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VOLUME 1 • ISSUE 1
Q2 2019

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Editor's Words



In the mid-fifteenth century, Johannes Gutenberg developed the first iteration of the modern printing press - an invention still regarded as the most significant disruptor of societal structure. Unlike previous iterations of printing apparatus, which had been developed almost exclusively in China, Gutenberg's invention used a very rudimentary version of automation to create multiple versions of text, pamphlets and books. For the first time, information could be reproduced and disseminated at scale leading to an explosion of literacy amongst the uneducated and the formation of social, economic and political agendas hitherto unseen.

Many of the principles which drove Gutenberg to invent his system are the same as those which underpin our current insatiable drive for better information, quicker and with less human manipulation. Whilst it may seem odd to compare a 600 year old technique of painstakingly impregnating parchment paper with Gothic type to a postmodern world of cloud computing, artificial intelligence and machine learning - the motivating forces are largely the same.

It's somewhat ironic that ERP Today utilises Gutenberg's idea to comment on the current wave of contemporary technology.

Despite the title - we didn't think that *'Enterprise Applications and Associated Technologies Today'* really worked - ERP Today covers the full spectrum of digital disruptive tech that will eventually see global enterprise evolve into a cohesive, collaborative and inclusive eco-system. We believe that technology can change the world; improving the lives of individuals and allowing organisations of all sizes to maximise global opportunities. However, progression always comes with challenges and the plethora of emerging technologies are no exception. Artificial intelligence and cloud are game changers - but we have barely scratched the surface - what seemed impossible yesterday will soon be taken for granted and the exponential development of computational capabilities means that the future is uncertain. We should not be afraid of AI or cloud, but we should be cautious. Done right, the upside of these technologies far outweighs the risks and a circumspect approach by developers, vendors and users should result in a better world for everyone.

This is the first edition of ERP Today and recurring themes will be artificial intelligence, cloud readiness, purpose-driven innovation, data and analytics, experience, blockchain, corporate responsibility and diversity. Look out for our 'signposts' throughout this issue as we try to point you towards some of the most important content, including our event leaders. ERP Today will be hosting a series of free-to-attend events throughout the year under the strapline, 'I want to know more,' with each event supported by global enablers who will help to break down our key topics into manageable one-hour sessions.

I hope you enjoy reading ERP Today as much as we have enjoyed writing it and I look forward to meeting you at one of our events.

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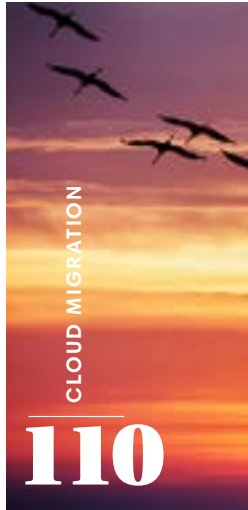
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**Angela
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News Deals & Wins

DELOITTE POWERS McLAREN INTO POLE POSITION

Mclaren and Deloitte have formed an alliance to build data-driven business products, helping organisations to bridge the gap between the physical and digital worlds. The collaboration draws on Deloitte's deep industry expertise and large scale change delivery capabilities as well as McLaren's operational excellence mindset, first developed in the world of motorsport. Looking to address complex, industry-wide challenges and improve performance across clients' businesses, the aim of the alliance is to use advanced analytics to derive clear, actionable insights.

The products developed by the two organisations combine specialist hardware and software with sophisticated algorithms. McLaren and Deloitte teams take part of an organisation, such as a manufacturing line or operation, and create a digital copy. Advanced analytics are then applied, with over 20 million potential scenarios run in order to understand how this part of the business could be improved. Analysis is then applied in the real world, with the teams working together to implement a new approach, saving time and money in the process.

Led by Jonathan Neale, chief operating officer at McLaren, and Mike Dobby, vice chairman and senior consulting partner at Deloitte, the alliance emphasises the importance on focusing on the 'right data over the big data'. So far, three products have been developed by the pair's collaboration; Supply Cycle, Performance Optimiser



Jonathan Neale, COO at McLaren and Mike Dobby, vice chairman at Deloitte

Airport Operations Performance Predictor (AOPP).

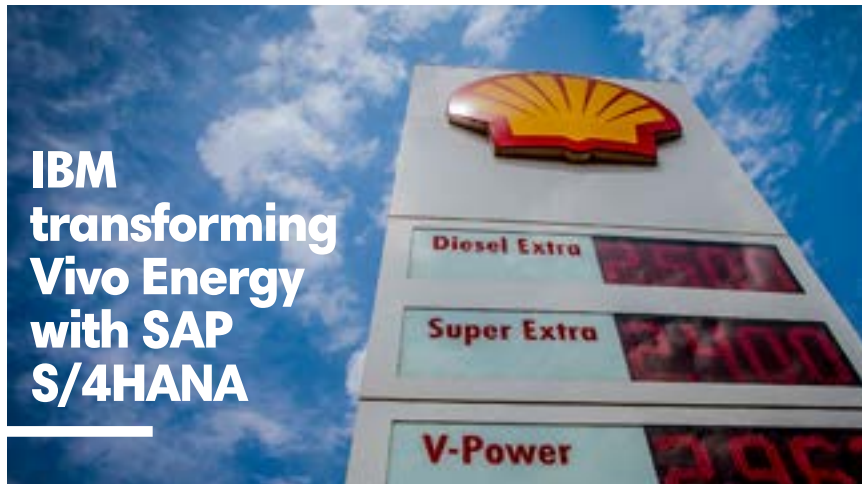
SupplyCycle is an optimisation engine enabling manufacturers to find the optimal balancing points across their operations while Performance Optimiser, is designed to support operational supervisors and the wider operations teams at Air Navigation Service Providers (ANSPs). The third, Airport Operations Performance Predictor (AOPP), is a software-enabled system that supports airport operators to influence and navigate, through better decisions, towards the best possible on-time departure performance.

