OF RAPID TECHNOLOGICAL CHANGE, THE JOBS OF THE FUTURE ARE UNDOUBTEDLY IN STEM. ACCORDING TO RESEARCH BY STEM LEARNING, ONE IN FIVE NEW JOBS IN THE UK WILL BE STEM-RELATED BY 2022.

Despite this, a huge 89 per cent of science and tech businesses are struggling to recruit.

There is a growing disconnect between skills and business needs, so by prioritising diversity and gender balance, we can work towards bridging the gap. In schools, girls often stop taking STEM subjects after their GCSEs, more women drop out of STEM after university, and the leaky pipeline continues as women climb up the career ladder.

At present, women make up just 24 per cent of the UK STEM workforce. Not only is this a waste of talent, but it is disrupting

economic progress. It therefore makes business sense to step up efforts to attract, retain and promote more women, so what is being done?

RAISING THE PROFILE

With employers crying out for science and tech graduates, there are numerous benefits for women who pursue STEM careers. Not only are employment rates higher for STEM graduates, research by Hay Group shows they earn almost 20 per cent more than their peers.

Salary aside, STEM jobs can be highly satisfying as they provide the chance to make a positive contribution

20%
STEM graduates can earn 20% more than their peers

98%

of female engineers find their job rewarding

to society. According to a 2013 survey by the Royal Academy of Engineering, 98 per cent of female engineers find their job rewarding. Yet, despite the favourable prospects, women are steering clear of STEM subjects and careers.

STEM award schemes help to raise the profile of the industry and shine a light on the array of opportunities available within the sector, inspiring and attracting a new generation of STEM workers. Award winners therefore encourage fresh talent to pursue STEM jobs, as studies by Girlguiding UK have revealed that role models are crucial to inspiring girls to start careers in science and tech.

SETTING UP NETWORKS

Females who progress from higher education into the STEM workforce face various barriers that prevent career progression including isolation, workplace bias, and a lack of flexible working. Women's networks can be an effective way of helping them to manage these issues.

Women in STEM networks increase female participation in STEM by affording opportunities for women to share ideas, ask questions, network and find mentors. They also often provide resources for schools, universities and employers.

Networking websites feature collaborative platforms – online spaces for women to connect with each other and offer advice, support and guidance. There is also a range of sectoral groups

"DESPITE THE FACT THAT GIRLS REGULARLY OUTPERFORM BOYS IN STEM SUBJECTS AT GCSE AND A LEVELS, RELATIVELY FEW GO TO STUDY THESE SUBJECTS POST 16"

available, such as those for women in cybersecurity and those for women working in IT and tech.

REACHING GIRLS AND YOUNG WOMEN

A key way to increase the supply of STEM workers is by focusing on the start of the pipeline. Despite the fact that girls regularly outperform boys in STEM subjects at GCSE and A levels, relatively few go to study these subjects post 16.

Research by ScienceGrrl Campaign revealed that fundamental issues holding girls back include stereotypical ideas about gender roles, lack of encouragement from teachers and parents, and a misperception of what STEM careers entail.

There is a range of initiatives in place to increase the number of girls pursuing science at
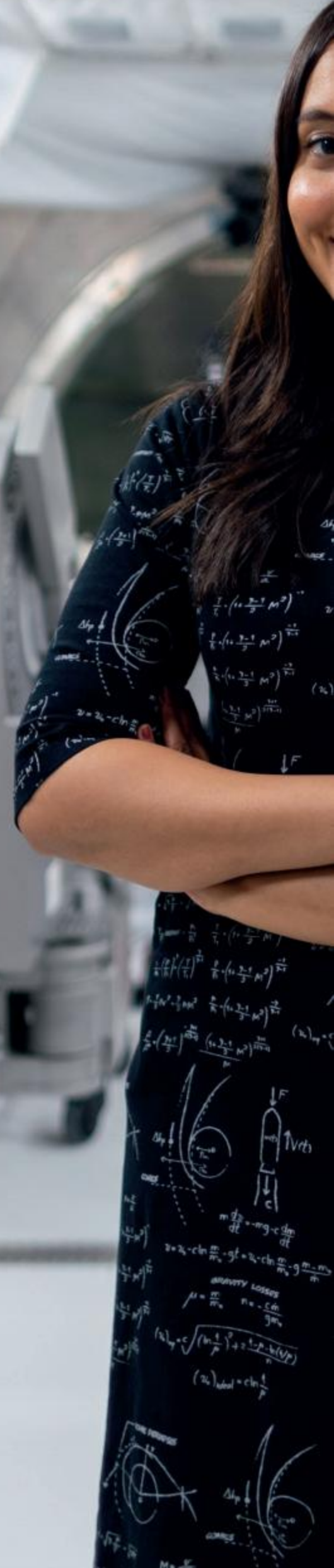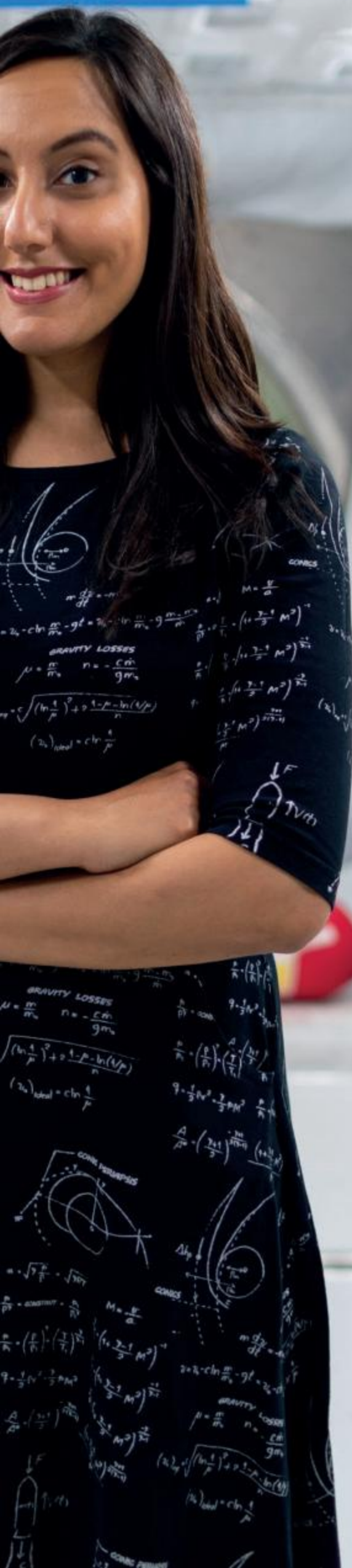
school and university level. Government priorities include developing an inspiring and engaging curriculum, providing training for teachers who teach STEM subjects, and improving career guidance.

Outside of the classroom, there are also initiatives to encourage girls to embrace science and tech. Cardiff-based science and discovery centre, Techniquest, for example, has recently started offering free coding workshops for girls aged between 11 and 17 years old.

BREAKING BARRIERS THROUGH TECH

Gemma Hallett, Founder of youth career app, MiFuture, has a unique approach to getting girls into STEM jobs. The MiFuture app works in much the same way as the dating app, Tinder, with a 'swipe' function that pairs young people with potential jobs or apprenticeships.

When creating MiFuture, Gemma was determined to design a gender-neutral app to encourage diversity, particularly in STEM. A major issue preventing girls from entering science and tech careers is the lack of support from teachers and parents. A study by the Institute of Technology found that 93 per cent of parents would not support their daughter to pursue a career in engineering, and boys are also more likely to have a profession in engineering or tech suggested to them by career advisers.

Gemma said, "With the app, the algorithm does the matching. It doesn't have to come from teachers or parents – we bypass all of that by putting the opportunities straight into girls' hands. This is how we're going to tackle the STEM issue."

WHAT CAN EMPLOYERS DO?

Women with a STEM degree are less likely to remain in a STEM career than their male counterparts, and they are even less likely to progress to leadership roles.

