THE MAGAZINE FOR ENTERPRISE APPLICATIONS AND ASSOCIATED TECHNOLOGIES

ERP TODAY

HIGHER EDUCATION
WHY IS DIGITAL TRANSFORMATION FAILING?

WOMEN IN TECHNOLOGY
ARE WE PROMOTING WOMEN FOR THE RIGHT REASONS?

LIVING IN THE CLOUD
GO-LIVE IS JUST THE START OF THE JOURNEY

CLOUD PLATFORMS
HOW TO CHOOSE YOUR HYPERSCALE PARTNER

ERP VENDORS
IT'S NOT JUST A TWO-HORSE RACE ANYMORE

MELISSA DI DONATO

HOW FAR HAVE WE

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REALLY COME?

NEW CEO OF SUSE TAKES AIM AT SOLVING GENDER-BIAS IN THE TECH INDUSTRY

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Editor's Words

It's hard to believe that **ERP Today** is almost one year old. In fact by the time you read this editorial our birthday celebrations will be over and we will already be focussing on making sure that 2020 is even bigger and better. What started with fairly modest ambitions has quickly grown to become *the* magazine for ERP buyers with our subscriber numbers growing by forty percent after just three issues and the list of partners, advertisers and sponsors increasing issue on issue.

The **ERP Today Awards** initiative has also gathered similar momentum and the inaugural event is now confirmed for 22nd October 2020. Take a look at the list of partners on the next pages that we are working with to bring you a truly independent and unique event for the ERP community. Our awards will be entirely different to anything else on the calendar with a strong focus on end-users and a judging criterion based on CSR, D&I, purpose and customer success.

Next year you will see a gradual shift in our style and content as we focus more on ERP customers through case studies, interviews and more project related content. We will be tracking the fortunes of several enterprises as they embark on their digital transformation journeys with regular 'access all areas' interviews. One such company is M Group Services that has just started its journey to the Oracle cloud. In a four-part case study we will be looking in detail at the procurement process, the design and build, the deployment and of course post go-live analysis to demonstrate the realities of enterprise scale projects.

We've had a lot of fun putting this issue together and the cover shoot with Melissa Di Donato and the SUSE team has been the highlight of the year. We wanted to create a striking and thought provoking visual to drive home the issues faced by many women in the tech industry and Melissa and her team were fantastic sports in helping us put this together. We tried to answer one simple question with this piece; how far have we really come? As Melissa and many others have told us the answer is depressingly blunt – not very far at all. Businesses of all shapes and sizes must get to grips with the issue of diversity and gender-bias. Not just because it is morally and ethically repugnant not to, but also because it makes good business sense. There is light at the end of the tunnel but how long should it take to close the gender pay gap? How much more time do businesses need to pay women fairly? If you ask me, none.

It's been all change at the top for many of the ERP vendors - four of the top six have changed their CEO in the last 12 months, and following the very sad news about Mark Hurd, there will be change at Oracle too. Read my ERP market review later in this issue to see how the ERP sector is shaping up and also look out for our first annual ERP vendor review in the Q1 2020 issue. ERP Today will be taking a close look at all of the ERP vendors and providing our analysis on where each stands in terms of customer success, company culture and product roadmaps.

Paul

MER FOCUSSED AWARDS EVENT

Supported by the strongest brands in the industry, this event will recognise companies and individuals who have contributed the most to creating a better, cleaner and fairer world through the innovative use of purpose-led enterprise technology.

advanced	avanade	Capgemini	Deloitte.	IFS	infor
inoapps	KPMG	lumenia	ORACLE	pwc	Rimini Street
sa	sage	SAP	SUSE	Syniti	UNIT4 In business for people

INDUSTRY LEADERS

- ERP Vendor of the year (CSR + D&I + CS)
- ERP Partner of the year (CS)
- Sustainability initiative of the year
- Diversity initiative of the year

INDIVIDUAL EXCELLENCE

- CIO of the year
- CFO of the year
- People leader of the year
- Purpose leader of the year
- Young professional of the year

BEST USE OF ENTERPRISE TECHNOLOGY

- Retail project of the year
- Heavy Industries project of the year
- Technology & Services project of the year
- Higher Education project of the year
- Public Sector project of the year

PRODUCT & SERVICE EXCELLENCE

- Finance innovation of the year
- AI innovation of the year
- RPA innovation of the year
- HR innovation of the year
- CX innovation of the year
- Infrastructure innovation of the year

THE POWER OF PURPOSE

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CONSIDER YOUR NEXT STEP
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RISKY IMPLEMENTATIONS
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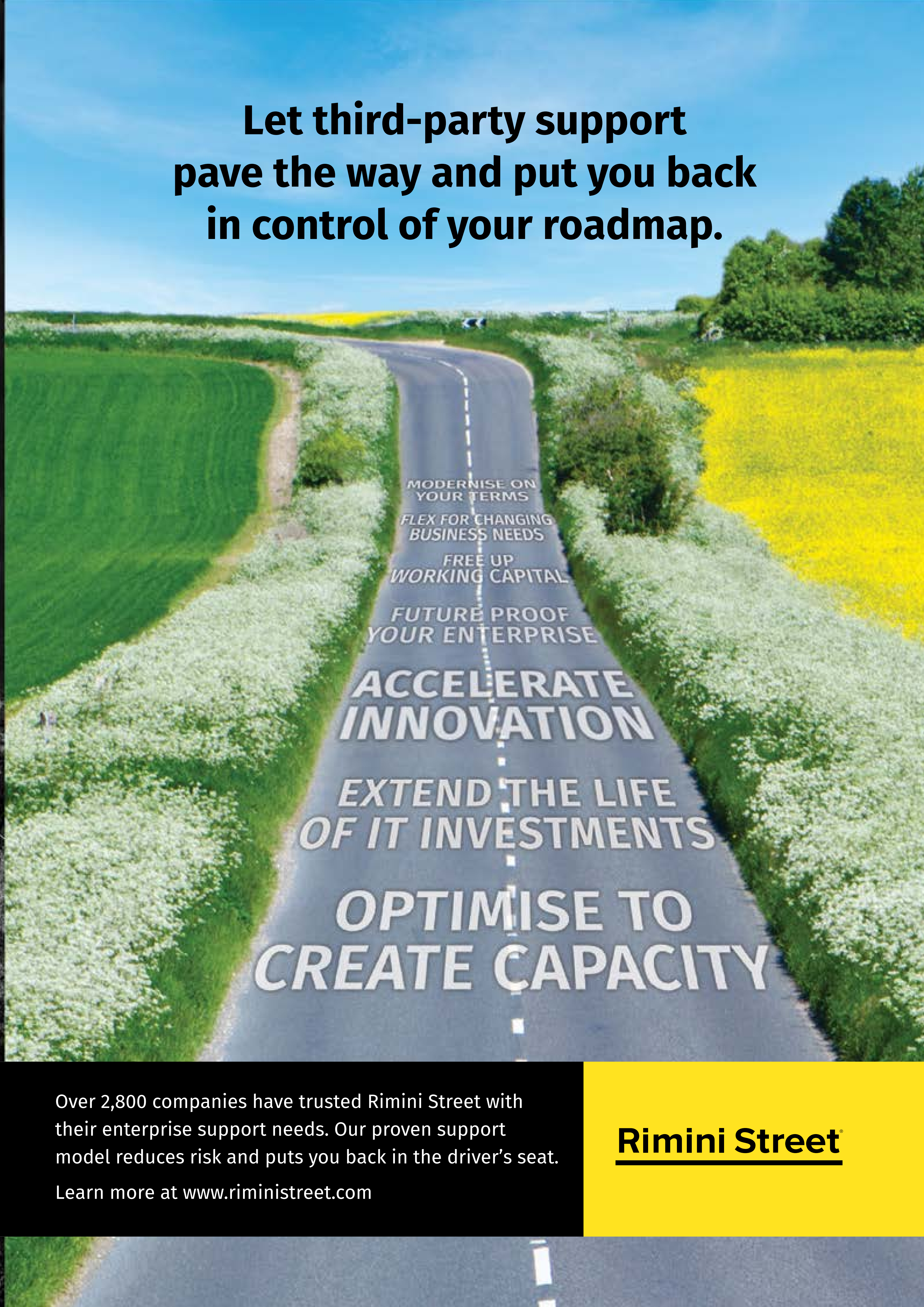
LITTLE INNOVATION
POOR SUPPORT
HIGH COST
IMMATURE CLOUD SOLUTIONS
FORCED UPGRADES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Advanced secures £2bn investment

Advanced, the UK's third largest software company with nearly 20,000 customers and revenues in excess of £250m, has closed a deal with **BC Partners** and **Vista Capital** at £2bn. The investment, which will provide roughly £1.2bn of working capital, will be used to bolster its existing range of applications and make further acquisitions. BC Partners has bought a 50 percent stake in the business while incumbent venture capital partner, Vista Equity Partners, has retained the other 50 percent. Vista bought Advanced in 2015 for £750m.

Advanced provides software solutions across vertical markets and has historically focussed on the healthcare, sport, travel, NFP and education sectors. Its solutions support 65 million patients in the UK, manage over £1bn in charity donations, and get over 1.2 billion passengers to their destinations on time.

Commenting on the deal and what it would mean for Advanced customers, Gordon Wilson, CEO at Advanced said: "It's business as usual. The fact we've got a different set of investors doesn't change what we're doing other than we have to drive it harder with the new investment that's coming in. We want to be the best business software provider in the UK, and by 'best' I don't mean necessarily the biggest. I mean, highest quality, best delivery, support that's par-excellence and a relationship with longevity."

Since 2015 the firm has hired nearly 1,000 additional staff to support its growth and has made seven acquisitions, the most notable being those of **Modern Systems**, **Oyez Professional Services** and **Kirona**.

Wilson said: "With the addition of Modern Systems to the Advanced portfolio, we are dramatically speeding up our customers' ability to remove key barriers to achieving digital transformation. Additionally, Kirona and Oyez represent a significant boost to our cloud capabilities. Oyez Professional Services represent a strong opportunity to bolster our existing legal practice management and forms solutions, while Kirona extends our human capital management offerings to public, private and third sector customers.

Following these acquisitions and a retooling of some existing products, Advanced now offers 14 separate cloud-based applications and a host of other more traditional software solutions. The challenge for Advanced is to bring all the products into a coherent suite with a common look and feel and build out the offering with a strong vertical focus. Advanced already services more than a dozen sectors with software as diverse as sports ticketing, membership, fundraising, patient record and legal management, as well as core financial, HR and payroll capabilities. With more acquisitions to come Advanced will need to ensure they retain their focus on building value-add capability where products and services dovetail rather than building a Chinese menu style offering.

NewsDeals&Wins

Xledger appoints new UK CEO

Xledger, a leading provider of cloud finance ERP systems, has appointed Mark Pullen, previously head of sales at **InterWorks Europe**, as its first CEO in the UK.

Launched in 2006, Xledger is one of the most automated and unified ERP systems on the market supplying over 10,000 customers in more than 50 countries. The company is currently headed by Global CEO Helge Strømme, who will retire at the end of the year and has planned for growth by appointing a new leader in each region.

Pullen said: "Xledger has a fantastic culture, it's a very open, collaborative, fast-moving company with an aspiration, desire and commitment to growth. Joining the business at this time is an exciting opportunity for me to add value in an industry that I know inside out. I'm inspired by the people here, and to be working in a place which has that level of innovation when it comes to utilising cloud computing."

Strømme said: "Xledger grew from a vision to create a business management system hosted entirely on the cloud, based on subscription, and accessible via browser from anywhere in the world. We're not just talking about digital, we're doing it, and we're empowering tens of thousands of customers worldwide as a result. I know Mark is just the right person to drive this vision and take our UK operations forward."

Accenture and Oracle team up for IFRS 17

Accenture and **Oracle** have released an integrated technology and services offering that enables insurers to digitise their financial information and meet accounting reporting standards for the International Accounting Standard Board's (IASB) IFRS 17 and US GAAP Long Duration Targeted Improvements (LDTI).

Combining Oracle solutions for IFRS 17 and finance with Accenture's expertise and capabilities, the offering includes pre-configured templates, rules and reports to help insurers address the complexity associated with these accounting standards and help ensure compliance.

"The changes required from IFRS 17 provide an opportunity for insurers to capitalize on their rich repositories of data and derive more value from advanced analytics," said Steve Culp, a senior managing director at Accenture and global head of the company's Finance & Risk practice. "This joint offering provides the first steps on the journey to a full digitisation of finance, enabling insurance CFOs to drive the enterprise strategy beyond the borders of the finance function."

Sonny Singh, general manager and senior vice president, Oracle Financial Services, added: "IFRS 17/LDTI Standards are a historic change to insurance revenue recognition requirements. It presents a unique opportunity for insurers to align and transform disparate business processes and gain greater operational efficiency and insight. Oracle's modern integrated solution, combined with Accenture's comprehensive services, will allow adoption of IFRS 17 standards and establish the baseline for a wider insurance modernisation initiative."

SAGE STRENGTHENS ITS EXECUTIVE COMMITTEE

Marc Linden joins the ExCo as EVP and general manager, medium segment native cloud solutions. In this role, he will lead **Sage** Intacct and Sage People, further strengthening and accelerating the availability of Sage's native cloud solutions, building on the recent Sage Intacct launch in Australia.

Sue Goble is appointed chief customer success officer, responsible for driving a more customer-centric mindset across the organisation. And, Derk Bleeker is appointed chief corporate development officer, responsible for portfolio simplification, M&A and business planning.

Steve Hare, CEO at Sage said: "These appointments further enhance the capability and experience of the Sage leadership team, as well as accelerating the pace at which we will achieve our vision of becoming a great SaaS company."

EY ANNOUNCES FY2019 RESULTS

EY has announces record global revenues of $36.4b for FY2019. Overall revenues grew by 8 percent. All EY service lines delivered growth; assurance grew 4.4 percent; advisory 9.2 percent; tax 8.6 percent; and transaction advisory services 15.5 percent. Revenue also increased across all four of the EY geographic areas: the Americas 8.5 percent; Europe, Middle East, India and Africa (EMEIA) 7.1 percent; Asia-Pacific 9.1 percent; and Japan more than doubled its growth to 7.5 percent.

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UNIT4 FOCUSSES NEXT-GENERATION SOFTWARE ON 'PEOPLE EXPERIENCE'

Unit4 has launched a brand identity and corporate focus on the strategic concept of 'people experience' to meet today's changing work environment - particularly for service-oriented organisations.

Designed to transform the way people work, Unit4's People Experience Suite applies AI and machine learning to bring together the financial and productivity functions of ERP, the people engagement of HCM, and the benefits of rapidly changing planning and analytics software.

"Our entire software suite will be cloud-native from the ground up," said Mike Ettling, CEO. "And this means more fully integrated software that runs more intuitively and seamlessly for the people who use it - better uniting the enterprise and connecting the needs of the business with the needs and interests of the people who power it."

Unit4 defines 'people experience' as a discipline applied to software development that prioritises human experience and how to improve it across the organisation.

The greatest benefit of the 'people experience' focus comes from the Unit4 People Platform, which delivers the tools and capabilities for making Unit4 applications self-driving, adaptive and intuitive, intelligently automating administrative tasks and allowing non-IT specialists to change, grow and configure services through localisations and best-practice models.

"At the core of our focus is what makes Unit4 different from other ERP/HCM vendors – our solutions are designed to be used by all the people, across the organisation," Ettling added. "Unit4 customers don't make products, they deliver services for universities, professional service firms, non-profits and governments. Unit4 is focussed on helping those people who help people. This is what we stand for, said Ettling. "It's about building success through the experiences not just of employees, users or customers, but about improving the experiences of everyone who touches our customers' ecosystem. That's what we mean by people experience."

SAP and UNICEF join forces to boost job skills

SAP and **UNICEF** have announced a new global partnership to provide quality education, life skills and job skills training to young people in disadvantaged communities, preparing them for decent work and active citizenship. Announced at an event taking place at the 74th session of the United Nations General Assembly in New York, the three-year partnership will bring together businesses, governments and non-governmental organisations to build sustainable education models. The partnership will focus on workforce inclusion initiatives to help young people thrive and provide organisations with a prepared workforce. More than one in five young people today are neither in employment, education or training. Many more are not learning the skills they need to seek decent employment, as today's rapidly changing economy demands increasingly specialised skills.
"For young people, the path to a successful future goes through quality education that equips them - and empowers them - with the skills they need to thrive in today's workforce," said UNICEF executive director, Henrietta Fore. "Young people are some of the world's best creatives, enthusiasts and thinkers. We are excited to work with SAP to harness young people's energy and ideas and help them contribute to their economies and societies."

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IFS UNVEILED ITS EVOLVED INDUSTRY-FOCUSSED ARCHITECTURE AT WoCo EVENT

IFS unveiled a new architecture platform for all its products and services at IFS' world conference in Boston. The evolved industry-focussed architecture is scheduled for availability in 2020 and will be the new home to IFS's entire portfolio of products across manufacturing, project management and service solutions. In essence, this new approach will allow customers to integrate enabling technologies such as IoT, machine learning and AI in pragmatic and focussed ways so they can optimise, automate, predict and interact better across their businesses.

IFS has developed its technology foundations over an intensive period

of engineering development. The work has encompassed model-driven declarative development, the intuitive IFS Aurena user experience (UX), and native API enablement of the entire set of capabilities.

Designed to ensure speed, elasticity, and choice, the evolved architecture is built for both cloud and on-premise using container technology and kubernetes, which allows for running at hyper-scale in the cloud while ensuring portability across multiple clouds and on-premise.

"The blueprint my team has shared today is underwritten by a fully operational plan to deliver an open and scalable architecture to our customers with the right set of capabilities needed for their industries," said IFS chief product officer, Christian Pedersen. "For IFS, this has always been about architecting a core for our applications that would be fundamentally open and enabled. With this announcement, we are demonstrating that we are delivering on the promise of a core that has choice quite literally built into it, enabling our customers to benefit faster and easier for new and emerging technologies in context of their business needs and opportunities."

UiPath acquires StepShot

UiPath has acquired **StepShot**, a leading provider of process documentation software. Together, UiPath and StepShot will accelerate customers' automation journeys by enabling them to quickly and easily record, document, and share processes as well as automate key steps in robot creation.

UiPath is the first among leading RPA vendors to offer such capabilities built directly into its platform, a key differentiator as enterprises seek to successfully implement and expand their RPA deployments for a broad spectrum of well-defined and undefined processes.

Daniel Dines, CEO at UiPath, said: "We work closely with customers to build automation strategies that transform their business. Yet there is still huge untapped value in making the documentation process into an easier, more effective solution. The acquisition of StepShot immediately helps us solve that for our customers."

Adobe announces record revenues

Adobe has reported record quarterly revenues of $2.8bn in its third quarter of fiscal year 2019, which represents 24 percent year-over-year growth. Digital Media segment revenue was $1.9bn, which represents 22 percent year-over-year growth. Creative revenue grew to $1.6bn and Document Cloud achieved revenue of $307m. Digital Media annualised recurring revenue ("ARR") grew to $7.8bn, a quarter-over-quarter increase of $386m. Creative ARR grew to $6.8bn, and Document Cloud ARR grew to $993m. Digital Experience segment revenue was $821m, representing 34 percent year-over-year growth.

All change at SAP and good news for ServiceNow

In n a shock announcement Bill McDermott said that he would not be renewing his contract with **SAP** and would stand down as CEO. Jennifer Morgan and Christian Klein, both SAP executive board members, were appointed as co-CEOs following McDermott's departure. Morgan is based in the US and comes from a sales background and was previously president for the cloud business while Klein is based in Germany and comes from a product background, previously holding the CTO role.

Under McDermott's leadership SAP has grown its revenues by 138 percent while spending nearly $70bn on acquisitions – the most recent and notable was the $8bn it spent on **Qualtrics** earlier this year. McDermott has overseen a huge shift in strategy and focus at SAP as it moves away from being purely an ERP vendor into a much more rounded digital vendor with its cloud platform, HANA database and a broad portfolio of offerings which include supply chain through its **Ariba Network**, expenses management through the acquisition of **Concur**, HR with the addition of **SuccessFactors**, and experience via the previously mentioned Qualtrics.

There was much speculation surrounding the reasons for McDermott's announcement; some have surmised that its 'activist investor', Elliot Capital, has been rattling the cage and pushing for more dynamic leadership and high values for shareholders. Others have suggested that the integration of all the acquisitions, and the pressure to demonstrate customer and shareholder value, has put too much pressure on the exiting leader. Although Elliot Capital has a track record of ousting CEOs it is a minority shareholder in SAP with less than one percent of the equity – and although one percent of a company the size of SAP is a significant holding – it's unlikely that McDermott would fall on his sword over a little pressure from an institutional investor.

As we went to print news surfaced that McDermott had agreed take over as CEO at ServiceNow later in the year – it's not clear whether this move was the catalyst for McDermott's departure from SAP or whether John Donahoe's move to Nike presented an unexpected opportunity. Either way, ServiceNow inherits one of the world's most accomplished leaders and McDermott said, in an official statement: "ServiceNow is one of the most exciting innovation and growth companies in the world. The company has a transformational platform, immensely talented colleagues and limitless potential. I consider it a personal honour to succeed John and help carry ServiceNow's proud legacy forward to the next chapter. I'm fired up and can't wait to get started!"

Commenting on his departure from SAP, McDermott said that, 'every CEO dreams of being able to transition a company to its next generation from a position of significant strength' and while it is true that SAP's numbers on most fronts are impressive – they do have several key issues to overcome while they transition themselves to a new-world enterprise leader.

McDermott's departure comes hot on the heels of several other high-profile changes and departures. Rob Enslin who led the cloud business went to **Google**. Barry Padget was the president of several of the acquisitions (Concur, Ariba and **Fieldglass**) and is now CRO at **Stripe**. And Darren Roos who headed up the global ERP business and is now CEO at **IFS**.

SAP is under pressure to deliver several key areas of its strategy; how to become a cloud-first company, how to light the fire under S/4HANA and, most significantly, how to integrate their latest acquisition, Qualtrics, which was very firmly a McDermott acquisition. There's plenty to do for the two new CEOs.

UNIT4

In business for people

Kevin Samuelson takes over at Infor as Charles Phillips steps down

In another surprise change at the top of a global ERP vendor, Charles Phillips announced last month that he was stepping down with immediate effect and handing over the reins to Kevin Samuelson.

Samuelson, who previously held the position of CFO, is one of the longest tenured executives at **Infor**, having spent 14 years between M&A and CFO roles. Samuelson was instrumental in driving strategic acquisitions for Infor, helping to grow the company from $35m in annual revenue, to $3 billion, as well as securing long term investment partners, **Koch** and **Golden Gate**.

Samuelson said: "I feel very fortunate to work with such a great team at Infor. Charles' guidance and leadership helped shape this company into a market leading provider of multi-tenant, cloud-based ERP applications. Our vision is to build on Infor's impressive trajectory, continually evolve our range of SaaS products that allow for quick and material ROI and value add for our customers and provide first-class service at every step of the journey."

Phillips's tenure as CEO has seen significant growth and expansion at Infor with more than $2.5bn invested in product design and development in the past five years. In his new role as chairman of the board, Phillips will focus on strategy development, customer relationships, and new acquisitions.

Phillips said: "I'm extremely proud of the team's accomplishments during my tenure. It is the right time to evolve our executive leadership as we continue to drive innovation in the industry. Kevin is a talented leader and I look forward to working with him and our experienced team as chairman. I am confident Kevin and his leadership team will take Infor to the next level of growth, successfully implement our business strategy, and take advantage of the market opportunities ahead. Infor has great people and is poised for growth in its unique mission as the first industry cloud company."

In connection with the announcement, Infor has made several additional senior leadership changes, the most notable for the UK is a new role for Cormac Watters who transitions from executive vice president for EMEA to general manager of international markets.

Epicor releases upgrade to ERP platform

Epicor has launched the latest release of its ERP platform which will improve the user experience and ensure global readiness by helping companies address pressing market challenges such as the changing workforce.

"The need to attract and retain talent is more important than ever – with more people currently leaving the manufacturing industry than joining," said Terri Hiskey, vice president, product marketing at Epicor. "Offering a modern toolset for next-generation workers which is more familiar and reminiscent of how they already interact with mobile applications, will help give them the experience they anticipate. We're offering our customers the ability to choose their update path with tools and solutions that allow them to get where they want, however they want – via cloud environments or on-premise."

The new release advancements help companies grow their business with technology solutions that are purpose-built and leverage cloud capabilities, IoT, AI and big data. With greater access to ERP data and the automation of redundant tasks, organisations gain greater visibility into their processes that translates to new levels of business efficiency and responsiveness.

The latest innovations with Epicor ERP include Epicor Collaborate; a cloud-based solution that simplifies collaboration and interaction processes by leveraging social media concepts to easily exchange information. Epicor Virtual Agent; an AI-powered virtual agent which provides a new set of skills to modernise the experience for everyday functions such as purchase order approvals. Epicor Service Pro; which provides field service and mobile capabilities with time-saving automation tools that streamline service calls, schedule and dispatch. Epicor Functions; the next evolution of Epicor BPMs, with new levels of flexibility that solve orchestration and integration challenges for cloud and on-premise customers.

Salesforce appoints Dame Jayne-Anne Gadhia as first CEO for UKI

Salesforce has appointed Dame Jayne-Anne Gadhia as its first CEO for UK and Ireland, a new role created to lead the company's UKI business through its next stage of growth. Salesforce is experiencing rapid growth in the UKI and in June last year the company announced plans to invest $2.5bn in its UK business over the following five years. As part of this investment, Salesforce has increased headcount, data centre capacity and office space to support its rapidly growing customer base in the country.

Jayne-Anne is an experienced business leader and finance authority and was previously chief executive of **Virgin Money**. She is also a firm believer in the importance of businesses making a positive contribution to society and was recognised in the New Year's Honours for her contribution to financial services and women in the finance industry.

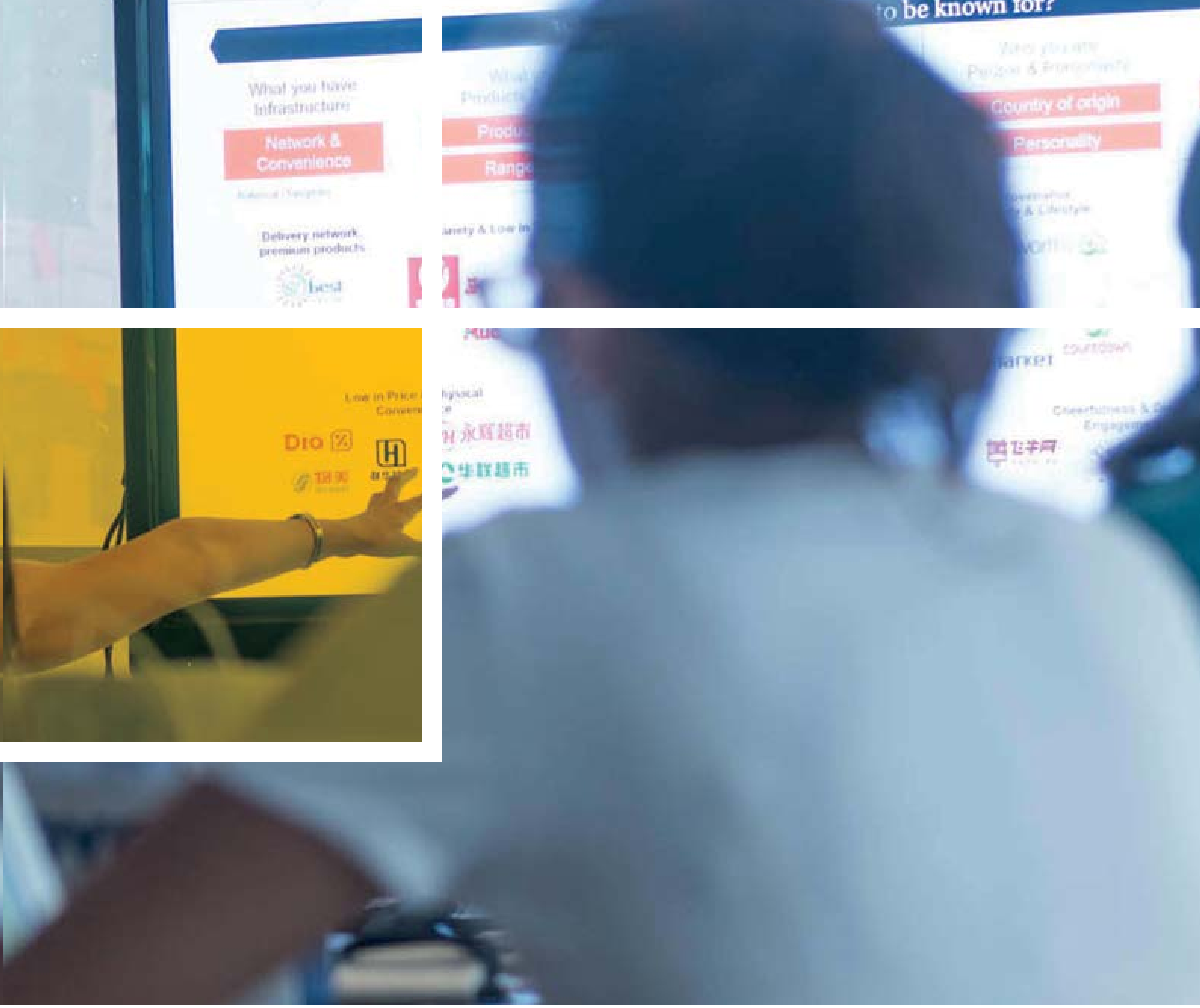
"Jayne-Anne is one of the most respected CEOs in the UK and we are thrilled to welcome her to Salesforce," said Marc Benioff, chairman and co-CEO. "The UKI is our largest market outside the US and with Jayne-Anne's leadership we are well positioned to move into the next stage of growth and success for Salesforce, our customers, partners and communities."

Commenting on her appointment, Gadhia said: "I've admired Salesforce from afar for a long time. This is a different kind of business, with deeply held values and a true focus on transforming the experience of every customer through cutting edge technology. I'm looking forward to working with the team as we continue to invest and support Salesforce's growing customer base in UKI."

ORACLE AND VMWARE STRENGTHEN PARTNERSHIP

Oracle and **VMware** have announced an expanded partnership to help customers leverage the companies' enterprise software and cloud solutions to make the move to the cloud. Under this new partnership, customers will be able to support their hybrid cloud strategies by running VMware Cloud Foundation on Oracle Cloud Infrastructure. With this new offering, customers will be able to easily migrate VMware vSphere workloads to Oracle's Generation 2 Cloud Infrastructure and take advantage of consistent infrastructure and operations. As a part of this partnership, Oracle will also provide technical support for Oracle software running in VMware environments both in customer on-premise data centres and Oracle-certified cloud environments.

"As more of our customers make the move to cloud, they're looking for a superior VMware experience. We are excited that Oracle Cloud customers will be able to run VMware workloads in Oracle Cloud and retain VMware administrative access," said Don Johnson, executive vice president, Oracle Cloud Infrastructure. "This is made possible by Layer 2 networking in the cloud and our bare metal service. Customers will be able to extend existing VMware investments, processes, and tools while benefitting from the security and performance of Oracle Cloud Infrastructure."


to be known for?
What you have
Infrastructure
Network &
Convenience
Delivery network
premium products
Country of origin
Personality

PwC report highlights growing use of RPA in financial services

UK financial services firms' efforts to grow their robo-adviser ranks are leading the rest of the world, fresh analysis from **PwC** has found. As both global financial services (FS) powerhouses and agile market entrants vie to harness technological advances and retain - or poach - consumers, 37 percent of UK firms surveyed have implemented robotics processing automation (RPA) compared to only 28 percent globally.

Rav Hayer, UK fintech leader and PwC partner, said: "We're seeing a growing shift towards hybrid-human and robo-advice strategies, with even some of the pure-play robo-advisers hiring humans. "Most consumers want the reassurance of some human oversight alongside access to a human adviser for key decisions. FS firms face a dilemma on how to balance the need for that human interaction with the digitally enhanced offerings customers also expect.

"The fact that personal human contact is globally near the bottom of the list of ways in which some executives think FinTech should be used to retain customers raises questions about the balance."

CANCOM ACQUIRES NOVOSCO FOR £70M

Hot on the heels of opening its first UK office, **CANCOM Group** has made its first UK acquisition – **Novosco Group**, based in Belfast. "Novosco's product portfolio extends our capabilities tremendously and the customers we serve complement each other perfectly. We are very excited about this acquisition," said Thomas Volk, CEO of CANCOM. Prior to the transaction, Novosco Group forecast revenues of £55m and an EBITDA margin of approximately 17 percent in fiscal year 2019.