Dobby commented: "Deloitte's collaboration with McLaren has allowed

us to create truly game-changing products within manufacturing and aviation. With our first products now developed, it's rewarding to work more closely with our clients and watch as our products drive productivity within their businesses."

Neale said: "The McLaren Deloitte alliance has successfully piloted a suite of new products that drive performance in business, with multiple global organisations. It is hugely promising to see how key industries are improving operational efficiency and unlocking the benefits that come with it. The teams at McLaren and Deloitte are excited by the future potential of this alliance."

NewsDeals&Wins



IBM transforming Vivo Energy with SAP S/4HANA

Vivo Energy, a market-leading company that distributes and markets Shell branded fuels and lubricants in Africa, has selected IBM Services for its digital transformation journey based on SAP S/4HANA. Establishment in 2011, Vivo Energy has grown rapidly and already operates over 1,800 service stations and employs around 2,360 people.

IBM solutions have started to transform Vivo Energy's operations, enabling it to streamline processes, enhance employee productivity and improve data visibility. Using the embedded analytics engine of SAP S/4HANA, Vivo Energy will be able to track the performance of each of its locations to help drive decision-making and help create an intelligent enterprise that responds actively to customer demand.

Keith Costello, IBM's global business services leader, said, "Vivo Energy was

one of the first companies of its size to deploy the full suite of SAP S/4HANA applications alongside SuccessFactors, SAP Cloud for Customer and SAP Integrated Business Planning. IBM and Vivo Energy took an agile approach to the implementation, with a focus on fast decision-making. This approach can help ensure that the business transformation program has a global template for the solution, with minimal local customisation in each business unit."

Mike McCormick, CIO, Vivo Energy, said, "We are focused on continuing our remarkable growth story, and to achieve this, we decided to transform our approach to business management and look for ways to enable the comprehensive operational insight that we desired. IBM was the best partner to support the implementation, taking the time to get to know our business needs in depth."

SAP SUPPORT PORTAL RANKED #1

SAP's Support Portal destination jumped to first place from 15th in Web site usability in siteIQ eBusiness Index's 2018 online support category rankings. siteIQ ranked 25 of the most prominent IT Web sites according to their ability to market, sell and support their diverse audiences. The new support design and architecture of the SAP.com site played an important role in moving SAP to the forefront of the competitive landscape in the category of online support.

SAP Support Portal moved to third place from 16th place in Web site performance and rose to fourth place from 15th in Web site features, according to the rankings.

"The needs of intelligent enterprises are constantly evolving, and enterprise support must be doing the same," said Andreas Heckmann, global senior vice president and head of support delivery, SAP Digital Business Services, SAP. "SAP has worked extensively with customers to improve and redesign the site. By providing them with a personalized and streamlined user experience, clear and concise content and navigation while maintaining a strong focus on our customers' top tasks, we're making sure that SAP Support Portal does more than keep up with customers' needs – it stays one step ahead of them."

Accenture makes triple acquisition in digital marketing

Accenture has acquired Storm Digital, Hjaltelin Stahl and Droga5 as it boosts its interactive capability.

Storm is a full-service digital marketing agency specialising in search, social and programmatic advertising services. Stahl and Droga5 are both creative agencies with offices in Copenhagen, New York and London respectively.

"Accenture Interactive has continued to scale programmatic services for global brands; with the addition of these three acquisitions, we can move faster and further in terms of scale and expertise, and help to drive strong results for our clients," said Anatoly Roytman, head of Accenture Interactive Europe, Africa and Latin America.





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IFS Customer Engagement selected by Baxi Heating

Baxi Heating, the UK market leader in smart low carbon heating and hot water solutions, has chosen IFS Customer Engagement™ (CE) to provide a cloud-based omni-channel customer service and complete workforce management solution.

Baxi receives thousands of requests from its customers who expect a seamless cross-channel communication experience. To keep up with customer expectations, the company needed to centralise and modernise its contact center operations. By bringing together CRM with other communication channels, the company can also boost agent efficiency while transforming customer experience.

Paul White, director of IFS Customer Engagement, said: "Award-



winning customer service is at the heart of Baxi Heating's identity, and we're thrilled to be a part of it. We worked hard with the Baxi team to ensure that, come winter, the right technologies and processes were in place for customers to feel safe, warm, and comforted, knowing that a Baxi Heating representative is only

a second away from dealing with any request, on any channel."

Steve Randall, head of business change at Baxi, said: "Thanks to IFS Customer Engagement we have already managed to halve our average handling time and our agents are 20 percent more effective in their day-to-day operations."