A major issue is the inflexible working environment. An inquiry by the House of Commons Science and Technology Committee found that once women have children, their difficulty in balancing a career with family responsibilities causes them to leave STEM jobs.
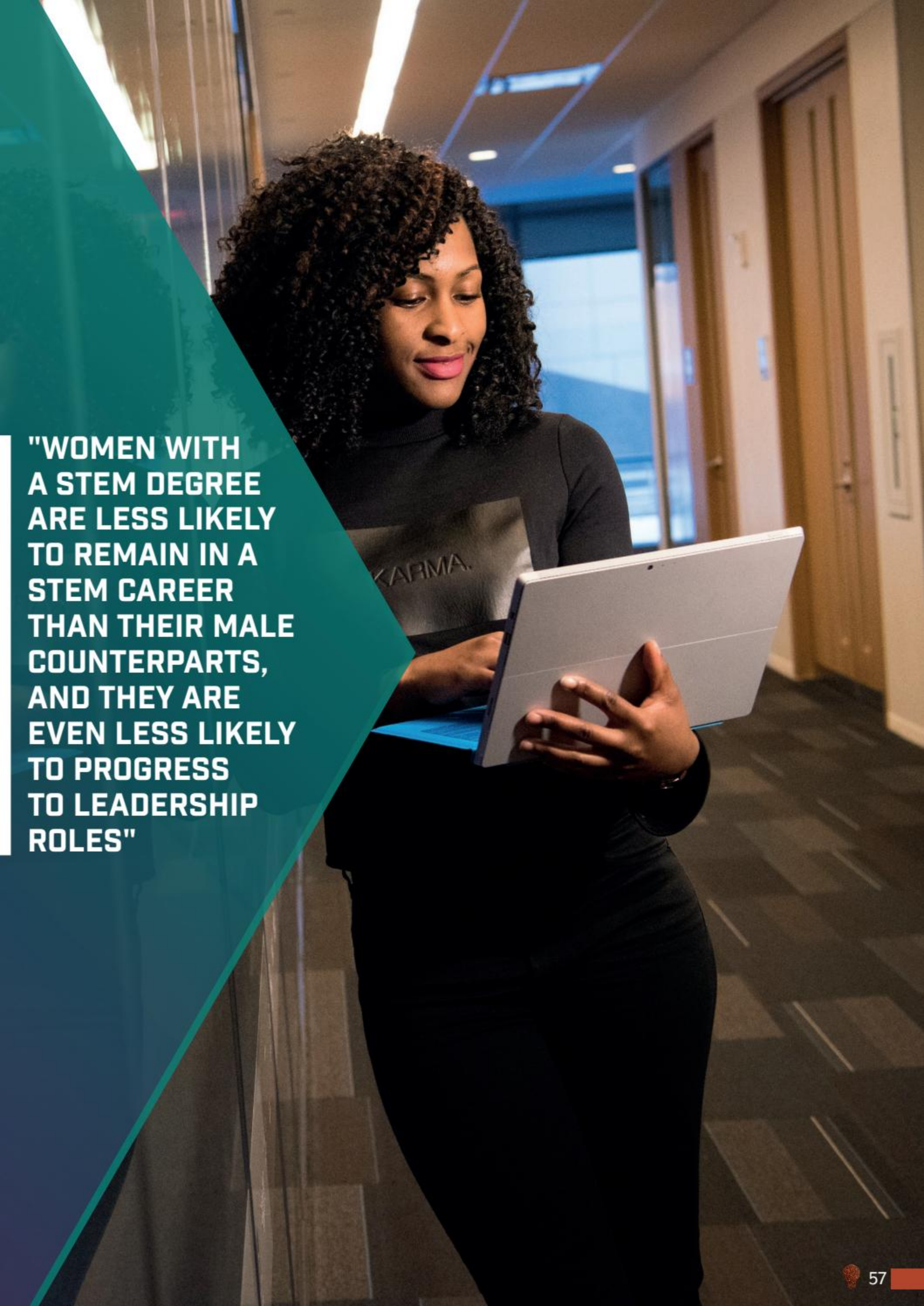
The key element to attracting and retaining more women is to embed diversity and inclusion at the heart of an organisation's culture.

Here are some practical steps that employers can take:

- Write job advertisements in a manner that attracts more diverse applicants
- Embrace flexible working for men and women
- Develop 'keep in touch' strategies when employees are on maternity leave
- Organise unconscious bias training for HR staff and line managers
- Provide coaching, training and mentoring
- Offer quality part-time jobs

For specific advice on how to attract, retain and support women in the STEM workforce, visit the WISE campaign website www.wisecampaign.org.uk

"WOMEN WITH A STEM DEGREE ARE LESS LIKELY TO REMAIN IN A STEM CAREER THAN THEIR MALE COUNTERPARTS, AND THEY ARE EVEN LESS LIKELY TO PROGRESS TO LEADERSHIP ROLES"

INNOVATION
RED WITH
TALKS

50 technology podcast charts,
ge being named Computing
Tech Talks attracts thousands of
a diverse community of tech
al professionals and technology
and stories from people at the
chnology industry.

digital innovation

SIMPLICITY
IS THE ULTIMATE
SOPHISTICATION

● ● ●

Angel Cachon, Director of Digital and Commercial Development at Securitas Direct, shares his vision for digital transformation success.

● ● ●
SECURITAS

Direct

Written by **Anna McMahon** • Produced by **Danielle Harris**

SECURITAS DIRECT IS THE LEADER IN THE EUROPEAN MARKET OF HOME SECURITY AND BUSINESS ALARMS, WITH MORE THAN 23,000 EMPLOYEES AND 3.6 MILLION RESIDENTIAL AND SMB CUSTOMERS.

Angel Cachon joined Securitas Direct two years ago as Director of Digital and Commercial Development. During this time, he has focused on making the best use of available technologies to rethink commercial processes. Angel explains, "As Director of Commercial Development, my main focus has been on people. We are a very special company, as we have the biggest field salesforce in Europe, and up to 3,000 employees in Spain. A big part of our business model is based on face-to-face interactions with customers. Digitalising the way our field salesforce worked was one of my biggest challenges."

Securitas Direct was already advanced in terms of digital innovation when it came to digital marketing and customer operations. But, where the company fell behind was in the digitalisation of its field salesforce operations. Driving the journey towards digital transformation, Securitas Direct had four main objectives, as Angel explains; "When we first started, it was all about making

"DUE TO COVID, WE HAD TO MAKE SOME ADJUSTMENTS TO THE WAY WE WORKED AND THE TOOLS WE USED. IT WAS VERY IMPORTANT TO PROTECT BOTH THE SAFETY OF OUR CUSTOMERS AND OUR EMPLOYEES"

Securitas Direct a data-driven organisation. This involved capturing all the data and giving it a more democratic use, so it is available to everyone in a simple and natural way, enabling every single individual to make better decisions and become more efficient. We also wanted to connect our field salesforce with each other and to our customers, exploiting the geographical dimension of the data, as well as making decisions in real time."

The geospatial management of Securitas Direct's field salesforce presented new opportunities for the company in 2020, in what was a most extraordinary year. Angel says, "Historically, we analysed our business in terms of how many customers we had in each segment and the probability of converting a lead into a booking and a sale. We found that we were not exploiting the geographical locations of our field salesforce. They spend 90 per cent of their time on the field, so it is important to know the potential for new opportunities, the historical conversion rates of each area, the average customer incomes, and where our people are and where they are going. Exploiting in real time the geographical

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relationship between where our field salesforce spends their days and the potential for new commercial leads is key to the next level of success."

In response to the recent pandemic, Securitas Direct introduced a contactless customer experience for face-to-face interactions. Angel says, "Due to Covid, we had to make some adjustments to the way we worked and the tools we used. It was very important to protect both the safety of our customers and our employees. We digitalised all paperwork with a signature-based pin procedure, so you no longer have to sign a contract, and customers receive information via email, as well as WhatsApp, which is more convenient for them. This has made our processes more secure and safe, giving our customers peace of mind."

Securitas Direct has worked with a number of partners on its

"SOLIDQ HELPED US TO DISCOVER HOW TO USE THE TECHNOLOGY AND MAKE USE OF THE DATA IN THE EASIEST WAY POSSIBLE"

"WE ARE MOVING FROM PURE HOME SECURITY TO TOTAL PROTECTION AND CARING OF PEOPLE INCLUDING SECURITY OF PEOPLE OUTSIDE THEIR HOMES, WITH SYSTEMS LIKE GUARDIAN THAT TRACK YOUR MOVEMENTS AND TAKE ACTION IF YOU FAIL TO RETURN IN A GIVEN TIMEFRAME"

Angel Cachon, Director of Digital and Commercial Development at Securitas Direct

"SECURITAS DIRECT'S DIGITAL JOURNEY HAS FOCUSED ON NOT JUST ITS CUSTOMER NEEDS, BUT THOSE OF ITS EMPLOYEES, WHICH, IN TURN, HAS HELPED THE COMPANY'S RECENT GROWTH"

digital transformation journey, but Angel says that SolidQ has been with them right from the start. He explains, "In terms of transforming the organisation into becoming more data-driven, we have worked closely with SolidQ. Companies like ours are not always able to dream up what is possible, so SolidQ helped us to discover how to use the technology and make use of the data in the easiest way possible. It has been a very interactive journey, following agile methodology and making several adjustments along the way. SolidQ was able to understand the end customer use cases, helping us to build a system, with the right data architecture underneath, which collects our data and makes it very easy to interpret by end users, our field workforce."

The key to the successful integration of any new system, in Angel's mind, is to make it simple to use. He explains, "If you need a tutorial on how to use a new dashboard, it will never work. The only way to get 95 per cent of a population using it is to make it feel natural. That is what we have discovered with SolidQ. It is hard to make something so simple and intuitive, but that it is the only way to maximise usability."

"With such a huge number of employees working on the field, Securitas Direct has established a computer-free office. This means that the 3,000-strong field salesforce can now carry out all its business using hand-held mobile devices. Angel explains, "Our field salesforce does not have laptops at all. The only tool they need is a mobile device. It can be carried from one place to another, and as it is used for both their personal and professional lives, it is always with them. We prefer to use app notifications rather than emails because this exploits the way people use their own mobile personal devices. If you receive a notification, it is more likely to trigger a response."