Aptean completes acquisition of Sanderson

Aptean has aquired **Sanderson Group Plc**, the UK-based ERP vendor. The acquisition provides Aptean the opportunity to grow its European presence, as well as invest in a well-established business with expertise in ERP, supply chain and multi-channel retail software. Founded in 1983 and publicly owned until the acquisition, Sanderson has approximately 800 customers. "The Sanderson acquisition is a significant development for Aptean and will provide us with a critical entry point into the UK market," said TVN Reddy, Aptean's chief executive officer. "Sanderson is well-positioned as a specialist, vertically focussed vendor in the sectors in which it operates as evidenced by the high customer satisfaction seen across its customer base."
By joining the Aptean family, Sanderson will have the opportunity to achieve greater client penetration in the end markets it already serves. Further development of the cloud capabilities and user interface of Sanderson's products, coupled with greater scale, will allow it to compete more effectively in the marketplace and provide enhanced solutions to its customers. "Sanderson has built a reputation as a leader in digital technology solutions, innovative software and managed services for the retail, wholesale, supply chain logistics, food and drink processing and manufacturing market sectors, with a focus on keeping our customers one step ahead of their competition," said Ian Newcombe, chief executive officer at Sanderson. "Joining the Aptean team will allow us to build on that focus, delivering solutions that help our customers and the markets we address thrive today as well as starting the journey towards SaaS solutions for the future. We're excited for this new era of growth and innovation."

ACCENTURE STRENGTHENS INNOVATION PRACTICE WITH ACQUISITIONS

Accenture has acquired **Happen**, a privately owned innovation firm that uses proprietary methods and digital tools to help clients generate new ideas, products and services. The terms of the acquisition were not disclosed.

Established in 2007, Happen has helped companies primarily across the consumer goods, food and beverage, retail and life science industries. The firm's key skills include consumer insights where teams identify new opportunities and determine how an organisation can commercialize them; and product and service innovation.

"Bringing data-driven intelligence to clients' decision-making, Happen helps companies tailor innovative products, services and experiences to create customer-centric businesses," said Eric Schaeffer, a senior managing director at Accenture who leads its products industry X.0 practice and supply chain and operations consulting practice. "The acquisition further enhances the analytics, design and engineering capabilities we use to help clients deliver relevance at scale to a marketplace of millions of individuals."

Mark Cowan, co-founder of Happen, said, "Joining Accenture will enable us to scale our offerings and capabilities and deliver our services to an even greater range of clients. We're excited to become part of one of the world's truly great companies."

Happen is the latest in a series of acquisitions Accenture has made recently to expand its Industry X.0 product innovation capabilities. These include the acquisition of **Pragsis Bidoop**, a Spanish company with expertise in big data, artificial intelligence and advanced analytics, and its acquisition in March of **?What If!**, an innovation firm that uses an experimentation-driven approach to help clients incubate new products, services, business models and organisational cultures.

Lumenia's ERP vendor event goes from strength to strength

Lumenia Consulting hosted its latest ERP HEADtoHEAD event in Dublin where **IFS** won the vendor presentation award with an overall delegate satisfaction rating of 86 percent. In close second and third positions where **Intact** and **ProfitsFlow** respectively.

Each event is attended by a dozen ERP vendors who pitch their respective products in a structured four minute presentation and attempt to win over the audience and compete for break-out session attendees.

At the latest event, delegates had the chance to listen to two engaging vendor-independent presentations from Lumenia Consulting on 'Are you ERP ready?' and 'Characteristics of successful ERP projects'. The attendees were also able to meet with the vendors in the expo area to discuss their solutions in more depth and answer questions. The final session was a panel discussion from industry end users sharing their experiences of implementing an ERP system.

"We have received very positive feedback both from vendors and attendees. This event has built on the success of previous events and is our largest event to date" commented Sean Jackson, managing director at Lumenia.

The next event takes place in Milton Keynes on 24th and 25th March 2020.

Accenture and Google powers Sainsbury's

In partnership with **Accenture**, **Sainsbury's** is building cutting-edge machine learning solutions on **Google Cloud Platform** (GCP) to provide new insights on what customers want and the trends driving their eating habits.

Sainsbury's solution relies on data from multiple structured and unstructured sources. Using Google Cloud's powerful cloud-based analytics tools to ingest, clean and classify that data, and a custom-built front-end interface for internal users to seamlessly navigate through a variety of filters and categories, Sainsbury's is able to gain advanced insights in real-time. As a result, Sainsbury's has been able to develop predictive analytics models to spot trends and adjust range, providing shoppers with a better experience.

Phil Jordan, Group CIO of Sainsbury's believes this project will have a big impact. "The grocery market continues to change rapidly. We know our customers want high quality at great value and that finding innovative and distinctive products is increasingly important to them. With the help of Google Cloud Platform, we are generating new insights into how the world eats and lives, to help us stay ahead of market trends and provide an even better shopping experience for our customers."

Adrian Bertschinger, managing director for retail at Accentures, said: "This project is also a great example of the successes our customers have when they work with our partners. We're delighted to partner with Google Cloud to help the Sainsbury's commercial team apply predictive analytics to the identification of new and emerging trends in grocery. The food sector is experiencing significant, rapid disruption, and this new, cloud-based insights platform will help Sainsbury's identify trends much earlier and adapt their product assortment in a faster, more informed way —all for the benefit of customers."

Marc Benioff gets into publishing

Marc Benioff, the founder of **Salesforce**, has launched a book called "Trailblazer: The Power of Business as the Greatest Platform for Change". Unfortunately we haven't read the book yet but from the title and many of Benioff's recent media interviews, expect it to focus heavily on purpose and the new Salesforce mantra of delivering for "stakeholders as well as shareholders".

Commenting on its release, he said: "Companies, and the people who lead them, can no longer afford to separate business objectives from the social issues surrounding them. They can no longer view their mission as a set of binary choices: growing versus giving back, making a profit versus promoting the public good, or innovating versus making the world a better place. Doing well by doing good is no longer just a competitive advantage. It's becoming a business imperative."

IBM ANNOUNCES Q3 RESULTS

IBM has reported revenues of $18bn for the Q3 2019, down 3.9 percent year on year. Revenues for the recently acquired Red Hat were up 19 percent although separate financial data was not available. Cloud revenues came in at $5bn which represents an 11 percent increase year on year.

NETSUITE
MOVES TO OCI

NetSuite is moving to Oracle Cloud Infrastructure in a move that offers up some big wins for both parties. Although more than three years have passed since Oracle acquired NetSuite, until now, NetSuite had maintained its own datacentres and infrastructure. Moving to OCI will give NetSuite the scale, performance and reliability of infrastructure that it could not achieve on its own. On the flip side, the move allows Oracle to showcase the maturity of OCI and creates another proof-point for its capability.

Brian Chess, GVP cloud operations at Oracle NetSuite, said: "We see this as a game changer and I am pleased to report that we've made big progress in our transition. Customers in Frankfurt and London are already live on Oracle Cloud Infrastructure and experiencing the benefits of better performance and reliability.

And we're not stopping there; we're taking it global. As our customers take their business to new regions, we'll be with them every step of the way with a reliable and battle-tested infrastructure.

With this aggressive plan, customers can expect an ever-improving level of service delivery in pretty much any country in the world. As the next generation of NetSuite service delivery, Oracle Cloud Infrastructure allows us to automatically and programmatically allocate compute resources, storage, the database, and the network - all in the cloud."

Capgemini and Altran deal moves closer

Capgemini's acquisition of **Altran**, a world-leader in engineering and R&D services, has edged closer to completion after various clearances have been received. The friendly offer to Altran's shareholders has been approved and recommended and it is likely that the deal will conclude late in 2019, creating a combined €17bn business with more than 265,000 employees.

WORKDAY'S LATEST FINANCIAL RESULTS

For Q2 2020, **Workday's** revenues were $887m, an increase of 32 percent compared with the same period last year. Subscription revenue was $757m.

Operating loss was $122m which is an increase of $33m on the same period. Non-GAAP operating income for the second quarter was $117m which equates to 13 percent of revenues.

NewsDeals&Wins

IFS AND SPORTPESA RACING POINT JOIN FORCES

IFS has entered into a multi-year partnership with F1 racing team, **SportPesa Racing Point**. The IFS branding will appear on both the F1 cars and the race suits of Lance Stroll and Sergio Perez. However, this isn't just a sponsorship deal; IFS's cloud-based ERP software will underpin the team's racing operations and back-office needs.

Otmar Szafnauer, CEO and team principal at SportPesa Racing Point said: "When evaluating our options, IFS stood out for its flexibility, innovation, and accuracy - the mainstays of professional racing and key traits of our own culture. Just like any other complex industrial organisation, success in racing relies on outperforming the competition in all areas. That includes Sergio and Lance in the cars, the operational crew at the races, as well as the team back at the factory. IFS presented us with a solution that could give us one version of the truth in real-time, informing our decision-making and paving the way for our digital transformation."

Darren Roos, CEO at IFS said: "Being faster, smarter and more efficient are vital to any successful Formula 1 team and that is exactly why Racing Point turned to IFS. We engineer our solutions to empower users with the right data when milliseconds make the difference between winning or not. We look forward to going full-throttle in our collaboration with Racing Point over the coming seasons."

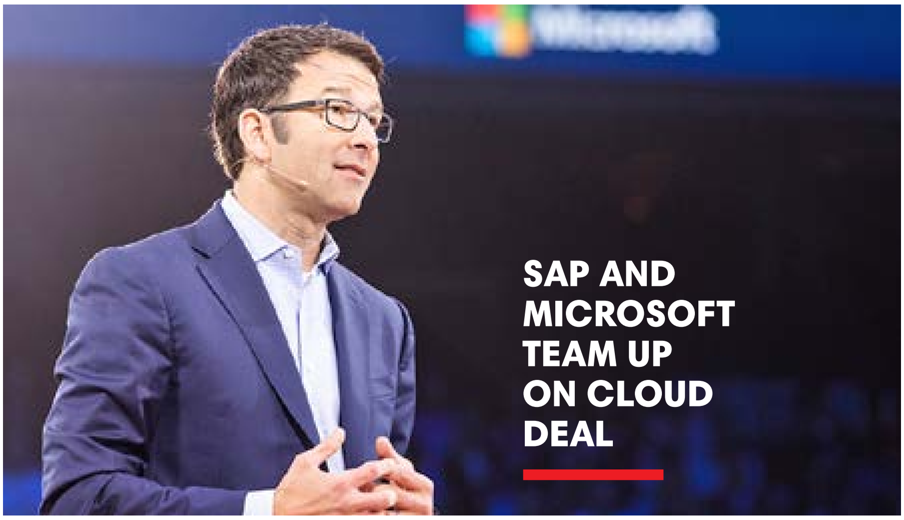
Microsoft acquires Movere to help customers unlock cloud innovation

Microsoft has acquired **Movere**, an innovative technology provider in the cloud migration space. Movere's innovative discovery and assessment capabilities will complement Azure Migrate and Microsoft's integrated partner solutions making migration an easier process for its customers. Jeremy Winter partner director, Azure Management at Microsoft, said: "We're committed to providing our customers with a comprehensive experience for migrating existing applications and infrastructure to Azure, which include the right tools, processes, and programs. As part of that ongoing investment, we're excited to welcome the leadership, talent, technology, and deep expertise Movere has built in enabling customers' journey to the cloud over the last 11 years."

ORACLE

LATEST QUARTERLY FIGURES

Oracle's latest quarterly figures for Q4 FY2019 were released at the end of June and highlighted total quarterly revenues of $11.1bn, up one percent in USD and up four percent in constant currency compared to Q4 last year. Cloud services and license support revenues were $6.8bn, while combined license revenues were $2.5bn. Total cloud services, support and license revenues were $9.3bn, up three percent in USD and six percent in constant currency.



SAP AND MICROSOFT TEAM UP ON CLOUD DEAL

SAP and **Microsoft** have announced a new go-to-market partnership that effectively sees Microsoft take the role of reseller for the S4/HANA and SAP Cloud Platform products. The deal is designed to accelerate adoption of the SAP products on Microsoft's public cloud platform, Azure.

"SAP's decision to select Microsoft Azure as its preferred partner deepens the relationship between our two companies in a differentiated way and signals a shared commitment to fostering the growth of the cloud ecosystem," said Judson Althoff, executive vice president, worldwide commercial business, Microsoft. "Today's news also reflects our commitment to a customer-first mindset and supporting their cloud transformation, which continues to drive how we at Microsoft approach everything from partnerships to product innovation. It takes co-selling to a whole new level."

Capgemini announces Q3 results

Capgemini Group achieved consolidated revenues of €3.5bn in Q3 2019, up 7.4 percent year on year. Digital and cloud activities grew over 20 percent and now generate over 50 percent of group's revenues. Q3 activity remained robust in the UK&I and accounted for 12 percent of group revenues. North America contributed the most revenue with 34 percent followed by France which contributed 20 percent.

Paul Hermelin, chairman and chief executive officer of Capgemini Group commented: "The momentum observed since the beginning of the year continued in Q3. Our performance improved in North America, as we predicted, while growth remained robust in continental Europe.

We see a softer economic environment developing in this year end. Consequently, we are now targeting annual revenue growth at constant currencies of around 5.5 percent – a rate which was the lower end of the range announced in February. We confirm our targets in terms of improved profitability and stronger organic free cash flow. This will represent a solid performance for 2019. Our strong growth in Digital and cloud and our healthy bookings lead us to look ambitiously at 2020.

In addition, Capgemini's friendly tender offer for Altran opened on October 16. We are confident this operation will be successfully completed and in our ability to create a world leader in the digital transformation of industrial companies."

NewsDeals&Wins

Mark Hurd, Oracle CEO, sadly passes away

Mark Hurd, CEO at **Oracle**, sadly passed away on 18th October at the age of 62. In a short statement from Larry Ellison, he described Hurd as "a close and irreplaceable friend" and went on to say that "Oracle has lost a brilliant and beloved leader".

In 2007, Hurd was recognized by Fortune magazine as one of its 25 Most Powerful People in Business. He has been named multiple times by Business 2.0 magazine as one of the 50 Who Matter. Hurd was featured several times in Barron's in the publication's Best CEOs lists. In 2008, the San Francisco Chronicle named him CEO of the Year.

Hurd joined Oracle in 2010 and was appointed joint CEO four year later.

Intacct arrives in Australia, UK not far behind

Sage has launched its financial management platform, Sage Intacct, in Australia with a promise that the platform will soon be available in the UK – perhaps as early as November 2019.

Intacct is a much-anticipated addition to the Sage portfolio as it is a true cloud-first financial management suite that fills a gap in the Sage enterprise tech portfolio. Intacct comes with an excellent reputation and scored well in the latest Gartner report into critical capabilities for lower mid-sized enterprises. Sage acquired Intacct in 2017.

DELOITTE
ANNOUNCES FY2019 RESULTS

Deloitte released its aggregate member firm results for FY2019 in October and reported global revenues of $46.2bn, a 9.4 percent increase year on year.

Growth among the industries was led by energy, resources and industrials, which grew at 20.4 percent, followed by life sciences and healthcare at 12.4 percent, technology, media and telecommunications at 10.3 percent, consumer at 8.5 percent, financial services at 5.9 percent, and government and public services at 2.9 percent. Financial services was the top contributor with $12.4 bn in aggregate global revenue for FY2019 while consulting was the fastest growing line of business at 15.2 percent.

IFS ACQUIRES ASTEA

IFS has signed a definitive agreement to purchase **Astea** International, a global leader in field service and mobile workforce management. The transaction will enable the combined company to serve more customers in more markets through a broader network of the best talent and partners in the industry.

IFS has driven significant organic growth of its field service software business, with license revenues increasing by 119 percent so far this year.

By combining with Astea, IFS will further expand its global footprint beyond its more than 10,000 customers worldwide, of which 8,000 are in field service management (FSM).

By adding Astea to its already robust platform, the combined company will be in an even stronger position to take advantage of major industry trends like servitization to drive more value for customers in all focus industries.

Zack Bergreen, CEO and Founder of Astea said: "We've admired IFS's growth and global scale for a long time and know that they share our customer-centric approach to field service management. I am grateful for the commitment our employees have demonstrated, which has enabled today's transformative announcement."

He added, "As I've got to know Darren and his management team during this process, I can say I'm looking forward to working with the entire IFS organisation to offer our customers the best Field Service Management solutions on the market."

ANDY COCKS TO LEAD NTT'S GTM EFFORT

NTT Ltd. has appointed Andy Cocks as its chief go-to-market officer. Cocks joins NTT's Global Executive team after previously leading NTT's go-to-market business in the Asia Pacific region, and more recently as chief technology officer. He will be relocating from Singapore to his native UK, and will report directly to chief executive officer, Jason Goodall.

Jason Goodall, global CEO for NTT Ltd., commented: "Andy's appointment to the global executive team is reflective of his world-class contribution to our business and the global technology industry as a whole by leading the go-to-market team with great success in the Asia Pacific region. Our go-to-market strategy over the coming months will be a core component of the new NTT as we come together as one company. I know Andy will lead his team to success as we take our unparallel capabilities to market and help clients around the world do great things every day."

On his appointment, Cocks added: "I'm extremely proud to lead NTT's go-to-market team into this new and exciting era. Together, we've created a company that boasts industry-leading products, solutions, and managed services. It's important we take these to market in the right way, partnering with our clients around the world as they make use of our full range of capabilities and help to build the most innovative cities and societies. NTT is going to do great things and I can't wait to get started in the new role."

SAP
ANNOUNCES Q3 RESULTS

SAP's latest results showed that new cloud bookings were up 38 percent and up 50 percent if IaaS was excluded. Cloud revenues were up 37 percent year on year at €1.79 bn however software license sales were down one percent at €0.93bn. Its combined cloud and software revenues were up 12 percent year on year at €5.6bn with total revenues growing to €6.79bn, an increase of 10 percent compared to the same period last year. SAP added 500 more customers in the quarter and now claims 12,000 customers in total for its S/4HANA product, although it is unclear how many of these customers are live.

IFS
ANNOUNCES Q3 RESULTS

IFS says its license revenues for the quarter were up 45 percent and revenues were up 21 percent when compared to the same period last year. Its YTD revenues were up 23 percent compared with last year with a total of $485m of sales between January and September. Cloud revenues, excluding WorkWave, were up 61 percent year to date while growth in its two strongest markets, aerospace and service management, was up 41 percent and 66 percent respectively.


D FF
MELISSA DI DONATO

DARING TO BE ER∃NT

MELISSA DI DONATO DARES TO BE DIFFERENT. AND SHE IS DARING YOU TO BE THE SAME. THE NEW CEO OF SUSE IS UNASHAMEDLY TAKING AIM AT THE ISSUE OF GENDER-BIAS AND DIVERSITY WHILE HATCHING A PLAN TO GROW SUSE INTO A GLOBAL POWERHOUSE. A FORMER SALESFORCE AND SAP SENIOR EXECUTIVE WITH AN IMPRESSIVE TRACK RECORD OF DRIVING VALUE IN THE HIGHLY COMPETITIVE DIGITAL ENTERPRISE SPACE, DI DONATO IS AT THE HELM OF A COMPANY THAT IS SET TO PLAY A SIGNIFICANT ROLE IN THE HYBRID CLOUD ERA.

BY PAUL ESHERWOOD

MELISSA DI DONATO

Melissa Di Donato is the new CEO of **SUSE**, a $2.5bn business that enables more than 13,000 enterprise customers to run mission critical workloads, anywhere. A wife, mother, mentor and ferocious advocate of diversity, Di Donato has placed a target on her own back and said to the world 'who says I can't?' She is bold, outspoken, passionate and supremely confident. And she'll need to be. Because there are likely to be just as many people lined up to celebrate her success as there are waiting in the wings to gloat over her failure.

Not that failure is a word Di Donato understands. Everything she has touched throughout her career has turned to gold and **EQT** (the VC owner of SUSE) don't appoint CEOs to their investments unless they know they have a winner. But, as Di Donato admits herself – she's out there, literally - daring to be different and challenging the world to say something about it. She dresses how she wants. She says what she wants. And she gets the job done. And that, as Di Donato points out, is all that should matter.

"I'm kind of putting a flashlight on my head and saying 'pick on me.' I know that. But do I need to be the woman in a dark suit with my hair slicked back to get the job done?"

Di Donato's style is striking and it would be remiss to ignore it or say that it doesn't matter. Well, 'matter' might be the wrong word - that it's noticed is probably more accurate. But should how a woman dresses have any impact on how seriously she is taken or how able she is to get the job done? Should it matter how any of us dress or present ourselves? We live in a world where we are all equal, right? Where prejudices don't exist, and everyone is treated on a level-playing field irrespective of gender, age, race, sexuality or style. Sure, we do. If we did Di Donato's mission would be a lot simpler. But the plain fact is we don't live in a eutopia and we certainly don't work in one.

How far have we really come?

I start the interview by asking Di Donato how far have we really come in tackling gender-bias and her answer is depressingly honest.

"How far have we come? We haven't come very far at all. To me, the only real difference between when I started 23 years ago as an **SAP** *developer to now is that back then I didn't realise I was the only woman in the room whereas now I do realise I'm still the only woman in the room. It wasn't a topic that we acknowledged back then and now it's one that we talk about. But the distance of time has not really propelled us that much further. What scares me most is that I only realised I was the only woman in the room eight years ago."*

Eight years ago, Di Donato was area VP at **Salesforce** and says that she had an epiphany when her long-time mentor, Larry Hirst - the former Chairman of **IBM** - encouraged her to attend a women's networking event.

"I didn't usually go to women's events – I just wanted to get the job done and stay away from all of that but Larry pushed me to go and it was a real turning point for me. I can remember being sat

"I THINK THAT INTRODUCING QUOTAS OR MANAGING RECRUITMENT AROUND STATISTICS WOULD BE CATASTROPHIC FOR WOMEN."

"I ONCE GOT DUMPED BY A BOYFRIEND FOR BEING TOO MASCULINE. IT WASN'T THE WAY I LOOKED, HE JUST SAID YOU'RE TOO MUCH OF A MAN FOR ME, AND THAT WAS THAT."

there in a room full of women and I was incredibly moved when I heard all their stories of how hard they had to fight to get to where they were. It was only at that moment I realised; I too had fought my whole career to get where I was. I didn't know what I had been fighting against - I do know now but I didn't back then.

"I didn't realise I was dressing myself down or I wasn't allowing myself to be me. Now I walk out with a sense of pride and a lot more make-up because I'm eight years older and I love being glamorous. This is what I look like. This is who I am. Can I do the job just as good as my non-make-up self? Yeah, maybe even better, because I'm a little bit more confident - I think that the industry took away my confidence without me realising it."

Image and gender-bias are two different things but they are linked and the issue of image is much more prevalent for women than it is for men. I can turn up for work in a suit or a pair of jeans without even considering what people think of 'my image'. That's not the same for women and its certainly not the same for those women who feel they either need to dress up or down to fit in with a cultural ideal. We may have moved on from the days of 'sexy secretaries' and dolly girls but Di Donato isn't so sure that some of those attitudes are entirely consigned to history. She experienced exactly that type of image-bias in her early career and says she doubts she would have got ahead on talent alone in the early 90s. Was how Di Donato looked an important factor in her career progression? Probably more than it should have been and as unpalatable as it may feel today, Di Donato is very candid in answering if she would have got the breaks she did if she didn't dress a certain way.

"Probably not. Early career definitely not. There was absolutely a culture of people thinking that if you're going to hire a woman it must be someone nice to look at. I think that once you get to a level, then maybe that's not so much how it is, but even when I was promoted at SAP to a position where I was reporting to a senior female board member the rumour around the industry was that it was like Beyoncé reporting to Mariah Carey – and that wasn't so long ago."

GENDER-BIAS

The topic of gender-bias has been gently simmering for decades and while many organisations have paid lip-service to the idea of promoting and paying women equally, in reality very little serious effort was put into redressing the imbalance that exists across all organisations in every sector of industry. More recently the topic of gender-bias has been pushed further up the agenda and business leaders are starting to take the issue more seriously - but only because study after study has demonstrated that a diverse workforce is actually better for business. I'm not sure the closed shop of the boardroom was opened up to women for any reason other than that.

Despite the current popularity of promoting women not much has changed when you cut through the very thin veneer of corporate politics and PR. Yes, more women are being promoted to senior positions. And yes, some of the most archaic views are starting to soften. But ask most women, irrespective of age and seniority, what they really think and they will tell you that being a woman in the workplace is tough, especially if you are ambitious.

MELISSA DI DONATO

As recently as six months ago when Di Donato was at a final stage interview for the role of CEO, the first comment from the interviewer was about her appearance. Not a question about how qualified she was to take the role. Not an inquest into her experience. Not a query about how she would grow revenues. A statement about how she looked. When you're faced with that as a potential CEO imagine the trickle-down effect at other levels of recruiting.

"I purposefully wore a very plain white suit with my hair up in a ponytail and not looking like I usually do - totally dumbing myself down - because I still felt I needed to conform. And this gentleman said to me within 30 seconds of meeting me, 'I looked you up on the Internet - you looked very glamorous and even more glamorous in person. How are you going to get along with the developers?'"

As Di Donato pointed out – she *is* a developer - a coder by trade with a long track record of thriving in a male dominated industry. If anything, the question should have been how would the gentleman interviewer cope with a strong, confident and passionate woman being his boss? But that's another story.

"I DIDN'T REALISE I WAS DRESSING MYSELF DOWN OR I WASN'T ALLOWING MYSELF TO BE ME – I THINK THAT THE INDUSTRY TOOK AWAY MY CONFIDENCE WITHOUT ME REALISING IT."

With a career that started by implementing early SAP products in the 90s, Di Donato's CV includes stints at **Bearing Point**, **Oracle**, **PwC** and **IBM** but most notably at **Salesforce** where she was regional VP for force.com and more latterly at SAP as chief revenue officer for their digital and ERP business. SUSE is her first role as CEO and it's a big step up in terms of responsibility and profile. However, it's not just the accountability of leading a global tech company that Di Donato is challenged with; being a female CEO adds a new layer of responsibility that she is taking as seriously as the commitment to EQT and driving shareholder value.

"The biggest job I have right now is to be successful. Not just for EQT and SUSE but for all the women out there who are looking for strong role models. I need to succeed for all of them."

Anyone who has spent time with Di Donato knows that's not a token soundbite. Like a modern-day Emmeline Pankhurst (only with much better shoes) she is on an unwavering mission to redress gender-bias across the tech industry through the creation of strong role models, supportive mentoring programmes and an environment that provides the tools women need to prosper. It's a big task because these endemic issues don't have a single source of origin and there isn't a magic wand solution to solving them. Just like all discriminatory behaviour and beliefs, gender-bias manifests itself in both conscious and unconscious ways. Even the most measured and benevolent person can succumb to unconsciously allowing predispositions to affect their thinking.

"I'd rather be on the cover of a tech magazine talking to you about the SUSE business model and why we're the best company in the world but the problem with that is there is a bigger agenda."

And that agenda is simple; get more women into tech and give them the tools and support they need to stay in the industry. Di Donato says that the issues with gender inequality and a lack of diversity has many root causes; poor induction of young women into STEM industries, a lack of suitable role models, and a trap door that sees nearly half of women leave the tech world after joining it.

"We've got five issues - there's a pipeline problem for sure. We don't have enough girls getting into STEM at an early age; we've got a trap door problem with 40 per cent leaving the industry; we have women not sticking around because they are not ascending at the same rate as their male colleagues. And most fundamentally, women knowing they're going to have to prove themselves more than the men and feeling beat down."

That's only four issues – what's the fifth? As Di Donato goes on to say, the contention isn't just related to historic views driven by male leaders and a culture that has been geared towards the male agenda. Women play their part in the problem too.

"We've definitely got a female problem too. Madame Albright, the former US secretary of state once said, 'there's a special place in hell for women who don't help each other,' and I couldn't agree more. I think some women are a big part of our problem, and that a lot of women look at me

and say, 'get off your soap box we're really good being alone.' It has definitely suited some women to be in the minority because they have almost become untouchable and we need to change that."

SUSE AND OPEN SOURCE CULTURE

Di Donato finds herself at the helm of a company operating in the most exciting space within enterprise technology. As the cloud infrastructure market starts to mature there is an unprecedented opportunity to position SUSE as the go-to player for flexible open source software that delivers agile potency to post-modern enterprise architecture.

Whether its enterprise servers, clustering for physical and virtual machines or open-source solutions on public or private cloud environments, SUSE (and the broader open-source community) will be at the forefront of the next wave of digital enterprise technology. **Red Hat** and **IBM** may have stolen the open source headlines recently but that is only testament to the importance that this second wave of infrastructure architecture is going to have on the enterprise technology sector.

SUSE is *the* operating system that powers SAP (and other) workloads globally. It is the platform that provides edge to core potential delivering new hybrid and multi-cloud capabilities that help customers transform their digital infrastructures.

In addition to the multi-model Linux operating system (SUSE Linux Enterprise Server), SUSE is expanding into adjacent open source solutions such as container management and storage allowing new levels of agility and digital transformation while harnessing the nimbleness of DevOps. Its delivery solutions include SUSE CaaS Platform, an enterprise-ready container management solution based on Kubernetes, and SUSE Cloud Application Platform, which runs on top of Kubernetes and helps enterprises achieve their cloud native application delivery goals more quickly and cost effectively. DevOps teams can take advantage of the CaasS Platform to manage a wide range of workloads, including traditional, transitional and cloud native workloads while the Cloud Application Platform solution adds ready-made workflow automation that enables DevOps teams to deliver cloud native applications rapidly, at scale and in multi-cloud environments.

I am keen to find out more about Di Donato's plans for SUSE and a selection of questions and answers from our interview are set out below;

PE: This is your first gig as a CEO and a big step up in terms of responsibility and profile; are you the right person for the job of CEO?
MDD: I know I'm the right person for the job. I have complete faith I can do it, but I can't believe they knew I could do it. There's a very big difference.

PE: Why the doubt that others thought you could do it?
MDD: It's not so much a doubt but I still have to pinch myself when I look at my business card and see CEO on it. I'm married to a CEO and he takes it all in his stride but for me, having to work so hard to get where I am now, it just feels like such a long journey that had so many obstacles. But now I am here. Now I am finally a CEO. It still sounds crazy when I say it but I know I can do the job and I've had amazing backing from the chairman and EQT. They have faith in me and that's all I need to spur me on and prove to everyone I can grow SUSE into the best company in the world."

PE: You don't come from an open source background – you've been in proprietary software for your whole career – is that a problem for the new CEO of SUSE?
MDD: For me, no, but I do get a lot of people asking me 'why are you in open source when you know nothing about the business?' I've been in proprietary software for 23 years. What gives me the right to be in this business? I know how to put an SAP business on top of a Linux operating system better than anybody. I know what's important for a highly available, mission critical system – whether it's SAP or anything else. And that's a hell of a lot more than most other people.

PE: Why is an open source environment right for someone like you with such a strong agenda focussed on diversity and promoting women?
MDD: The beauty of open source is that a lot of our workforce, in fact a third of our people, operate from home in remote locations and that means you can be whoever you want. You could be a man, a woman, you could be in the middle... the beauty of open source is that you can be whoever you want to be. But the problem is that we need to move away from the idea that coding and open source is just for boys and men. I've got a lot of work ahead of me to address the gender imbalance at SUSE but we are already making progress; we've launched a mentoring programme which gives every employee, male or female, access to a role model; we've launched a charity and volunteering initiative which gives all employees the chance to give back and pay forward by taking paid leave to do something for charity – whatever charity or good cause they like; we're introducing schemes to help women in the workplace get access to the things they need like childcare, support for homeworking; and we are looking closely at our recruitment model so we can make it more attractive for women of all ages to join us at SUSE.

PE: What have you achieved in your first 100 days as CEO of SUSE?
MDD: 100 customers in 100 days. I want to be in every major office that SUSE has, which is five around the world, so places like Utah, Bracknell, Germany, China, Taiwan. I'm living on the road and getting in front of as many employees as I can to hear their voice - and I've found pockets of absolutely brilliance. Pockets of employees that have these amazing ideas and this amazing sense of passion. They just needed a voice in which to be heard. SUSE's done well. It's done very well, but the ability for us to do better is tremendous and the more customers and employees I meet the more I realise what an amazing opportunity we all have.