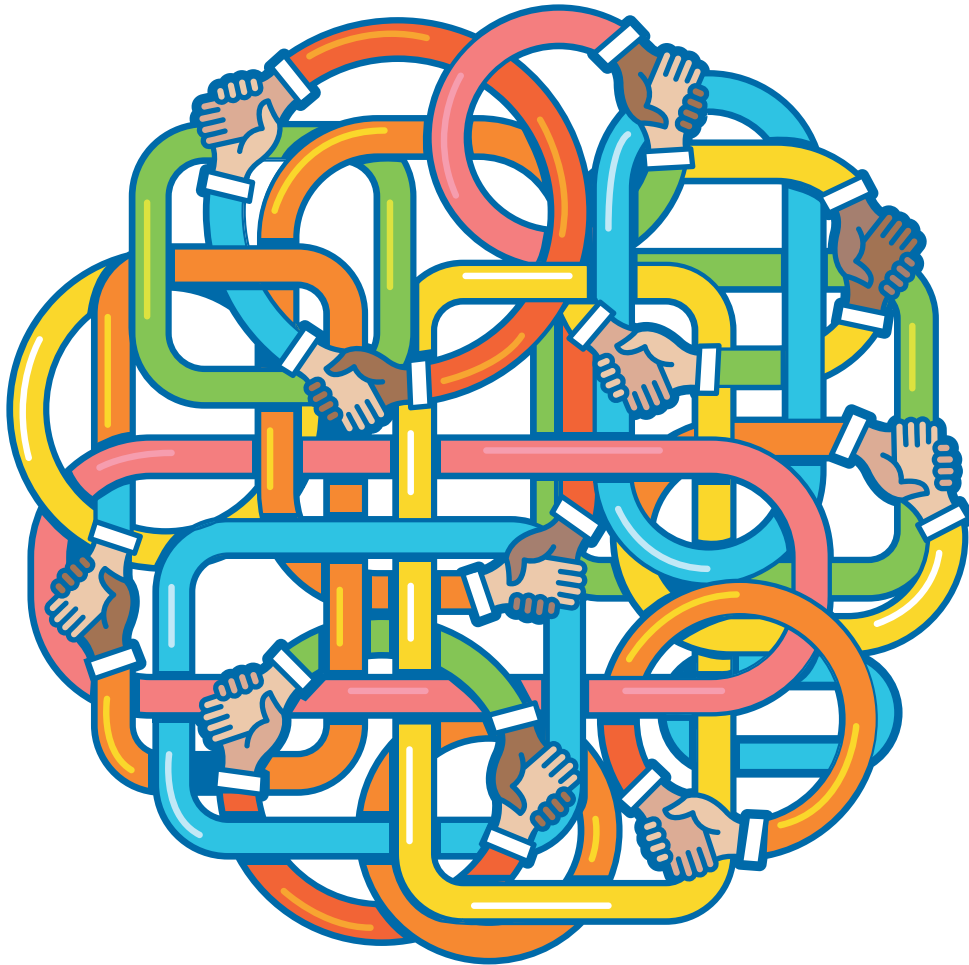
RAPID4CLOUD ADDS SUPPORT FOR PROJECT MANAGEMENT MODULE



Rapid4Cloud, a company which provides intelligent automated upgrades for Oracle customers, has announced the addition of support for Project Management (PPM) module into its SaaS offerings. Like in other supported modules, this new feature gives companies the ease of implementing and rolling out Oracle PPM by simply answering a few questions in a wizard-like web form. The software then takes care of the tedious activities that prior to

automation, required a lot of time and consulting resources. Rapid4Cloud also provide automation for setting up Oracle ERP Cloud and upgrading Oracle's on-premise platform, E-Business Suite.

Philip Martin, CEO at Rapid4Cloud, said: "We are very happy to tell all our clients and prospective ones that our software has now the capability to automate the tasks involved in Project Management. We are also excited that in May of this year, we will be adding HCM in the plethora of modules that we support."



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Oracle announces Q3 revenues

Oracle's fiscal Q3 results are in and total revenues were down one percent to \$9.6 billion, and up three percent in constant currency compared to Q3 last year. Cloud services and license support revenues were \$6.7 billion, while cloud license and on-premise license revenues were \$1.3 billion. Total cloud services and license support plus cloud license and on-premise license revenues were \$7.9 billion, unchanged in USD

and up three percent in constant currency.

"I'm pleased with Q3 non- GAAP results as revenues grew three percent operating income increased five percent and EPS grew 12 percent in constant currency," said Oracle CEO, Safra Catz. "Our overall operating margin improved to 44 percent as our lower margin hardware business continued to get smaller while our higher margin cloud business continued to get bigger. With year-to-date non- GAAP EPS growth rate now at 16 percent in constant currency, we will comfortably deliver another year of double-digit EPS growth."



ServiceNow and Adobe partner up

ServiceNow has announced a partnership with Adobe which stitches together Adobe customer experience data and customer data, ultimately providing seamless digital workflows and personalised customer experiences across all touchpoints.

The partnership will enable integrations between Adobe Experience Platform and the ServiceNow Now Platform

to enhance Adobe's realtime customer profiles with rich customer data. This will create a more comprehensive view of a customer across their entire digital journey – from acquisition to service.

"Customers demand exceptional experiences, and businesses are looking to transform customer service and engagement," said John Donahoe, CEO at ServiceNow

Wipro sells its HCM business

Wipro has agreed to sell its Workday and Cornerstone OnDemand business to Alight for \$110 million.

The sale will result in approximately 350 employees in Wipro's Workday and Cornerstone OnDemand teams moving to Alight. The transaction will expand Alight's capabilities and resources in HCM and financial solutions with Wipro's advisory, implementation and integration offerings, strengthening its position as a large implementation partner in the Workday and Cornerstone OnDemand ecosystems.

"We are delighted to expand our strategic relationship and collaboration with Alight. This agreement will enable Wipro to sharpen its focus on key offerings where it has a leadership position in the market. We will continue to make significant investments to grow our cloud applications and platforms business," said Abidali Z. Neemuchwala, CEO Wipro Limited.



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PwC BOOSTS CLEANTECH SCALE-UPS WITH 10 WEEK INITIATIVE

PwC collaborated with **Carbon Limiting Technologies** to deliver the Scale | Impact Cleantech programme to support high potential scale-up businesses redefining the cleantech sector.

Seven cutting-edge cleantech scale-ups were selected to undertake the 10-week programme, boosting their profiles, identifying commercial opportunities and preparing their business to scale-up. The curated links between the cohort of fast growth scale-ups with a global network of established organisations helped generate mutually beneficial commercial opportunities and relationships. Programme participants also undertook a business development



curriculum and received advice on topics such as leadership, sales and marketing, operational growth, professional readiness and valuations, all designed to rapidly expand their businesses.