Having experienced such great success in 2020, Angel's team is working on new propositions for 2021, as well as supporting the rollout of Securitas Direct's digital tools to the rest of its 16 markets. He adds, "We are moving from pure home security to total protection and caring of people including security of people outside their homes, with systems like Guardian that track your movements and take action if you fail to return in a given timeframe.

"Another key priority is to work on geographical information systems for sales (GIS). We have collected a huge amount of geographical data, so we need to see how we can make it available and easy to work with, for every single individual in the organisation. We are also keen to keep building long-term relationships with our customers in a digital way, exploiting the channels that are most natural and convenient to them, in a multichannel approach."

Securitas Direct's digital journey has focused on not just its customer needs, but those of its employees, which, in turn, has helped the company's recent growth. In a year that saw many businesses struggle due to Covid-19, Securitas Direct boosted its business as never before. Angel concludes, "We have been so successful, and that's thanks to having the right partners during this journey, and information in real time allowing us to make better decisions. It's a win-win cycle. If everything is working and you are heading in the right direction, you will have even more opportunities for growth."

For further information on Securitas Direct, visit www.securitasdirect.es

SUCCESS *IS MADE FOR SHAR*

NG

Digital Innovation

FEBRUARY 2021 BUMPER ISSUE!

Digital Innovation

WOMEN IN STEM · SUSTAINABILITY

BT

"The team were professional and diligent throughout"

Leigh Feaviour, CTIO for BT's Supply Chain

Sainsbury's
TECH

"Absolute pleasure working with the Digital Innovation team"

Mun Valiji, Chief Information Security Officer at Sainsbury's

REACH FOR

Meet 10 of the most promising
European AI start-ups.

THE STARS

Europe is home to some of the most forward-thinking AI companies and start-ups, many boasting a significant international reach, impressive products and financial health. Here, we celebrate 10 of the top AI start-ups across Europe.

Mapillary (2013)

SWEDEN

Mapillary is a service for sharing crowdsourced geotagged photos, developed by remote company, Mapillary AB, based in Malmö, Sweden. The platform scales and automates mapping using collaboration, cameras and computer vision, generating maps and data for cities and the automotive industry. The company has international partners and clients such as HERE, Esri and Lyft.
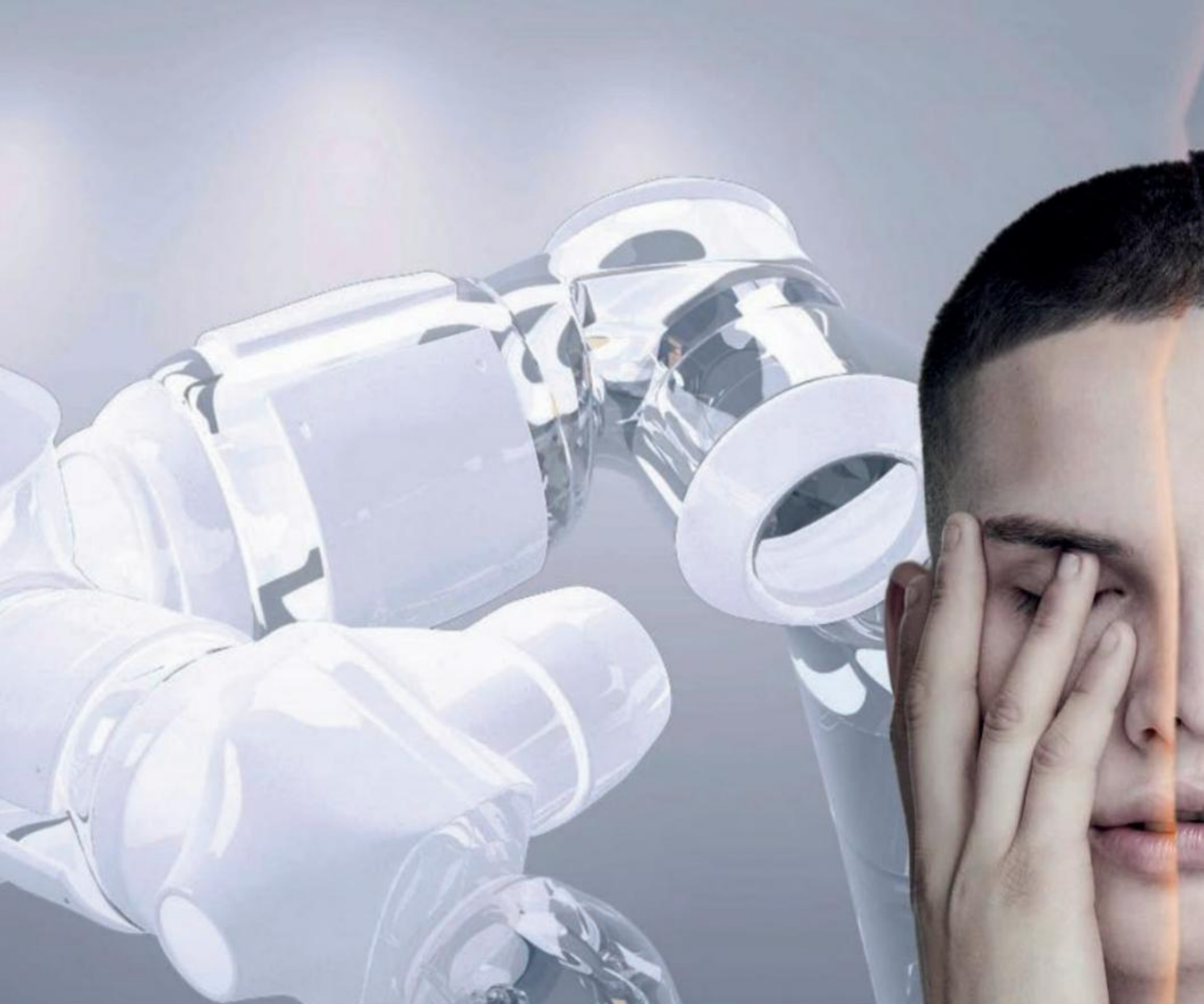
DeepL (2017)

DeepL Translator is a free neural machine translation service developed by DeepL GmbH, and is based in Cologne, Germany. It provides translation in nine European languages, and has received positive press asserting that it is more accurate and nuanced than other freely available services, such as Google and Bing.

Prophesee (2014)

Prophesee provides bio-inspired computer vision solutions for autonomous navigation and connected objects, improving machine efficiency. It develops sensors and systems for applications in many fields of the Industry 4.0 such as autonomous vehicles, industrial automation, IoT, security and surveillance, and AR/VR. Prophesee has partnerships with international companies like Renault Nissan, Intel and Bosch.

Darktrace (2013)

Darktrace is an AI company that specialises in cybersecurity. It offers a platform based on machine learning algorithms to detect and respond to cyber threats in real time across diverse digital environments, including cloud and virtualised networks, IoT, and industrial control systems. Headquartered in Cambridge, UK, and San Francisco, US, with over 44 offices worldwide, it already has a significant portfolio of international customers in all sectors.

Shift Technology (2013)

Shift Technology is a provider of AI-driven decision automation and optimisation solutions for the global insurance industry. The start-up has developed an offering to prevent fraud more efficiently, leveraging the best of data science to automatically detect networks of fraudsters in insurance and e-commerce. The platform is provided as a SaaS model and has delivered positive results for many of its customers, such as Covéa, Axa, CAN and MS&AD.

Graphcore (2016)

UNITED KINGDOM

Graphcore is a British semiconductor company that develops accelerators for AI and machine learning. It aims to make a massively parallel Intelligence Processing Unit (IPU) that holds the complete machine learning model inside the processor. These new processors are designed specifically for AI applications, allowing AI researchers to run current machine learning models orders faster.

Almotive (2014)