"I'M KIND OF PUTTING A FLASHLIGHT ON MY HEAD AND SAYING 'PICK ON ME'. BUT DO I NEED TO BE THE WOMAN IN A DARK SUIT WITH MY HAIR SLICKED BACK TO GET THE JOB DONE?"

PE: What's your message to the CIOs reading this article?
MDD: I think to the CIOs it's probably going to be the SUSE you knew before and the SUSE you know now is going to be different. It's not because of me and the way I look. It's really going to be much more about the fact that we're pivoting to really focus on building solutions rather than products. We're going to be raising the game and demand more from SUSE.

PE: And a final comment to our readers...
MDD: I want every woman that picks up this copy of ERP Today to see me and say to themselves - I can be anything I want to be. If I can achieve that. If I can inspire women, whether they come and work for SUSE or not, to be who they want to be, to be the best that they can be and to believe that they can really do it – then I will have succeeded." ■

THE STORY BEHIND THE COVER

What better way to depict the issues that many women face than to shine a spotlight on how Melissa used to dress and how she dresses now. It may be easier to be who you want to be when you have the keys to your own $2.5bn business but surely all women, and men, should be able to express themselves without fear of prejudice and reprisals? Surely the clothes we wear and the image we portray has no bearing on our ability to get the job done? Yes we played up the glamour and played down the masculinity – but not by much. Melissa used to dress how she thought the world wanted her to dress and there will be millions of women out there who either dress up or down to fit what they think is the corporate and social norm. It goes without saying that there are some boundaries for personal expression but no-one should ever feel that they can't be themselves. Melissa, and others like her, are spearheading a movement that will liberate workforces and bring our working environments in-line with modern forward thinking culture.

WE CAN WALK THE SAME WALK, BUT DO WE TALK THE SAME TALK?

GEORGINA ELRINGTON LOOKS AT HOW THE SIMPLE CONDITIONING OF GENDERS WILL KEEP THE DIVERSITY CONVERSATION GOING.

DO WOMEN [STILL] REALLY HAVE MORE TO PROVE?

GENDER DIVERSITY IS MORE THAN JUST A RATIO PROBLEM

WOMEN IN TECHNOLOGY

All sorts of people can achieve outcomes of equal impress and diversity brings interesting nuances to the tactics engaged to succeed. But just how far has the gender equality story evolved? Not very far at all according to many, and certainly not widely enough.

Some companies are actively exceptional at setting equality standards. Technology is helping to eradicate some of the prejudicial issues that still exist in the 21st century. But at the end of the day, men and women communicate words, thoughts and body language differently because our brains are wired in different ways. No new info there and there's nothing that can be done about the basic facts of nature. However, from a gender perspective therein may lurk a root barrier for real equality and lead to a possible disconnect in the reception of profitable evidence.

As gender generalisations go women are often considered to be the softer soul while men are cast as being, let's say, firmer. So what happens when both express exactly the same results, or put forward relevant points in the boardroom, or convey their experience and capabilities at a job interview or performance review? Emma Maslen, a board advisor to **Nuggets.life** and **Maiden Voyage** feels that: "Women are less likely to self-promote. So as a hiring manager often we need to 'tease' out accomplishments from females which might be more obvious in males."

So are there some disconnects surrounding the perception of assertiveness, power, and confidence (three different things)? Are women being heard enough when presenting evidence of success? Are they marketing themselves well enough in the work place? And, if they do, how is it received? Could women benefit by coding their communication differently to aid promotion both in terms of reputation as well as an upgrade in the company hierarchy? Why should they have to, and does that mean that they have more to prove? Emma Sinclair MBE, CEO and co-founder of **Enterprise Alumni** doesn't think so. "The answer of course is no, they do not have more to prove. Or certainly they don't in my world or my business. I suspect right now it's more a case of 'they shouldn't have more to prove but they may feel that they do.' There is a lot of talk about bias that affects women in the work place including the penalties and punishment women's careers receive when they do not conform to the socially prescribed roles and behaviours.

"Women are traditionally expected to be caring, warm and emotional whereas men are expected to be assertive, rational and objective. So, when it comes to being assessed these traits all point to men being more fit as leaders. Additionally, when women don't fit these societally prescribed roles, they are questioned. So a decisive woman is an abrupt, bossy woman whereas a man would be commended for leadership. Perhaps it's not therefore that women have more to prove than male counterparts but that they simply have to work harder to get the same outcome, respect and promotions?"


EMMA MASLEN
MAIDEN VOYAGE

I happen to wonder the same thing. In fact I have come to feel that a large part of the gender diversity problem concerns 'noticeable prowess'. By this I mean the perception of confidence when demonstrating capabilities and worth in the most evidential way. Another side of this communication relies on the ability of the individual receiving that information, how they process it, what their ingrained beliefs are, and how those beliefs got set in the first place. But, putting personal ponderings aside, the bottom line is the bottom line. Results, be they delivered with grace, volume or something in between should be rewarded with equally respectful recognition. Once scored, the next measure is who actually gets the job appointment, the promotion, the pay rise, the VP status, the CEOship. Aside from a demonstrable can-do attitude accessorised with buckets of self-assurance how much does the loudest roar actually matter?

"WOMEN ARE LESS LIKELY TO SELF-PROMOTE. SO A HIRING MANAGER MAY WE NEED TO 'TEASE' OUT ACCOMPLISHMENTS"

EMMA SINCLAIR
ENTERPRISE ALUMNI

panies like **Deloitte** and Kainos as they are very supportive workplaces. It helps that in my current role there are a lot of senior females in the division who provide mentoring and guidance that spurs me on to be a success, every day.

"From my own experience, getting into schools and ensuring that females are aware of the career opportunities open to them at a very young age is what will make the most difference in ensuring women don't feel that they have more to prove. I think that over time the establishment of more industry groups like Women Who Code and Women in Tech, as well as the promotion of more female role models in the industry, has really helped encourage that confidence young women sometimes need that little bit more of."

How long will the gender diversity conversation continue?

If someone goes about their work more quietly, but just as fastidiously to bring in the same level of impressive results, are they easier to overlook? Does this add to an unconscious bias that leads to people being ostracised from progression? Does the diversity gap need to address more of the communication issues when it comes to commanding respect when both genders are highly capable of walking the same walk? Perhaps. But not in all instances as of course there are companies that already have fair recognition and selection protocols in place.

Rachel Head was recently promoted to principal consultant at **Capgemini**. "I experienced the process first hand and there was no agenda. In fact everyone nominated went through the same demanding process and, based on the results, either got though or didn't. I believe we completely undermine women's equality agenda if promotions are given without merit. Equality can only be found if everyone is given the same opportunity to succeed."

"DESPITE ALL THE INITIATIVES, MENTORING AND COMMENTARY, THE PACE OF CHANGE DOES STILL SEEM RATHER GLACIAL"

Supporting female diversity and inclusion

"I have never seen gender as a barrier for me to prove my talent. In fact I personally took the option of ignoring it to focus on doing the best job for my clients and Capgemini. I don't believe this is the same for all organisations and I do think some women have to work far harder to prove themselves or adapt their personal style to fit in. I never intend to compromise my own beliefs and values to try and fit in," said Head.

We need more of this leadership example. Leah Thompson, an HCM consultant for **Kainos**, spoke to us on the matter and said: "Women are certainly under-represented in the industry with around 20 percent of the workforce being made up of female technologists. I've been very lucky working for com-

Maslen believes that we're "plateauing in terms of progress," and Head states: "Let's face it, when equality wasn't talked about it was a problem, so we need to keep the conversations going. Equality doesn't stop with

RACHEL HEAD
CAPGEMINI

"EQUALITY CAN ONLY BE FOUND IF EVERYONE IS GIVEN THE SAME OPPORTUNITY TO SUCCEED"

WOMEN IN TECHNOLOGY

women, we need to focus on other groups of people that have been held back through no other reason than ignorance or prejudice. In my opinion we have to keep talking. We have a lot more to do to make our workplaces truly inclusive but with increased awareness we can all bring about this change."

There is plenty of evidence that diverse teams can make a company more successful. It also makes a business more attractive as an employer. "Including women in the workforce at every level is good for business. So I'd say now that is measured and conclusive businesses can no longer afford to ignore it," said Sinclair.

However, it is still taking a while for leading companies to promote more women to senior positions. This could be due to the late start in the journey for many entering the technology sector but we are starting to see a shift. "I think we're finally seeing the results of STEM, conversations in our schools and universities making tech, engineering, etc. roles more appealing to all, including women," said Head.

SHILPA SHAH
DELOITTE

"FEMALE LEADERS SHOULD MAKE THE MOST OF THE OPPORTUNITIES THAT DIGITAL PLATFORMS PRESENT"

Sinclair said that when she first started out "nobody talked about the lack of female leaders or absence of female voices or certainly not the mainstream. In fact I am not sure I even thought about it much to be honest. My first professional job was in a bank and there was no 'women in banking' initiative. In fact there were barely any women in banking at all. There were no women's meet ups, networking events, accelerators and incubators. Newspaper sections that focussed on women in leadership, such as Wonder Woman in the **Telegraph**, were not even conceived until 2012. Now there are female focussed networks, gender diversity focussed corporate initiatives and members clubs such as the Wing opening all over the world to bring thinking women together."

She went on to highlight the movement of women with money and power mobilising for the cause. The likes of Melinda Gates, for example, who has committed $1bn to promote gender equality. Data is also exposing the massive inequalities faced by women such as: the pay gap, venture funding, board positions, the contribution to the economy women would make if they were fully mobilised, growth in female entrepreneurship. "It's all being quantified," she said. "The evidence to motivate fixing this is compelling and the topic is very much on every agenda. And bad attitudes are increasingly being met with rejection. That said, despite all the initiatives, mentoring, studies and commentary the pace of change does still seem rather glacial."

Creating a positive platform for younger women

Shilpa Shah, consulting director and leader of Deloitte's women in technology network weighs in on this point. "All leaders have a responsibility to create a positive platform for the next generation. There is a lot of research demonstrating the influence role models hold over education and career choices, with many continuing to cite the mantra that 'you can't be what you can't see.' Female leaders should make the most of the opportunities that digital platforms and social media present. Only one in three girls will have access to a female role model working in technology, but using digital platforms and social media can be effective in allowing people to connect and learn from a wide range of female role models."

She also prescribes guidance from leaders to help to create opportunities for younger women to build their own profile. This could take the form of taking them to meetings with other senior leaders, finding opportunities for them to speak at events, and including them in teams when creating new propositions will benefit all parties.

Early on in my own career I made the switch from an all female marketing department for a high profile luxury brand after being seduced by the buzz of the tech industry. In the space of about a year the company I had joined grew from five people to a 50-strong highly talented and progressive workforce. Out of those 50 people five were male. If anyone was unhappy about the ratio it never reached my ears. The mentoring and encouragement that I received during my tenure there, from the female CEO, was by far the best I

have ever experienced and that was back in 1999.

Head supposes that the mechanistic answer is that "we still need to work on recruiting amazing female talent and retaining it. My experience tells me that more critically we need to make sure we have great leaders in critical roles now to attract talent, where future employees look at our leaders and our people and want to be part of it. We need to continue to grow a culture where people succeed through their talent and strengths regardless of who they are."

LEAH THOMPSON
KAINOS

Tackling bias to nurture the existing talent pipeline

"Unconscious bias still exists and whether we like it or not we all have this bias, even those who are incredibly self-aware," said Maslen. Tackling this however is complex and multi-faceted. She highlighted key issues that include having enough female role models at the top, and the sponsorship of diversity vs having a diversity strategy. "Sponsorship of D&I (diversity and inclusion) programmes is still a tick box and not a strategy involving all levels of management," she said. In terms of multi-level management education Maslen also points out that D&I sponsorship is usually at the top. "Few companies ensure all levels of management are bought in and supportive of the programmes." She also queries what companies are actually doing to solve the issue of pipelining and talent acquisition.

In terms of training, development, mentoring and sponsorship "the challenge cannot and will not be solved by only addressing one or two issues. A full D&I strategy is needed with all elements with actionable deliverables and targets at each level. For example I have seen many development events where an executive sponsor is present but no managers or executive team. Employees then feel disheartened and disengage. Or maybe you see external female hires and no internal talent growth or development which is killing your young talent pipeline. D&I must be a strategy flowing through every level and every team."

> "ENSURING THAT FEMALES ARE AWARE OF THE CAREER OPPORTUNITIES OPEN TO THEM AT A VERY YOUNG AGE IS WHAT WILL MAKE THE MOST DIFFERENCE"

Pitfalls of simply ticking the diversity box

Are there cases of companies promoting women purely to be seen as diverse without really solving the underlying attitude towards equality? "I am sure this happens," said Sinclair. "But in so doing senior women in that leadership position can be part of positively impacting the underlying attitude issues towards leadership from an elevated position. That said, a reminder that fixing the problem is not a women's issue, it's everyone's issue."

Maslen added that this goes back to sponsorship and education of the multi-level management. "There are practical 'safety-nets' you can put in place talent acquisition quotas and diverse interview panels. But if the hiring managers are not 'sold' on the benefits of diversity - nor self-aware of their own biases then there is little hope. A comprehensive D&I strategy which includes manager self-awareness is key to cracking this," she said.

There's plenty of evidence to prove that a diverse company is a more successful one (if they've hired the right skills). But we cannot hire to simply tick a box to meet diversity legislation. It would be stupid to do so if it meant bypassing the best person for the job. Great leadership, smart self-marketing and more receptive listening skills alongside AI and machine learning could help to minimise the gender diversity gap.

Skills, no matter what shape they come in, are the collective value of a company. And those skills should be rewarded in equal measure in terms of progression opportunities, respect, promotions and pay rises. We're a human melting pot of emotionally intelligent beings whether we are male, female, or in the process of switching gender if not having done it already - which will undoubtedly add even more to the diversity story. It would be nice to believe that one day, for the right reasons, stuff like this doesn't even need talking about. ■

What Macron knows

ABOUT PROFIT MARGINS THAT YOU DON'T

Why, where, and how you should be taking a deeper interest

BY DR. ZARA NANU

In France during 2018, President Macron's administration declared gender equality a priority. Legislation now requires that companies with at least 50 employees publish information each year on Gender Pay Gaps and actions taken to address issues. Germany gives workers at companies with over 200 employees the right to find out what their co-workers of the same level and opposite gender are earning. There are multiple examples of gender equality legislation popping up around the world and the world is (mostly) behind this change. But why, and how should you be looking into it?

Gender equality and equality in general has often been pitched as 'the right thing to do,' and it is. But that's not all it is. It may or may not shock you to learn that diversity is not just good for business, it's incredible for business. For the people in the know, fast tracking the journey to improved diversity and inclusion is a crucial step forward if you want your company and your country to lead.

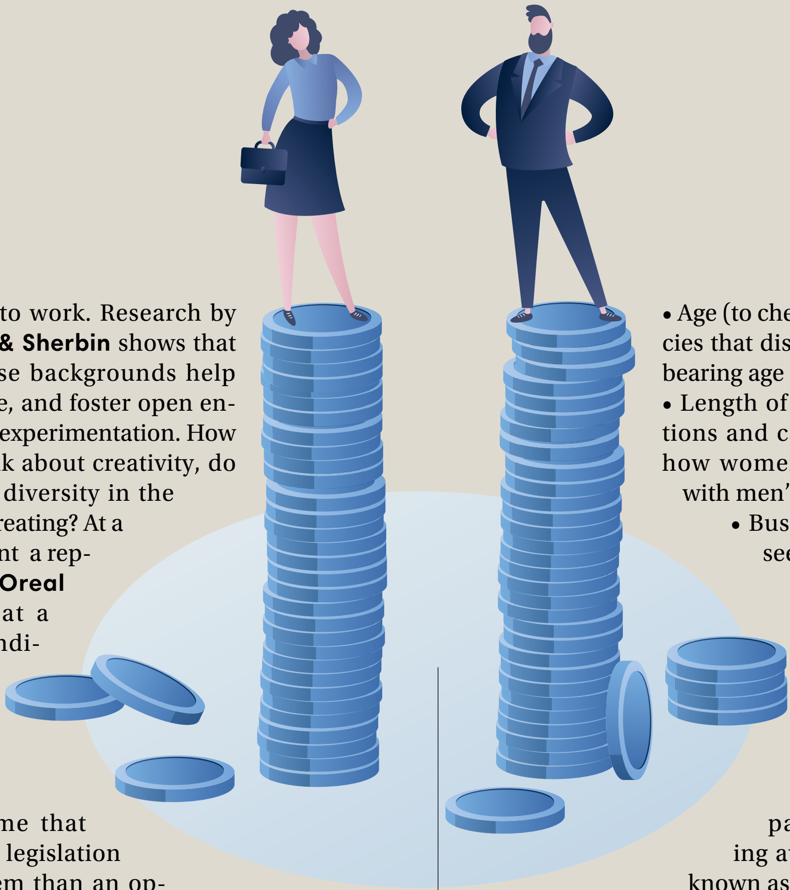
What Macron knows, that you might not, is that promoting a diverse workplace is one of the key strategic and policy decisions you need to be making today to ensure that your company prospers. Diversity not only improves employee retention rates, draws prospective employees towards a company and drives innovation, it also pays off directly. Just like the actions of global leaders, the stats are quite clear. According to a report by McKinsey gender-diverse companies are 15 percent more likely to financially outperform their competitors and ethnically diverse companies are 30 percent more likely to do the same.

> "Employees look at how a company's behaviour reflects what they stand for, how they want to live and who they want to be"

Diversity brand image is increasingly important

In all the talk about recruiting the best, how often do we interject that diversity is paramount to the hiring process on a sheer employer brand level? Large corporations are already doing something about it with policies around parental (maternity & paternity) leave, time off for carers, benefits programmes that are positive for 100 percent of their employees and guaranteed opportunities for the whole workforce (rather than half of it). It may hurt right now, but employees are looking to see how a company's behaviour reflects what they stand for, how they want to live and who they want to be. According to **Glassdoor**, 67 percent of job seekers look at workforce diversity when evaluating an offer, and **PwC** found that 61 percent of women look at the gender diversity of the employer's leadership team when deciding where to work. Talented individuals go to companies who do better with diversity, which also contributes to diverse companies outperforming their competitors.

Diverse workforces also drive more inno-



vative approaches to work. Research by **Hewlett, Marshall & Sherbin** shows that leaders with diverse backgrounds help companies innovate, and foster open environments for idea experimentation. How often, when you talk about creativity, do you talk about the diversity in the room when you're creating? At a recent Equileap event a representative from **L'Oreal** said 'I believe that a diverse group of individuals is always smarter than the smartest person in the room', and she was right.

Before we assume that increased diversity legislation is more of a problem than an opportunity, it is important to know that pay reporting actually pays off. UK legislation - which mandates for companies with a workforce of more than 250 employees to report on their gender pay gap on an annual basis - has had a huge impact on the companies engaging with it, their employees and general approaches to the workforce. We have seen this in the clients we work with over and over again. In general, reporting pay equality and the transparency of data has a positive impact on all minorities in a workplace and how fairly they are paid, and then impacts positively on the company as a whole: up to 15 times more sales revenue to name just one example.

Start by knowing the numbers

In our experience there are times when fear and not-knowing can hinder innovation and maximisation of talent. When looking at the entire, fast-moving pay transparency agenda where do you start? There are a range of indicators in your system which can help.

What to look at when looking for pay equity issues:

> **"For data transparency and reporting, fear and not-knowing where to start can hinder innovation and maximisation of talent"**

- Age (to check unconscious bias or policies that disadvantage women of child-bearing age for example).
- Length of service (to look at promotions and career progression, and see how women's progression compares with men's over time).
- Business Unit/Department (to see if there is any occupational segregation, and whether women are concentrated in roles which pay less per hour).
- Grades/Job level (to see how gender plays into promotion, and to make sure men and women are paid the same when working at the same level (otherwise known as equal pay).
- Ethnicity (to check the gender pay gap by ethnicity; usually higher for women who are non-white).
- Full Time Equivalent (to see how women work in part-time roles, as these usually pay less per hour).
- Location and Market Rate for roles (to help explain to employees pay differences in locations).

This data, when analysed from the right angle, provides decision makers with smart insights into how to reshape their company, and helps them create fairer, more productive and more diverse teams.

The way forward for companies now is to deep dive into the statistics, recruit employees who see themselves belonging to your company culture and values, and to make sure you don't lose great talent. Do all of this with impeccable, incontrovertible data. And if you don't believe us, or the research, just ask our friend Macron. ■

Dr. Zara Nanu is the CEO and co-founder at Gapsquare.

Alan Laing

For the challengers

IFS may be the biggest (and best) ERP vendor that you haven't heard of. With sales approaching $700m and plans to hit the $1bn mark by 2021, IFS is a taking a refreshing approach to selling enterprise technology. "We are basing our proposition on service, outcomes and time to value", says Alan Laing, UK managing director. **Paul Esherwood** stopped by their sparkling new HQ in Staines to find out more.

IFS is not a newcomer to the enterprise technology sector. It was formed in 1983 and two years later released its first product, IFS Maintenance. From its base in Sweden, the company grew organically and rolled its products out across Scandinavia and eastern Europe, floating on the Swedish stock exchange in 1995. Since then IFS has conquered new geographies in north America, central Europe, the UK and Asia and now operates in more than 50 countries. Its revenues have soared to almost $700m and its growth, in terms of revenues and cloud license uptake, is far outstripping the wider ERP sector's performance. It employs more than 3,500 people and has 10,000 customers world-wide. In 2015 it was acquired by EQT, the Swedish private equity house, and is on course to reach $1bn in revenues by 2021. Impressive stuff; so why has no-one heard of them?

If you work in aerospace and defence; if you run an airline or transport fleet; if you are involved in manufacturing and distribution; you probably *have* heard of IFS. But if you're not in one of those asset-heavy verticals, IFS may just be the best ERP vendor you've never heard of and need to get to know. Globally recognised as the leader in field service management, enterprise asset management, and fleet, workforce and maintenance scheduling, IFS Applications 10 is amongst the most functionally rich and user-friendly software suite available. Its recent acquisition of **Astea** (see page 36 of this issue) further enhances the IFS portfolio and its tie-up with **Acumatica** (see last issue page 12) brings a new set of cloud-first capabilities to the IFS stable. It is very vertically focussed so if you are a retail customer or in financial services they won't be an ideal stablemate. But as their portfolio of applications and solutions deepens they are beginning to make an impact with the upper tier of enterprise customers – historically the stronghold of **Oracle** and **SAP**.

We pride ourselves on doing exactly what it says on the tin.

"One of the things we are most proud of is our

Ambition, opportunity and passion

Having just opened their new head office facility in Staines, I spent the day talking to Alan Laing, UK managing director, about uncovered ambition, differentiation, solutions rather than products, time to value…and rugby.

A former Oracle and **Sage** senior executive, Laing joined IFS in November last year after being dragged out of semi-retirement by new CEO, Darren Roos. A solicitor by trade, Laing cut his teeth in the tech world working for a company called DEC that was at the forefront of the micro-computing revolution in the mid-80s. While negotiating patents in Hong Kong and China, Laing bumped into some Oracle people and soon joined the ranks of big red where he stayed for almost 15 years. After leaving Oracle in 2000, Laing joined **Avaya** – the unified comms company – before moving to Sage in 2014 where he spent five years prior to joining IFS.

"I joined in November last year and it was a really exciting time because I'd actually gone and talked to several customers to find out what IFS was about. I got this great feedback about the product and people. Everyone said they are easy people to work with. That their people stayed on the journey and whoever sold you the thing was there when it was being implemented and beyond."

New CEO Darren Roos has to take a lot of credit for pivoting IFS into the kind of organisation that it is today compared with the one he inherited some 18 months ago. Aided by a significant chunk of capital from EQT and an inherently strong belief that it was possible to build a software business in a different way, Roos has ignited a feel-good factor around IFS – and its infectious. The branding and marketing is now on point; the company framework has been redefined in a simpler and more coherent structure; a strong CSR policy has been introduced to 'give back and pay forward' leading to a much clearer and worthier identity, and the leadership team has been invigorated with clear and decisive authority.

"Just after I joined, Darren organised an offsite meet-up and I came away from that feeling like I'd been pumped full of drugs because it was like, 'wow, what an opportunity, even bigger than I'd thought'. We came together as a team and the combination of our management capability, our experience, the joined-up thinking, the same values and the same passion – it was second to none. We're on a road now; we're winning some good business, we're winning some big business, and I think we have got a very good handle on what our differentiation is."

The IFS difference

One, among many, differentiators for IFS is that they are not hell-bent on pushing their customers to the cloud. While most vendors have chanted for several years that SaaS is the way forward, IFS has taken a more pragmatic and measured approach by offering customers choice rather than ultimatums. Yes, cloud revenues are growing at IFS faster than any other part of their business. And yes, they are transitioning many customers from their install base to the cloud. But, they aren't in a rush to do it and they are taking a customer-led rather than vendor-led approach to delivering the transformative technologies needed by their clients.

Laing said: "Our customer base is approximately 80 percent on-premise because that's our history. Now that we have added our cloud and managed service capability a lot of customers are moving down the path towards cloud. But for a lot of customers, in the industries we serve, cloud is not in the top five priorities that they want to talk about. We want to offer choice and we want people to make the right decision

ability to reduce the time-to-value for customers

for the right reason. It's easy to get a bit carried away with the Salesforce model and think that's the only way to do things. Other vendors look at Salesforce and see it took them 10 years or so to get to $12bn in revenues. They hardly turned a profit but their stock market valuation was off the chart and that's become a model that many are trying to replicate. We build our products and services for our customers rather than building things with profit and shareholder value in mind."

Products that deliver rapid ROI

Talking about outcomes and solutions rather than products and services is not unique to IFS. Many technology vendors and consultancies are refocussing their offerings to be much more aligned to an end goal, with technology as an enabler, rather than boasting about product capabilities. IFS is taking a lead in this conversation, not just by developing technology which can deliver demonstrable ROI, but also in its broader approach to implementation strategy.

"One of the things we are most proud of is our ability to reduce the time-to-value for customers that select IFS," said Laing. "The days of spending several million pounds on some software, taking a year to implement it and three years to see the benefit are over."

One of the main reasons that IFS is able to deliver rapid ROI for their customers is the way in which their products are developed and deployed. Of course the core offering is based on a set of applications and methodologies that form the ERP suite. But, many of the innovations that deliver maximum value are derived outside of these generic task orientated applications and are built on the back of deep domain expertise. Afterall, in finance a general ledger is a general ledger - and although organisations may set up their chart of accounts differently or apply different rules or logic to their finance functions - the core ERP is fundamentally transacting and recording the same type of information for all businesses. The innovation that drives a competitive edge is something that is built and deployed for a specific customer to solve a specific problem, and IFS is still at the scale where enterprise customers can influence the vendor (rather than the other way round) and they are able to build capabilities and extensions to tackle unique scenarios.

"We're at that size you can influence us. You can influence our road map and tell us what you need. We have a very strong industries team here and they understand the specific challenges which we can address, not through customisation, but through building the capability into the core. That agility from being a mid-sized player as opposed to one of the really big guys is much more prevalent and it's a big differentiator for us," said Laing.

Challenges for IFS to overcome

As with all good news stories (of which this is one) there are challenges that IFS will need to address if it is to retain its momentum. The first of these hurdles is to bring its install base up to the current 'Apps 10' version of its software so that they can benefit from the significant development that has gone into the product over the past few years. Many IFS customers are still languishing on much older versions and finding a way to create a clear business case for these customers will be key. Many of them will be smaller and more traditional manufacturers where the argument for spending any money on a technical upgrade project will be challenging to overcome. One option for IFS would be to transition those smaller customers to the Acumatica product which is a cloud-first SaaS suite that recently joined the EQT portfolio. However, there is no official relationship between IFS and Acumatica as yet and the arrangement is merely one of mutual benefit rather than true partnership. It may be that IFS would prefer to retain those customers, even if they are starting to slip below the level of their target market, and find an alternative way to bring them up to date.

Another challenge for IFS is the development of a true SaaS product that can be deployed in a multi-tenant public cloud. As Laing was keen to point out earlier, the majority of their customers are not focussed on moving to the cloud so it may appear this is not a factor for the vendor to be concerned about. But it should be, as the product development timescales for a fit-for-purpose SaaS product is years, not weeks or months, and at some point in the not too distant future when there is a higher level of maturation for cloud technologies, IFS will need to have a product that can at least be offered as an option, even if their customers may be slow to buy licenses at first.

While IFS' brand now looks like something that belongs in the 21st century it still lacks serious

"I came away from that feeling like I'd been pumped full of

recognition within the upper tier of enterprise customers. It is making in-roads and they now includes the likes of **Sky**, **Rolls Royce**, **National Grid** and FI team **SportPesa Racing Point** amongst its customers. However, there is still work to be done and one of the very best ways to drive brand awareness will be through an enhanced partner network that will effectively do the their bidding for them. IFS is strengthening its eco-system by enlisting new channel and implementation partners. However they are still some way off from convincing the likes of **Deloitte**, **PwC** and **Capgemini** that an IFS practice is a viable option and it will be interesting to see how this proposition develops over the next 12 months.

My final thoughts

IFS has a new-ish leadership team that is energised and motivated to build a business they can be proud of. Their customer base is not only loyal but satisfied and their products are exceptionally good when applied in the verticals that they serve. Under Roos' leadership on a global scale and Laing's leadership in the UK, they have two executives with clarity of purpose and the experience to deliver on their plans. Most importantly, IFS is realistic about where they can add value and they have zeroed in on the verticals where they can be the leading player rather than dilute resources and energy trying to be everything to everyone.

Laing summed up by saying: "We are the alternative and there's a different way of doing ERP. You might not have heard of us but this company is on the move. It's not a new company so you're not risking yourselves by buying new technology. You're buying hundreds of man years of experience backed by a renewed energy, renewed ambition and the fact that we get it right. I have lots of conversations with customers where they look me in the eyes and say, 'are you going to deliver this for me? Because they have been bitten before - it's easy to say but difficult to do - and we pride ourselves on doing exactly what it says on the tin." ■

drugs because it was like, 'wow, what an opportunity…

Why modern ERP is the key

TO HARNESSING EMPLOYEE ACTIVISM

An activist employee is an engaged employee.

BY STEPHEN JAMIESON

The past few years have seen a sharp rise in employee-driven activism. From public declarations to staff walk outs, employees have found creative (and often very public) ways to demand their companies take a stand on the issues they care about. We have seen employee protests around in-house issues like sexual harassment, pay equality and questionable commercial relationships and around wider societal, issues like controversial government policies and inaction on climate change. These protests make headlines, but they also reflect a wider trend of employees choosing to work for companies that reflect and support their own values.

According to a report from **LinkedIn**, 71 percent of professionals said they would take a pay cut for a company with a mission they believed in; and 39 percent would quit a company if the employer asked them to do something they believed to be unethical.

Business leaders have taken note and employee activism was credited as one of the factors in convincing company leaders to commit publicly to making their businesses accountable for more than just shareholder value. On August 19th, 181 CEOs from global Fortune 500 companies signed a statement produced by The Business Roundtable, which extended the purpose of a company beyond shareholder value to a commitment to employees, suppliers and communities.

> **"We have found that a one percent increase in our BHCI has led to a €100m impact on our bottom line"**

In achieving this purpose, companies will only be considered as 'good' as the outputs they measure. Simply paying lip service to cosmetic initiatives, which has too often been the approach of many businesses, is unlikely to ensure long-lasting employee engagement and advocacy. In fact, the rapid growth of employee activation suggests a widening gap between employee expectations and business execution. In respect to the 'climate breakdown' agenda a recent study by **Carbon Credentials** consultancy found that 57 percent of employees do not trust their employer's claims in this area. This begs the questions: Are we reaching a tipping point of employee-based activism, how well are businesses prepared to meet this challenge, and what innovations are needed to measure and show results?

Understanding and empowering employees to act

A holistic approach to understanding, managing and measuring the employee experience is a good place to start. Experience management tools like engagement and pulse surveys, or always-on feedback, can give employees a line in to their employers. The feedback gives executives insight to the hearts and minds of employees which, in turn, helps them understand the daily implications to their business. The other opportunity inherent in having activist employees is to get them engaged in issues at an individual level as well as enlisting them to help find solutions to the genuine business challenges that limit progress. At SAP, we use a range of new tools to help harness employee's appetite for positive change. However, programmes like this can only scale as effectively as an organisation is able to measure an individual's impact. For example, there is little point identifying that an employee can make a 90 percent carbon saving by taking the train from London to Paris rather than flying if that information isn't integrated into the booking systems and overseen by managers with an incentive to act.