Emma Cox, head of purpose at PwC, commented: “The Scale | Impact programmes are aligned with PwC’s purpose by supporting and collaborating

with innovative, agile scale-up businesses, who are working at the forefront of solutions to help achieve and unlock sustainable development. By combining leading technology with networking events and best practice, the programme allows scale-ups to accelerate their progress by opening the door to new prospects.”

Infor rebrands Nexus platform to meet digital demand

Infor has rebranded its GT Nexus supply chain network as Infor Nexus, as it reinvents the way supply chains execute and use data and intelligence to be more customer-centric. Infor Nexus combines the power of GT Nexus, IoT and Infor Coleman AI to deliver an intelligent supply chain network with a path to the autonomous supply chain.

Infor Nexus connects companies’ enterprise systems, network partners and IoT devices in a single-instance, multi-enterprise business network platform to deliver a single version of the truth to all parties. By connecting to the network, companies digitalise their end-to-end supply chain processes, gain real-time visibility of all supply chain events, and take advantage of data-driven insights across internal systems and their entire network.

“The new Infor Nexus brand culminates the past three years we’ve spent transforming GT Nexus – leveraging digital technologies such as IoT, in-memory processing, mobile, advanced visualisation and AI,” said Rod Johnson, EVP of manufacturing and supply chain at Infor.



Salesforce celebrates birthday with best numbers yet

What started out in 1999 as an idea formed in a one-bedroom apartment in San Francisco has grown to become the world’s #1 SaaS vendor. **Salesforce** is celebrating its 20th birthday and has reported impressive numbers for its FY2019 with total revenues going beyond \$13bn. The company now employs more than 36,000 people across the world and boasts some 150,000 customers globally.

“We had another year of outstanding revenue growth, surpassing \$13 billion in revenue faster than any other enterprise software company in history,” said Marc Benioff.

“As companies of all sizes turn to Salesforce, we’re enabling them to put the customer at the centre of their digital transformation through our intelligent customer 360 platform.”

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Unit4 acquires Intuo

Unit4 has acquired Intuo, a provider of talent enablement solutions nominated as a **Deloitte** Fast 50 Rising Star in 2016. The acquisition combines Unit4's experience delivering transactional HR, payroll and vertical specific applications to services industries, with Intuo's innovative technology for strategic HR.

The acquisition extends Unit4's Human Capital Management (HCM) portfolio so customers can benefit from the latest approaches to talent enablement with data

richness from Unit4's Business World ERP solution as the system of record.

"The way people want to work has changed, and service-sector organisations must respond if they want to remain competitive and attract the best talent," said Stephan Sieber, CEO of Unit4. "One of the biggest challenges to large organisations is to engage with their workers. New approaches to strategic HR are required to cater for talent diversity and multi-generational teams, as well as remote and contingent employees. These new people

challenges provide an opportunity for those that get it right. Adding Intuo extends our HCM offering so we can meet those needs with modern, future-proof solutions and rich data that enables HR and analytics in the flow of work."



Matillion secures series B funding

Matillion, the makers of cloud data integration tools, has raised an additional round of funding to the tune of \$20m. The funding has been led by **Sapphire Ventures**. Matillion makes ETL tools for **Amazon Redshift**, **Snowflake** and **Google's BigQuery**, amongst others.

Commenting on the deal, Matthew Scullion, CEO at Matillion, said: "Cloud-based data warehouses, like Amazon Redshift, Snowflake

and BigQuery, are changing the game in data analytics, reducing cost, time-to-value and increasing the power available to businesses to load, transform and analyse their data. The thousands of new projects and workloads this creates is in turn driving rapidly increasing demand for our built-for-the-cloud, ELT architecture, data integration tools, as companies want and need to compete with data, quickly and at any scale. This round of funding is an exciting opportunity for us to work with the fantastic teams at Sapphire Ventures and Scale Ventures Partners to meet the needs of our customers and partners as well as further accelerate the pace of innovation going into our products."

SUSE strikes out on its own

SUSE has broken away from former parent company, **Micro Focus**, in a deal funded by **EQT**. The newly independent SUSE has expanded its executive team, adding new leadership roles and experience to continue its momentum into this next stage of corporate development. Enrica Angelone has been named to the new post of chief financial officer, and Sander Huyts is SUSE's new chief operations officer. Thomas Di Giacomo, formerly chief technology officer for SUSE, is now president of engineering, product and innovation. All three report to SUSE CEO Nils Brauckmann.



EY LAUNCHES COMPETITION TO DEVELOP TALENT IN AI AND ANALYTICS

With the increased demand for global talent in data analytics and artificial intelligence, **EY** has launched a global data science competition to help identify and develop the brightest minds in data science from top universities.

The EY NextWave Data Science Challenge is designed to test the skills of data science students who will use data from Skyhook, one of the pioneers in location technology and intelligence, to solve issues related to the future of mobility and smart cities.

Students at universities in 16 countries and regions have been invited to compete, with registration now open for the online challenge. Participating countries are Australia, Belgium, Brazil, China (mainland), France, Hong

Kong, Indonesia, Ireland, Malta, Nigeria, Poland, Spain, Singapore, South Africa, the UK and the US.

Beatriz Sanz Saiz, EY global data analytics leader, advisory, said:

“The new generation of people entering the workplace is passionate about using their talents to help change the world for the better. We are equally passionate about showing students how they can have a career that marries technology with purpose, and where one can have a positive impact on businesses, governments, communities and people. We are looking for the most innovative and creative aspiring data scientists who will join the EY NextWave Data Science Challenge and engage with us in the mission to infuse data analytics into every business conversation to drive real-world benefits for people.”

Atos accelerates Illumia transformation with DORA

Atos has announced that **Illumia**, the first Italian family business in the energy sector, has completed a digital transformation using Atos’ digital energy platform (‘DORA’ – digital operations for retailers by Atos).