Almotive is an autonomous vehicle technology company working towards Level 5 autonomous vehicles. The company describes its approach as "vision-first", a system that primarily relies on cameras and AI to detect its surroundings, training algorithms able to mimic visual capabilities of human drivers. Almotive has partnerships with international companies including Samsung, Volvo or PSA.
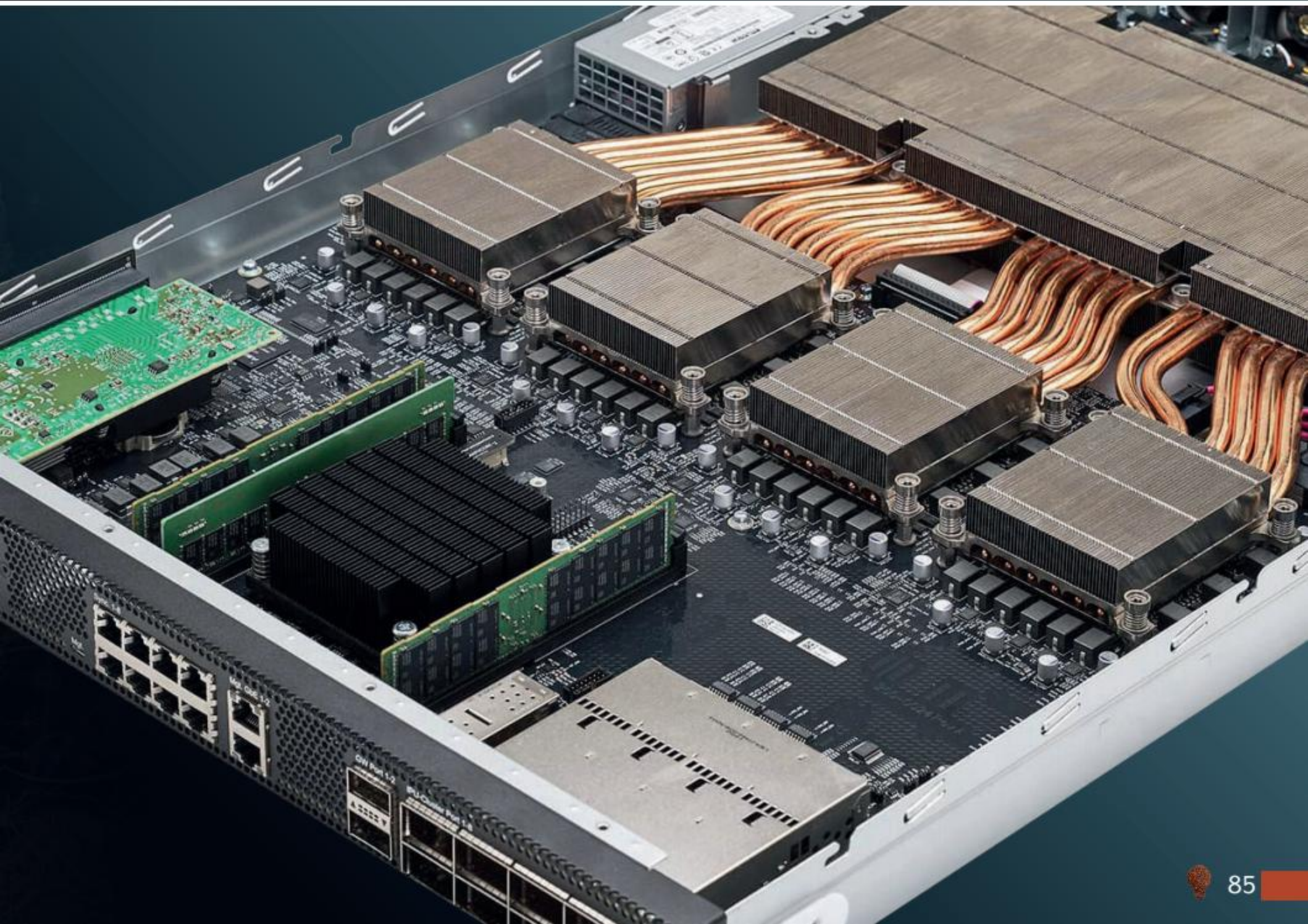
Andreas Kunze
Co-Founder & CEO

Konux (2014)

GERMANY

Konux is an IoT and AI start-up from Munich. The company uses smart sensors and AI-based analytics to deliver insights in real time and allow its industrial customers to better monitor their infrastructure and improve their operations and costs. Konux has its headquarters in Munich and mostly works with large industrial and rail companies like Deutsche Bahn.

Maximilian Hasler
Co-Founder & CFO/COO

Owkin (2016)

Owkin uses machine learning to augment medical and biology research, connecting hospitals with pharma to unveil medical insights. It focuses on health and offers a platform which uses AI techniques to discover biomarkers and mechanisms associated with diseases and treatment outcomes. Owkin has built up a very high-level team, with experts in AI and medical research. Although headquartered in the US, its founders and most employees are French, with the majority based in France.

Prowler.io (2016)

Prowler.io offers a machine learning platform for autonomous decision-making in complex, dynamic and uncertain environments such as financial markets, resource allocation, transportation and logistics, ridesharing, smart cities, and robotics. The start-up combines branches of mathematics, engineering and economic theory to use machine learning to problem-solve efficiently, using different AI techniques to develop behavioural learning and simulation in virtual environments. Founded in 2016, it now has 110 employees from 29 countries.

Game for Success

Diego Mombelli, Global Supply Chain Director at Asmodee, talks traceability, performance and resilience in the cross-continental distribution of the world's favourite board games.

Written by **Anna McMahon** • Produced by **Jennifer Davies**

Asmodee i supplier games, card role-playi

F ounded in Paris in 1995, the company started life developing its own games, as well as publishing and distributing games for smaller developers, and have since acquired numerous other board game publishers. Initially focused on the European market, a decision was made to invest in companies in the US and China, forging Asmodee's path towards becoming the global leader in the creation, sourcing and distribution of board games. Apart from board games, Asmodee has two other platforms; digital games and entertainment, where books or toys make the link with their brands. Examples of some of the company's most popular products include Catan, Dobble and Ticket

is a global
of board
games and
ng games.

To Ride, appealing to both families and game fans alike.

Diego Mombelli was appointed Global Supply Chain Director at Asmodee last year. He is responsible for managing the inward flow of operations including bringing products to the factories and distributing them throughout the world. He says, "When making a new game, we work closely with the developer and have a lot of ideas in terms of its design. We are involved heavily in the process because their marketing team will ask us how much it costs to manufacture some cards, for example. This will impact on the design. We also have all the knowledge when it comes to the production side."

Quality is a huge consideration for Diego and his team insofar
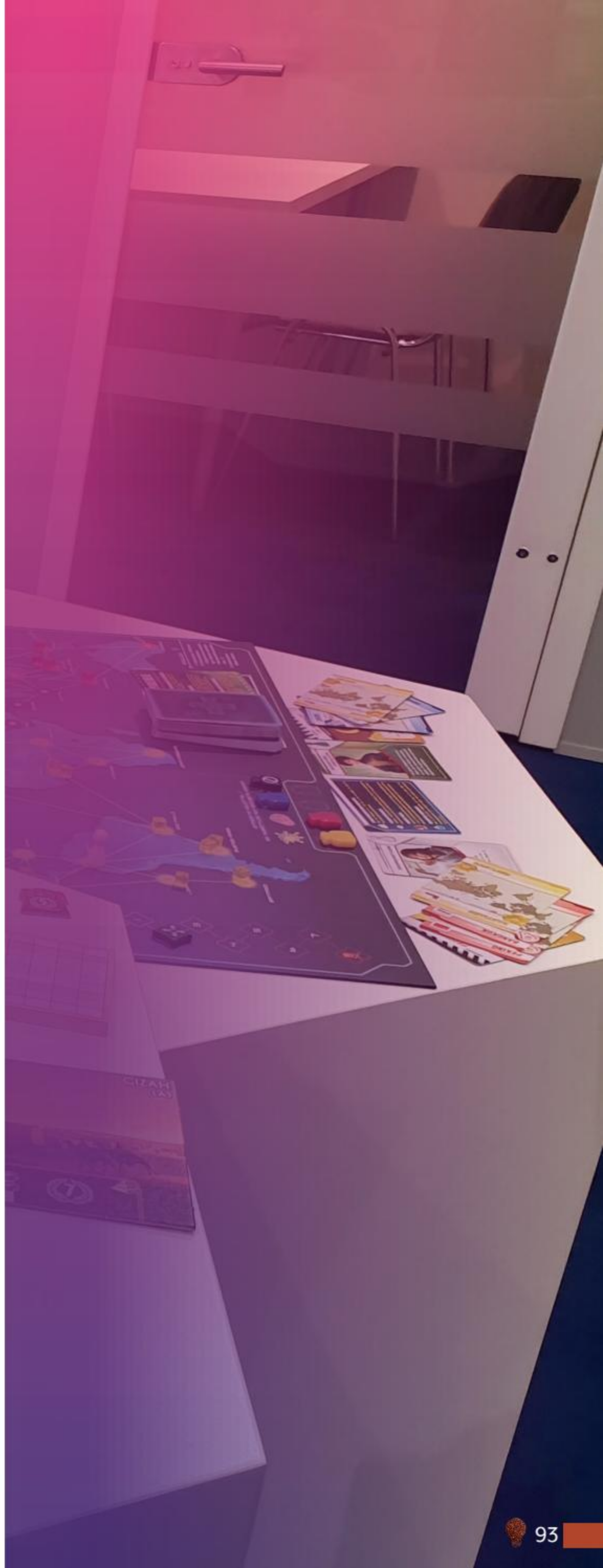
as ensuring products are of a high standard, as well as respecting all the latest trading regulations. But, mastering traceability in logistic flows is perhaps one of the biggest challenges Diego has faced in his first year at the company. He explains, "Amazon is one of our biggest customers, and as the global leader in board games, they gave us a task in which we had only one day to check the traceability of a number of our products. We had to review the barcodes, the origin, and the certification of a huge amount of data. We passed the test! This shows that we have the basis in place for good traceability, but we are investing even more in the tools that we already have."