Companies need to innovate in order to use the data stored within core ERP systems in a meaningful way. They also need to embed social commitments into business objectives to help provide accountability and transparency with external stakeholders and trust amongst employees.

Preparing businesses to meet the challenges

Employee activists don't just want companies to voice support for the causes they believe in. They want employers to commit money and resources to developing solutions that contribute to the greater good. Modern ERP provides much of the tooling to enable this, but has traditionally lacked the innovation across the supply chain to provide real understanding and transparency of what is often a complex system. However, this is starting to change.

Digital procurement technology platforms now make it easier than ever for businesses to connect and work with social enterprises. For example, procurement platform SAP Ariba is now integrated with certification schemes from NGOs like **OceanCycle**, a social enterprise focused on assisting businesses in making large volumes of products out of ocean plastic.

This sharing of data and information helps business to collaborate on sustainability models which are mutually beneficial and help the greater good.

"The other opportunity inherent in having activist employees is to get them engaged in issues at an individual level as well as enlisting them to help find solutions to the genuine business challenges that limit progress"

Measuring and reporting results

By expanding their commitment beyond shareholders to employees, partners and communities, businesses will also be expanding their accountability to include new metrics and to appease more stakeholders. NGOs like **Greenpeace**, **WRAP** and the **Ellen MacArthur Foundation** will monitor businesses in much the same way as traditional regulatory bodies and investors.

For some organisations this will be seen as a significant burden, but in fact, companies that already have a robust ERP system governing their business should already have the tools in place to measure and report this data.

We have been working hard over the last 10 years to deliver a clear sustainable business agenda supported by a fully integrated annual report, covering not only financial performance, but also environmental and social metrics. The results have confirmed our belief that doing good is good business. We have found that a one percent increase in our Business Health Culture Index (BHCI) has led to a €100m impact on our bottom line.

This isn't the first time in history that employee activism has driven corporate and social change. What is new, though, is the ease with which employees can communicate with like-minded individuals and carry that conversation into the public domain. The good news is that an activist employee is an engaged employee. They believe in the ability of businesses to solve big problems. But until companies can harness their internal resources to drive change, employees will continue to compel them to do so; or leave and work for another company that will. ∎

Stephen Jamieson is head of sustainable business innovation, Northern Europe, SAP.

It’s no longer a

ERP VENDORS

two-horse race

As the post-modern ERP market matures there's more choice than ever and the opportunities for ERP buyers could not be better.

BY PAUL ESHERWOOD

ERP VENDORS

It used to be said that no-one ever got sacked for choosing **Oracle** or **SAP**. Now it's more likely that you could be sacked if you fail to consider the alternatives. Whilst it is still true that the red and blue ERP products are more functionally rich, more mature and generally offer a more complete solution, other vendors are now able to pitch themselves as a valuable alternative.

Historically, ERP suites sat firmly in the back office to transact and record. Fast-forward to 2019 and the current ERP system is much more people orientated and plays a pivotal role in many front-line services where digital technology is changing the shape of sales, marketing, employee experience, and customer contact.

We are already in the second phase of cloud-enabled business applications and that is a good thing for customers. The first flavour of SaaS products were a paler version of their on-premise counterparts. Many lacked the depth of functionality that had been available through installed applications and were largely untested products released to a naïve and expectant audience. Over the years the offerings and applications have improved, and today, most are a match for their predecessors in terms of depth, breadth and usability. The vendors 'learnt on the job' and now offer a portfolio of SaaS applications that, in theory, can live up to the hype.

BUYER KNOWLEDGE IS CATCHING UP

However, while the vendors have been busy bringing their products and services up to scratch, ERP buyers have been busy too. They have been watching and learning at the same rate and many are far more clued-up today than they were when cloud apps and infrastructure were first thrust into the limelight some 10 years ago.

At that time, there were very few genuine use cases of cloud applications delivering the cost savings and competitive advantages that went with the story. ERP buyers were faced with taking a leap of faith based on untried and untested methodologies and economics. Some did, but many didn't. And those that did will certainly have spent some time reflecting on the choices and decisions made when SaaS was in its infancy.

Some of the early narrative around cloud adoption was blunt and unhelpful; 'there is only one game in town and if you don't join the cloud you're on your way to being out of business,' or words to that affect. Oracle and SAP both initiated plans to move their customers to the cloud by bringing an end to support for on-premise products. Both announcements fell flat and neither resulted in the kind of uptake that the two biggest ERP vendors hoped for. In fact, the only outcome either announcement really achieved was to give a boost to the likes of **Rimini Street** and to force CIOs to seriously evaluate their ERP roadmap – often resulting in a broader choice of technology being considered.

We could all do with a little extra intelligence. But just how much more intelligent does a business need to be in order to survive?

LOCKED OUT BY ENFORCING LOCK IN

Lock-in had been an issue in the ERP sector for decades. Whether you were legally obliged or metaphorically handcuffed, it was very difficult to move away from your technology partner once an ERP solution had been living and breathing in your business for a decade or more. Even dissatisfied ERP customers chose to stay with their incumbent providers because a technical upgrade was always easier than full scale abandonment. Like an unhappy marriage, it was less painful to stay put than to consider pastures new.

However, the dawn of SaaS applications had an unintended consequence for the big ERP players. It actually opened the eyes of many CIOs to the possibility of looking for credible alternatives. Faced with a deadline to be off installed applications, and the task of radically changing business models to fit with cloud methodologies, ERP buyers began to evaluate the choices more closely.

IFS, **Unit4** and **Infor** are three vendors that have benefitted from the opportunity these market dynamics have presented. Once considered niche players, they now offer stable, dynamic and broad software solutions to match their bigger rivals. They have hired-in top talent (often from Oracle and SAP) to spearhead growth and have managed to create a culture that is seen as refreshing and 'friendly' when compared to the corporate beasts from Redwood Shores and Walldorf.

Other more niche players like **Advanced**, **Acumatica** and **FinancialForce** offer exceptionally good applications with vertical or horizontal functionality - although some of the more niche players lack the breadth that may be required by larger enterprises, their products and services should not be discounted. And **Sage** is also resurgent with a much more enterprise-friendly portfolio that will soon include the Intacct product range that it acquired back in 2017. Intacct is a cloud-native suite of applications that will fill a gap in the Sage offering and appeal to customers who want a true SaaS product for financial management activities.

However, it remains true that in many cases it's still a toss-up between blue and red for the largest of enterprises (although **Workday** is keen to have its say on that matter). Oracle's Cloud Applications are the most functionally rich of all the ERP vendors and they maintain market-leading status in the SaaS ERP space. SAP's S/4 offering is already on its fifth release and it is now equally as rich as the ECC product it replaces. And Workday's financial offering is rapidly becoming more sophisticated, save for some localisation issues that have affected some global roll-outs, and is now a true match for large enterprises when compared to Oracle and SAP.

WHAT'S WRONG WITH SAAS?

There is no doubt that the benefits of SaaS and evergreen applications have been overstated (in some, perhaps many, cases) and the furore has started to calm. Claims that a new solution could be implemented in a matter of days turned out to be false and although some vendors still persist with this narrative, most are taking a more sensible approach to promoting the virtues (and the challenges) of SaaS.

Many businesses with stable installed application estates can bring some of their processes into the 21st century with tweaks rather than total disruption.

Cloud applications were touted as a magic-wand that would reduce costs, drive efficiencies and boost competitiveness – and while those three statements are all true – the simple fact is that many of the early adopters of SaaS applications underestimated the time, cost and disruption involved in migrating to the cloud, while the benefits that should have been realised were lost in poorly conceived projects and difficult implementations. I think we have been here before.

It is not so much that the technology itself under-delivered. More, that the associated business case and cultural change that is required to breathe life into SaaS was never fully explained by the vendors and often overlooked by consultancies. There are several very good examples where SaaS projects have failed – not because the technology didn't work or the partner did a poor job of implementing it – simply because the customer was ill-prepared for the root and branch change that true SaaS demands.

Some of the cost benefits of moving to a SaaS product have also had to be adjusted. Shifting from a Capex to an Opex model to support business applications was the first hurdle to overcome, and while CFOs rankled with the fundamental change in how you pay for ERP, they also started to focus more attention to the TCO of a new ERP system hosted in the cloud. At first glance the TCO for SaaS is compelling. But, as infrastructure options have become more complex. and updates to applications have become more frequent, new costs have replaced old costs and the true TCO for most SaaS deployments is not so different to those of historic ERP ownership models.

ECONOMY EROSION IN SHIFTING ERP

As the options and choices for customers evolve so does the complexity of managing an ERP landscape where loosely coupled integrations of different cloud points, products and services should create an agile and interconnected whole. This fragmentation of an organisation's application estate was heralded as a break from the monolithic lock-in of big ERP that

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would deliver much sought after agility and cost-savings. Although there are merits to this argument, when the level of integration becomes complicated and the various components reside on different clouds using different cloud models, there is potential for an erosion of the economies that cloud should deliver.

However, it's not all doom and gloom for SaaS and ERP. The breadth of choice that is now available to customers means that there is a solution for everyone. It may be a single vendor approach for large enterprises that want to harness the full power of Oracle, SAP, Workday or **Microsoft**. Or, it may be a best of breed solution that captures the most compelling elements from a variety of suppliers. The challenger vendors are starting to chip away at the upper end of the ERP market as their focus on products that deliver specific outcomes are able to return quicker and more measurable ROI.

I am a strong advocate of utilising the newest and best technologies available but buyers should not be blinded by the lights. It doesn't matter which vendor you choose or which flavour of infrastructure you select; what matters is selecting the right solution for your business now and in the near future. Enterprise customers may make decisions based on a 10 year horizon but smaller organisations need only think about what is immediately round the corner. Not every business is going to see the kind of disruption that is driving digital transformation. Or is digital transformation driving disruption? Sometimes I can't remember...

All businesses can benefit from reducing the grunt work on their accounts, automating a few processes and bringing in smarter analytics. But that's not disruption and it's not digital transformation. The very notion of digital transformation tries to conjure up an image of luddite businesses that still use quill and ink emerging from their technological slumber and miraculously becoming beacons of modern commerce just by using cloud apps. That's not reality. In the main, most businesses already operate digital systems – in fact they all do. They may not be truly connected with IoT devices strapped to every **Bic** biro and paperclip, but who needs that anyway? Some do, most don't. All businesses operate digitally and have been doing so for decades. What SaaS offers isn't a conversion to digital it's a conversion to being connected and intelligent.

Ask yourself what problem are you trying to address and find the solution that solves that problem in the simplest way. If your ERP vendor can't demonstrate that, find one that can.

CALCULATE THE LEVEL OF INTELLIGENCE TO AIM FOR

We could all do with a little extra intelligence. Whoever said I want to be less intelligent? But just how much more intelligent does a business need to be in order to survive? Some will need more intelligence to complete, some less. Some will prosper through small changes, some will require wholesale change. Some may benefit from introducing micro projects that can have a big impact. Others will require enterprise-wide remodelling to compete on a global scale.

What this all amounts to is that there isn't a one-size-fits-all answer or approach to modern ERP and digital transformation. It is not the case that a business which does not embrace all of the newest emerging technologies will fail, or anything even close to that. Many businesses with stable installed applications can bring some of their processes into the 21st century with tweaks rather than total disruption. They can make cost savings through 'as-a-Service' infrastructure and lighten the burden of managing datacentres and server rooms. Hosting and infrastructure used to be a binary choice between on-prem and cloud; now more creative architectures that include some on-prem and a mix of public and private cloud are available. They can integrate the most valuable emerging technologies to co-exist with their core back office functions and gain new insights and efficiencies without having to tear up the rule book.

All ERP users have an unprecedented opportunity to re-evaluate how technology integrates with their business. It can open up new opportunities, make companies more efficient and dramatically improve user and customer experience. But only the right mix of technology, coupled with the right vendor and partner can deliver all of the outcomes that post-modern ERP promises. There is a very simple way to define what the right technology is; ask yourself what problem are you trying to address and find the solution that solves that problem in the simplest way. If your ERP vendor can't demonstrate that, find one that can. ■

OPINION

ERP 3.0

Cormac Watters general manager at Infor, looks at the rise of ERP 3.0 and explains why people are at the heart of the latest generation of business software

As manufacturing evolves at unprecedented levels so do the software systems behind them. While ERP solutions have brought data management and end-to-end views to enterprises for decades, some early systems lacked flexibility. Even the second-generation ERP solutions were sometimes complex, not doing enough to help boost workforce productivity. This is changing. Once again, ERP solutions are getting a make-over. This fresh approach, ERP 3.0, is focussing on empowering workforces, expediting tasks and supporting fast decision-making. Data-driven insights, powered by artificial intelligence (AI) are at the heart of this modern approach, and the potential impact on productivity is immense.

A glance to the past

It's fair to say that ERP solutions in the past often received bad press. Traditional, early versions were typically expensive, inflexible, difficult to use and painful to implement. The next generation of ERP sought to address these shortfalls, bringing beautiful design and intuitive user experiences to desktops, flexibility enabled by cloud apps and enhanced mobile accessibility, and the introduction of added intelligence via BI and AI.

But despite many industry players professing that the second generation of ERP solutions represented the pinnacle of an industry maturing, and a driver of increased profitability for manufacturers, research paints a different picture.

The Productivity Problem

Despite ERP investments undoubtedly delivering clear ROI, one major problem persists for manufacturers today. Productivity – that is measured by the amount of work produced per working hour - remains a huge problem across the world as many advanced economies' rates remain at near historic lows.

While the precise cause of the fall isn't clear, productivity is key to long term economic growth and higher living standards. A highly productive workforce is essential for operational efficiency, meeting customer demands, controlling costs, and maintaining margins in a highly competitive global market. Therefore, current productivity levels represent a conundrum which can't be ignored.

The UK, for example, should in theory be reporting strong productivity, with strong engineering, high-tech and pharmaceutical industries investing in digitalisation to drive performance. The reality, however, is that productivity is falling with no signs of this trend reversing any time soon. Output per hour is set to rise just 0.2 percent in 2019, compared with rates averaging more than 2 percent in the decade preceding 2008.

Meet ERP 3.0

As leaders across the world look at ways in which to address the problem, they are faced with a limited number of options. In the absence of being able to acquire additional headcount - which is a luxury most simply cannot justify in the current climate - helping people to accomplish complex tasks quickly signifies the last hand in play in the quest for increased productivity. With this in mind, technology is evolving and ERP platforms are being developed with people and productivity at the centre of their design, a shift known as ERP 3.0.

The concept of people being at the centre of ERP might seem, on the surface, to be an oxymoron. However, for anyone who has ever thrown their hands up in the air in frustration at not being able to retrieve the document needed to unlock a bottleneck, respond to a supply chain query, source a spare part, or ensure a delivery is made on time and in full, it will certainly strike a chord. These small incidents add up, causing delays, impeding decision-making, and interfering with a collaborative, innovative company culture. Such kinks in workflows, whether on the shop floor or the back office, can no longer be tolerated

Empower People

The old adage that very best technology will fail in the hands of the wrong people proves itself time and time again. Of course it is people, not systems, who are ultimately accountable for driving business value – whether that is through continuous improvement or company-wide digital transformation. Systems designed to maximise people's potential and empower them are therefore destined to succeed.

ERP 3.0 embodies this ethos, and is about providing the tools to help people be the best they can be, empowering workforces, expediting tasks and supporting fast decision-making based on the very best, latest insights. Innovative functionality, like self-service reporting capabilities, user-defined workbenches, augmented analytics which suggest solutions, predictive science, and voice-responsive personal assistants, help drive this new approach.

To be clear, this shift is not just about making the user experience easier – this has already been addressed. This shift focusses on the complete picture of each employee, from a machine operator who needs to verify a recent spec change to a line of business manager who is planning crew assignments. Technology can help support informed decision-making, proactive intervention, creative-problem solving and cross-departmental data-sharing. This might be lowering entry barriers for people to take on more complex activities, automating processes or introducing AI to redistribute certain tasks, or indeed provide enhanced insights to empower the worker to increase performance.

Typically, when a manufacturer is asked about the biggest challenges they face, they'll refer to people and skills gaps as the major threats facing them in the coming years. In fact, a recent survey by the **British Chambers of Commerce** reported that British manufacturers are facing the biggest shortage of skilled workers since 1989.

Traditionally this challenge is seen as distinct from technology, but ERP 3.0 aligns them, supporting the recruitment, retention and development of people across a number of aspects.

Of course, you'd be hard pushed to find a company marking out systems as a USP in a job advertisement. However, those who foster a culture which embraces modern thinking and systems which not only make tasks easier to complete, with more visibility and engagement, and less training, will inevitably boost satisfaction, resulting in the attraction and retention of a greater proportion of talent, and a more productive organisation.

Taking this a stage further, ERP 3.0 addresses the skills challenge through prioritising the development of people, ensuring that potential is recognised, skills are maximised and talent is deployed, or indeed redeployed, into the most suitable areas. Essentially skills are monitored and valued in a similar way as a production line, optimising yield and reducing waste.

Of course it is people, not systems, who are ultimately accountable for driving business value

Power to the People

Ultimately if you can empower people to be more productive, organisations become more productive, and economies prosper as a result. Technology is the best tool we have in the quest to achieve this vision, and the latest incarnation of ERP stands to represent a genuine game changer.

Welcome to the age of ERP 3.0. ■

OPINION

Winning Hearts & Minds

IS KEY TO SUCCESSFUL TRANSFORMATION

Leaving no stone unturned in an approach to major organisational transformation projects requires a detailed plan and an analytical approach in pursuit of a smooth transition. Yet how often is workforce engagement overlooked as a route to unlocking long-term transformation success?

BY DAVID HALEY

Supporting businesses by developing and optimising customer journeys, maximising the value in data and creating a customer-first culture, empowered to deliver excellence are laudable business transformation objectives. Yet with all the bells and whistles a business process focussed or significant ITO project can provide, the absence of a strong vision and strategy to engage teams in a collaborative programme of change can be the difference between success and failure.

Authentic and coordinated cultural engagement is the cornerstone on which total transformation, the broader process of business reinvention supported by digitisation, can succeed. This is no mean feat. Understanding the culture of an organisation, working with it and then understanding how technology can fit seamlessly into it, even advance it in new ways to aid the total transformation, is the challenge that must be met.

On the journey

Many organisations, whilst they acknowledge the traditional people-related barriers to change, choose merely to communicate with their employees rather than to engage. Delivering growth through long term organisational transformation cannot simply occur by telling people what is happening - it will only truly take place by bringing your most critical asset, your employees, with you on the journey. Culture is usually more difficult to change than technology or business transformation services, especially so in conservative organisations. In general, people usually start to resist change when they believe they will lose something of value, or they fear they will not be able to adapt to new ways.

Culture is usually more difficult to change than technology or business transformation services

What's more, when organisational change goes wrong, this is often because it is being treated purely as the implementation of a new process. Any momentum that is established at the start of a transformation journey erodes and traction is lost just at the time when a strong will and determination to succeed is most needed.

Communication versus Engagement

A degree of trepidation when transformational change is communicated is completely understandable, even unavoidable. If teams feel they don't understand the vision and strategy or feel that they haven't been able to contribute to that strategy, those logical tensions arise and the blockers to change materialise. Therefore, it is so important to understand the differences between communication and engagement. Communication focusses on content and target audience, while engagement is more about who to listen to and what they hear in that conversation and that the communication has landed with the target audience. While communication can happen without engagement, engagement cannot happen without communication: they go hand-in-glove.

Building trust through open and honest engagement and listening to feedback - all feedback - and acting on that stimulus will demonstrate that change is a collective effort. Employees will then feel more valued and truly part of the solution, worrying less about the impact of a failed programme or what impact the programme will have on their own role. Employee engagement in transformational change should not be seen as a line item of a project plan; it is at the very heart of successful transformation.

Collective effort

It's no surprise that an effective and sincere engagement strategy is more likely to get buy-in and co-operation from key stakeholders because they are engaged and become part of the solution. This means they are not, as so often happens, sitting on the side-lines predicting failure. In sporting terms, they are on the pitch trying their best for their team.

At Atos, we have developed a robust approach to helping to ensure that engagement objectives are fulfilled and in developing a culture where the fundamental objectives at the core of any digital transformation projects are recognised, understood and ultimately embraced. At the core of our approach to transition is our communication and engagement strategy with two workstreams that need to be aligned to ensure continuity of service and the creation of excitement and interest in the future direction of the business.

The first covers off in a demonstrably successful way, all aspects of TUPE using clear and methodical communication methods, individually, collectively and from a union perspective to ensure safe passage. The second brings the crucial elements of engagement to life. In larger organisations especially where there tends to be myriad channels and methods to land the right messaging at the right time with clarity and purpose, the use of digital employee communications provides dynamic opportunities to engage the audience. Regular bulletins, CEO town halls and video blogs might run alongside bespoke techniques

It's no surprise that an effective and sincere engagement strategy is more likely to get buy-in

such as drop-in hubs - as we did recently for a significant programme involving a large financial services client - so that new colleagues can discuss any concerns that they may have confidentially. Establishing feedback via culture champions; which can be swiftly acted upon is another recent example of a technique deployed to good effect.

True collaboration

Ultimately, the methods employed to engage can be tailored and will evolve over the period of the project. What cannot be given such a degree of flexibility is the consistency of the core messaging that should be repeated and reinforced at every available opportunity.

The cultural engagement approach needs to be supported from the top and be treated with the same structured approach as all core objectives of the project. If working with an external transformation provider, this can only really be achieved through true collaboration – with objectives of the client and the service provider aligning not only to deliver the technical and process solutions to exacting standards but in a way that is sympathetic to the specific organisational culture.

Inconsistencies within messaging, tone or engagement can really undermine the engagement plan, sowing confusion which can lead to doubt and even discord, again with considerable implications for the overall project. Therefore, while recognising that a prevailing organisational culture exists, within this teams and people are diverse – a key strength to be recognised, harnessed even. Different departments with different backgrounds, business objectives, and points of view need to come together, first to understand then align and unite around a common objective.

Get this right and the huge satisfaction of knowing that you have a workforce of advocates for advancing change is a hugely powerful transformation enabler that is integral to co-creating a truly customer-centric service culture. ■

David Haley is senior vice president, business transformation services, Atos UK and Ireland

ERP in a digital age

A CIO's PERSPECTIVE

BY MARK ADAMS-WRIGHT

The role of chief information officer (CIO) has been constantly evolving with the advancements and needs for all organisations to adopt a more digital approach. This is not just about how they engage with customers, citizens and users but in the way that they think about design, delivery and maintenance of all the technology deployed to achieve it.

Moving away from projects and programmes designed using more traditional methodologies and into a world of user centric iterative design requires a new mindset. New working practices and governance need to be adopted to satisfy an increasingly demanding and tech savvy society. This brings new challenges for the traditional IT models predicated on more mechanistic and longer-term planning to thinking shorter-term with outcomes being evolutionary. This means thinking about IT not in terms of projects and programmes to deliver an outcome determined before the inception of the activity to a more product-based approach. This extends to the ways in which the IT function provides support with a need for a more far reaching understanding of its core purpose.

In the arena of public services - where the need for co-operation and collaboration across multiple agencies and disciplines – this has never been more essential. The CIO is no longer vested in just the impact and relevance of the work of their own organisation but on building a greater understanding across an increasingly broader landscape. This alone is challenging for any CIO without considering the need, as a leader, to translate this into effective operating models and to take the rest of the IT department on that journey of understanding and discovery also.

> “No silver bullet to resolve the need for high quality change and adoption to help organisations fully benefit from advances”

Newer solutions, same challenges

The world of ERP is no exception in its need to evolve and operate in this modern way of thinking about technology and its application. For the CIO, any ERP project represents a major investment in people, time and cost requiring a major organisational focus to deliver and doing this in a digital age does not change that. As more ERP solutions move away from traditional local hosting and into the cloud there is an argument to say that the technology elements of ERP that would have pre-occupied IT in the past are becoming much easier. That could infer that ERP in a digital age should give the CIO more comfort than before. But this misses the core challenge. Newer solutions may be built and delivered using more modern technology but they still need to provide users with the functionality needed to do their jobs effectively. Therein are the same challenges that have always existed.

Change and adoption continues to be a key component of ERP programmes and so the landscape has not changed that much. The CIO still needs a highly effective team to deliver the solution into the business. But equally they need to ensure - by working with partners and colleagues involved in the programme - that the solutions are used effectively by all.

As a CIO considering the technology landscape for which they are ultimately responsible, there are fewer larger scale and more complex programmes of work than ERP. Engaging closely with senior professionals and teams in finance, human resources and procurement alone is daunting for a CIO and his team. To blend those departments and the interoperability needed for them adds even more complexity. Then add in the user base from the rest of the enterprise that needs to 'dip in and out' of the solution and the question of "what keeps you awake at night?" becomes a moot point!

High quality change and user adoption

Even just the early steps to mobilise the programme with the right people with the right skills and the time is a headache. This is nothing, however, compared to the long-term headache that the CIO will endure if the users fail to be able to effectively use the final solution and the calls to the service desk flood in. All CIOs are acutely aware of the essential need for high quality change and adoption for everything that they deliver but in the world of ERP this is so extensive that the stakes are at their highest. The importance, actual effort and activities to achieve this are not always as clearly understood by others. Often this falls into the categories of either "there is no extra budget or people for all that work" or "it is pretty easy to understand so the users do not need that much support". As a CIO this is the moment your heart sinks and you realise that your world - and that of the users - just got much harder and you know that it could be avoided.

"Newer solutions may be built and delivered using more modern technology, but the same challenges exist"

In summary, ERP in a digital age has made advances to its technology, usability and the quality of the solutions offered to professionals and users in the main. But there is not yet a silver bullet to resolve the need for high quality change and adoption to help organisations fully benefit from all of those advances. It's important that all key stakeholders and decision makers in all organisations.:

Set the right budget and allocate the necessary resources at the outset and stick with it, many of the needs will be some way down the delivery path.;

Never lose sight of those who feel the pain of not doing the right thing, the evolution of the solution will soon be lost in the revolution of those suffering because of it - a; and give the CIO a fighting chance of some quality sleep during the programme by not under-estimating the cost and need for that change and adoption. ■

ERP TODAY

Q1

ANNUAL ERP VENDOR REVIEW

ERP IN TECHNOLOGY & SERVICES

FINANCE SYSTEMS

PURPOSE AND PROFIT

ASSET MANAGEMENT

USER ADOPTION & TRAINING

TECHNOLOGY IN HEALTHCARE

OPEN SOURCE

RPA

Q2

ERP IN MANUFACTURING

HR SYSTEMS

BUILDING A BUSINESS CASE FOR SAAS

ARTIFICIAL INTELLIGENCE

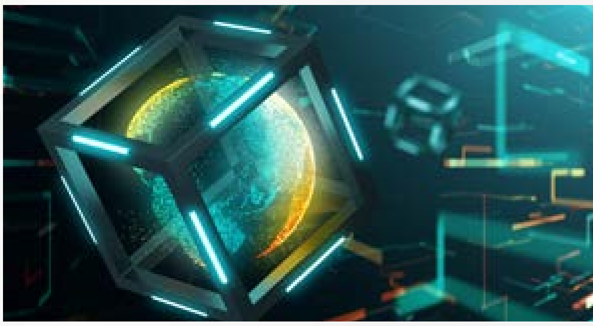
BLOCKCHAIN

CHANGE MANAGEMENT

BI & ANALYTICS

IMPLEMENTATION STRATEGY

CSR



2020

WHAT'S COMING UP NEXT YEAR

Q3

- ERP IN RETAIL
- SUPPLY CHAIN MANAGEMENT
- FIELD SERVICES
- DATA MIGRATION
- INVOICING AND PAYMENTS
- MANAGED SERVICES
- TECHNOLOGY IN SPORT
- WORKPLACE CULTURE
- IoT

Q4

- ERP IN PUBLIC SERVICES
- SHARED SERVICES
- CLOUD PLATFORMS
- WOMEN IN TECHNOLOGY
- ENTERPRISE SECURITY
- THE FUTURE OF WORK
- APIs AND MICROSERVICES
- DATA MANAGEMENT
- ML

IGNORANCE AND MISCONFIGURATION THREATEN

SECU

IN ERP SYSTEMS

RITY

In this special feature section Georgina Elrington explores the current security landscape, where threat opportunities prosper, and shares expert advice from the marketplace.

ERP SECURITY

Are you absolutely ready for your security audit? Do you honestly have enough of the right tools and skills in place? Does everyone in your organisation understand the company security awareness policy?

About 92 percent of the global 2000 companies are using either **SAP** or **Oracle**, and 77 percent of the world's revenue is touched by these ERP systems. That is a massive opportunity for criminals who know exactly where to strike. Conveniently for them, at the moment anyway, there is plenty of evidence pointing to a lack of money, agility and skills to properly address the security challenge.

Security problems are not confined to the larger enterprises either. The UK government's Cyber Security Breaches Survey states that 60 percent of medium-sized firms have identified breaches or attacks with 25 percent of them occurring at least once a week. Other statistics say that distributed denial of service (DDoS) attacks are on the rise too with 55 percent of UK firms reporting a 40 percent increase on last year.

The business of locking down operational networks from existing, as well as yet unknown threats, is a huge responsibility. In tandem, the effort required to adhere to GDPR and ensure everything is water-tight at audit time is another strain on corporate budgets. Even when adequate budget exists, many companies are restricted by complex CAPEX purchasing cycles. Further, a lack of security expertise may be adding to the problem of not having enough monitoring tools in the right places on a network, leading to agility issues. Insight from **Endace** (in a report entitled Challenges of Managing and Securing the Network 2019) found that a lack of agility made it 'difficult for teams to investWigate and respond quickly and accurately to security threats or outages'.

Tom Kelly, senior director of product marketing for **Oracle NetSuite** feels that security can be a business enabler: "Now that cloud-based ERP is being readily adopted across all businesses there is the expectation of greater security. Moving to the cloud in most cases strengthens security. Leveraging machine learning and automation in this area increases the speed at which cyber security processes can be executed and, in many cases, results in security as a business enabler rather than a hindrance to growth or other important company strategies."

Teams need to rethink classic security concepts and adopt approaches that better address the challenges of a dynamic and distributed cloud infrastructure.

YAIR GREEN - GLOBALDOTS

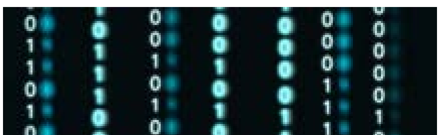
CYBERSECURITY STUDY

Findings in a Cybersecurity Workforce study from the non-profit association of certified cybersecurity professionals, ISC2 highlight a growing gap in specialist skills for security on a global scale. About two thirds (63 percent) of respondents that took part reported a shortage of IT staff dedicated to the task and almost the same number (59 percent) believe that their companies are at moderate or extreme risk of attacks as a result of the shortage. Encouragingly, half of the respondents said that there were plans to increase specialist staff in their organisations as well as pursue cybersecurity certifications, with cloud computing security, penetration testing, threat intelligence analysis and forensics cited as the top areas for improvement.

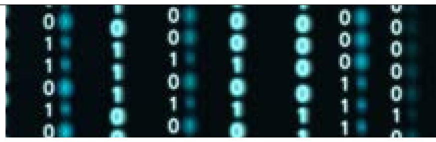
NEW DEFENCE STRATEGIES ARE NEEDED NOW

While companies old and new are coming to market with protection services, the security approach is more than just a plug and play problem. Yair Green, CTO at **GlobalDots** feels that there is a need to rethink classic security concepts and adopt approaches that better address the challenges of a dynamic and distributed cloud infrastructure. Unfortunately, he told us, "many are still relying on practices such as asset management, incident response and internal training/education which were originally built for on-premise environments. Much of this is now outdated and unable to support proper security posture for cloud infrastructure."

He explained that between infrastructure management (IaaS, PaaS, fPaaS, SaaS, RaaS) security, CI/CD and trying to navigate all of the nuances in between, it is difficult to keep track of what each category of tooling includes. Within the cloud security space alone there are CSABs (Cloud Security Access Brokers), CWPPs (Cloud Workload Protection Platforms), and CSPM (Cloud Security Posture Management). In terms of combative measures Green advises that CSPM can automatically assess a



ERP SECURITY



"If you don't have budget for your mission critical ERP system to secure it then something is wrong in the organisation."

MARKUS SCHUMACHER

ONAPSIS EMEA

cloud environment against best practice and security violations to provide the steps required to fix things, often through automation.