The functionalities and processes made available by



DORA were implemented on **SAP S/4HANA** for the management component, **SAP C/4HANA** for sales channels and customer service and **SAP S/4HANA** for Utilities for vertical processes. Thanks to the customised and modular solution provided by Atos, Illumia was able to start production of the new application platform in just 15 months.

“The energy and utilities sector is becoming more competitive every day and we need to ensure that our digital tools are able to generate a real advantage for our customers. We are satisfied with the excellent results achieved and with the effectiveness of our DORA platform,” said Giuseppe Di Franco, CEO of central eastern Europe and Italy at Atos.



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Mulesoft report highlights challenges of digital integration

A Mulesoft report based on the findings from more than 650 global respondents has revealed that while 97 percent of organisations are currently undertaking or planning to undertake digital transformation initiatives, integration challenges are hindering efforts for 84 percent of organisations. Close to half of all respondents – 43 percent – reported more than 1,000 applications are being used across their business, but only 29 percent are currently integrated together, trapping valuable data in silos. The survey also revealed that IT is struggling to keep up with business demands, as 64 percent of respondents indicated they were unable to deliver all projects last year. In addition, project volumes are only expected to grow, with respondents predicting on average a 32 percent increase this year. If digital transformation initiatives aren't successfully completed, nine out of ten organizations believe business revenue will be negatively impacted.

ACCENTURE'S RESULTS SHOW STRONG GROWTH



Accenture's financial results for the second quarter of fiscal 2019 ended with revenues of \$10.5 billion, an increase of five percent over the same period last year.

Operating income was \$1.39 billion, a seven percent increase over the same period last year, and operating margin was 13.3 percent. New bookings for the quarter were \$11.8 billion, with consulting bookings of \$6.7 billion and outsourcing bookings of \$5.1 billion. David Rowland, Accenture's interim chief executive officer, said: "We delivered outstanding financial results for the

second quarter. I am particularly pleased with our record new bookings of \$11.8 billion and revenue growth of nine percent in local currency, which reflect significant market share gains. In addition, we delivered very strong profitability while generating excellent free cash flow.

"The durability of our performance reflects the power of our highly differentiated growth strategy. With the successful execution of our strategy, combined with the disciplined management of our business, we are very well-positioned to continue growing ahead of the market and delivering significant value for clients and shareholders."



Informatica appoints Gary Rider for EMEA

Informatica has appointed Gary Rider as senior vice president for Europe, Middle East, Africa and Latin America. He will lead Informatica's EMEA and LATAM management team in developing and executing strategies to accelerate revenue and market-share growth in the region.

Rider's appointment comes at an important time for Informatica,

which is focused on expanding the reach of its solutions in EMEA and LATAM and recently increased investment in its EMEA headquarters in Dublin. He brings substantial experience in business management and sales leadership and a proven track-record of driving strong growth in highly competitive markets and across geographically complex regions at companies

that include HP, NCR, Polycom, and most recently Proofpoint.

"Gary has a vast amount of experience in leading extensive teams across diverse regions and his background in subscription sales and services will help us to deliver even stronger and strategic growth for Informatica," said Tracey Newell, president, global field operations, Informatica.

NewsDeals&Wins

City Cruises goes live with Sage Business Cloud



Sage has announced that **City Cruises**, the leading tour boat operator on the River Thames in London, is now managing their operations with Sage Business Cloud Enterprise Management.

With four million customers per year, operating 365 days a year, City Cruises needed a robust and scalable solution to help it identify product by product profitability, grow its' business, and provide robust business financial insights.

In partnership with Sage Business Partner, **Percipient**, City Cruises is now seeing increased efficiencies across all departments with Enterprise Management's multi-site location functionality, and comprehensive and improved business reporting.

John Rowthorn, finance director at City Cruises, said, "Sage Business Cloud Enterprise Management really helps City Cruises overcome all the issues we had with our legacy system, whilst giving us the visibility we needed to change our pricing strategy. The integrations and the multi-dimensional reporting have made us more agile and able to react as a business."

Jennifer Warawa, EVP partners, accountants and alliances at Sage, said "By working closely with our partner Percipient, we delivered a modern business solution to City Cruises. This means our mutual customer is benefitting from true innovation and providing its' customers with a truly fun and memorable experience.

INFOR HELPS WILLERBY BUILD FOR THE FUTURE

Holiday home manufacturer, **Willerby**, has selected **Infor** CloudSuite Industrial to support the development of new business models and drive expansion plans. Having experienced significant business growth in the past four years, Willerby had outgrown its previous systems, and required a modern platform that could support the bespoke, make-to-order nature of its emerging residential and luxury lodge business.

Howard Dawson, head of IT at Willerby, said: "This deployment represents much more than modernising systems to drive greater productivity. It will allow us to evolve our business and really embrace new markets to consolidate our position as a market leader and pursue long-term growth."

Simon Niesler, senior vice president at Infor said: "Willerby is a great example of a manufacturer that is embracing digital capabilities to drive transformation and exploit new opportunities across different markets. Willerby joins a number of high-profile brands which increasingly recognise that customers not only want the very best service, but for the production of make-to-order products to form part of the overall brand experience."

SAS announces \$1 billion investment in artificial intelligence

SAS, a global leader in data analytics, is investing \$1 billion in AI over the next three years through software innovation, education, expert services and more. The commitment builds on SAS' already strong foundation in AI which includes ad-

vanced analytics, machine learning, deep learning, natural language processing (NLP) and computer vision. Educational programs and expert services will equip business leaders and data scientists for the future of AI, with the tech-

nology, skills and support they need to transform their organizations.