Improving traceability is one way in which Asmodee has worked towards optimising performance and boosting customer satisfaction. Diego adds, "Having good traceability means you can

"When it come of our games, w Our games are ca to ensure higher very important gam
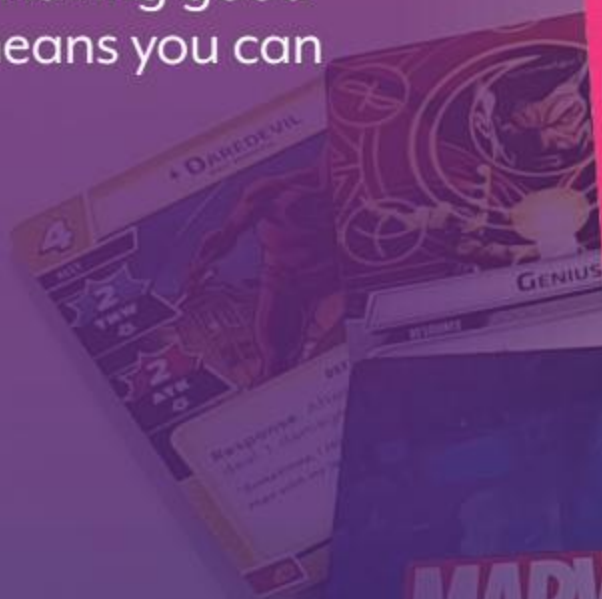
measure the lead times of production, development and transportation. If you have a quality issue, you can identify it early so as to avoid passing the inefficiencies to the customer, and having the processes in place means you can avoid discovering problems at a later stage."

In terms of Asmodee's performance journey, there are three main areas which Diego defines as customer service, quality and costs. He explains, "If we come to the performance of service, Asmodee is historically perceived as having been very good with the small stores. We have three channels in total – small stores, big distributors and large multinationals, with the latter at the top of the pyramid. The further you go up the pyramid, the fewer of our games the channel stocks. We are now focusing on how to better serve the large retailers. We do this by

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MyTower

REMOVING SUPPLY CHAIN & TRADE COMPLEXITY

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standardisation of processes, labelling, and looking at those areas in which the large multinationals have big ambitions. We are following up with updates on the ERP, and with a global transportation management system in place.

"When it comes to the quality of our games, we are the best. Our games are carefully assessed to ensure higher quality. This is very important in the world of games. It is not the same experience if the game does not last very well or a part of it breaks. In terms of the cost performance, we

are positioned as the biggest player. So, in summary, in the next two to three years, we really need to concentrate on continuing to serve the big retailers, as well as the smaller customers."

ALIS International is providing Asmodee with a transportation management system to help achieve this goal. Diego explains, "ALIS is managing most of the logistic flows, mainly from China to Europe. We started implementing the system to help us have full visibility of the transportation. We went to ALIS so we could have a

"Our specific cha...
huge growth, ar...
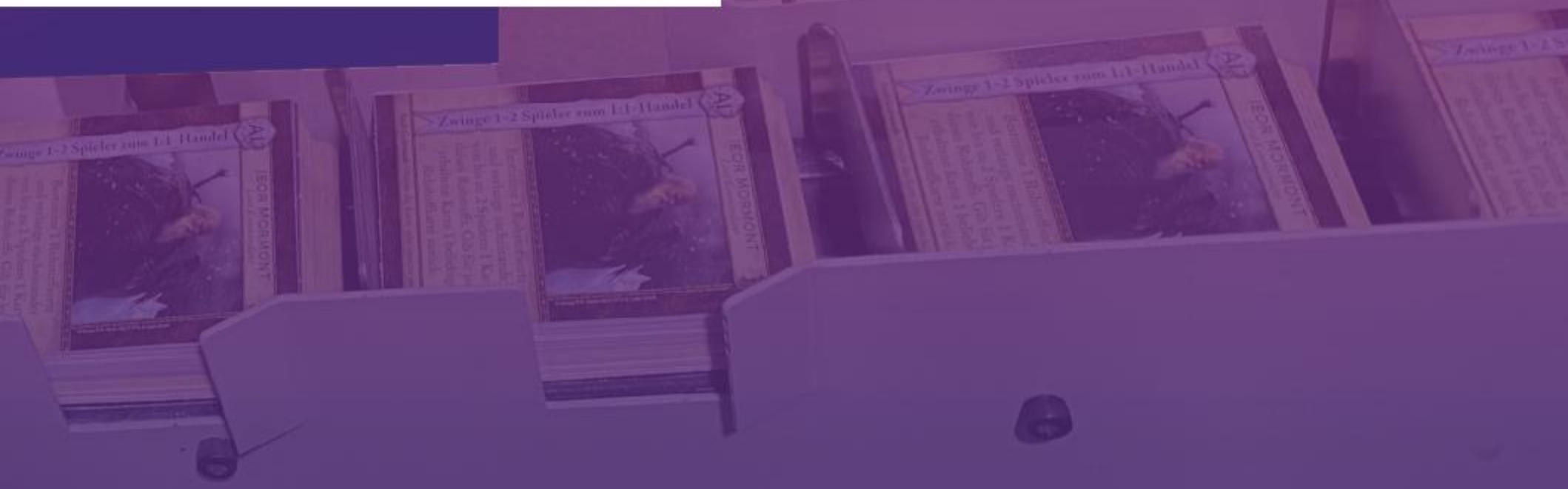solutions. How do...
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Diego Mombelli, Global Supp...

allenge lies in our
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are buying, without
-day business?"

ly Chain Director at Asmodee

control tower in which you can press a button and locate a game, whether it is on its way from China to Belgium, or in a factory in Belgium."

Managing day-to-day complexities such as processes and tools is a difficulty for many small multinationals, but Diego believes the key is to simplify the processes. He says, "Sometimes it is the case that things are not perfect and you have to do a trade-off, but it is all about having an end-to-end view. You also need to think in terms of processes. Our specific challenge lies in our huge growth, and how to bring solutions. How do we best integrate the companies we are buying, without harming day-to-day business?"

"**Asmodee is**
number of new
quickly impleme
solutions, such a
of plastics fro

Asmodee is working on a number of new initiatives to quickly implement environment solutions, such as the reduction of plastics from packaging. Diego explains, "Two years ago, we started making better choices. We decided to focus on two or three projects, and if they went well, we knew we could implement them throughout our community. We had a game with a large plastic piece, so we eliminated that part, but our priority has been to reduce the waste when you open a game. The game's plastic pieces are a second priority, as they are used more than once. We are working, in the next three to five years, to ensure most of our wooden pieces come from FSC sources."

> "We improved the service levels after the initial couple of months, once we knew which strategy to execute. I am very proud of our team because they already had this strategy in place"

In the last year, Asmodee achieved better results than they could have predicted, accelerated by the Covid-19 pandemic. Diego says, "Thanks to Covid, the digital side of the business exploded, with Amazon sales and shops starting to do click and collect. "We already had a strategy that worked really well, and that was multi-sourcing. In our case, we never put all our eggs in one basket. We make one game in three or four factories.

When Covid arrived, everyone panicked and many of our games went out of stock. But, when we analysed the data, we saw China that was a weak link in terms of supply, so we moved production to Europe. Then when Europe became the weak link, we moved back to China.

"We improved the service levels after the initial couple of months, once we knew which strategy to execute. I am very proud of our team

because they already had this strategy in place. Everyone was talking about resilience in supply chain, and that was our success story. We had a resilient supply chain due to our multi-sourcing of supply."

As for 2021, Diego anticipates that the company can expect even further growth, with greater acceleration in Asmodee's eco conception. Diego adds, "We will also be looking at how we can produce more locally. We are willing to invest more in this and in learning how we can increase our local production year on year."