Erik Marcussen, the chief architect of Unit4's People Platform, said: "As businesses become more complex and use a wider portfolio of solutions, we are seeing that data needs to move more frequently in and between business systems. Indeed, most organisations rely on multiple databases now. As a result, we feel that security controls need to adapt to this change and believe that we will see a trend whereby security controls will start to follow data rather than follow applications. This is the mindset we apply when securing data flowing between our microservices. Something we are looking to apply across all our systems. The next step is how we can do the same for data once it leaves our systems."

ZEROING IN ON MISCONFIGURATION

As Green pointed out, nearly all successful attacks on cloud services come from customer misconfiguration, largely as IaaS grows and data breaches through mismanagement are becoming commonplace. I discussed the misconfiguration problem further with Markus Schumacher, the general manager of **Onapsis** EMEA which offers automated security assessments and policy implementation for ERP platform monitoring. Schumacher told me that "while we see the digitally transformed future of business it also opens up a can of worms in terms of the threat landscape." He highlighted that there are still numerous examples of systems being exposed directly to the internet, which is only exacerbated by the added complexity of mobile devices.

While tools exist to help identify and lock out a security threat there are other lurking issues from zero day weaknesses. This applies where there is an unknown security flaw; or where a flaw is known about but either no fix is available or it has not yet been applied. The Onapsis research team has reported several such threats to the ERP vendors, including the identification of new exploits targetting the technical components of applications. One such example is 10K Blaze which can compromise SAP applications, including the deletion of all business application data as well as the modification and extraction of sensitive and regulated information. While these exploits are not targetting vulnerabilities in SAP code they are seeking administrative misconfigurations of SAP NetWeaver (including S4/HANA).

It is not a new problem and SAP documentation detailing a fix has been available for years. "As an assumption I would say that each and every SAP customer should have implemented the fix. Many people don't, or did not, due to complexity reasons, timing or budget reasons, or that they did it wrong," said Schumacher. "They applied a fix but there is still a loophole in there." What is new about this problem is that, due to recently published tools, the misconfiguration in question can now be exploited with a mouse click. "That changed the risk and the criticality overnight," he said. Onapsis responded by releasing a threat report (entitled 10K Blaze: Protection From A Cyber Exploit With The Power To Burn Financial Statements) which details not only a recommended fix but two open source Snort signatures for SAP customers to enable a detection mechanism to monitor system risk while the misconfiguration is being addressed.

AUDIT RESPONSIBILITY ISN'T ALWAYS RESPONSIBLE ENOUGH

Schumacher also stressed that CIOs need to be asking themselves if they have followed industry best practice. He said that while some customers are really good and managing the ERP security piece very proactively there are some that haven't even started yet. When I asked him why not the first thing he alluded to was ignorance: "That's no excuse for not being liable, it's your duty to be informed. If you are not informed you are still liable," he said. "Another excuse is that 'we don't have the resources'. If you don't have them, buy them in the market."

When budget is cited as a reason for not attending to security resources properly Schumacher hits straight back without flinching: "If you don't have budget for your mission critical ERP system to secure it then something is wrong in the organisation." He said the same applied when the reason for not applying fixes is: 'We have different priorities'. "We need to talk about liability when it comes to an attack or when there's an audit. As a decision maker you need to explain yourself as to why you haven't moved forward if you have known about something like this (10K Blaze) for years."

As some threats get a second life due to protection glitches or smarter hacker knowledge, there's a clear case that organisations need to check the security compliance list regularly. However, Arun Majumdar of the newly formed and appropriately named firm, **Technology Risk Partners** said: "From an audit security control and compliance perspective I would say that 90 percent of the finance transformation happening now in the UK, that I have seen, is struggling to address those perspectives."

FIGHTING FIRE WITH FIRE VIA ADVANCED MACHINE LEARNING

Facing the exponential rise of malicious bots targetting zero day vulnerabilities, **Radware** is a network and application security specialist company ensconced in the machine learning and behavioural-based algorithm concept. Given the mesh of distributed architectures in business today it is even more important to be able to detect and do something about every vulnerable endpoint.

Louis Scialabba, the company's director of carrier solutions, said that: "Botnets are not just acting as robots. The current generation of botnet traffic is almost taking a human-like form and this is where you need to fight fire with fire. Also you need to have advanced machine learning and I would say that this really transcends into what we call AI (artificial intelligence), so that your defence mechanisms can match the offensive mechanisms that are being launched, the botnets that can find ways to avoid things like captcha on websites, ones that are working at multiple layers in the so called 'stack' to attack your network."

"As workloads are moving to the cloud, that's just one of a kind of host of different types of security mechanisms in what we've called the Full Stack Protection. So you have things like web application firewalls which is a specific function for security, and then you have DDoS, you have to defend against encrypted attacks which is the secure sockets layer (SSL). Then you have the bot management and workload protection."

"When you think about ERP systems, specifically who's using them and who's administering them, when you move to cloud it makes it easy to add an increase to the new resources - and also grant these wide-ranging permissions that could be abused. So one of the things with workload protection is to try to protect against misuse. If you're concerned about data break, account compromise and resource exploitation - which hackers are aware of - they're going to try to make sure that they attack the vulnerabilities. If you have some sort of workload protection mechanism or product, it would really help protect against malicious activity with those cloud based accounts. That needs advance machine learning algorithms which can protect against human errors, but also look at it from a security perspective and make sure nothing's getting violated on those interfaces."

"...companies are turning to cloud protection services and not just relying on the security that comes with their cloud ERP service."

LOUIS SCIALABBA - RADWARE

Excessive permissions in the cloud environment are also a top threat, along with the default manufacturing passwords for devices (such as printers). Scialabba pointed to particular sectors that contain valuable user information such as banking, finance, and healthcare which are at "double risk because a prospective breach can not only harm the business but also put the organisation at a liability risk with their end customers; GDPR being the biggest legal risk in Europe." He said that in public cloud environments it is very easy to grant extensive permissions, and keeping track of that is difficult. "What is frequently mischaracterised as 'misconfiguration' is actually the result of permission misuse or abuse. Administrators must ensure they keep a tight hold of permissions, and also roll out patches as soon as they are available. Hackers know the weaknesses as soon as patches are announced and will jump in to exploit them before companies can get them deployed."

"All of this explains why companies are turning to cloud protection services and not just relying on the security that comes with their cloud ERP service. They simply can't risk it. The best will detect cloud native attacks, provide actionable insights, and mitigate at the same time. To reduce the attack surfaces some services will address the core problem of excessive permissions and exposed assets. They analyse the gap between granted and used permissions, and identify where to plug the gaps," said Scialabba. ■

LOCKING DOWN REMOTE WORKER ACCESS

Inadequate server security is an open door

So you've drafted in the most protection promising technology to patrol your system, implemented it, found and fixed a load of existing issues. Awesome. But do you have all-encompassing awareness and the right level of adherence from everyone involved in your business? If not, you are still at risk. Georgina Elrington finds out how access from outside the walls of an organisation can unwittingly invite trouble.

CONTROL OF PEOPLE AND OPEN SYSTEM TECHNOLOGIES

Still more can be done to control access to corporate networks. **Instant Offices**, a company that provides access to flexible workspace centres around the world carried out a study and found that 67 percent of employees use personal devices at work. Not only are those devices a threat, it is even harder to control where people work from or how they access the company network: the survey found that one in three people use home networks, public wifi in coffee shops and hotels, and mobile tethering to carry out their work.

"More widely, we are seeing greater demand for access to systems for an increasingly mobile workforce. For example, people expect to be able to access their business data securely from public places like cafés and airport lounges where you typically need to use an open wifi connection. Most people expect that the necessary security controls are already in place regardless of where they find themselves working. Simply, data in transit encryption and good protection of all exposed interfaces are not options, they are considered basic and essential requirements. From our perspective, it is important that we enable our customers to match such access and efficiency demands, that we together complete comprehensive risk assessments and enable people to work securely from any location,' said Erik Marcussen, a chief architect at Unit4.

Unchecked self-service and open systems can be a perfect playground for hackers

JUSTIN JETT - PLIXER

Seeing greater demand for access to systems for an increasingly mobile workforce.

ERIC MARCUSSEN - UNIT4

SELF-SERVICE AND SUPPLY CHAIN HAZARDS

There are also risks within ERP systems that can encroach on self-service technologies. For example, filing expenses details on the HR platform or uploading documentation from an email loaded on a personal device (whether it is from inside the walls of the actual business premises or from a remote location). Justin Jett, director of audit and compliance for **Plixer** said: "Self-service and open systems are driving many business functions. These systems, if left unchecked, can be a perfect playground for hackers looking to steal valuable business information."

I also had a long and very interesting chat with Phil Lewis, vice president for solution consulting EMEA at **Infor**. One of the things we talked about was how policies to control worker access need to be expanded to be all-encompassing to make sure that there is a plan for those that could be accessing externally, such as the gig economy and third parties like the supply chain. He gave us examples of big brand owners like **Adidas** and **Nike** that operate networks embracing thousands of independent organisations. Everything is distributed and managed in a way that allows the trading organisations and supply chain partners to connect to a single platform securely with encrypted transport of data.

On securing access, Lewis said that it comes down to the multi-layered approach of designing, defining and deploying the correct policy. "There are tools to encompass all of the layers from the platform control, the data layer control, right the way up to what the end user is actually seeing on their laptop and how they connect to the data centre."

Some companies are also using technology to monitor employee movement and how company devices are being used. As long as workers are made aware of such supervision then this kind of approach could play a vital part in the security effort; especially if the data collected can alert the corporate system to undesirable network access attempts. ■

AI and trust

GETTING IT RIGHT THE FIRST TIME

Successful use of AI depends on enterprises designing trust into their systems sooner rather than later.

BY CATHY COBEY

There is a long list of business use cases for AI that extends from customer service and manufacturing to building management, cybersecurity, and human resources. The effectiveness of AI in any of these scenarios depends on one very important factor: trust.

Artificial intelligence (AI) has the potential to transform a host of industries while changing our world for the better. For example, within agriculture AI could enable us to produce greater quantities of food using fewer resources. In healthcare AI tools could significantly improve the detection and treatment of disease. For the transport sector, AI is also a crucial component of self-driving cars, and can help with the planning, design and control of road networks.

Enterprises today are investing thousands – and in some cases millions – of dollars in developing sophisticated AI systems. Yet it only takes one mistake – or the perception that a mistake has occurred – for a user to stop trusting AI. Because of these trust issues many enterprises are either holding back from taking full advantage of the opportunities that the technology presents or being cautiously selective about where to apply it. A recent European study, conducted jointly by EY and **Microsoft** found that while 71 percent of respondents considered AI to be an important topic for executive management just four percent were using it across multiple processes, including the performance of advanced tasks.

> "Essential that all enterprises make trust a core pillar of their strategy when looking to implement AI at scale"

Trust is the foundation on which organisations can build stakeholder confidence and active participation in their AI systems. So, the big challenge for enterprise leaders is this: how can they earn and sustain user trust in AI over the long-term?

Building trust in AI from the outset

The best way for leaders to address this challenge is by infusing 'trust by design' into their AI systems from the outset. That means that from the moment they first conceive of using an AI system within their business, they think about the expectations of stakeholders and how AI will enhance the products and services. They should also consider the governance and control structures they will have in place for the AI system, and which new mechanisms will be needed to respond to the unique risks posed by AI. These risks span four key areas:

- Algorithmic risks – where the algorithms used in the system have an inadequate model and features, deliver biased outcomes or are so-called "black box" algorithms that do not have transparent logic
- Data risks – whether the system uses low quality or biased data, or insufficiently representative training data
- Design risks – where the system does not

align with stakeholder expectations, has unknown limitations and boundary conditions, or is able to subvert human agency

Performance risk – where the system is asked to perform tasks that are beyond its technical capabilities, has performance that drifts over time, or is subject to adversarial attacks

Not only does AI have unique risks, it is also developing extremely rapidly. Enterprises cannot afford to rely solely on traditional risk management techniques when managing AI. They also need to look at:

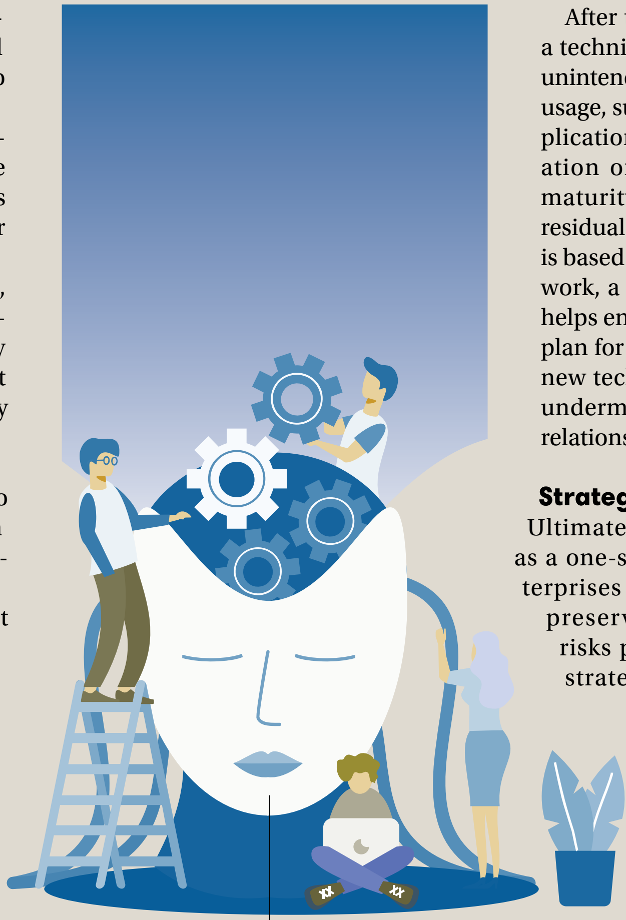
- Data-based risk analytics
- Adaptive learning in response to user feedback and model validation
- Continuous monitoring and supervised response mechanisms
- Risk metrics and dashboards that are infused with data science
- Close collaboration between AI developers and risk professionals.

Measuring the risks

If enterprises are to use AI to its full potential then they need to infuse trust and employ the ability to predict and measure conditions that amplify risks and undermine the trust aspect. This is a complex undertaking since these conditions span a wide spectrum of factors, from technical design considerations to stakeholder impacts, and the effectiveness and maturity of controls.

EY teams want to help enterprises navigate the complexity that is associated with identifying and reducing the risks posed by the use of AI at scale. With this in mind, the EY Trusted AI Platform was developed, with the aim of resolving the issue of trust in technology by helping to enable enterprises to quantify the impact and trustworthiness of AI systems.

The EY Trusted AI Platform, which is enabled by cloud computing platform Microsoft Azure, offers enterprises an integrated approach for evaluating, monitoring and quantifying the impact and trustworthiness of their AI systems. The platform draws on advanced analytical models to evaluate the technical design of an AI system. It measures risk drivers that include the system's objective, underlying technologies, its technical operating environment and the level of autonomy it has in comparison with human oversight.



> **“Many enterprises are holding back from taking full advantage of AI opportunities, or cautiously selective for application”**

After that, the platform produces a technical score that factors in any unintended consequences of system usage, such as social and ethical implications. Furthermore, an evaluation of governance and control maturity is undertaken to reduce residual risk. The risk scoring model is based on the EY Trusted AI framework, a conceptual framework that helps enterprises to understand and plan for how risks that emerge from new technologies such as AI could undermine their products, brands, relationships and reputations.

Strategy for AI success

Ultimately, there is no such thing as a one-size-fits-all strategy for enterprises when they are looking to preserve trust and manage the risks posed by AI systems. Each strategy will vary according to the expectations and needs of stakeholders, the unique technical specifications of systems, the competitive landscape of each sector and the legal and regulatory environment being operated in.

Nevertheless, it is essential that all enterprises make trust a core pillar of their strategy when they are looking to implement AI at scale. Once AI has been implemented, continuous monitoring mechanisms to confirm that all systems are operating as intended should be put in place. If an AI system is to be trusted by an enterprise's stakeholders – its customers, employees, regulators and suppliers – it should not only demonstrate ethical and social responsibility, it must also perform as expected. It is imperative that organisations embed trust in their AI systems from the minute they start to think about them and not just treat it as a consideration for later down the road. ■

Cathy Cobey is EY's global trusted AI advisory leader.
The views reflected in this article are the views of the author and do not necessarily reflect the views of the global EY organization or its member firms.

| CLOUD PLATFORMS |

How to choose your Public Cloud Partner

Not all infrastructure platforms are the same and choosing your cloud partner is a critical strategic decision. Holger Mueller, contributing editor at ERP Today and principal analyst at Constellation Research looks at the options for enterprise work loads in the public cloud.

We are on the cusp of the third decade of the 21st century and it is clear that the computing paradigm has moved into the infinite computing era. This era is characterised by overcoming the limited resources of the on-premise compute model, delivered through traditional enterprise datacentres. New use cases needed by enterprises to enable digital business models and modern best practices require the realisation of infinite computing to power the next generation of applications.

And it is the public cloud vendors that provide these platforms, so it is worth taking a look where they stand.

But before that, let's look at what CxOs look for when considering selecting public cloud infrastructure (IaaS) players:

Deployment Fit. IaaS players not only have to be able to run the new next generation application that enterprises need to build, but also be able to power existing loads – whether they come from standard software vendors (SaaS) or former custom build applications that enterprises need to operate.

Innovation Fit. IaaS players try to be everything to every enterprise but they have specific pros and cons for enterprises use cases and their product DNA matters for a good fit to an enterprise. We highlight these further on here.

Commercial Fit. Needless to say, enterprises need to pay for using IaaS and commercial terms need to be favourable, not only short term – but long term, ideally for the life cycle of enterprise load.

Enterprise Acceleration Potential. Enterprises need to move faster than ever before, so determining the potential of IaaS vendor to help an enterprise become more agile, move faster and at the end of the day acceleration is key.

So where are the IaaS vendors with their platforms? Let's look at the top three and three contenders:

Amazon AWS

– It's good to be king, but there is a chink in the armour.

None of the players here has bet on the cloud earlier than **Amazon**. And **AWS** remains the most compelling business for Amazon as it provides higher and stickier profit than the consumer etailer business. This business dynamic works in favour of AWS, versus for all other vendors the IaaS business shows lower margins than their core business. AWS has built its offering like a menu in a Chinese restaurant – it is long, takes time to read – but probably everything imaginable that is edible is there. Select at your own risk, or rely on your waiter. This approach makes AWS the functional richest IaaS vendor out there. But enterprises need to make sure they can select the right pieces. AWS has been very good at signing up more 'waiters' in the last years, in the form of the typical system integrator with which enterprises do business with. The only weakness at AWS at the moment is that it is coming late to the artificial intelligence (AI) party, only unveiling its own AI platform in the last 12 months.

Microsoft Azure

– It helps when you speak enterprise.

Microsoft's original start of Azure was hampered by the Windows everywhere mantra, which current CEO Nadella overcame when heading Azure (moving to Linux). Microsoft had a considerable advantage over fellow leaders AWS and **Goggle** Cloud, due to its 'organic' load of Office that it successfully moved from on-premise to Azure. At the same time Microsoft has been a partner of IT for a long time and usually beats out the same two competitors when it comes to CIO access. A recent string of large-scale wins, also fuelled by some enterprises not willing to partner with AWS for other general go-to market reasons, has given Azure a lot of momentum.

Google Cloud

– The third kid is fighting for its space.

Google came late to the IaaS game, and originally with a too 'opinionated' approach, i.e. expecting enterprises to build applications like Google does. That didn't work well and Google regeared to become more flexible and enterprise friendly. The Google Cloud game plan is firmly rooted into its leadership of making sense of Data, its foundational DNA. Google wants to be the data platform for the enterprise, that powers AI and brings machine learning to all users interested in the form of low / no code platforms. With new leadership under Kurian (ex-Oracle) and Enslin (ex SAP) its enterprise profile has gone up substantially, as well as the development of additional value propositions for enterprises.

VENDOR	CORPORATE DNA	GEOGRAPHIC FOCUS
AMAZON AWS	Chinese Menu	Global
GOOGLE CLOUD	Make sense of data	Global
MICROSOFT AZURE	Human Productivity	Global
ALIBABA CLOUD	Make sense of data	China / APAC
IBM CLOUD	Power the Enterprise	Global
ORACLE CLOUD INFRASTRUCTURE	TCO & Database	Global

Alibaba Cloud

– Is there room for an APAC player at the global table?

Alibaba has been at the IaaS game for a while, though not with a global profile. Starting in China, then APAC and now Europe and Africa, Alibaba is taking a 'surround' strategy to the biggest cloud market, North America. Its ecommerce DNA makes it similar to Amazon and AWS. Concerns about the outcome of the US / China trade tussles make this a smart strategy in hindsight. Alibaba offers the combined DNAs of Amazon and Google with origins in China. It is a partner to consider when enterprises do business in China / APAC and enterprises need a local player.

IBM Cloud

– The early lead has fizzled – can Red Hat fuel a comeback?

IBM has been a trusted partner for enterprises for more than 70 years and it was an early mover to the cloud, leading the 'monopoly' race of opening data centres until recently. IBM was also the first to partner with **VMware**, the leader for running on-premise loads. With its bare metal capabilities IBM is the only IaaS vendor to allow a CIO to move all its workload, no matter what kind of 'zoo' it is - to the cloud. But its focus and DNA on services have slowed IBM down, particularly compared to the three leaders. The IBM focus and DNA of (human) services has held back IBM's early strong position for IaaS. IBM has a shot at gaining relevance thanks to the **Red Hat** acquisition, that gives it a chance to lead hybrid cloud scenarios. What the public cloud option for these will be is to be determined, but it is that less of the majority will go to IBM's public cloud.

Oracle Cloud Infrastructure

– Being the best cloud for your database is not enough.

Oracle has been late to the public cloud, with founder Ellison dismissing the trend to just another 'fashion' of the IT industry. But a few years ago that changed and Oracle is on its second try to get public cloud infrastructure right with OCI. Where Oracle has excelled is in running its database load on Exadata, giving customers the choice between on-premise and public cloud deployments. The recent partnership cross-connecting to Microsoft shows a new approach by Oracle. The key question is – how much of the Oracle SaaS and PaaS load – beyond the database – will OCI power in the next years?

The CxO Takeaway

What do CxOs need to consider when selecting public cloud platforms in 2019?

Craft your AI strategy. AI will be the most transformative technology of the next decade. Getting it right will define the winners and losers in the marketplace. The right partner matters tremendously.

What do my SaaS vendors do? Enterprises will use SaaS vendors who make decisions on which IaaS platforms to build on (see my previous ERP Today article in the July issue).

Data gravity matters. Network costs are real and data egress can be cost prohibitive. The choice of the right IaaS partner is key, as data will attract and create more data.

Avoid lock-In. Only two things are sure: Things will change, and the rate of change is going up. CxOs need to protect their enterprises from expensive lock-in on losing IaaS platforms by making sure their workloads remain as portable as possible. Think standards, virtualisation and even better containers as the first level of defence, Kubernetes as the second, and common standard (e.g. TensorFlow) as the third line. ■

	ORGANIC LOAD	ENTERPRISE ACCELERATION POTENTIAL	KEY STRENGTH	KEY WEAKNESS	NEXT 12-MONTH POTENTIAL	SHORTLIST RELEVANCE
	Online Retail	Good	Breadth & Depth	AI platform	Good	Must
	Search and SaaS	Very Good	AI platform	Enterprise access	Very good	Must
	Office and SaaS	Good	Enterprise access	AI platform	Good	Must
	Ecommerce	Good	AI platform	Enterprise access	Good	Maybe / Must when in APAC
	None	Moderate	Enterprise access	AI platform	Moderate	Maybe
	SaaS and PaaS	Moderate	Run Oracle database	Growth	Moderate	Maybe / Must when on Oracle DB

THE CLOUD

living in the cloud

BY PAUL ESHERWOOD

Pack well and plan your journey.

Transitioning to the cloud has many advantages but it has challenges too. Understand what type of cloud customer you are. Take the parts that work for your business and deliver rapid ROI. Leave the rest behind and only bite off more when you are clear on the benefits and how they will be realised.

THE CLOUD

When I was 17 I went on my first holiday without my parents – it was a camping holiday in north Devon. I had recently passed my driving test and decided that the first thing a 'man' does once he can drive is chauffeur his friends to the nirvana of a British summer-time holiday, *sans parents*, in the rolling hills over Croyde Bay.

I paid little or no attention to the camp site that I chose (the internet didn't exist and my decision was based on a classified ad in a local paper, of which there were only three to choose from).

I didn't plan the route as SatNav hadn't been invented and I had been confidently told it was an easy journey (just down the M5 and turn right, you'll be there in no time).

I made no plans for what I would do when I got there and the only provisions I took were a tent, a sleeping bag, a radio-cassette player, some sausages and a stolen bottle of **Bacardi** (taken from my dad's cabinet I hasten to add).

It wasn't a very good holiday. It took an age to get there. When we eventually found the campsite we couldn't find where anything was, we hadn't brought enough money to pay for all the extras the proprietor demanded, and the provisions that we brought were soon out of date and useless (save for the Bacardi).

When I talk to business leaders about their experience of joining the cloud glitterati I always remember that holiday and think how similar our experiences have been.

What is cloud?

Cloud must be one of the most common words in modern business language. It conjures exciting images of global opportunities, economies of scale and endless flexibility. Some talk about cloud applications, some talk about cloud infrastructure, and others about cloud strategy; others don't know which variety of cloud they are talking about but they are talking about it all the same.

MARK ARMSTRONG / RIMINI STREET

"It's a combination of the vendors over-egging the simplicity of the move to the cloud and customers underestimating the complexity of the move"

Let's break it down; cloud apps are most likely just a slightly worse version of the apps that you currently use. Cloud infrastructure is just another piece of hardware somewhere other than your server room. And cloud strategy is something consultants talk about when CFOs start to feel the pinch on their wallets. That may be a very simplistic view which doesn't take into account the boundless flexibility, cost savings and agility but it should serve to remind tech buyers that they aren't buying fairy dust and the idea that cloud on its own can deliver any of these benefits is nonsense.

It may appear from this intro that I am anti-cloud but that could not be further from the truth. In its plainest terms; cloud technologies will revolutionise nine out of 10 businesses globally. It will make companies efficient, more proactive, better able to adapt, it will redefine customer and employee experience, free up workers for higher value tasks and open up opportunities that legacy software and infrastructure could only dream of. The possibilities for mature cloud technologies could not be greater, and in some order of two to five years, all enterprises will operate in some sort of cloud if they don't already.

The two big stumbling blocks

Why the reticence then? Why lambast cloud and then extol its virtues? The answer is twofold; firstly, cloud technologies are not mature. We are already on the second or maybe even third generation of capability and the shift to the fourth, fifth and sixth will be far quicker than the slumbering decade it has taken to reach where we are today. Being immature doesn't mean that the current offerings aren't good or don't work. But it does mean that the landscape is evolving at a rapid click, and given the time many migrations take, it is likely that most customers will arrive at the finish line only to be presented with a new starting point.

Secondly, and more importantly, the complexity of moving large enterprises to the cloud has been oversimplified by the market and miscalculated by consumers. In most cases moving to the cloud is a huge undertaking, often significantly more difficult than a technical upgrade of an existing on-prem solution and having far reaching implications for business processes that have been ingrained over years or perhaps even decades. There will be regulatory, compliance and security issues that global entities will have to wrestle with, all of which contribute to a series of new challenges and cost burden.

THE CLOUD

Mark Armstrong, GVP at **Rimini Street** agrees, and said: "Without wanting to sound too harsh it's a combination of the vendors over-egging the simplicity of the move to the cloud and customers underestimating the complexity of the move. Migrating customers to the cloud is the number one priority for each of the main cloud service providers to both protect their existing revenue streams and drive consumption of their applications in the cloud. The message they are pushing is simplicity, which resonates for most enterprise customers, as they have struggled for a long time to manage complex existing IT infrastructures. However, in the eagerness to simplify, and therefore develop more agile IT systems, customers are not always spending enough time understanding the role and importance of their current business applications."

The move to a true 'cloud-first' enterprise is hampered further by the lack of focus on what to do once you actually arrive at your destination and having a clear picture of the long term economics of living in the cloud. Being on the cloud and prospering in the cloud are very different things. Most of the narrative from the vendors and consultancies is centred around the migration path rather than the realities of perpetual change and a new raft of costs allied to release management, training and change that cloud inevitably will require.

CHRIS BROOKS / SYMATRIX

"Businesses often look at the application cost and the implementation cost, but fail to fully scope out the post 'go live' management of the solution"

Chris Brooks, managing director at **Symatrix**, said: "Businesses often look at the application cost and the implementation cost, but fail to fully scope out the post 'go live' management of the solution (release management, regular testing cycles, change costs and training). The result of missing this crucial phase in the business case is that once they are live, companies either have to go back for further investment, which damages the reputation of the solution and the programme, or they stick with their original investment and struggle to manage the continual evolution that cloud involves. As a result they completely miss the benefits that cloud is predicated on."

Robert Douglas, planning director at **Adaptive Insights** goes further and says that even if the business case for moving to the cloud is properly defined many organisations are missing out on the full value of moving to the cloud by not addressing underlying issues within enterprise systems and failing to use data and insights to their full potential.

"A common mistake enterprises make when moving to the cloud is that they fail to address inherent issues that already exist within their ERP systems"

ROBERT DOUGLAS / ADAPTIVE INSIGHTS

"Simply identifying the clear business case for moving to the cloud does not ensure the full strategic and financial benefits. Doing so requires the incorporation of a data source integration system that ensures ERP data is made accessible, able to be updated in real-time, as well as used for quick and proactive modelling of multiple scenarios that can be used for on-the-fly course correction. This is something many enterprises initially fail to realise. A common mistake enterprises make when moving to the cloud is that they fail to address inherent issues that already exist within their ERP systems. Siloed and unreliable data will not simply disappear at the moment of go-live, unless there is a concurrent investment in architecture and integration frameworks that allow for data from any ERP, GL (general ledger), HCM (human capital management), CRM (customer relationship management), or other system to be used for planning and reporting across the business. This also needs to be presented in a way that is intuitive and seamless. Doing this lays the groundwork for cloud-based collaboration that spans across the organisation, allowing all employees to understand how the business is doing in real-time, and where their individual department fits in."

Are all advancements a good thing?

One of the other major issues that cloud customers will have to come to

THE CLOUD

BEN MCGRAIL / SNP

"The ability to scale up and, just as importantly, to scale down, should be at the heart of a company's thinking as they prepare their cloud strategy"

terms with is the way in which their applications will be patched and upgraded – autonomously. On the face of it having enhancements managed by your technology partner puts an end to the misery of technical upgrades for the install customer base. You are always on the latest release of the software, security provisions, bug fixes, and more, are handled centrally by the ERP vendor and you never have to worry about maintaining an up to date version of the solution. This all sounds very appealing but there are some serious issues to consider, especially if you are transitioning from a heavily customised set of applications to a vanilla product.

However, Douglas from Adaptive highlights this as one of the key advantages of SaaS applications, and said: "Many legacy ERP solutions rely on the customer staying on top of updating the product, which can cause issues, such as downtime if the process is skipped, whether intentionally or unintentionally. While this ultimately impacts productivity, it may also cause other challenges, such as having to engage IT and support to get onto the current version of the product. However, there are easy ways to fix this as businesses make the move to the cloud, as integrated multi-tenant cloud solutions can automatically update in a way that's seamless to the customer. This is one of the inherent values of moving to the cloud and creates an opportunity to leverage new features and updates seamlessly."

Indeed, for many, the availability of evergreen applications that do not require constant maintenance will be seen as a boon. But others argue that updates to core business applications which are designed to serve the many, not the individual, can also have some downsides and could create a situation where application enhancement is actually a detraction rather than an enhancement.

"The additional complication with SaaS applications, especially in multi-tenant environments, is that vendors are catering for the needs of a number of customers. Consequently, you could end up with product enhancements that you did not ask for, which could be a good or a bad thing. What is critical is that customers plan their approach thoroughly and make decisions based on what is right for their business, not what the vendor delivers in the latest service pack," said Armstrong from Rimini Street.

Armstrong points to Rimini Street's partnership with **Salesforce**; the first, and still one of the very few, pure play SaaS vendors, as an example of how managing SaaS applications, and particularly the way in which applications are delivered and updated, as a key measure of the challenges many SaaS customers will face. "We believe Salesforce sees value in partnering with us, because our whole ethos is focussed on support of customers", he said. "The SaaS vendors are very focussed on helping developers to simplify how they get application up and running, but not so focussed on the 'Ops' side of supporting customers once they are using the applications. This enables us to play an invaluable role ensuring customers make the most of their SaaS applications by keeping up with the pace of innovation. Ultimately, this benefits the SaaS vendors, because it means happy customers and therefore, more sustainable consumption of their applications."