"At SAS, we remain dedicated to our customers and their success, and this investment is another example of that commitment," said SAS CEO Jim Goodnight. "With our innovative capabilities in AI, SAS helps businesses deter damaging fraud, fight deadly disease, better manage risk, provide exemplary service to cus-

tomers and citizens, and much more."

The \$1 billion investment in AI will focus on three main areas: Research and development innovation where SAS continues to build on the success of its global AI efforts; education initiatives addressing customer needs to better understand and benefit from AI; and expert services to optimize customer return on AI projects.



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COVER STORY

Angela

MAZZA
TEUFER

Rejoins Oracle
to lead ERP business
across Europe



ANGELA MAZZA TEUFER

Angela Mazza Teufer is Oracle's beacon for enterprise applications and cloud across Europe. After a long career at rival, SAP, she rejoined Oracle just nine months ago with a mandate to grow the cloud business across Europe. **Paul Esherwood** spoke exclusively to the new SVP at OpenWorld and posed a series of questions which are reported below.



Oracle has a unique position in the ERP marketplace

Angela's journey has come full circle having started her career at Oracle in 2002 before joining SAP where she spent the next 13 years, latterly holding the position of regional president. Born in Italy, raised in Switzerland and having lived in the Middle East and France, Angela's European pedigree and cross-domain experience provides the perfect backdrop to the challenges ahead.

It's easy to see why Angela has risen up the ranks of the ERP elite and now sits at the top table in the world's premier-branded ERP organisation. Her style is refreshingly open and engaging and we are both at ease as we discuss artificial intelligence, cloud adoption rates and the changing role of the CFO. While walking the floor at OpenWorld, her enthusiasm for technology and customer success is infectious and it's clear that Oracle's agenda to revolutionise enterprise applications is in safe and capable hands.

A cloud evangelist, Angela cites Oracle's position in the cloud apps space as the key driver for

moving from SAP. As we stroll past the plethora of Oracle partner stands in the main exhibition hall, I asked when she knew it was time to move and she said: "I could see that cloud was going to be a gamechanger and I wanted to be part of an organisation where cloud was part of its DNA. Oracle's position in the ERP cloud space is unrivalled and I felt that's where I needed to be."

You were at SAP for nearly 15 years. What made you decide to switch from blue to red and what attracted you to Oracle after your time at SAP?

AMT Oracle has a unique position in the ERP market. It's been doing SaaS in the cloud for over ten years now, so is really in the best position to help organisations realise the benefits of moving their business applications to the cloud. As the cloud market has matured and more and more customers look to move some, or all, of their businesses to the cloud, there's a huge opportunity to help them



- we've been doing SaaS in the cloud for 10 years.



make the most of cloud-based ERP offerings and transform the finance function of their operations. It was this opportunity that really excited me and made me want to move to Oracle.

What's the biggest difference between the two companies?

AMT Oracle takes a different approach to delivering emerging technologies such as artificial intelligence and machine learning, industrial internet, and blockchain into its products. Oracle integrates functions into its applications so customers can get business value for certain use cases right away.

Where does Oracle have the edge on SAP?

AMT Oracle's edge comes in two forms. Firstly, it's the legacy we have in ERP cloud. We've been doing it for over a decade. We've learnt lessons along the way that allow us to not just be a technology vendor, but a true partner to our customers.

We can take our vast experience and use that to provide the best solution for their business. Secondly, as I mentioned before, Oracle has integrated innovative technologies, such as AI, into all our apps. We're not just talking about AI, we're doing it and every customer, large or small, has access to new and exciting technology.

Do you think customers fully understand these differences? Does selection often come down to the people involved rather than the technology?

AMT I absolutely think customers fully understand. We're working with companies of every size, across every sector. If you take some examples such as RCD Espanyol, Lambeth Borough Council, MMK, NetCologne and Amplifon, they're all live on our ERP cloud, demonstrating how the market today really does see Oracle as the leader when it comes to implementing business applications in the cloud.

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Would you define Oracle as: a database business, a cloud company or an ERP vendor?

AMT I think I'd define us as all three. Everything we do is in the cloud, but we are still a leading ERP vendor and give our customers access to database services, such as Autonomous Database Warehouse. It's all integrated and available to our customers. The beauty of everything being in the cloud is that they can choose which solutions they want.

Is Oracle's commitment to installed ERP genuine, or do you think cloud adoption will make the 2030 pledge a moot point?

AMT Absolutely. We're committed to providing our customers with the solutions and services they need. Not every business can move entirely to the cloud, and it's vital that we support them in not only taking advantage of the cloud where they can, but ensuring that the rest of their business is fit for purpose as well.

What, in your opinion, is holding most customers back when it comes to moving to the cloud? How is Oracle tackling these blockers and reassuring businesses of the benefits?

AMT I don't think I'd necessarily say anything is holding customers back, it's more moving at a pace that suits the individual business. Every conversation I have with customers is about when they will move to cloud, not if they will.

Historically, concerns around security, for example, were very real, but with solutions such as Autonomous Data Warehouse now available the barriers to adoption are dropping. Some companies may move more quickly than others, but our customers are all excited about the benefits that cloud can bring.

Is it the right move for every business?

AMT As I mentioned, not every business is going to move everything to the cloud. Some need to keep a portion of their business on-premise for regulation and compliance reasons, but where possible we're seeing our customers excited about the prospect of moving to cloud.

Which are the hardest stakeholders to convince of the benefits?

AMT I don't think it's necessarily about convincing members of the C-suite in isolation. It's about helping the entirety of the board understand how they can drive a connected vision, focussing on the wider goals of the business and how to connect their remits and roles, rather than simply driving their own divisions forward in terms of cost, manpower, infrastructure, and capability.

In your role of head of ERP for Europe, what are your greatest challenges? What are the milestones you have set for the Oracle ERP business in the short and medium term?