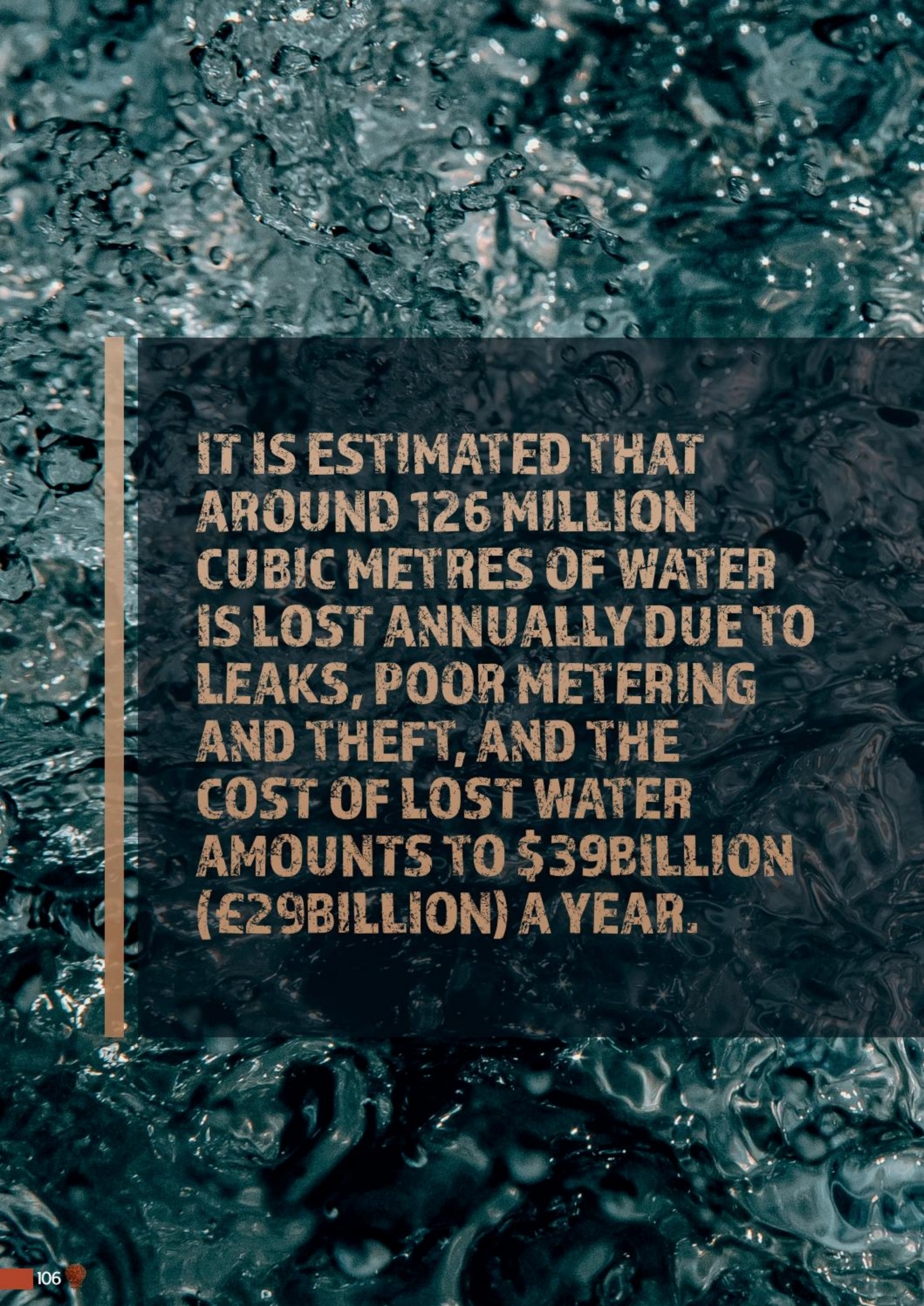**For further information on Asmodee, visit www.corporate.asmodee.com**

PLAN OF

HOW CAN THE
SAVE WAT
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ACTION

OT HELP US TO
ER IN OUR
TY EFFORTS?

IT IS ESTIMATED THAT AROUND 126 MILLION CUBIC METRES OF WATER IS LOST ANNUALLY DUE TO LEAKS, POOR METERING AND THEFT, AND THE COST OF LOST WATER AMOUNTS TO $39BILLION (£29BILLION) A YEAR.

Meanwhile, consumers want businesses to reduce their impact on the planet, so tackling their approach to water management is key.

It is an issue that's particularly relevant to water-intensive industries such as manufacturing and agriculture, which use large amounts of water to produce cars, clothing, crops and other essential goods. But, thankfully, there is a solution.

Smart water systems based on IoT sensors, big data and analytics can reduce the amount of water that is wasted during agricultural and manufacturing processes, improve the efficiency of water distribution systems, and alert companies if toxins or other impurities are detected.

Joseph Vesey, Chief Marketing Officer at Xylem, which creates smart technology solutions to meet water and energy needs, said, "Advances in IoT sensors, communications and cloud computing have dramatically lowered the cost of gathering, storing and analysing data, whether this is from specific equipment, like pumps or valves, or entire processes like water treatment or irrigation.

**ADVANCES IN IoT
COMPUTING HA
GATHERING, ST
FROM SPECIFIC
PROCESSES LIK**

Joseph Vesey, Chief M

arketing Officer at Xylem

"They allow us to go beyond basic monitoring to efficiently access new types of data, at a level of granularity that wasn't cost effective in the past, especially for small and medium-sized organisations."

In short, utilities, farmers and manufacturers of all sizes can use IoT technologies to improve their water management processes. Sensors can monitor tank filling levels, for instance, as well as control the quality of water used in manufacturing processes and detect leaks.

And better management of the water system means energy is also reduced when leaks are eradicated, as the energy to treat and pump leaked water is no longer required.

Laurie Reynolds, Managing Director of AquamatiX, a UK software company which specialises IoT solutions for water and wastewater infrastructure, said, "In agriculture, the use of soil moisture sensors can increase yields by applying just the right amount of water to satisfy plant needs and not

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Laurie Reynolds, Managing Director of AquamatiX

OIL MOISTURE SENSORS CAN
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saturating the root system. The amount of water to achieve ideal growing conditions can be varied during the growing season."

Due to the size of many water company networks and the fact that their pumps and treatment equipment are often spread out over large areas, IoT offers an opportunity to gather data for water management on a far larger scale than was previously possible.

Mr Vesey added, "While it's practically impossible to install enough sensors to measure water quality changes everywhere in a network, IoT helps by presenting us with the bigger picture. It can interconnect a smaller number of sensors – ones that measure flow, pressure, water level and water quality – and link them together with models to 'fill in the gaps' and provide a complete picture of water quality changes across the entire system."
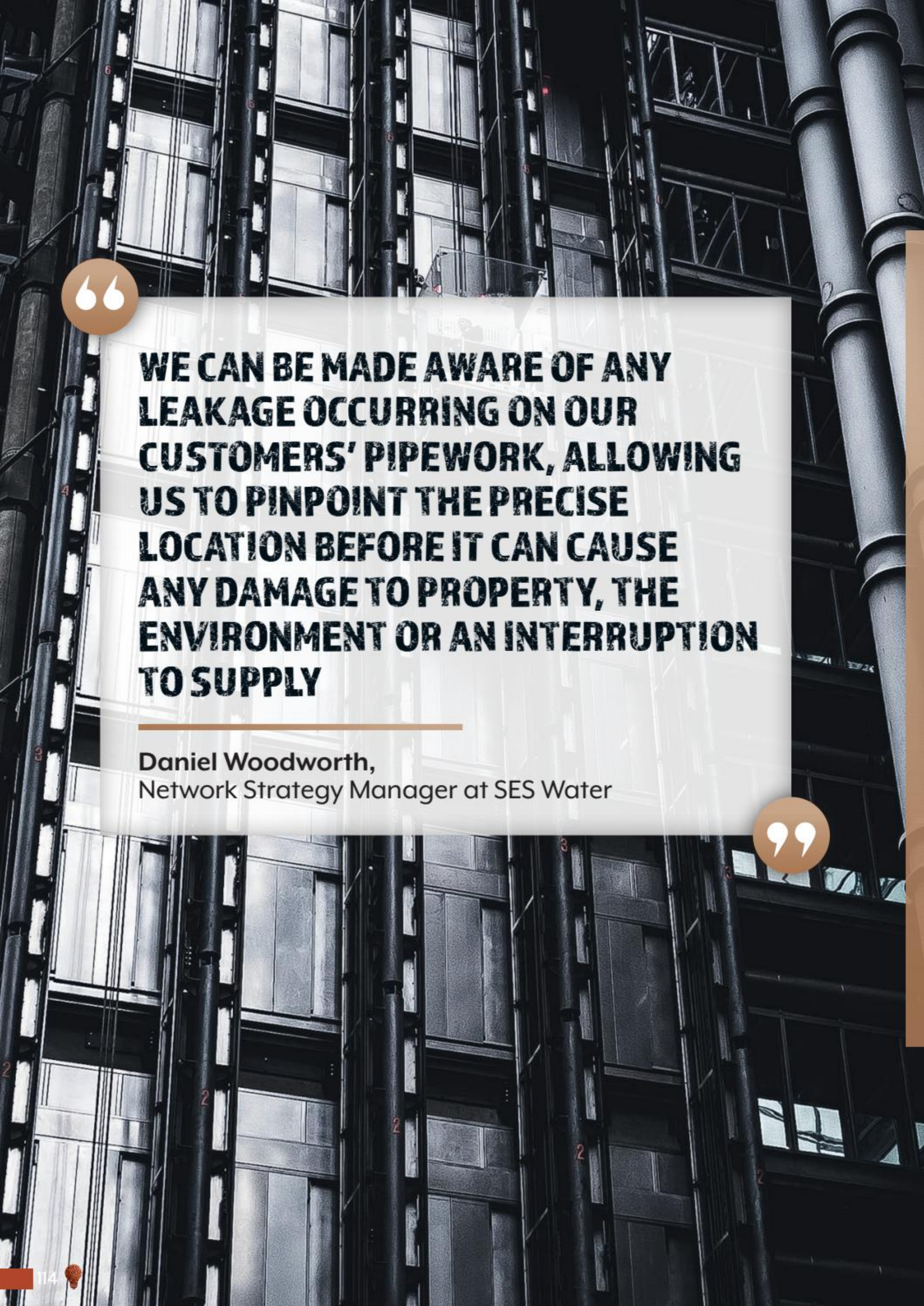
Using IoT across water