Replication of legacy solution in the cloud

All of the aforementioned issues with cloud adoption are surmountable challenges. However, there is one recurring mistake that many enterprises make, sometimes without even realising. Moving to the cloud with a SaaS ERP cannot be viewed as anything other than one part of a re-engineering process for an entire enterprise. Those that attempt to replicate legacy processes in the cloud, or worse still, not realise that is what they are doing, are sure to miss out on the predicated benefits.

Brooks from Symatrix said: "Simply replicating the legacy solution in a new environment is a huge missed opportunity and, in many instances, will create added challenges in BAU. Frankly, this won't deliver the business case. I recognise that in some instances there has to be replication, for example certain security processes in specific governmental organisations, but these should still be challenged to see if there are more efficient ways that they can be managed.

"We have experience of on-boarding a number of cloud customers into our managed services who were implemented by another SI with little regard for adopting new processes. As a consequence, they have struggled on for a year or two, then approached us for help as they hadn't recognised the business case benefits they had committed to."

Ben McGrail, managing director at **SNP** believes that legacy thinking is

holding many businesses back just as much as their legacy applications and processes and says that a more fundamental shift in the way that enterprises view their relationship with technology is required to draw out the value of cloud. He said: "As companies prepare to move their ERP landscapes to the cloud, they need to change the way they think about their IT estates. I feel that some of the advice that customers are receiving is too rooted in old-world thinking. There are obvious and major benefits in a move away from on-premise and in-house hosting, including cost reduction, modernised infrastructure, performance, security, focus on higher value activities and rapid integration with AI and analytics. But cloud also allows businesses to be much more flexible and react more quickly to change. The ability to scale up and, just as importantly, to scale down, on demand, should be at the heart of a company's thinking as they prepare their cloud strategy."

"The history of the ERP market is littered with examples of over-ambitious implementations that have failed to deliver benefits"

And Armstrong from Rimini Street agrees saying that ERP customers must think strategically about their options and consider what will be lost with adopting vanilla applications as well as what might be gained. He said: "CSPs are not keen on customers transitioning their existing old systems to the cloud, because it undermines the efficiencies of the cloud model. However, if you are a long established business with processes that are highly customised to your industry and individual business you are going to be reluctant to forfeit what has become integral to your competitive advantage.

"Therefore, you have to weigh up what strategy makes most sense for you. You could move away from your legacy applications and adopt their vanilla equivalent in the cloud, but what consequences will follow for your competitive advantage? Will you lose unique processes that drive efficiency? Will there be a massive culture shock for your employees having to grapple with an entirely new system? If you do try to replicate your legacy applications in the cloud how time consuming will that be? Can you even replicate the functionality you had in the cloud? What will be the extra cost the CSPs will demand for supporting customised applications in the cloud?

"The history of the ERP market is littered with examples of over-ambitious implementations that have failed to deliver benefits. Moving to the cloud is no different. Get your approach wrong and it will impact the performance of your business."

Indeed it is when some reports estimate that two out of every three dollars spent on digital transformation is wasted, it is high time that enterprises started taking a more measured approach to buying their technology. Consider this; in 1769 Nicolas-Joseph Cugnot built the first automobile capable of human transportation and by 1808 the first internal combustion engine vehicle had been designed. It was some 100 years later that Henry Ford arrived at the Model T and gave the world the workable blueprint for an idea that was more than a century old. Modern technology evolves at a much faster click than it did during the industrial revolution, but the reality is that we do not currently have the final incarnation of the tech that we will ultimately take forward as the enterprise technology version of the Model T.

Armstrong summed up by saying: "The biggest challenge with the cloud, especially considering what to do once you are live, is getting to grips with what the future looks like. Cloud 1.0 was sold on simplification and utility, but Cloud 2.0 is a much more sophisticated proposition.

The challenge is that the technology is moving so quickly and is still maturing." ■

OPINION

Retaining reporting
when migrating ERP systems to the cloud

BY GRAHAM SPICER

Research from the **Cloud Industry Forum** shows that the overall cloud adoption rate in the UK now stands at 88 percent. However, despite the ability to deliver higher productivity at a lower cost, one key ingredient is still missing from migrating data processes to the cloud: reporting.

Without this vital part of the process, organisations will still be able to increase collaboration and flexibility, but will be left struggling to gain any tangible insights from their data at all. Graham Spicer, sales director at SplashBI, explains how organisations can have their cake and eat it too, by carefully considering the steps that need to be taken when moving to the cloud, before jumping in headfirst.

CONSIDER CLOUD MIGRATION CHALLENGES

One of the biggest challenges to consider before adopting any cloud ERP solution is the implementation and integration of data; it isn't the simple 'switch' to the cloud that many organisations might think. Additionally, when an organisation moves to the cloud from on-premise, it either has to drop the existing analytics customisation it has become used to for reporting, or change its business processes to fit the cloud customisation available. Changing customisation options will not only impact employees that have become used to certain processes but may also impact the level of insight that can be gained.

REGAINING REPORTING CONTROL

These challenges have, unfortunately, led to many organisations deciding not to migrate to the cloud, and as a result, amounted to them missing out on the numerous benefits the cloud can bring. However, organisations don't have to choose between the loss of the reporting functionality or the benefits of the cloud - they can have both.

Using pre-built, packaged data reports that work seamlessly with the cloud provider of choice, organisations can visualise their data to gain deep insights in every business area, from finance to supply chain management, providing end-to-end solutions. With the increased flexibility from working in the cloud, coupled with the added reporting functionality that many organisations don't believe is available, organisations can now experience the convenience of real-time, on-demand capabilities that enable them to make better decisions across the business. Encompassing all business functions, reports can be created to match business requirements. For example, a business can track and report on metrics, KPIs, trends and other data points in areas such as accounts payable, cash management, inventory, order management, payroll, HR and quality assurance - the list is endless.

Additionally, the numerous and sometimes siloed data sources across an organisation can all be viewed, analysed and reported on in harmony. Within HCM, for example, organisations can examine and report on training, recruitment, employee satisfaction and performance data all in one place, rather than in separate systems. This way, HR teams can be safe in the knowledge that the data they are viewing is not only accurate but that it has been updated in real-time, therefore making reporting a much more seamless process. It is the reporting element here that makes a difference; a unified method of reporting, available in real-time, makes the business far more cohesive when making decisions and driving the business towards actionable change.

NEW POSSIBILITIES

When it comes to ERP systems, organisations can have their cake and eat it too. With the lack of reporting a previous cause for concern, organisations can now be safe in the knowledge that they can move to the cloud and benefit from the same data customisations they have been using for years, bringing the same data insights and the same continuity of reporting that board members and heads of department have been used to.

Many organisations are continuing to choose the market-leading **Oracle** ERP Cloud solution to streamline their financial data, manage the entire business cycle and much more, adding value to the entire business. Now, with reporting such a fundamental part of any data analytics strategy, it's essential for organisations to take a step back and consider how reporting can be integrated into their current strategy, without hindering their migration to the cloud. It's entirely possible. ■

The irony of lagging progress for ERP in educational faculties

HIGHER EDUCATION

WHY IS TRANSFORMATION FAILING IN OUR UNIVERSITIES?

Few, if any sectors, could benefit more from an overhaul of systems and processes than higher education (HE). Yet, virtually every attempt to transform university back office functions and embrace digital technology is beset with problems. Most programmes overrun on cost and time, few deliver the benefits that were promised, and none appear to improve the student experience, writes Paul Esherwood.

HIGHER EDUCATION

Students, and perhaps academic research, should be at the heart of everything that a university does. However, the student experience is often overlooked – dare I say ignored – in most projects. The opportunity to transform learning and bring the university experience into the 21st century seems like the last thing being considered by many who attempt to introduce digital technology into HE.

PHIL COSTLEY / DE MONTFORT UNIVERSITY

THE CHALLENGE OF IMPLEMENTING A FULL ERP SYSTEM SHOULD NOT BE UNDERESTIMATED AND THE NATURE OF HIGHER EDUCATION ADDS ANOTHER LAYER OF COMPLEXITY

Research conducted by **YouGov** on behalf of **TechnologyOne**, has revealed that students are most concerned with a trustworthy, consistent digital information flow from their university. The survey of more than 1,000 students showed that reliable online access to course materials, exam results, admissions information, and timetables is a high priority for more than 90 percent of UK students. Further, a majority (88 percent) rated consistent, multi-device and location access to this information as important. However, despite these being high priorities for students only six in ten respondents said that their university offers this digital kind of experience. The research also indicates that although students have widespread access to student services technology, innovation on campus is less evident. Just 19 percent use smart devices during their lectures; only three percent are able to utilise AI functionality such as chatbots through their university's website; and less than one in five students has access to a campus map on their smart device.

Given that faculty 'customers' are amongst the most digitally aware and tech-savvy demographic it should be an imperative that the university product is delivered through seamless digital channels. The opportunity to 'transform' creaky back office functions with modern cloud-enabled technologies should be the foundation for a complete overhaul of the university offering. Unfortunately many attempts to achieve this have resulted in sub-optimal outcomes.

IAIN MARTIN / DEAKIN UNIVERSITY

CLARITY OF PURPOSE, LEADERSHIP AND A REAL UNDERSTANDING OF WHAT IS DESIRED FROM DIGITAL TRANSFORMATION ACROSS THE ENTIRE UNIVERSITY UNDERPINS SUCCESS

University culture holding back successful transformation

Whilst universities should be amongst the most likely type of organisation to benefit from digital transformation, they are also the least likely to have the skills and culture to deliver it. ERP projects can be bruising affairs and are not for the faint-hearted. Anyone who has been involved in a large-scale ERP software or transformation project knows that the process is challenging for many reasons. And if you don't have a clear vision and someone steering the ship with the expertise to navigate through and around the pitfalls, it can be almost impossible to deliver with any real benefit.

Phil Costley, director of ITMS at **De Montfort University**, said: "The challenge of implementing a full ERP system should not be underestimated and the nature of HE adds another layer of complexity for analysis, process design, change management and deployment. The journey is long and requires a unity of purpose from all parts of an organisation that can be difficult to achieve in HE. At De Montfort University we have had strong support and engagement across the organisation and having already implemented finance and HR we are into our second cycle on the student system and are building from this to reap the full benefits."

As with all large projects, clarity and vision from the top of the organisation is key to driving change and without it, most projects are doomed before they begin. Universities are full of very smart people. But they are not full of people who necessarily understand what it takes to deliver a sweeping project of change that will affect every inch of the campus. They may also be reticent to admit their shortcomings or lack of knowledge creating a "blind leading the blind" situation. The hierarchical nature of a university means that decisions from on-high rarely get challenged.

Iain Martin, vice chancellor at **Deakin University** in Australia, said: "Clarity of purpose, leadership and a real understanding of what is desired from digital transformation across the entire university underpins success. Isolating digital leadership amongst a few in the organisation is destined to result in failure. The lessons could not be clearer."

Darren Ellis, director of public sector and managed services at **Park Place Technologies**, agrees and said: "Higher education institutions face many of the same problems with digital transformation as the private sector. The project requires not only vision and technical expertise, but also deep cultural shifts to do things differently than they've been done. The buy-in can be harder to achieve for some higher education institutions because of the nature of their governance and the need for public transparency, faculty and student input, and so on. It takes time to bring everyone along."

RUSSELL GROUP UNIVERSITIES, ALTHOUGH VERY PRESTIGIOUS, TEND TO BE LESS FORWARD-THINKING WHEN IT COMES TO IMPLEMENTING AND EMBRACING NEW EDTECH

DAVE KENWORTHY / UNIVERSITY OF LONDON

And Alex Richardson, principal in the IT and digital practice at **Berwick Partners** goes further, saying: "Persuading intelligent and challenging stakeholders, such as academics, to change the way they operate is always difficult. But to exacerbate this there is a cohort of university staff who don't 'believe' in the adoption of industry approaches and in fact many are ideologically opposed to the existence of a market in the HE sector at all. Furthermore, whilst universities are now generating large revenues, the legacy HE sector mindset where any significant level of expenditure could be open to critical public scrutiny, means universities are highly cost-sensitive."

Many of these issues are magnified further within the more established institutions where the culture is even more rooted in traditional academia.

Dave Kenworthy, director of digital services at **CoSector - University of London**, said: "Russell Group universities, although very prestigious, tend to be less forward-thinking when it comes to implementing and embracing new EdTech. The post-92 and large metropolitan institutions are well practised in appealing to students in more modern ways. They tend to be very responsive to change, and onboard with developing technology for teaching, learning, and enhancing the student experience overall."

THE PROJECT REQUIRES NOT ONLY VISION AND TECHNICAL EXPERTISE, BUT ALSO DEEP CULTURAL SHIFTS TO DO THINGS DIFFERENTLY THAN THEY'VE BEEN DONE

DARREN ELLIS / PARK PLACE TECHNOLOGIES

Difficult for universities to challenge and scrutinise

I feel a certain amount of sympathy with some universities that have endured difficult ERP projects. A culture deeply rooted in academia and many senior figures being in post for decades means that university leaders are often shut off from the brutal world of technology and transformation, relying heavily on advice and guidance of external consultants to bridge the knowledge gap. Without the experience of knowing any better, it is difficult for universities to challenge and scrutinise the advice that they are given – and this can lead to good outcomes for the consultancy and very bad outcomes for the university.

Not all consultancies are guilty of profiteering from the HE sector; some have done an amazing job at shepherding a university through the complexities of digital transformation. But some have taken advantage of a situation created by the perfect storm of a naïve client with a risk-averse culture and delivered projects that no-one can be proud of.

Paul Hoskins, principal at **Curio** and former CEO at **Precedent** said: "Leadership teams, inexperienced in delivering similar projects, are prone to following advice from consultancy firms and product vendors, in large part due to protracted procurement processes, and often fail to forge a vision that delivers to the digital and educational transformation agendas. This often results in programmes led by

HIGHER EDUCATION

externally derived processes and product capabilities providing little value at best, and in a few cases embarrassing and expensive failures. The **University of Reading** and the well documented criticism it received for its Professional Administrative Services project being a good example, but there are many more too."

Indeed there are; **University of Birmingham**'s (UoB) New Core project was described as the worst example of its type at a recent event hosted by ERP Today. The project was delivered late, over budget, and many of the benefits that were conceived at the start have failed to be realised, despite the huge investment. Further, several open letters to VC David Eastwood, highlight a plethora of problems with the system, that some say, renders it almost useless. In conversation with several contractors who had first-hand experience of the project, and **Unison** representatives, I was told that the problems extend to several areas of the New Core system and include student workers not being paid on time, or at all. Those that are paid are often paid incorrectly with the wrong tax deductions. Issues with expenses, tax codes, loan payments and payslips are rife. The situation has escalated during Unison's ongoing dispute with the university over Living Wage accreditation and better pay over which six days of strike action have taken place since June.

PAUL HOSKINS / CURIO

THIS OFTEN RESULTS IN PROGRAMMES LED BY EXTERNALLY DERIVED PROCESSES AND PRODUCT CAPABILITIES PROVIDING LITTLE VALUE AT BEST

Commenting on the implications of the troubled project, Unison said: "Hundreds of staff and students have wasted entire days trying to chase payments, waiting in queues, phoning various departments, and sending emails. Many student workers and staff will be spending their weekends with much less money than they had budgeted for, and we are worried that many will have their overdraft affected by this and will be missing deadlines for paying bills. When you do get to speak to someone it is clear that they don't have answers to questions we are asking with many being unable to access the system, or when they can, not knowing how to use it."

Phoebe Gill, a post-grad student at UoB has set up a group called '**UoB Student Workers**' to help tackle the issues being faced by hundreds of workers at the university and to put pressure on senior management to find a resolution. She said: "Many student workers have not been paid for months and there is no communication at all from the university or those responsible for the New Core project. It is important to stress that the issues that have emerged in relation to New Core are not simply 'technology issues'. They show the interlinked nature between problematic processes, a management team who do not properly consult unions and staff, and other policies which, combined with a dysfunctional HR and finance system, can lead to complex repercussions."

As Gill says, the issues are not technology related. The system that UoB has implemented should work fine. Just ask the other Birmingham university, **BCU**, that implemented a similar solution in nine months for a fraction of the cost. As with most distressed projects it is rarely, if ever, the technology that is at fault. In the case of UoB, the **Oracle** product is mature, it has been implemented countless times in a variety of situations and is a robust and functionally rich suite of applications that should have set the university up for a bright future. However, it doesn't matter how good the raw materials are if the university leadership doesn't have the vision, skill and experience to deliver the desired outcome.

One Unison member who would go on record was Ioana Chis, branch rep at Unison UoB, and she said that the issues with New Core have pervaded virtually every aspect of university life and could have far reaching consequences for the university itself. She said: "The issues with New Core are exacerbating the wider problems of poor conditions for workers and an erosion of the agreements between the university and Unison. People can't get paid and when they do, they are rarely paid what they should be. These are the lowest earners in society and, not only has the university been refusing to seek Living Wage Accreditation, end casualisation on campus and bring outsourced workers in-house, now they aren't even paying their workers correctly. There has been a real lack of communication from those responsible and although many students and workers are now being offered vouchers to compensate for the problems most of us see that as further insult rather than any real form of compensation."

ERP Today invited UoB and their implementation partner to comment in this feature and answer some of the criticisms - they declined. However, they did send a letter threatening to 'take all appropriate action' if they didn't like our article.

UoB is not on its own and many other universities have felt similar pain with projects either being terminated before they completed or experienced significant overruns on time and cost coupled with an erosion of the benefits that the projects were originally conceived to deliver. **Durham University**'s project failed entirely although it is now being picked up by **KPMG** who is remodelling the strategy and attempting to implement the solution for a second time. Of course it is not uncommon for large scale projects to run into some difficulties and there will always be teething problems with a new ERP no matter how well it has been implemented. The reason UoB has been singled out by many as such a bungled effort is that it could and should have been the poster-child for university transformation in the UK, and sadly it isn't.

In virtually every case the recipe for disaster is the same and all universities should take very serious note of the lessons learned by those who have been through the ringer on their projects to ensure they don't repeat the same mistakes. Talk to those who have been successful. Find a partner that understands HE and has a track record of delivering in it. As Martin from Deakin University said earlier, the lessons could not be clearer.

Successful examples of implementations

There are, however, rays of light from some institutions. As mentioned above, Birmingham City University implemented an Oracle Cloud ERP solution in rapid time, on budget and without any major issues. David Wilkin, who led a similar project for **West Midlands Police**, spearheaded the implementation of a full suite of new digital technologies including finance, procurement, HR, payroll and PBCS (Oracle's cloud-based planning and budgeting) tools.

The **University of Dundee** has a robust business transformation programme in place, that focusses on improving operational effectiveness and levels of service. By automating manual processes and introducing more efficient, effective and paperless administrative workflows, the university has been able to free up staff time for more higher-value activity.

Anwen Robinson, operating officer UK at TechnologyOne, said: "By automating manual processes and introducing more efficient, effective and paperless administrative workflows, the University of Dundee has been able to free up staff time for more higher-value activity. The university has introduced an enterprise SaaS solution to improve the flow of information and create a coordinated team approach to administration, allowing them to focus services on strategic priorities as well as enabling the university to foster a culture of continuous improvement."

The **University of Exeter** has a far reaching Accelerating Digital Programme to support its ambitions to become one of the UK's top 10 universities. Over the next two years the institution will implement an array of 'cutting-edge digital products' designed to enhance the user experience for students, teachers, researchers, and other staff. The university recently undertook a digital transformation project to modernise its finance function which will save millions of pounds per year.

And **Newcastle University** has recently implemented a full suite of **SAP** technologies including SAP HANAH, SAP Fiori and SAP CRM that has revolutionised the University's access to intelligent data across finance, admission, and student grades.

THE UNIVERSITY OF EXETER HAS A FAR REACHING ACCELERATING DIGITAL PROGRAMME TO SUPPORT ITS AMBITIONS TO BECOME ONE OF THE UK'S TOP 10 UNIVERSITIES

ANWEN ROBINSON / TECHNOLOGYONE

The HE sector is not alone in its struggle to address the challenges and reap the benefits of digital transformation. But the added complexities connected to culture mean universities are faced with a tougher challenge than most. For the UK HE sector to prosper in the digital age it must consider the student experience and build from there. Transforming back office functions with ERP technology should be allied to a much broader implementation of front-line digital services that deliver the university product in a way that students want to consume it. Just as traditional businesses in the commercial sector have seen disruption created by leaner, more agile and digitally superior competitors, the higher education sector is being shaken up by those institutions that are able to attract, recruit and engage students with a contemporary product delivered with the student experience front and centre.

Hoskins from Curio believes that UK universities can learn a lot from the example set by international institutions, and concluded by saying: "Examples of success in the HE sector are often from much farther afield, with Deakin University in Australia and **Southern New Hampshire University** in the US often cited as real innovators. Both organisations identified the opportunity early, experimented, learnt and developed clear visions with measurable student satisfaction at their core. Both use this data to continue to innovate in a way that works for them. As late starters on this journey, UK universities often try to emulate these successes without a deep enough understanding of where they want to get, leading to unfocussed programmes and poor outcomes." ■

Best Network Wins

BLOCKCHAIN IS NO LONGER AN EMERGING TECHNOLOGY

BY WAYNE LLOYD

For the early adopters of blockchain technology the rewards will be untold: new revenue streams will be created, the chance to optimise target operating models, and the prospect of bringing typically mundane back office processes to life, such as supply chains. Convergence with other technologies, such as IoT (internet of things) devices, will create new insights on consumer expectations and trends in real-time. Ultimately, blockchain will lead to new, far more relevant and meaningful digital experiences to help businesses protect and potentially increase market share.

For those who continue to ignore the value of this technology, the stark reality is that they are at risk of becoming as irrelevant as those businesses that ignored the opportunities presented during the advent of the internet. Indeed, companies and their leaders have a duty to continually innovate before it is too late. This could not be truer for financial service providers whose businesses are currently under siege from a number of external threats. An industry currently weighed down by the cost and inefficiencies of legacy IT, data and culture silos and heavy regulation has made it incredibly difficult for financial service providers to be truly customer obsessed with experiences often falling way below expectations.

> **"Future trade processing should not have to run through a collection of front, middle and back office processing teams"**

Tough to keep up with customer expectation

However, it is hard to remain customer obsessed when budget holders within these organisations are sometimes forced to allocate up to 90 percent of their annual spend towards meeting the expectations of the regulators. As a result, banks have found it increasingly difficult to innovate as much as they might like to do so. In turn this has made it difficult for them to keep services up to date with the shifting nature of customer expectations derived from their everyday interactions with customer obsessed technology and providers such as **Apple**, **Amazon**, **Facebook**, and **Google**.

Whilst blockchain will become a key differentiator for every financial service provider, it's vitally important they first understand the business benefits of the technology and, perhaps more importantly, the reasoning for blockchain's introduction back in 2010 via the **Bitcoin** network. The latter is something I believe to be the most important; which is why I have made 'best network wins' one of Smarter Contracts company precepts.

In a world of blockchains it will no longer be the best single company that wins. The financial service providers who understand this point stand a better chance of being the successful blockchain innovators of our future. Having said this, it will take time for them to overcome what is undoubtedly a fundamental shift of mindset. Indeed, we have already seen evidence of this within the industry.

Whilst **JP Morgan** has done a fantastic job in identifying the need for reducing the cost and friction of cross-border payments using JPM coin, one cannot help but think how much better it could be if consideration was given to the impact that the solution could have if they worked as a broader network of financial service industry participants, as opposed to a single entity. Not only would they have solved a relevant use case, but they might have prevented what may become a future friction point of a cross-border payment, customer journey, given that there currently is a lack of interoperability between blockchains. Companies that collaborate most effectively to reduce these future points of friction will provide the most effective digital experiences of the future.

'Best network wins' also refers to the importance of the financial service providers' own internal processes and procedures as much as their external facing services. Banks need to recognise that blockchain transcends borders; therefore, if blockchain is being considered in closed, departmental silos, an opportunity is being missed. Within investment banking, future trade processing should not have to run through a collection of front, middle and back office processing teams. Unlike traditional database-based trade platforms, where transactions are confirmed at the end of the day, decentralised platforms will confirm that a transaction is valid before it is added to the ledger. Trade processing will be instant, financial service providers will be much leaner, and customer experiences far superior.

Approaching a perfect storm for blockchain adoption

Such improvements will ensure that almost all financial products will become 'tokenised.' Smarter Contracts currently builds security tokens for an FCA licensed platform in the UK so we're seeing first-hand just how disruptive these products will become. By tokenising financial products, banks will speed up automation and reduce friction points within customer journeys en-masse; simultaneously opening the market to new pools of liquidity as new participants enter the fray. Blockchain is offering financial service providers an incredible opportunity and here in the UK we're extremely lucky to be supported by a regulator that recognises the importance of innovation.

> **"By tokenising financial products, banks will speed up automation and reduce friction points within customer journeys *en-masse*"**

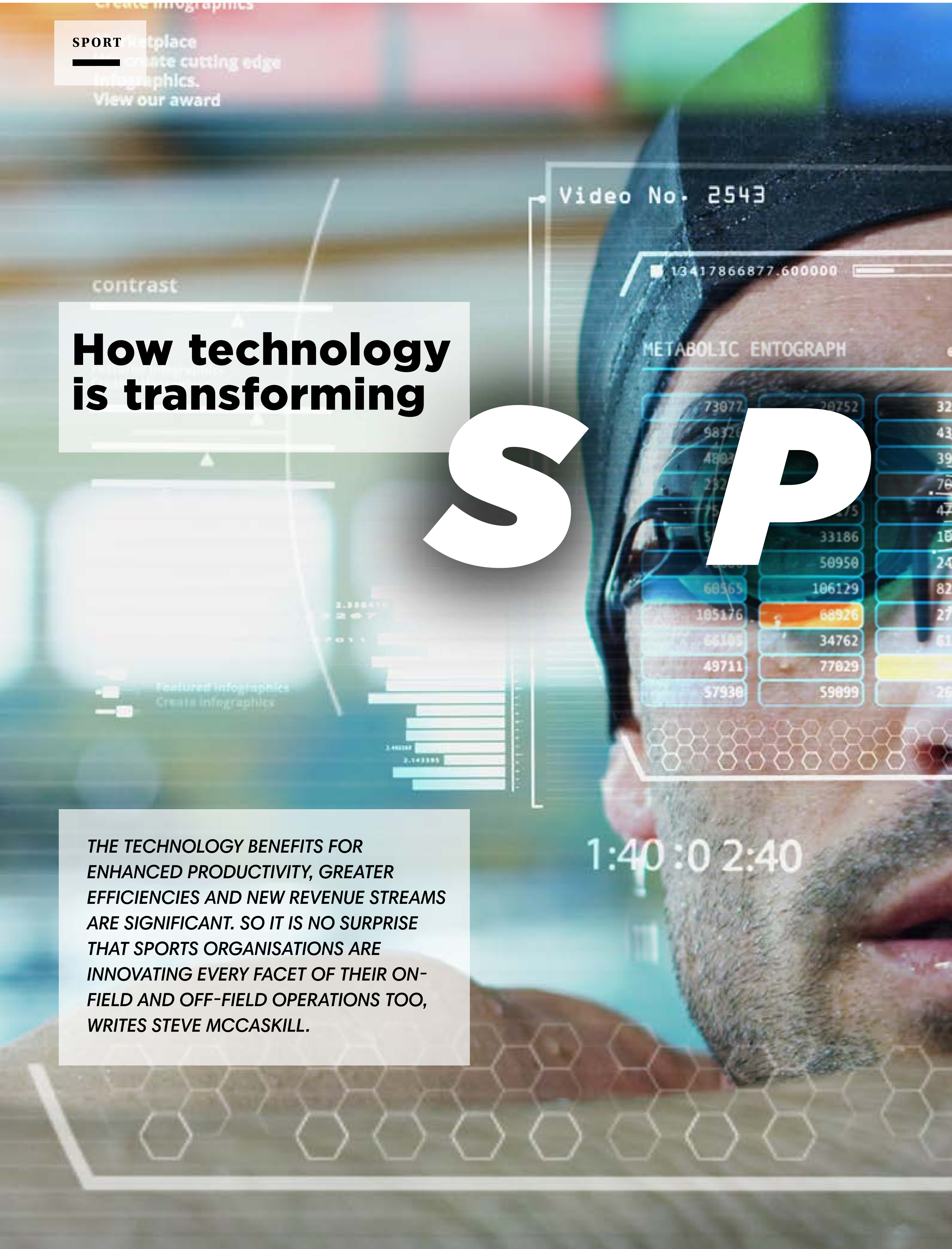
It is difficult to write a single article that can outline the abundance of opportunities that we see within this industry; however, we should consider the work of Moore (1991) and his revised version of Rogers technology adoption curve. I would suggest we are currently 'crossing the chasm' between the early adopters of blockchain technology (visionaries and enthusiasts) and the early majority (pragmatists). Simultaneously, with the introduction of GDPR and consumer recognition that their data should be making them money, rather than those who process data on their behalf, I would suggest we are approaching the perfect storm for blockchain adoption.

Once we do cross the chasm there will be an explosion of companies trying to integrate blockchain solutions for their customers. The shortage of blockchain experts who understand the business drivers as much as the technology combined with the economics of supply and demand, will undoubtedly push the price of securing those services upwards over the coming years ahead. This in itself should become a key driver of change, particularly for Tier 2 and Tier 3 financial institutions wishing to protect their future market share. Ultimately, it would be more impactful if these financial service providers consider the benefits of blockchain collectively, given 'best network wins.' ■

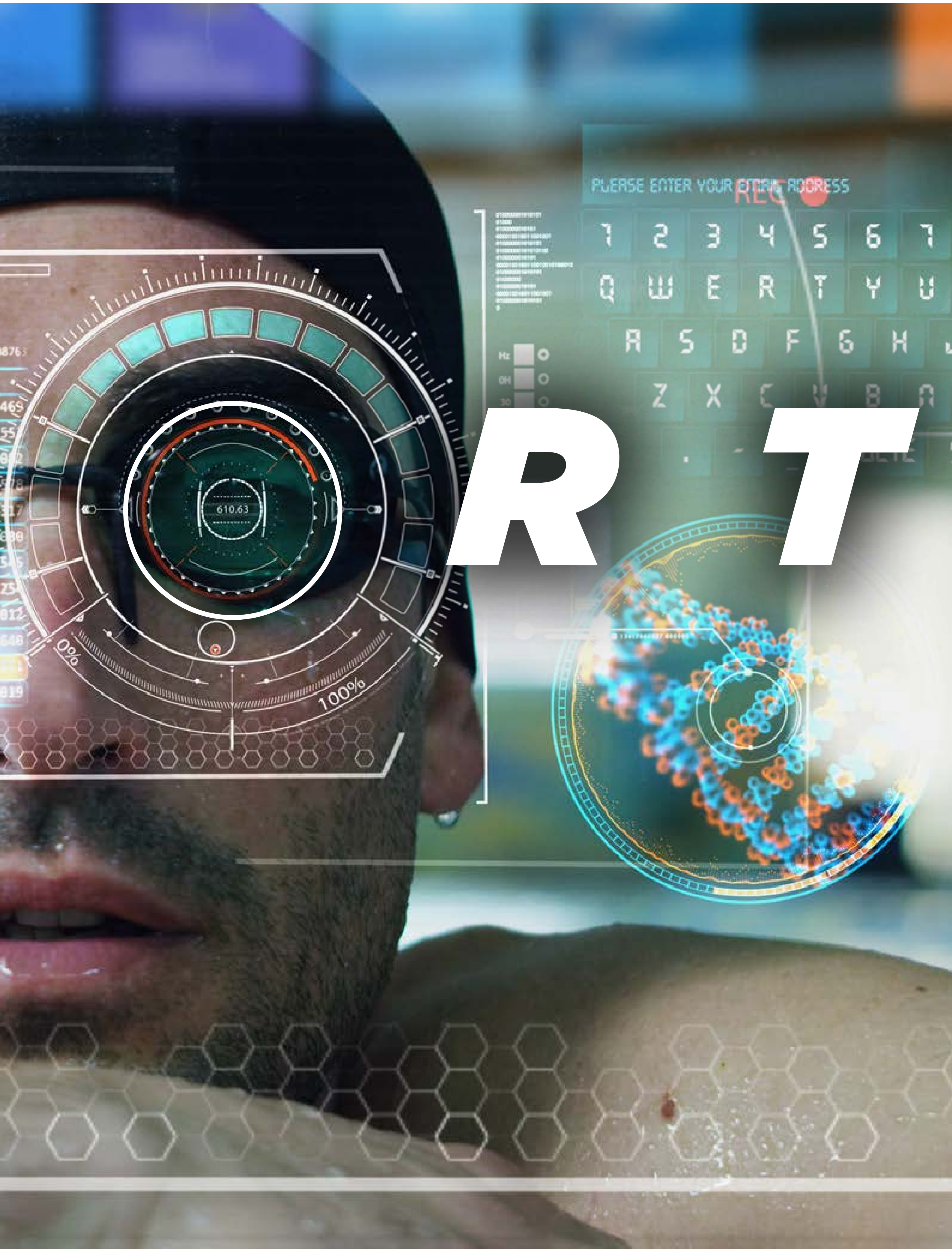
Wayne Lloyd is the founder and CEO of Smarter Contracts.