AMT What I'm focused on is helping our customers build a strategy for a connected enterprise. Being connected means working effectively across functional silos - with the traditional space and time restrictions becoming irrelevant simply because everyone and everything is joined up. This makes it easier to gain value from every point and from much wider ecosystems - it's only going to help our customers grow.

Are end-users ready and able to take full advantage of the new wave of AI-infused, cloud-based technologies? Do you feel that the benefits are fully understood by the market?

AMT Absolutely. CFOs are really taking a front foot when it comes to driving the strategy for their entire organisation, and taking advantage of AI is one tactic they are using to do this. AI automates many of the day to day tasks so that the CFO, and their team, can focus on the tasks which help influence business strategy. This can only be good for the business too - our recent research revealed that 46 percent of tech-savvy finance leaders actually report positive revenue growth, compared with only 29 percent of tech-challenged leaders. On top of this it gives them access to more data than ever, allowing them to understand their business like never before. Armed with this, CFOs can make smart decisions that help the organisation operate in a more efficient and profitable way.

What is Oracle doing to drive adoption of AI technologies?

AMT We've integrated AI into all of our business applications (ERPM, HCM and CX) so that when any customer uses them they are able to take advantage of our AI capabilities. Regardless of role, this functionality helps businesses work smarter, operate smarter, and engage smarter with their partners, suppliers, customers, and employees.

How do you see the skills set of employees changing over the next five years and does Oracle have a strategy for addressing any skills gaps in emerging technologies?

AMT I think everyone is going to become data-driven. Data, and understanding data, is fundamental to business success today. It's allowing us to make, smarter, more informed decisions that



The beauty of everything being in the cloud is that customers can choose which solutions they want"

ANGELA MAZZA TEUFER

only help our business and customers. As I mentioned, we've pre-built AI into our apps so that everyone can take advantage of data regardless of the role.

How do you see the role of the CFO changing over the next five years?

AMT I think we'll continue to see the CFO become a key driver of strategy for their business. At the minute the situation is 'disrupt or be disrupted,' and CFOs are in a unique position to drive the disruption of their business. With more data at their fingertips than ever before, they can help shape the future of their organisation. In short, the CFO will be the driver for change.

How much of an impact will AI have on ERP platforms? And do you think AI will ever replace the traditional CFO?

AMT It's going to have a huge impact, but it won't replace the CFO. AI is there to support the CFO, allowing them to automate and operate in a smarter way. It's given them the tools they need to drive strategy and vision, rather than replacing their role.



The situation is disrupt or be disrupted and CFOs are in a unique position to drive the disruption”

What steps has Oracle taken to ensure that AI is developed and implemented responsibly?

AMT Oracle has an R&D budget of over \$5 billion, some of which has gone to making our AI technology the best it possibly can be. It's now very much available and integrated into our offering, and we're working with our customers to make sure they know how to use it to drive real value for their business.

Can you envisage a future with a fully autonomous enterprise? Running Oracle ERP Cloud, an RPA manufacturing plant, a supply chain connected through AI and IoT and demand planning systems driven by machine learning. An end-to-end enterprise run by software, algorithms and robots?

AMT Maybe one day, but right now we're focused on making sure that our customers are able to make use of the solutions that we have in the market today. We're partnering with them to ensure that they understand where implanting an AI solution can drive change for their organisation, and then helping them take that theory and making it a reality.

What's the one piece of advice you would give to end users who are considering migrating their IT estate and applications to the cloud?

AMT Come talk to us. Moving to the cloud has so many benefits, not just in terms of cost saving and driving efficiencies, but also in allowing businesses to scale and grow. We're here to help our customers understand what that looks like for them. We've been working in the cloud for over a decade and have a lot of experience in helping businesses successfully make the move to the cloud, which puts us in a really unique position to continue to support organisations as they move their workloads and applications. ■







Cloud Wars

The Brave New World of SaaS Applications

As cloud computing becomes the foundation of the emerging digital economy, the future of work in this fast-paced new world is being shaped by a new generation of SaaS applications that are infused with AI, are easy to use, and reflect the radically different ways that work is being done in the digital age.

Leaving behind the internally focused and rigidly siloed enterprise apps of yesterday, this new generation of cloud applications are helping to create new processes centered on customers, driven by relentlessly enhanced data, and smashing the old-world borders across departments and functions.



BY BOB EVANS

Welcome to the world of end-to-end digital business, where a sweeping revolution in processes, priorities and possibilities has triggered new types of applications that only several years ago would have seemed like science fiction. And with SaaS applications being upgraded automatically three or four times per year, the pace of innovation and the pace of real-world change will continue to accelerate every facet of modern business.

The New Reality: Digital Consumers Are Demanding Digital Businesses

In the old world, if a new marketing campaign based on social-media sentiment analysis were to trigger surging demand for a product, that

good news would be immediately overwhelmed by hair-on-fire questions from all other parts of the company: How much product should we make? Which regions get priority shipments? Do we have enough inventory on hand? Will the whole effort turn a profit?

But in today's world, there's a continuum of interconnected SaaS applications sharing data from the marketing campaign to sales forecasting to supplier management to demand fulfillment to logistics to service and support and on to finance and back again to the marketing campaign as real-time data and analytics drive optimised decisions about where and how and when to enhance the program.

Because in the digital economy, customers have become the undisputed arbiters of which businesses will be the winners, and which will become irrelevant and not long thereafter nonexistent. Which companies can harness every single facet of their operations to deliver brilliant experiences to customers and prospects at every stage of the process?



CLOUD WARS

Which companies are able to develop enough operational flexibility to meet the dictates of customers about what they want, when they want it, how they want it, where they want it, and how they'll pay for it?