networks in this way allows operators to make better decisions about water management, and even automate decision-making to respond to demands in real time, including when and how to operate treatment plants, pumps and valves. While it is practically impossible to install enough sensors to measure water quality changes everywhere in a network, IoT helps by presenting us with the bigger picture.
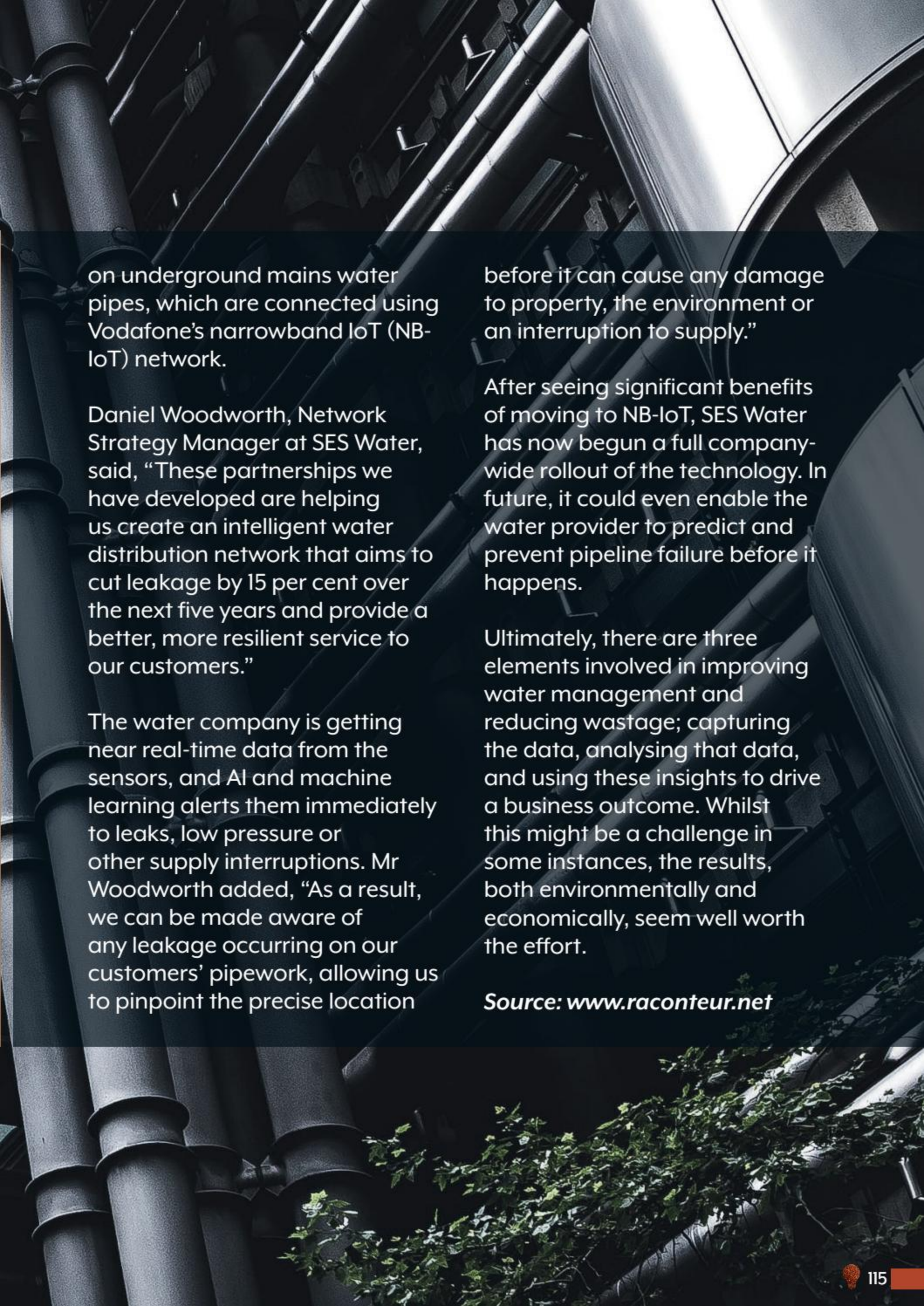
Alicia Asín, Co-founder and Chief Executive of Libelium, a Spanish company which designs and manufacturers IoT solutions, explained, "In addition to providing precision, this technology eliminates many procedures that, until now, have been carried out manually."

SES Water, which provides water in Sutton and East Surrey in the UK, has been working with a number of its key supply chain partners to trial a range of specialist digital water meters, sensors and acoustic loggers

> # WE CAN BE MADE AWARE OF ANY LEAKAGE OCCURRING ON OUR CUSTOMERS' PIPEWORK, ALLOWING US TO PINPOINT THE PRECISE LOCATION BEFORE IT CAN CAUSE ANY DAMAGE TO PROPERTY, THE ENVIRONMENT OR AN INTERRUPTION TO SUPPLY

Daniel Woodworth,
Network Strategy Manager at SES Water

on underground mains water pipes, which are connected using Vodafone's narrowband IoT (NB-IoT) network.

Daniel Woodworth, Network Strategy Manager at SES Water, said, "These partnerships we have developed are helping us create an intelligent water distribution network that aims to cut leakage by 15 per cent over the next five years and provide a better, more resilient service to our customers."

The water company is getting near real-time data from the sensors, and AI and machine learning alerts them immediately to leaks, low pressure or other supply interruptions. Mr Woodworth added, "As a result, we can be made aware of any leakage occurring on our customers' pipework, allowing us to pinpoint the precise location before it can cause any damage to property, the environment or an interruption to supply."

After seeing significant benefits of moving to NB-IoT, SES Water has now begun a full company-wide rollout of the technology. In future, it could even enable the water provider to predict and prevent pipeline failure before it happens.

Ultimately, there are three elements involved in improving water management and reducing wastage; capturing the data, analysing that data, and using these insights to drive a business outcome. Whilst this might be a challenge in some instances, the results, both environmentally and economically, seem well worth the effort.

Source: www.raconteur.net

ON Y♡UR RADAR

WE PRESENT SOME OF THE MOST INFLUENTIAL EUROPEAN TECH INSTAGRAM ACCOUNTS TO FOLLOW.

Social media is a great way to connect with all kinds of founders, investors and experts on European tech. Twitter and LinkedIn tend to be the most dominant social platforms, but there are plenty of reasons to be on Instagram too. It can be useful for finding start-ups to back, as well as offering an essential marketing tool and network opportunities galore. Here is a list of some of our favourite European tech Instagram accounts to follow.
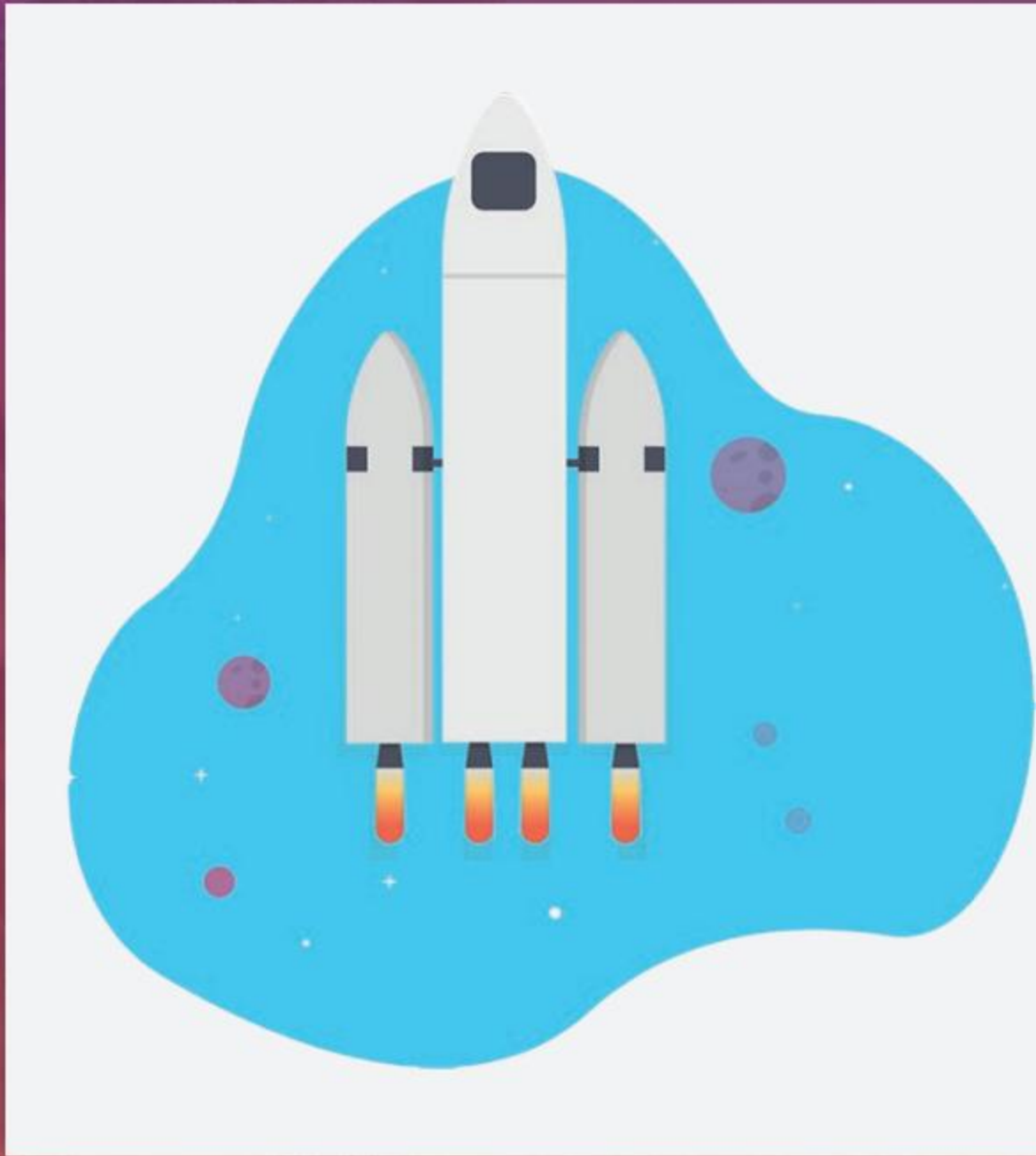
DIGITALHUB.DE

This German start-up incubator and accelerator has an impressive bunch of big companies backing it, such as Telekom, DHL and Deutsche Post. Its visually compelling Instagram page is focused on tech and start-ups, with inspirational quotes in German and English, and some great photography to boot.