SPORT

How technology is transforming SP



THE TECHNOLOGY BENEFITS FOR ENHANCED PRODUCTIVITY, GREATER EFFICIENCIES AND NEW REVENUE STREAMS ARE SIGNIFICANT. SO IT IS NO SURPRISE THAT SPORTS ORGANISATIONS ARE INNOVATING EVERY FACET OF THEIR ON-FIELD AND OFF-FIELD OPERATIONS TOO, WRITES STEVE MCCASKILL.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SPORT

“WE’RE CO-INNOVATING SOLUTIONS TO STREAMLINE AND ADVANCE ALL AREAS OF OUR BUSINESS, NOT JUST ON THE BACKEND, BUT ON THE PITCH AND IN THE STANDS.”

THE GREATER USE OF DATA, cloud technologies, and digital tools are overhauling existing processes and enabling entirely new ways of working. Last year, the worldwide sports technology market was valued at $8.9bn (£7.4bn). By 2024 it is expected to be worth $31.1bn (£25.9bn).

“Over the last five to 10 years, we’ve seen increasing demand in the sports industry toward digitisation solutions,” Fadi Naoum, **SAP**’s head of sports and entertainment tells ERP Today. “There’s a broad understanding of the benefits that integrated end-to-end IT processes can bring to improve performance and sales in sports just like in every other industry.

“Sports organisations have been growing massively, turning from pure sports clubs to small and medium enterprises. The structures they’re relying on – no matter if it’s HR, sales, finance or team management – are very much alike to businesses. Hence, the use of business applications helps clubs and organisations digitise sports performance management by coordinating all administrative, training and team management, scouting, and medical processes.”

SAP counts some of the world’s biggest sporting clubs and federations among its customers, including the German national football team, **Manchester City**, **Bayern Munich**, and the **National Basketball Association** (NBA), assisting with business operations and on-field performance.

“Like any other company - and every sports franchise is a company - digital transformation is crucial for FC Bayern Munich,” says Stefan Mennerich, Bayern Munich’s director of media, digital and communication. “We’re co-innovating solutions to streamline and advance all areas of our business, not just on the backend, but on the pitch and in the stands. Our players are benefitting from real-time insights and medical and coaching staffs that can access up-to-date player information from anywhere in the world.”

These organisations have access to standard SAP services such as ERP and **SuccessFactors** for HR. But to better serve the industry, the company has created a dedicated platform called SAP Sports One. Powered by cloud and analytical capabilities the platform helps with team management, match analysis, player fitness and scouting.

Wide ranging partnerships

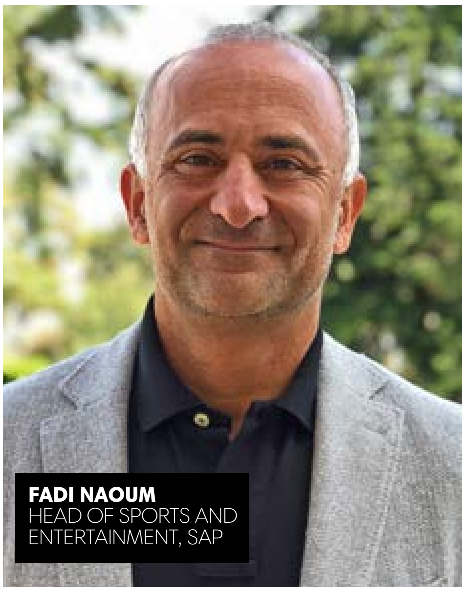
Infor is another vendor with its eye on the sports industry, striking deals with **Ferrari**, New Zealand rugby side and the NBA’s **Brooklyn Nets** among others. These partnerships include a mixture of sporting and business applications, with a marketing element thrown in for good measure.

“Typically, our partnerships cover a range of areas: this may include providing data-driven insights to boost performance, positively impacting fan experiences, and facilitating overall team business operations,” explains **Infor**’s vice president of marketing in New York, Jeff McDowell.

“Partnerships give us a powerful opportunity to extend our brand in the marketplace and there is a clear commercial element where we work with our partners to deliver solutions to create business efficiencies, augment fan experiences and drive performance,” he said. The Nets partnership is one of the most wide-ranging, with Infor software used in the back office and on the court. Analytics and data science is applied to team performance and player wellness, providing real-time insights for the coaches during games.

Levelling the playing field

But this isn’t just taking place at an elite level. Technology is giving smaller



teams access to some of the scouting and analytical capabilities that have previously been reserved for larger, better-resourced outfits. **Leatherhead FC**'s unlikely push for promotion last season was in part related to the non-league football club's use of AI (artificial intelligence). Specifically, **IBM**'s Watson cognitive computing platform analysed match statistics and reports, video footage, and social media to assess performances and scout the opposition.

Coaches can see in which area of the pitch fouls were being conceded or chances created and identify the variables that cause such events to occur. A dedicated application allowed the coaching team to ask questions in natural language and present findings to players who were generally more responsive to criticism when provided with evidence.

Increasing revenues

Intelligent software is also helping organisations to strengthen relationships with supporters. The use of CRM (customer relationship management) and ERP (enterprise resource planning) platforms allow clubs to understand more about their fans so they can increase ticket, merchandise and catering revenues.

At **Real Madrid**, the **Microsoft** Digital Sports platform collects data from various ecommerce, media and membership platforms to build a profile of each supporter. The club is able to see the age, location and activity of each fan, potentially increasing revenues. For example it is possible to determine that a US-based fan is attending their first ever match and target them with an offer to visit the museum.

Modern stadium upgrades allow personalisation to take place in real time. Wifi networks, mobile ticketing, and cloud-based data platforms will allow clubs to track fans across an entire match day, pushing personalised offers to their device. For example, someone sitting in a certain part of the stadium will be invited to receive a half-price hot dog from their nearest food stand.

"Special promotions such as discounts, membership cards, and apps can be integrated into the point of sale," adds SAP's Naoum. "The sale can also be personalised. For example, the solution recognises existing customers by the customer number or directly by QR code using a smartphone or tablet."

JEFF MCDOWELL,
MARKETING VP, INFOR

Fan engagement

But sport is no longer just about the match day experience. Sports federations and clubs now devote significant resources to their content operations, hoping to attract new fans and deepen the relationship with existing ones. After all, the more interactions that a fan has with an organisation, the more data there is to build their user profile and the more likely they are to spend money.

Multi-channel content operations see news, videos, and live scores distributed via social media, mobile applications and official websites. Meanwhile, streaming is giving unprecedented access to live events.

The greater collection of data is not just transforming organisations internally, but enabling entirely new user experiences. Since 2015, **NTT** has partnered with the organisers of **Tour de France** to collect data from the bikes and the course in real-time and turn it into insights for television and social media. This allows broadcasters to explain the more difficult elements of professional cycling to new viewers and provide more in-depth analysis for seasoned veterans.

Machine learning is a natural extension of this. **Formula 1** generates more data than any other sport in the world and has been practising 'Big Data' since before the term was coined. It uses the **Amazon Web Services** (AWS) cloud platform to crunch 65 years' worth of historical data to explain team decisions to television viewers and even identify the optimal time for a pit stop.

As a multi-billion pound industry it is surprising that sport has been comparatively slow in the uptake of technologies. But when results are decided by the finest of margins and the potential rewards so lucrative, organisations are now leaving no stone unturned in their quests for glory and revenue.

The role of the smart stadium

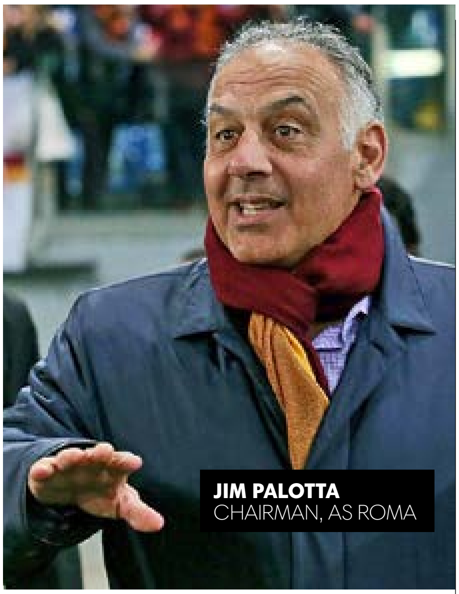
For all of the revolutionary applications enabled by digital transformation, the physical infrastructure required to harness these new opportunities is also significant. The digitisation of sport has prompted a re-evaluation of the role of the stadium. Sporting arenas built in the Victorian era aimed to get in as many people as possible. Decades of underinvestment and decay ushered in a wave of construction and upgrades in the 1990s and 2000s, aided by the modernising force of television

WHEN RESULTS ARE DECIDED BY THE FINEST OF MARGINS AND THE POTENTIAL REWARDS SO LUCRATIVE, ORGANISATIONS ARE NOW LEAVING NO STONE UNTURNED IN THEIR QUESTS FOR GLORY AND REVENUE.

SPORT

money. But at the start of this decade, there was a recognition that venues would need to become more technologically advanced.

The smartphone had changed the expectations of fans who now wanted to access social media and mobile applications during events, while the analogue process of selling tickets was no longer suitable for data-hungry organisations seeking new revenue streams. Public wifi, which allows organisations to gain more information about their fan bases, is an important element of this transformation. But the US, where stadiums have traditionally been more advanced, was a natural source of inspiration for other innovations.



JIM PALOTTA
CHAIRMAN, AS ROMA

"WE TRIED TO FIND THE BEST SOLUTIONS FOR EVERYTHING FROM PAYMENT SYSTEMS TO ELECTRICS."

Most venues have had advanced networks retrofitted but some have been able to incorporate technology into the very fabric of the arena. At the **Tottenham Hotspur** stadium, which finally opened in 2019, a high bandwidth network supports just about every single function on-site. This includes turnstiles, CCTV cameras, digital signage, Point of Sale (PoS) systems and, of course, public wifi. All of this data can be fed into backend systems that help the club understand how fans behave before, during, and after a match, so they can be better served and targeted with personalised offers.

Italian club **AS Roma** also plans to bake technology into its long-awaited new stadium. Because stadium construction takes a long time and technology can become outdated very quickly, the club plans to make it as easy as possible to upgrade. "We tried to find the best solutions for everything from payment systems to electrics," said AS Roma's Chairman, Jim Pallotta. "Everything we do doesn't have to be bleeding edge but we need to have an open architecture so if we upgrade, it's plug and play."

But improving connectivity is more difficult if the field of play covers a much larger area. At the 2018 **Ryder Cup**, a network comprising 700 access points, 130 switches, and 200 km of fibre was deployed across a 150 acre site. The network supported everything from television screens and wifi to retail operations and the press centre.

Whether it is a smart stadium or a connected course, the deployment of next-generation infrastructure gives organisations greater visibility into how they operate and allows for the collection of data to optimise the business.

Five ways technology is transforming sport

Community sport. Mobile applications are aiding the development of grassroots sport by simplifying management and easing the administration burden on volunteers. **Cricket Australia** says it won't rest until the management of a club can be done entirely on a smartphone and has launched an application that helps with tasks such as scoring. In England, the **FA** (Football Association) has teamed up with **PayPal** to build an app that allows amateur players to pay their match fees online. The current cash-based system sees 40 percent of fees uncollected.

Fan engagement. Digital is an important tool in how sports can acquire new audiences and maintain existing fan bases. For those who will never attend an event in person, mobile apps and video content offer the next best thing. Wimbledon devotes significant resources to its digital operations, including the use of IBM Watson to create data-driven insights and chatbots that boost accessibility. Organisers also use AI to automatically edit highlight packages that can be distributed rapidly across various channels.

Mobile ticketing. Traditionalists might baulk at anything but a paper ticket but mobile ticketing is more convenient, efficient and secure. It allows tickets to be tied to a particular customer, opening a wave of commercial opportunities and personalised services. **UEFA** (Union of European Football Associations) is using blockchain to guarantee validity, making it difficult to create forgeries or for touts to get their hands on multiple tickets to sell at an inflated value. It also gives venues greater control over who can enter the stadium.

Broadcasting. Just as satellite and online streaming have revolutionised sports broadcasting in the past, 5G will make production cheaper and easier. Wireless cameras will reduce the number of camera operators required and increase the range of creative possibilities. The ability to transmit images reliably and rapidly to a central production facility will eliminate the need for a production truck at the venue, allowing teams to work remotely on multiple events a day.

Event management. As sport becomes more data-driven and reliant on technology, connectivity becomes an increasingly important consideration. For global sporting events like Formula 1 and golf's **European Tour**, the challenge is multiplied by the need to build temporary venues in all corners of the globe. Both have partnered with **Tata Communications** to ensure access to guaranteed levels of throughput for their operational and media teams wherever they are in the world. ■

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HOW DO YOUR PAYMENT SYSTEMS ADD UP?

INTEGRATING THE FINANCIAL ASPECTS OF RUNNING A BUSINESS INTO AN ERP SYSTEM HAS THE POTENTIAL TO IMPROVE CASH FLOW AND MANAGEMENT, STREAMLINE INVOICING AND RECONCILIATION PROCESSES, AND REDUCE OPERATING COSTS.

INVOICING & PAYMENTS

INVESTIGATING INVOICING & PAYMENT OPTIONS FOR GROWTH

Why automating moving money makes solid business sense

BY GEORGINA ELRINGTON

Effectively taking care of the payments that make a business profitable is a going concern. The automation of accounting tasks has many benefits aside from saving time spent manually processing a deluge of transactions. It can help to stay on top of the regulations and intricate tax complexities that come with conducting business across global territories.

Automated processes that can validate touchless invoices and process faster payments free up time for deeper financial forensics, such as seeking better suppliers and trade deals. It can also find lost money, highlight cash leaks, and identify cases where fraud may have occurred - or be about to occur.

Invoicing and payments for global growth

With wide reaching supply chains and increasingly remote workforces come cross-border regulations for payment transactions. Keeping up with stipulations pertinent to each country, as well as differing payment terms for each supplier (be it a person providing services to a company or an export or import of goods), is one factor. Add on tax rules and currency conversions and the payment process becomes an intricate task. Thankfully, the availability of financial apps in ERP systems are evolving to respond to these problems.

One example of this is when the cloud telephony platform, **Natterbox** realised that its self-grown system needed to transform if the company was going to be able to deal with the complex billing and tax rates across different territories necessary for its globally expanding business. Moving its data to FinancialForce's CCERP (customer centric ERP) system brought a standard view across Natterbox's systems and offices worldwide, enabling more agility, better reporting and insights.

Another provider, **Tipalti** automates the accounts payable (AP) burdens for companies with global suppliers and subsidiaries, claiming to wipe out 80 percent of the AP workload, as well as decrease the risks associated with fraud and compliance. The company's NetNow offering pays suppliers earlier than their due date without any change to the accounts payable process or impacting working capital. This helps to spread payments, improve relationships within the client's supply chain, and boost financial health. The company's latest channel partner additions include: **Big Bang ERP**, the spend management platform, **Procurify**; and **Tesorio** which is a cash-flow performance platform. Here in the UK Tipalti is used by **Ogury**, which provides insights on a mobile user's journey across apps and websites that help to market across it; and **Design Cuts**, an affordable design resources company.

INVOICING & PAYMENTS

"AI AND MACHINE LEARNING TO ACCELERATE ACCURACY AND SPEED IS A CRITICAL COMPONENT TO MEETING THE PROMISE OF TOUCHLESS INVOICE PROCESSING."

CHEN AMIT
-TIPALTI

Increasingly touchless technology

Approval-ready and payment-ready invoices lessen the load on the finance teams struggling to cope with scaling growth. Chen Amit, co-founder and CEO of Tipalti commented on the rise of touchless invoices saying that: "We can already see touchless processing rates increase by double digits and this will only accelerate as we gain experience and data." He also pointed out that providing self-service portals have the added benefit of putting the responsibility of collecting and maintaining accurate data on to suppliers, cutting the time AP spends on-boarding vendors.

On dealing with cross-border payments and customer preferences Paul Davidson, project specialist for banking and payments at **Expense Reduction Analysts**, said that: "Businesses and consumers expect to be offered their preferred payment solutions and for the process to be slick. But these expectations differ between regions and even between individual states in the Americas and Europe. Consumers in Asia-Pacific and African countries are the fastest adopters of mobile technologies; while faster payment services - linked to bank accounts rather than cards - are accelerating across mainland Europe. Blockchain solutions are enabling banks to provide new, faster and more cost effective B2B and cross-border payment methods which are improving cash flow and Treasury operations."

On implementing invoicing and payment apps, Davidson cautions to: "Insist on any supplier providing referees with similar system configurations to your business to establish the truth behind the [technology] claims, as there has been evidence that some large global manufacturers and retailers have been unable to reconcile revenues and fees charged due to promised integration failures."

Fraud and financial forensics

With so much valuable data involved with invoicing and payments it is no surprise that security bubbles up to the top of the list again. No-one can afford to be lax on this. Every company holds financial data, client identities and payroll information which are attractive targets for hackers to get their bots on.

The financial services sector is particularly at risk but all companies can benefit from payment analytics peculiarities as part of the fraudulent forensics effort. Part of the protection process in **Previse**'s invoicing and payments offering is to monitor irregular activity. "For example, if someone's invoicing approximately £8,000 to £12,000 every month, and all of a sudden an invoice appears for £75,000, the algorithm will pick that up and flag it as something to be viewed. You could argue that would be picked up by an individual person, but maybe not in all cases, particularly in a high volume accounts payable environment," said George Hamilton, the company's ERP manager.

Fraudulent payment claims leading to revenue loss were recently looked into by the data analytics firm **Quantzig** for an insurance company based out of the UK. The insurance services provider wanted a better way to monitor transactions as they occurred and analyse data to help combat future fraudulent behaviour. It ended up combining all internal, external and third-party data to create a better pre-

"BLOCKCHAIN SOLUTIONS ARE ENABLING BANKS TO PROVIDE NEW, FASTER AND MORE COST EFFECTIVE B2B AND CROSS-BORDER PAYMENT METHODS WHICH ARE IMPROVING CASH FLOW AND TREASURY OPERATIONS."

PAUL DAVIDSON
- EXPENSE REDUCTION ANALYSTS

"ENTER AN INVOICE ON MONDAY, GET PAID TUESDAY."

GEORGE HAMILTON - PREVISE

dictive model on a single platform, which in turn enabled the flexibility to analyse patterns and possible transaction inconsistencies, with the agility to respond faster to new threats.

As well as directly attacking the systems of financial services companies, fraudulent financial attackers try to worm their way in via the customer end. Malware in the form of mobile banking trojans can intercept data to extort money from users by using the names of the financial services companies. It spreads via the contact lists of instant messaging apps such as **WhatsApp**. The number of such attacks detected in the first half of 2019 rose by 107 percent to account for about 3.7 million mobile financial attacks on almost half a million users, so say figures from **Kaspersky**.

While we all already know that it is vital to implement appropriate security measures, it is just as critical to continually assess invoicing and payment protection – especially when new methods are added. ■

LATE PAYMENTS ARE HURTING THE UK ECONOMY

PAYING INVOICES PROMPTLY IS VITAL IN PROVIDING HEALTHY CASH FLOW, PARTICULARLY FOR SMALLER BUSINESSES WHICH COLLECTIVELY SUPPORT THE UK ECONOMY.

Overloaded accounts departments can affect the time it takes to honour invoice payment terms. This is bad for business, impacts suppliers and doesn't nurture respectful relationships. It can also paint an inaccurate picture of the health of a company. The bill shock comes later, along with added late payment fees, interest, and soured contracts. This is a difficult problem for small business suppliers – one of the UK's greatest economic assets - yet half of the total value of Britain's SME invoices are held up in late payments.

The problem is so prevalent that the UK government has taken a hard lead on it. In July of this year, the Minister for Implementation, Oliver Dowden, reminded public sector organisations that they must pay their suppliers on time, and set an example for the private sector. In a statement bolstering the initiative the government's Crown Representative for small businesses, Martin Traynor, said: "Making sure companies in the government supply chain are paid on time is very important – particularly for small businesses. The difference between waiting 60 days and having to wait 90 days can be make-or-break for many small companies, so it's vital that both the private and public sector work better in this area."

Gig invoices are also often left out in the cold

Both SMEs and the larger enterprises that collectively account for millions per year increasingly rely on the contractor or 'gig' culture of work. Nearly five million people are serving compa-

INVOICING & PAYMENTS

nies as flexible employees or on a freelance contract basis, a figure which has doubled since 2016 and contributes an estimated £21bn to our economy. That creates a lot of invoices. **ETZ Payments**, a software provider that facilitates daily payments for highly-skilled tech workers, analysed the outsourced gig economy in the UK and found that increasing numbers of data scientists, developers and software engineers are working as freelancers; also job gigging are production teams in manufacturing, construction and fabrication; tailed by sales & marketing consultants, healthcare and fitness individuals. And every one of those people will be submitting a bill.

Late payment threatens the livelihood of this hard working community. If they go under as a result of waiting for remuneration then that resource is lost and the organisation will have to spend time and money replacing the skilled person. This is one way that honouring payments can pave the way to faster profits.

An **Oracle** partner, Previse also exists on the UK government cloud and enables instant payments to suppliers. "The buyer just pays the invoice when they normally would, as per the contractual terms with the supplier. The difference is that they pay us." explained the company's ERP manager, George Hamilton. Previse establishes a data feed from an ERP system rather than installing anything on it. "The process is that a supplier will have an invoice, they come to us and they can get a data feed from our buyer's ERP which runs at present once a day. Each invoice is scored and if it passes sufficiently it will be paid. So we generally have a supplier entering an invoice on a Monday and it gets paid on the Tuesday. From the buyer perspective, they don't have a change of process. They can approve the invoice and wait until the payment terms or whatever, and the only addition for them is to pay us rather than paying their supplier."

"CERTAINLY FOR THE LAST TWO TO THREE YEARS WE'VE SEEN AN INCREASING ADOPTION OF RPA."

PHIL LEWIS -INFOR

Smarter AI anticipation for invoicing and payments

AI is helping to convert other AP manual workflows into touchless tasks that once took considerable time such as: recording, verifying and identifying potential payment issues, identifying duplicate bills, adapting to changes for approval routing, assigning line items to specific general ledger accounts, and detecting potential fraud.

Phil Lewis, **Infor**'s vice president for solution consulting EMEA gave his take on this saying that there is "really rapid big impact" concerning the use of AI technologies within the finance department. He said: "Certainly for the last two to three years we've seen an increasing adoption of RPA (robotic process automation). That's essentially building a software robot to do the mundane repetitive tasks that human beings just don't like doing, like invoice matching, bank statements and expense report reconciliation."

He also said: "We're now starting to see the next generation that combines RPA technologies with machine learning. Actually those software robots can start to predict what's going to happen and actually become a bit more intelligent in the task that they do. So it's not just a case of fully automating a repetitive task, it's actually automating that task with an element of intelligence that can say, 'Oh, actually, I'm matching this invoice and there is a discrepancy here, a variance there, but I actually know how to address that,' and going off and amending that and actually doing what would be a fairly complex task before coming back to the end user and saying, 'I've found a problem with this invoice, but this is what I've done to address it.' That will have a huge impact into the world of finance full stop, but especially around invoicing and payments and making sure that the dots are being joined correctly."

Infor's commerce network, Infor Nexus, pulls the complexities of today's business together on to one platform. "One of the simple tag lines that we have for Infor Nexus is that it's not just about the physical movement of stock, goods and products, it's also about the money that's involved in that. It answers two simple questions within the business: where's my stuff, and when am I going to get paid? The Infor Nexus platform goes a long way to managing, assisting and controlling that whole request for goods and payment for goods within that single platform.

"Where it all really starts to get smart is when we start to look into the advisory role of AI and the ability to deploy machine learning algorithms that will actually look at the tasks that are happening; maybe they're automated tasks, predicting and anticipating what needs to happen," said Lewis. ■

OPINION

How AI is influencing the invoicing and payment industry

Thanks to ever increasing levels of computing power and the availability of cloud services, artificial intelligence (AI) is being applied to business problems where unstructured data can be processed, and patterns understood very quickly, and more accurately than humans.

BY IAN THOMSON

AI is now crucially important in transactional finance such as invoice processing and payments. An array of new AI services is increasing the level of digitisation, automating processes, and enhancing data and financial analysis. **McKinsey** shows how AI is reshaping the finance function, resulting in productivity improvements of 90 percent. AI automates extraction of data from documents, matching invoice data to ERP entities, to provide controls oversight, identify complex fraud attacks, action anomalies, and to create real time operational, regulatory and compliance reports. In short, AI removes data processing, action identification and reporting tasks from the workflow of your staff and enables them to focus on higher value work.

The large technology vendors such as **Microsoft** and **Google** have significantly increased research and development spending on AI technologies to drive this new efficiency revolution forward. In addition, new R&D companies such as **OpenAI** and **Deep Mind** are creating cognitive services, which are deployed quickly via the cloud. Software engineers are now using AI, and the underlying machine learning technology, to address ambitious business requirements. Machine learning tools enable models to be set up quickly and trained using operational data. They make accurate predictions of anomalies, classifications and sentiments. The fast development of models, either privately or as a service, means AI can now be applied to solve challenging problems.

AI is reshaping the finance function, resulting in productivity improvements of 90 percent.

For example, to build a machine learning model to process invoices from suppliers you can start with Microsoft's machine learning service called ML.Net. This can be coded to prepare your data for machine learning, identify a model that works with your production data and use this in the live system. You will then extend this with your own private models for finer grain data extraction. This approach over all business requirements creates an end-to-end AI service.

All those dealing with invoices and payments now need to define an AI roadmap that supports their business. The vast and increasing level of digital data are the raw materials to build models and achieve new levels of automation and performance. My recommendation is to seed an AI mindset in your organisation with a "low risk, high reward" use case, guided by an expert. Then seek to leverage machine learning more broadly to your unstructured data, natural language communications and image processing where repetitive tasks can be eliminated. As a rough metric, you should have three AI projects underway within the next 12 months. In this way your capabilities and costs significantly improve as you embrace the latest chapter in the digital revolution. ▪

Ian Thompson, director of AI automation services at SystemsAccountants. He is a graduate in engineering from Glasgow, a winner of the DISCOVER Award in Advanced Finance from Aberdeen University, Risk Management Technology from GRC2020 and Cyber Security Analysis from HMG. He specialises in developing cognitive services to address challenging business requirements.

HOW AUTOMATION IS AFFECTING

FINANCE FUNCTIONS|

WHAT TO BRING AND WHAT TO LEAVE BEHIND

BY MAX COOTER

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FINANCE

THE TREND FOR AUTOMATION IS GATHERING PACE AS CFOs ARE REQUIRED TO PROVIDE MORE ACCURATE AND PREDICTIVE DATA TO POWER COMPETITIVENESS.

Finance functions have moved out of the back office where they used to transact and record and are now playing a lead role in front line strategy where access to intelligent data creates opportunities, predicts threats and drives growth. However, many enterprises still use manual data entry and spreadsheets to reconcile and close accounts often taking weeks to complete at month end. The advent of finance automation can play a dramatic role in reducing the grunt work of manual accounting to provide quicker access to data and free-up workers for higher value tasks. However, ensuring that the role of the CFO is properly aligned to the technology function within a business is critical to achieving meaningful outcomes from digital finance. While automated processes are helping CFOs to work smarter and deliver more intelligence-led insights to stakeholders – the technology alone should be seen as an enabler rather than a magic wand.

A survey from the **Chartered Institute of Management Accountants** (CIMA) reveals that over the next three years 61 percent of finance professionals surveyed expect that more than 20 percent of finance tasks will be automated. But what does that mean for businesses? Should they be making wholesale changes or moving gradually? And what departments and processes should be tackled first?

The CFOs relationship with technology

At the heart of those questions is the changing role of the CFO and their relationship with the technology function within enterprises. Far more is expected of today's CFO and according to Helen Brand, chief executive at **ACCA**, the changes faced by many CFOs are complex and have implications across all areas of an enterprise's agenda. She said: "Increasingly CFOs will have to deliver on a wide range of fronts: driving a more competitive finance function, establishing ever more robust risk management strategies and supporting their businesses to develop effective strategies for growth while remaining cost competitive. More than ever before, finance leaders and the businesses they represent will operate in a global economy that is significantly more volatile, presenting future CFOs with new challenges, but also new opportunities."

This is a view endorsed by Tod Nielsen, CEO of **FinancialForce**, who said: "We talk to a lot of CFOs and things have changed. Their job is still to drive efficiencies and keep costs low but that's not their focus. What they're looking at now is how they can drive value."

An **Accenture** study found that 81 percent of CFOs see the identification of value business as one of their main responsibilities. But even more radically, 73 percent of those surveyed said they were looking at ways that new technologies could be deployed within their organisations, a responsibility that traditionally would have been carried out by the CIO. Henrik Nilsson, EMEA VP for **Apptio** says that there should be little surprise that the CFO is heavily involved with this decision making. "The CFO definitely should be involved. When you consider that 10 to 12 percent of expenditure is on IT, that's a substantial part of the cost base of any company."

He says that there should be a close working relationship between the two. "Sometimes the CFO reports to the CIO,

TOD NIELSEN / FINANCIALFORCE

FINANCE

sometimes it's the other way round. But, independent of what the reporting line is, it's important that there's an interlock and communication between the CIO and the CFO. There are lots of examples where it hasn't gone well."

"PEOPLE THINK THEY PAY FOR WHAT THEY USE. THEY DON'T, THEY PAY WHAT THEY PROVISION."

HENRIK NILSSON / APPTIO

Excel spreadsheets, they now have the opportunity to embrace the next stage in the evolution of digital accounting. While the notion of a fully autonomous CFO is unlikely to be one that is ever realised, many functions within a finance department can be automated as enterprises look at more standardised processes and ways to free up human workers for more meaningful tasks.

According to a **McKinsey** report, about a third of the opportunity in finance can be captured using basic task-automation technologies (RPA). These software bots, which should not be confused with physical robots, work on top of existing finance systems to automate clicks and processes that

However, Guillaume Slee, the EPM services director with **Brovanture** says that there's a need for businesses to take stock and realise that automation isn't in itself a solution. "The first step that any organisation should do is to take a step back and look at what they want to be doing as a business. It's fundamental that the business understands what it wants to do going forward as no software can help on its own," he adds.

Deloitte's David Wright agrees: "Organisations need to look at business processes and find which ones can they eliminate or simplify. For example, do you need to approve every expenses claim? Should you only need to approve those above a certain threshold and examine others randomly?"

Wright's colleague, Mark Hulyer gave an example of how this worked: "Say an invoice comes into accounts payable without a code. At the moment, that would normally be sent to someone in the business to get it coded up – a time-consuming process. What you see

THE CFO IS NOW AT THE FOREFRONT OF DECISIONS WHICH DIRECTLY IMPACT BUSINESS VALUE

The CFO is now at the forefront of decisions which directly impact business value and the tool to achieve that value is intelligent data. Historically, insights from accounting data were difficult to derive from manual processes. Sure, a simple P&L would show a CFO where the company stood, but reporting financial performance accurately and timely was hamstrung by the amount of manual effort that was required to bring figures to life. Automation is able to ameliorate that problem at a stroke.

Automation

Before embarking on a programme of automation it's important to identify the ultimate aim; simplify processes and, most importantly, make sure that the business departments and the IT team are working together towards a common goal. In the same way that accountants moved away from hand written ledgers and transitioned to

historically would have been carried out by a human.

According to Nielsen, while a robotic CFO may well be a long way off, a growing number of financial roles will be automated. "One of the reasons for this degree of automation is the growing trend for businesses to transform themselves. It's becoming axiomatic that companies adopt a policy of digital transformation to bring in a set of new services. For many organisations, the CFO is at the heart of this process, adopting a set of new functions along the way."

"THERE'S A NEED FOR BUSINESSES TO TAKE STOCK AND REALISE THAT AUTOMATION ISN'T IN ITSELF A SOLUTION."

GUILLAUME SLEE / BROVANTURE

now is that by combining ML and AI, companies can process these invoices more quickly, without the need for human intervention."

For Brovanture's Slee, the introduction of the new generation of ERP software can also enforce some of these

FINANCE

"ORGANISATIONS NEED TO LOOK AT BUSINESS PROCESSES AND FIND WHICH ONES THEY CAN ELIMINATE OR SIMPLIFY."

DAVID WRIGHT / DELOITTE

changes. "When you implement a new ERP, it forces best practices on a customer: things are more standardised and predictable, whether it's the automation of data or of tasks. The software comes with workflow and approval processes that force the customer down the path of best practice."

One of the areas where automation is playing a big part is in the reconciliation of accounts. Traditional reconciliation involved many hands and many spreadsheets. Each reconciliation pass could involve thousands of reconciliations across the finance team with each person working on their own version of a spreadsheet. Tracking errors when there isn't a single source of truth and factoring in the human error often meant that mistakes were made that were very difficult to trace. With the use of cloud-based automated reconciliation tools, the chance of errors and anomalies is almost reduced to zero and enterprises can have a much higher degree of confidence that their reconciliations are accurate.

Peter Hirsch, chief technology officer at **Blackline** identifies with the enormous time savings to be had. "There are companies out there with a huge amount of data and lots of reconciliation to do. That could be tens of millions of records in some companies or even 100 million," he said. Hirsch expanded with the example that; "a company has a general ledger that says the balance is x millions but the bank account says a different number. It all has to be reconciled before the end of the year and that could take 100s of accountants – or even thousands – over a couple of weeks."

Adding to the complexity is that many companies have multiple ERP systems in place. Firstly there's the issue of pulling all that together to work properly. That's quite a task even if those applications are all from the same vendor. "However it's more complicated when, through a series of M&As, you end up with different systems from different vendors," warns Hirsch.

It is complex situations like this that can benefit from automation, and cloud based systems will help to take care of a lot of the time consuming implementation. "If you're talking about public cloud, you don't have to be focussed on infrastructures, it simplifies setting up new locations, for example," said Hirsch.

What many companies need to work out is what these RPA tools are to actually do within enterprises. Are they to reduce head count or are they aimed at making companies more productive? Initially, there was concern that using automation would lead to job cuts but companies are now coming round to the idea that this is a rather crude approach. Andrew Hayden, senior product marketing manager at **Winshuttle**, sees this as an opportunity for organisations to use employees more creatively. "We're giving them 15 hours a week to be a data analyst rather than to be a data entry clerk." He said that by automating a single process inside one company "we reduced the time it took for a particular task from two weeks to one day – that gave back a lot of time to the employees."

Most of the technologies that enable task automation, including robotic process automation, have been over a decade – now they are getting better, faster, and cheaper. Further, many automation platforms were start-ups a decade ago and they struggled to pass the scrutiny of IT security reviews. Today, they're well established, with the infrastructure, security, and governance to support . Today's task-automation tools are also easier to deploy and use. Historically a finance manager had to wait for someone in IT to configure a bot, whereas today, a finance worker can often be trained to develop much of the RPA workflow themselves. It is estimated that it makes sense from a cost/benefit perspective to automate about half of the work that can be technically automated using RPA and related task-automation technologies. Capturing the remainder of the opportunity requires advanced cognitive-automation technologies, like machine-learning algorithms and natural-language tools. Although they are still in their infancy, that doesn't mean finance leaders should wait for them to mature fully. The growth in structured data fuelled by ERP systems, combined with the declining cost of computing power, is unlocking new opportunities every day. ■

"IF YOU'RE TALKING ABOUT PUBLIC CLOUD, YOU DON'T HAVE TO BE FOCUSSED ON INFRASTRUCTURES"

PETER HIRSCH / BLACKLINE

ORACLE PARTNERS' ROUND TABLE

Searching for the convergence between innovating with EBS and adopting SaaS.

ERP Today hosted its first **Oracle** partners' luncheon in London on 24th September. The event was attended by senior leadership from all the major partners and the topic of conversation was E-Business Suite (EBS) and the role that installed applications would play in the cloud-dominated era of post-modern ERP.

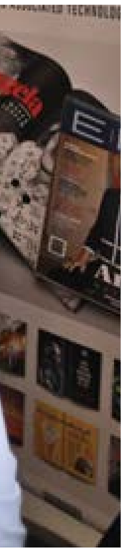
Following on from our first look at EBS in the April issue of ERP Today, I was keen to get the inside track from the partners that are challenged with selling, implementing and managing Oracle's installed suite of applications, against the backdrop of a cloud-first narrative from the vendor. For obvious reasons we have chosen not to quote any of the attendees directly but the report which follows is an amalgamation of the views expressed during the session.

Background and 12.2.9

Oracle has more than 400,000 customers running various iterations of their EBS product and the recent announcement pledging support for EBS suite up to 2030 (provided you upgrade to the latest version) has put many customers' concerns to rest. Oracle is continuing to develop the offering through its continuous innovation pledge and many features, such as Enterprise Command Center, are now infinitely superior to older versions. In fact one partner noted that the rate of enhancement for EBS has never been faster with a modern UI and upgrades for financials, order management, logistics, procurement and projects et al. Many of the new innovations were requested directly by customers through the Oracle Communities facility which has helped to bring the overall feel of the suite up to a new standard of modernisation.

General market sentiment

Most Oracle customers are not moving to their SaaS product although there is a significant spike in the number of EBS customers that are upgrading to the latest version of EBS and considering cloud-based infrastructure and hosting options. The challenge for the Oracle partner network is to find some convergence between the Oracle sales strategy and their remit to act as trusted advisers to their clients. Oracle doesn't sell any net new EBS solutions (although **JDE** and **PeopleSoft** are still strong areas for the vendor). Its sales strategy is highly geared towards SaaS and as a matter of course, Oracle Consulting Services (OCS) is brought into all new opportunities - usually ahead of any partners. OCS only delivers SaaS so you have to ask if the customer is always getting the best advice when it is presented with a binary option.



SaaS business case

Building a business case for SaaS is far more complex than many vendors would have their customers believe – and Oracle is no exception. While evergreen applications, autonomous upgrades and standardised processes all have the potential to deliver savings, agility and opportunity – they cannot do it on their own. Simply migrating from installed applications to SaaS applications changes very little, and in some cases, moving to SaaS without fully embracing the methodology behind it can have a significant negative impact. Managing quarterly updates can be time consuming and costly with some customers reporting up to 40 days of regression testing for each cycle. It is easy to see how some of the economic benefits of SaaS can be eroded if the full implications of a cloud product are not fully understood. You also have to question the diminishing returns for some SaaS upgrades; as one partner put it 'how often do you need a new version of Microsoft Word?' Although the capabilities of many applications are growing at an exponential rate most customers who choose SaaS only implement the barest of functionality and until SaaS products reach a level of maturity and stability, upgrades could be seen as a burden rather than a benefit.

Maximising the value in E-Business Suite

EBS has been serving its customers for more than 25 years and many organisations of all sizes have realised significant value from their investment. Most EBS solutions are geared towards the competitive edge of the individual business whereas a SaaS solution is optimised for the many. With the latest upgrades to EBS, particularly in its UI, the suite of applications has a strong future – for at least a decade, and probably much longer.

There is no doubt that SaaS applications will eventually supersede on-premise but for now the most obvious benefits are in the infrastructure proposition rather than in applications. Infrastructure-as-a-Service (IaaS), whether on OCI, another public cloud or even a private cloud, offers up immediate cost savings and flexibility paving the way for a more measured journey to the cloud. Most Oracle customers will end up on the cloud – but how and when they do should be determined by a carefully considered business case and roadmap.

There is another deadline that Oracle customers need to be aware of; anyone running versions of EBS older than 12.1 after December 2021 will be unsupported so moving to the latest release of EBS will be vital unless the customer is prepared to manage third party support arrangements. The latest and final release of EBS - 12.2 - will be supported until at least 2030. ■

SAP PARTNERS' ROUND TABLE

How to build a business case and accelerate your journey to S/4HANA

ERP Today hosted its first **SAP** partners' luncheon in London on 25th September. The event was attended by senior leadership from all the major partners and the topic of conversation was S/4HANA, and more specifically, what enterprise customers can do to build a business case and accelerate their migration plans.

Background, ECC and 2025

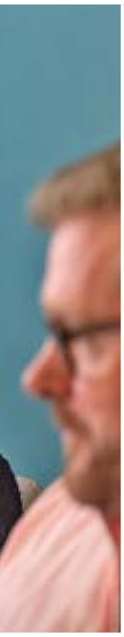
ECC has been supporting enterprises around the world since 2004 when it replaced the R/3 product. Most users operate a highly customised solution which would have been expensive to implement and even more expensive to maintain. However, despite some of the architectural issues with ECC and the burden of managing a sprawling system that will have accrued a significant amount of technical debt, many ECC customers are relatively happy with the performance of their applications. The argument for moving away from ECC cannot be made on the basis that the newer suite of applications is fundamentally better than its predecessor and SAP are still some way off delivering a true SaaS product that could be seen as a real step-change.

General market sentiment

Unlike our similar event for **Oracle** partners held the day before, it was apparent that many of the SAP partners had differing views on the reasons for slow adoption, the merits of the SAP strategy and the best way to determine the appropriate options for customers. It was broadly accepted that moving from ECC to S/4 is not a simple proposition and many felt the migration path, and the required business case argument, has not been helped by a slightly confused message from the vendor. Is S/4 a set of transformative technologies that go hand in hand with the intelligent enterprise? Is it a completely new product requiring a greenfield implementation? Or, is it an evolution of the product it replaces requiring only a technical upgrade? Is it a product built for the cloud - S/4HANA on public cloud as a SaaS solution? Or is it a suite of installed applications which can be run on-premise or some sort of remote infrastructure? In truth it is all of these things and while some argue that offers choice others say that the number of options and lack of clarity has contributed to the relatively slow uptake.

S/4 business case

SAP announced the end of life for ECC support back in 2014 giving customers more than a decade to move up to the latest product before support was cut for the legacy platform. It is not uncommon for software vendors to bring the curtain down on old platforms in the hope that it motivates customers to buy the next set of ap-



plications. However, uptake has been slower than SAP expected and the general feeling amongst the partners was that the 2025 deadline is not a driver for considering S/4.

Creating a business case for S/4 is heavily dependent on what type of customer you are, and again, there was considerable variances between the opinions of the partners. While some suggested that the majority of clients they worked with were not experiencing radical transformation to their business model (hence would be suitable for a technical upgrade as a standalone project) others said that every customer they talked to was grappling with profound disruption to their industry and would require wholesale transformation allied to an S/4 implementation.

Taking the first steps towards the intelligent enterprise

SAP has bet big on the notion of the intelligent enterprise and where industries are experiencing disruption the arguments for moving to S/4 (or any other intelligent ERP solution) can be made easily. Sectors such as retail and financial services have been radically shifted by the proliferation of digital technologies and the shift in consumer habits often necessitates a change in business model for those that wish to prosper.

However, not all verticals are being disrupted at the same rate or with the same impact and those businesses that operate in fairly stable sectors (a widget maker for example) are unlikely to be able to make the case for even a pared-down version of S/4 as the ROI will be almost impossible to achieve.

That does not mean you can’t build a business case for S/4. Eventually most SAP customers will be off ECC and, aside from those that choose an alternative vendor, most will find their way to S/4 in one form or another. The challenge, or should I say challenges, for SAP and the partner community is to allay some of the reputational issues that are closely coupled to large SAP ERP projects and develop more agile and expeditious migration options. The partner network has already developed various tools and methodologies that facilitate a more manageable route to S/4; **IBM**’s Rapid Move and **SNP**’s Bluefield approach being two, but there are others as well.

The S/4 product is already on its fifth release and is broadly as rich as the product it replaces (save for the customisations that most ECC users will have developed). If the SaaS product and public cloud offering catches up that should go a long way to giving enterprise clients a justifiable business case. The partner network all agreed that there was significantly more activity with SAP customers exploring the S/4 options so the promise of the hockey stick up-tick may not be far away. ■

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IFS WORLD CONFERENCE 2019

EVENT REVIEW

IFS' world conference took place in Boston in October and it gets a strong 9/10 from ERP Today for the overall feel and content. Attendee numbers were up 40 percent on last year's event and the main hall was packed with more than 100 sponsors and partners including the likes of **Accenture**, **Microsoft** and **TCS**.

Most ERP vendors use their annual get together to announce a raft of new products, services and capabilities – some which see the light of day, others which don't. It's usually a boast-fest where vendors focus on how much bigger, better, faster or intelligent a product suite is and how many more customers have signed up to take their latest innovations. However, IFS didn't really make too many specific product announcements. Instead, most of the narrative was around re-baselining their proposition; re-affirming their commitment to industries; setting out an ambitious and measured growth strategy; and connecting with customers and partners on a personal level.

Darren Roos, CEO at IFS, opened WoCo with a speech delivered in typical South African-style – it was fast, slightly furious and full of facts that highlighted the staggering growth IFS has enjoyed over the last 12 months. License revenues are up 119 percent; more than half of cloud revenue are coming from net new customers and they are on target to hit $1bn in revenue in 2021. Roos was keen to point out that 'IFS knows who and what it is'. "We're a challenger vendor," he said. "We are challengers and we are working with those who are also challengers. We've got a management team that has the experience of working in the Tier1 vendors and that gives us a great insight into how they do things - it also gives us the opportunity to think about how we want to do things. Sometimes we look at our experiences and realise there is a better way, and that's what we are bringing to IFS."

Sustainable long term value

The IFS narrative is refreshingly modest and unassuming; Roos and his team come from Tier1 vendors but they appreciate IFS is not at that level yet – and they are ok with that. Building on their previous experiences and planning a future for IFS that takes account of the best lessons to create a logical way to take the business forward with sustainable long-term value. "We consistently saw that behaviours were shaped for a specific CEO's tenure and mistakes were being made that were not going to create sustainable long-term success," said Roos. He described his management team as a heterogenous melting pot of talent with Christian Pedersen formerly of **SAP** and Microsoft, Michael Ouissi who spent 12 years at **Software AG**, and Sal Lehar, previously of SAP, being three of the newly acquired executives who make up part of the senior leadership team.

Go-to-market strategy

Before the Roos era, IFS was a technology company with eight separate regions all operating as independent resellers. Customers could not buy IFS products in different regions on the same terms and they certainly couldn't get the products implemented and supported in the same way. All of which led to a very fragmented experience from a customer perspective.

Roos said that they had now harmonised the business into "three regions all operating on a standardised operating model." Global customers could now buy, implement and support IFS' products with the same level of service and on the same terms.

He also noted that, historically, it wasn't even possible to buy all of the IFS products in every region; the aerospace and defence products and their service management capabilities were not sold everywhere. To address this they have created two distinct business units with deep industry expertise so that they could be sold consistently in every region. "We brought in Marne Martin who used to be the CEO of **ServicePower** and she has recruited a global team of domain experts to help us double-down on those two business units," said Roos.

IFS runs IFS

What better way to endorse your product than to implement it in your own business? IFS' products are very vertically focussed so trying to run a global technology business on a set of applications that have been geared towards heavy industry would be a challenge. However, Roos and his team felt it was important to demonstrate their faith in Apps 10 and took the decision to replace all of their back-office systems with their own ERP software.

"It was a tough decision; IFS is not a perfect customer for our own technology. But we decided that it was important we learned a lot of lessons from implementing our own product. We now run Apps 10 across finance, HR, CRM and procurement and we implemented everything in 24 weeks – further demonstrating our time to value proposition – and we are a $700m business operating in 50 countries," said Roos.

Astea acquisition

Despite a heavy schedule, the IFS team still managed to find time to conclude negotiations on the **Astea** acquisition which was announced mid-conference. By adding Astea to its already robust platform, the combined company will be in an even stronger position to take advantage of major industry trends like servitisation to drive more value for customers in its target verticals. With a similar heritage to IFS, Astea serves midsize and large enterprise customers in telecommunications, controls and instrumentation, fire and security, medical devices, and manufacturing.

My overall PoV

The IFS world conference was a big success; attendee numbers were strong, the exhibition hall was buzzing and the content across all three days was deep, interesting and useful. Roos and his team have a clear vision for where they are taking the business – largely born out of their experiences, both good and bad, at the bigger vendors. The challenge will be to hold on to all of those principles and ideals as the business scales. One of the biggest selling points for IFS is that it is still small enough to be accessible and influenced by its customers. Historically, IFS has not relied on implementation partners and has been able to build and deploy unique solutions for its customers. As the partner network grows and IFS moves away from delivery it will be vital that it doesn't lose sight of the USPs that has seen its growth outstrip the wider ERP sector. ■

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INFOR INFORUM 2019 REVIEW

INFOR PRODUCTS ARE GETTING READY FOR PRIME TIME, BUT IS INFOR READY OVERALL?

Infor had its annual worldwide user conference in New Orleans from September 23rd to 26th 2019. The event was well attended, though overall attendee numbers seemed to be down, compared to the last Inforum in New Orleans back in 2014.

Here are my top takeaways from the conference:

Infor has a new executive team

This was the opportunity for the new executive team to get introduced to customers as well as analysts and media. Kevin Samuelson is the new CEO, and on the go-to-market side, the world is divided between Rod Johnson (Americas) and Cormac Watters (Rest of the World). There is also a new CFO with Jay Hopkins. There are only two key executives from the Charles Philips era - COO Pam Murphy (who was absent at the management panels with press and analysts) and president of products and CTO Soma Somasundaram. Somasundaram's presence and continuity is key here. He has been with Infor for more than 30 years and is the face of products for customers. The new team did a good job in New Orleans, but still has to get up in the familiarity rating with customers and most importantly needs to earn the trust of the customer base by delivering on what it promises.

Coleman becomes a low code AI platform

The big product news was on Coleman, Infor's AI platform. Infor announced the ability for business users with a reasonable technology background to be able to use Coleman to solve business problems, implementing AI in a low code - sometimes even no code approach. This is highly beneficial for enterprises, as the traditional approach to using data scientists and developers to build AI solutions is slow, expensive and resources are scarce. It has the inherent 'lost in translation' challenge when business users have to communicate with technical experts. All that is solved when low code/no code comes into the picture, as business users – with some technology understanding – can build their own automation, in this case AI automation. There are no misunderstandings and potential restrictions in data and processes are directly experienced, providing these applications faster than the traditional approach.

Infor's new payroll on the cusp of GA

Back in 2014 Infor announced the creation of a new finance and HR Suite. That process is largely concluded, with the notable absence of payroll, where Infor is now in beta with selected early customers. It was not easy for Infor to create the next generation given the vertical depth it has e.g. in federal government and healthcare – both of which have sophisticated and advanced payroll requirements. The good news is that general availability is planned for early 2019 as the beta customers are successfully implementing and using

the system. At point, Infor will have one of the most modern and complete HCM suites in the market, with deep vertical capabilities. I'd expect that will give Infor a good shot to replace the aging Lawson implementations in its install base in 2020 and beyond. On 1st October Infor received FedRAMP authorization for Infor NewPay – a combination of payroll, workforce management and the Infor OS platform.

It's Analytics 'everywhere' with Birst

Infor has embedded its **Birst** acquisition (finished 1st June 2017) BI capabilities across its products. It's a good reminder that product level integration takes its time, but also reaps benefits for enterprises. More intelligence is available right away, there is no need to look for 3rd party products, there is no need for data extraction etc. All that helps enterprises to understand what is going on in their business faster, resulting in the positive uptake of enterprise acceleration. And the BI suite uptake across the enterprise suite is a common theme in the industry at the moment, with **SAP** embedding SAP Analytics across its products, and **Oracle** doing the same with its new analytics suite, Workday the same with its Adaptive Insights and Stories.bi solutions. When all vendors are doing the same – it must be the right thing for enterprises.

Overall My PoV

Nothing lasts forever, except maybe diamonds - but certainly not management teams. The Philips-led management team has been around for a long time, and it would have been nice to see that team finish the journey from the many acquired Infor products to the Infor CloudSuite. Customers certainly trusted the team, given the lower and lower number of customer defections in the recent years. But it is what it is, and a new team now has to earn the trust of customers and prospects.

What puzzled me to a certain extent was the lack of product news and demonstratable customer progress. Granted it's always good to improve implementation methodologies and come to customer success earlier, but when you have one of the most modern and most verticalised ERP suites in the market, there should be more product innovation shared with customers. It's hard for Infor to given the deep vertical audience, but capabilities in finance, HCM, purchasing and the platform are common interests and Infor needs to do better to articulate them to excite its customer base on a keynote level.

While being quiet on product while delivering is certainly perceived as a positive virtue by some observers, as long as customers get what they want and trust their ERP vendor to be the right partner going forward. And Infor certainly is in that position as sated in numerous customer conversation I had on a formal and informal level during Inforum. Given the massive progress on the product front it is now the question how Infor will scale implementations and upgrades in the install base. By not talking too much about the product progress – like at Inforum – the vendor is not helping itself. So, where Infor is heading under the Koch and Golden Gate leadership with new management is less clear in 2019 than it has been for the last five or so years. Stay tuned. ■

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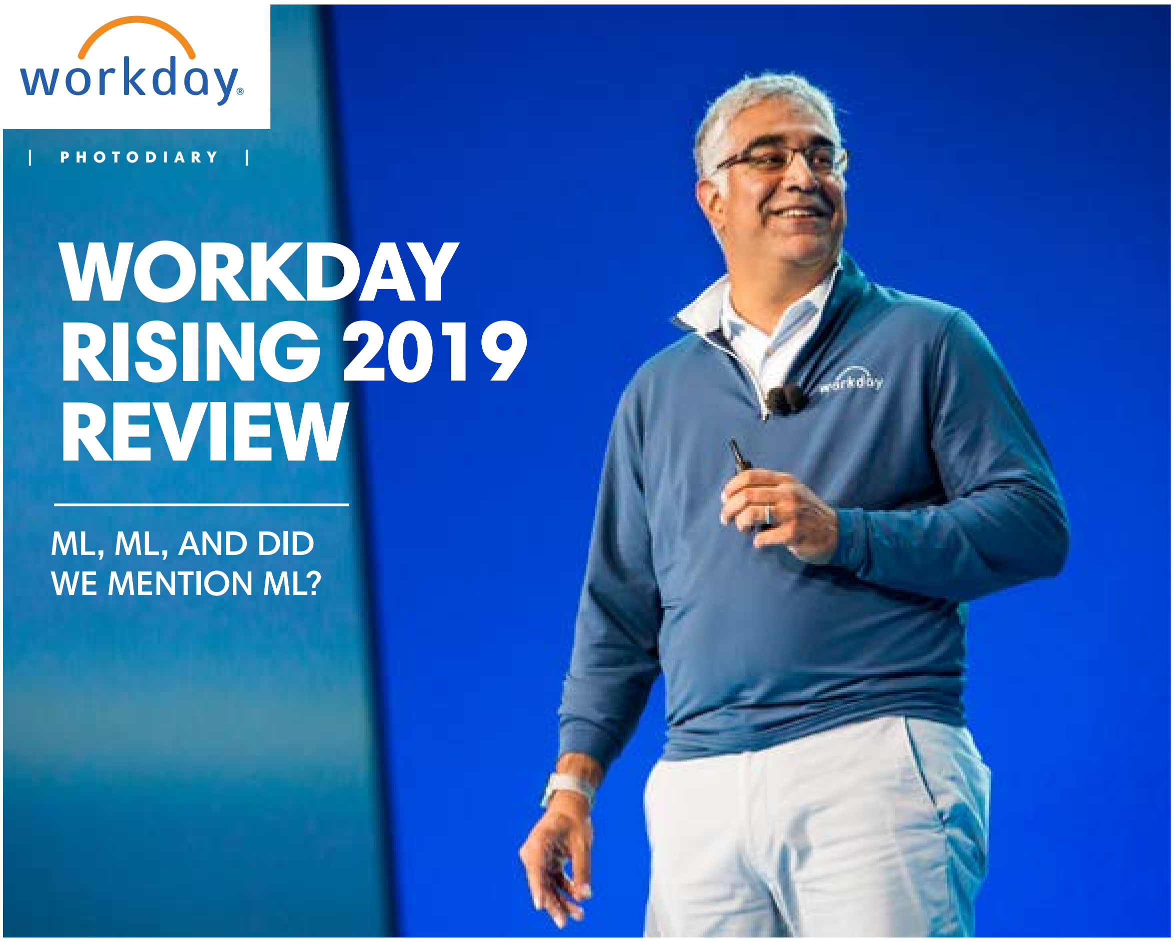
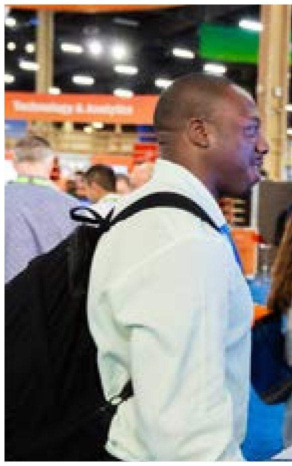
WORKDAY RISING 2019 REVIEW

ML, ML, AND DID WE MENTION ML?





Workday had its annual user conference in Orlando, from October 15th till 18th 2019. Workday Rising saw record attendance again, with over 13,000 participants. Equally, the number of exhibitors, partners and influencers was up; the latter as Workday is also an analytics vendor (thanks to the Adaptive Insights acquisition) and PaaS vendor (thanks to Workday Cloud Platform, more later). Conference attendance growth always gives a positive atmosphere to a user conference and Rising certainly profited from it.

Here are my top takeaways from the conference:

Machin learning infused into everything

You have to give credit to Workday to double down consistently when it comes to transforming technologies. A few years ago it was (predictive) analytics and now it is machine learning (ML). Kudos to Workday for not jumping on the AI marketing train as we are still far away from that in today's business world. But ML, in contrast, is real and Workday is infusing ML across its application portfolio; into finance, HCM and more. In HCM, Workday keeps pushing the skills area with the Skills Graph and new Skills Insights offerings. On the finance side prominent examples are Journal Insights and Supplier Invoice Automation.

New UX with People Experience

Workday also took the wraps off its newest UX, called People Experience. Going with the trend, demand and capabilities of time, the new UX relies on (no surprise) ML to deliver a modern user experience. As typical in a conversational UX, Workday collapses the menu structure of its system into one dialog system, where the user can just type or say what they want to do next. And equally, as pretty common for conversational UX, Workday People Experience will also try to determine what the next best action for a user will be. Demos on the show floor looked interesting and worked. It now will come back to hear from users in the Spring of 2020 how much and how well this new UX will change usability.

Workday Credentials – the first blockchain production app by a major vendor

Workday has been soft launching its Credentials product throughout the year - first unveiled at the Altitude partner conference earlier this summer. It's the first blockchain production application by a major HCM vendor and blockchain lends itself favorably to the unique needs of 'credentialing'; a record of abilities, participation, and certification that cannot be tampered with. Workday makes credentialing tangible with its 'Way To' app, that all Rising attendees got access to with the Rising participation placed as a certificate in the app. The challenge going forward for Workday will be to get adoption beyond its 39 million users – for which it will have to enroll other HCM vendors on the platform. Workday's strong position in higher education certainly helps but will not be enough to guarantee success for this interesting innovative use case.

Workday Cloud platform GA in Spring 2020

One of the key innovations for Workday has been its PaaS product,

Workday Cloud platform. Workday Cloud platform already supports two of the three key PaaS scenarios – ‘Extent’ and ‘Integrate’ use cases. The autumn release was supposed to complete the picture with ‘Build’ use cases but it has been pushed back until Spring 2020. PaaS systems are key for SaaS vendors as the best practices of the 21st century have not been established - resulting in experimentation in enterprises. SaaS vendors want to build software for hundreds if not thousands of enterprises and will not be able (and willing) to support every differentiation and innovation automation requirement. Enter PaaS as the enabler to allow enterprises to do exactly that. The first use cases by partners and pilot enterprises are encouraging examples of what the ‘Build’ use case enabled. Let’s see what happens beyond spring in the Workday user base.

Overall My PoV

Workday keeps meticulously infusing new technology into its platform and applications. Enterprises benefit from that as they get those updated capabilities in the half yearly releases. However, Workday needs to pay attention that it does not neglect its support for best practices in its business applications, as vendors need to work on two fronts: Platform innovation and business functionality innovation. At times it looks like business functionality takes a pause at Workday compared to platform innovation. But both innovation types ebb and flow over the life of a vendor so we will have to see when the business functionality innovation is coming back.

All that cannot distract from Workday’s need to transition from its in-house cloud operating platform to a public cloud platform. The partner of choice for Workday is **AWS**, and pilot customers report encouraging progress and success. For Workday to succeed with its push for ML, it will need to move more customers to the public cloud to benefit from the infinite storage and compute resources the public cloud offers. When I asked Workday CEO Aneel Bhusri at Workday’s Innovation Summit in spring this year how many hardware refresh cycles he expects to see for the in-house cloud operating platform – he answered two to three. That would be between six and nine years for that operating model. That is certainly too long not to be able to benefit from the BigData, ML and the deep learning capabilities that the public cloud offers. But maybe Bhusri was just conservative. We shall see.

A strong positive is certainly the blockchain powered credentialing offering with the ‘Way To’ application. Workday uses the right technology for an important use case for enterprises. Kudos to Workday as well for creating an application that really is at the fringes of enterprise software, probably even closer to consumer software, and that needs something unusual for the enterprise software space - cross vendor co-operation and partnership to get the solution to really fly in the business world.

For now, its congrats to Workday. The vendor demonstrates remarkable focus and discipline to infuse key new technologies into its offerings that allow enterprises to take their automation of finance and HR processes to the next level. That’s what enterprises expect from leading ERP vendors, and Workday is delivering on this. ■

The digitalisation of tax compliance

Why everyone should have a strategy to cope with the pace of change

BY TOM BIRCH

Governments are leveraging technology to increase tax revenues and crack down on fraud and compliance errors. This trend is most evident in the number of new 'data-led' compliance obligations being imposed on the taxpayer.

These obligations are burdensome and expose the transaction level information to the regulator. As a result, the records submitted and retained in case of audit need to be more accurate than ever before.

Multi-national companies must ensure they are able to meet these new requirements, making sure their data is good and the systems are able to generate the necessary information.

Using a piecemeal, reactive, by territory and by obligation methodology is inefficient and risky. Multi-nationals are now acting strategically in how they tackle the challenge, investing in regional and global practices and software stacks, to be able to cope now and in the future.

"From 2007 to 2012, there were only 5 such obligations imposed in Europe, the rate of adoption has since tripled with a further 24, including UK MTD, imposed to 2020"

What is this about?

There are three main types of data-led obligations being imposed by the authorities:

1. Digital transformation programs like Making Tax Digital for VAT in the UK – with more alignment across the taxes and additional records needing to be digitised expected.
2. Transaction level reporting obligations - some submitted in near real time (like in Spain) and some include granular information on master data, ledgers, journals, payments, assets and goods under a framework called the Standard Audit File for Tax ('SAF-T').
3. Invoice related obligations - the BRIC and other non-European countries have or are adopting systems where invoices need to be validated before they can be issued, or tax can be reclaimed, this is also taking hold in Eastern and Southern Europe.

The implementation of these regimes and digitisation has been hailed a success by every treasury where it has been adopted - and with the ease of implementation for each tax authority increasing due to technology advances, this trend will continue.

Why does it matter?

- The regimes create expensive administrative burdens.
- Tax can be at stake and the penalties can be severe.
- Not being able to send invoices, until they comply, is a commercial issue.
- The tax authorities are significantly advancing their capabilities to conduct digital audits and profile and target non-compliant tax payers, and
- There are wider issues on data integrity when read across to tax transparency.

Typically, where there is no plan we see:

- Numerous expensive and inefficient point solutions or workarounds.
- Inconsistent practices and standards around data quality and digital records, and
- Inconsistent levels of process control over submissions and audits.

What to do?

Businesses should develop a pro-active and scalable strategy to address the issue. The plan needs to encompass actively improving the quality of tax data, ensuring processes are productive and using technology effectively.

The forerunners in this area have global tax process owners, global policies, practices and controls, tax embedded into the data governance model and a carefully architected global technology stack, maximising the use of the core systems and minimising the use of local solutions wherever possible. ■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