Follow

Holiday Swap ✔

A global home exchange platform for travellers, Holiday Swap has racked up an impressive 200,000 Instagram followers. And it's no wonder, as the posts are mainly travel-related – a hugely popular Instagram genre – offering plenty of inspiration for your future travel plans.

Follow

Digital Business Innovation

Digital Business Innovation (DBI) is a digital business transformation consulting firm specialising in mentoring start-ups. Its Instagram account shares a mountain of start-up advice and expert knowledge on topics such as AI, cloud, cybersecurity and IoT. Bursting with easy-to-read infographics, it's a must-follow for businesses undergoing digital transformation.
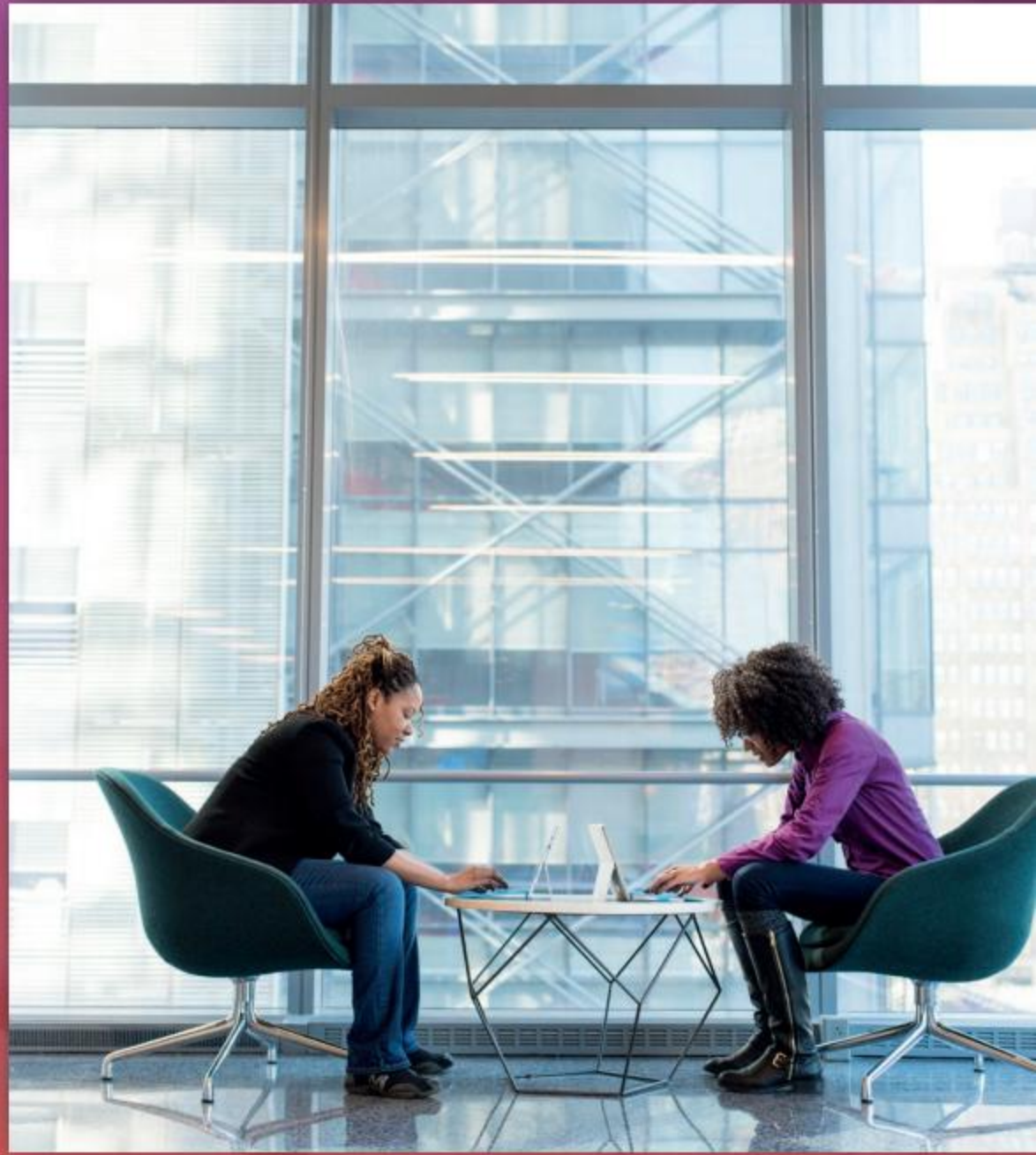
Follow

Brandable & Co

A London-based brand strategy agency for founders, executives and big corporations, Brandable & Co has worked with some of the biggest names in over 20 countries worldwide. The executive team is solely made up of women and people from diverse communities, while the Instagram account features top leadership tips, inspiring artwork and brand-building masterclasses.

Follow

WomenTech Network

WomenTech Network is a global network aiming to build up and empower the female tech start-up community. It has a strong presence in Europe, scooping up over 4,000 global ambassadors, uniting 100,000 women worldwide, and has partnered with the likes of TIER, Glovo and N26. Having forged such a strong Instagram community, followers can expect a broad inventory of tech content, including introductions from Europe's leading women in tech and a host of handy presentations on data analytics.

Follow

Magda (Data Scientist)

Magda is a Polish digital nomad working in freelance coding and programming, and is particularly keen on data and AI. She shares her expertise as a coder through more influencer-based Instagram methods, with heaps of tips, tricks and advice on coding, programming and more.

Follow

Sifted

Backed by the Financial Times, Sifted is about in-depth reporting on start-up Europe for start-up Europe. Its Instagram followers are treated to interesting stats and intriguing questions of the day, with insights from business leaders across Europe.

Follow

Yana Afanasieva

Swiss fintech compliance consultancy, Competitive Compliance, helps fintech and crypto start-ups with regulatory compliance and licensing. Yana Afanasieva, founder of the platform, shares unique content and eye-catching imagery, aiming to help her followers make sense of everything they need to know.

Follow

Tringa Krasniqi

Software engineer and digital creator, Tringa Krasniqi, shares her journey and lifestyle in tech to her 8,000 Instagram followers. A web and android developer, topics include coding, software, dev tips, and WFH tips, along with posts about her travel experiences and passion for reading and puzzles.

Follow

Thingtesting

A platform that gives consumers the opportunity to discover new trends, Thingtesting has compiled a directory of over 1,400 brands. Founded by Jenny Gyllander, this Instagram account is ideally suited to women who like to keep their finger on the pulse. Boasting an impressive 56,000 followers, Thingtesting has earned a coveted blue tick.

Follow

START-UP OF THE MONTH

SKRIWARE

Skriware is a Polish start-up that helps children learn to design, build and programme 3D-printable robots whilst developing the most sought-after skills across STEM fields.

What started as a Kickstarter project has now turned into a 'fully integrated educational ecosystem', comprised of an easy-to-use 3D printer, a STEAM education platform, modular robot building system, and a set of online tools for 3D printing.

A dedicated team is behind Skriware, passionate about 3D printing and how it can be used in educating young people around the world. Their goal is to infect others with their passion whilst showing off the capabilities and versatility of the technology. Skriware's educational ecosystem focuses on teaching creative problem solving and critical thinking using 3D printing to create

"Skriware's educational ecosystem focuses on teaching creative problem solving and critical thinking using 3D printing to create hands-on experience"

hands-on experience. By providing the best educational content and cooperating with educational institutions worldwide, Skriware aims to spark learners' interest in STEAM fields.

Tested and reviewed by children and students, the program is suited for learning both at home and in schools. 'STEAM education in every school' meets the needs of the education sector, giving the possibility to implement a modern educational laboratory based on 3D printing.

Meanwhile, SkrilLab laboratory provides students with an engaging, interdisciplinary education at the highest level, at the same time as offering ready-made lesson plans and materials supporting teachers in the ongoing digital transformation. It assists by boosting learners' practical skills, as well as developing the knowledge they are going to need in their future roles.

Skriware has been recognised among the top Kairos K50's most innovative start-ups globally and has raised €3.9 million.

For further information, visit www.skriware.com