Or take the turbulent world of HR, also known rather frostily as 'human capital management - that awkward term doesn't quite gibe with 'people are our most valuable asset' does it? In the past, businesses were the hunters and job-seekers were the hunted. But today, with employment levels at record highs across many professions and disciplines, those highly talented individuals have become the hunters as they evaluate potential employers based on how compelling and current its website is, what others are saying about the company on social media, and the ways in which the early phases of the recruiting process are conducted.

The Vendor Landscape: The Rush Toward Customer-Centric Connections

For the past 30 years, the tech industry did not treat its customers terribly well. While this was generally unintentional, the results were the same: businesses were forced to buy hundreds of thousands of mismatched pieces of software from hundreds of different vendors, and then had to hire armies of integrators and spend millions of dollars to make all that disparate stuff work together.

In the cloud, that nightmare is changing. We're by no means completely there in NirvanaLand just yet,

but software vendors fully understand that business customers want more simplicity in how various applications work, how they work together, how they yield data and insights, how they connect to legacy systems, how they leverage AI and machine learning, and how they solve far more problems than they create.

As a result, the big SaaS vendors are each scrambling to not just provide that seamless interconnection built around customers and extending both outward and inward, but also to position themselves as the one true SaaS company that can deliver what the others can only dream about.

So, if you're a business executive with a business to digitalise and money to spend, where do you turn? Well, we at **ERP Today** are happy to help you work through that question—and the following overview of major SaaS vendors and their strategies will arm you with some significant insights.

The SaaS Big 8: Salesforce, Oracle, SAP, Microsoft, Workday, ServiceNow, Infor and Google Cloud.

Here's a look at the high-level capabilities of the world's largest enterprise-SaaS vendors in the context of meeting the wide-ranging needs of companies eager to become end-to-end digital businesses.

SALESFORCE.COM. The world's largest SaaS vendor, which in 2019 will generate about \$16 billion in revenue, has in some ways defied the 'go wide or go home' trend by sticking exclusively within the CRM sector that it has dominated for years. At the same time, Salesforce has also expanded aggressively within that increasingly large segment by offering not only every link in the customer-facing chain—marketing, sales, commerce, CPQ, service, support and more—but also by expanding aggressively into verticals with its Health Cloud and Financial Services Cloud, no doubt with more to follow.

During Salesforce's most-recent earnings call, CEO Marc Benioff outlined the market-driven factors that

“Oracle will own 50% of the \$400bn SaaS market”

Put another way, Hurd predicts Oracle's cloud revenue to grow to \$200bn.

MARK HURD
CEO Oracle

make him so bullish about his company's ability to continue growing about 25 percent year on year in spite of its massive size.

“I've travelled around the world meeting with more than 100 CEOs and world leaders and the conversation is consistent everywhere I go: it's about digital transformation,” Benioff said on the call.

“And CRM has never been more strategic and you can see that in the growth rates for the CRM marketplace—it remains the fastest-growing market segment in enterprise software” because “it's all about the customer.”

ORACLE. Just how bullish is CEO Mark Hurd about Oracle's prospects in the SaaS business? He recently said he believes the SaaS market will eventually reach \$400 billion in revenue—and he 'volunteered' Oracle for being the lead dog that will own 50 percent of that, which equates to annual SaaS revenue for Oracle of \$200 billion. That's an absurdly long distance from its current SaaS revenue of about USD4 billion, but Oracle believes that its massive roster of cloud applications—arguably the broadest and deepest in the industry—will carry the day.

The core of Oracle's SaaS business is its cloud ERP applications, with growth rates of between 25% and 40% across its various ERP product lines. Hurd says as customers come to have a good experience with Oracle Cloud ERP, it then becomes much easier to convince them to expand into Oracle HCM and CX (Customer Experience) suites as well.

“CRM has never been more strategic and you can see that in the growth rates for the CRM marketplace”

MARC BENIOFF
CEO Salesforce

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Experience Management is here. Powered by Qualtrics and SAP.

CLOUD WARS

SAP. The world's largest maker of enterprise applications is differentiating itself from its competitors in several key ways:

SAP's recent acquisition of experience-management high-flyer Qualtrics makes it the first big SaaS vendor to assemble a truly end-to-end set of cloud applications, which SAP says brings together the 'X's and O's' for the first time: eXperience data revealing customer behaviour, attitudes and outcomes, and Operational data from supply chain, fulfilment and logistics.

The world leader in business applications for decades, SAP has an unmatched set of relationships with major customers across the globe running their entire operations on SAP on-premises apps, particularly ERP. Can it convince those customers to make the leap with SAP into the cloud?

A 'business network' of interconnected applications to oversee spend management, commerce and contingent workforces.

CEO Bill McDermott recently described the stunning transformation at SAP by calling Qualtrics - acquired only four months ago - 'the crown jewel of the company' and said, "supply and demand must go hand-in-hand and must be there in combination. When you take SAP's long leadership in ERP and add in Qualtrics as the world leader in experience management, you have the front office and the back office connected in ways no one else can touch."

MICROSOFT. The world's biggest and fastest-growing enterprise-cloud company is primarily known for its IaaS



“We have the broadest platform of anyone in the tech sector to be able to help every customer in every country”

SATYA NADELLA
CEO Microsoft

and PaaS cloud capabilities, but its Dynamics 365 SaaS portfolio is expanding rapidly and represents an entirely new breed of big-business applications in the cloud: more flexible, more data-driven, and more infused with AI than anything the company's ever produced before.

And rather than trying to play some backward compatibility game with legacy apps, Microsoft is tying its Dynamics 365 apps into the technologies of the future as it creates unmatched capabilities to connect with IoT systems, HoloLens mixed-reality systems and applications, and LinkedIn's massive network of professionals, job prospects, and the behavioural data behind them.

During Microsoft's recent earnings call, CEO Satya Nadella offered this perspective on his company's ability to engage in large-scale and sweeping transformational deals with huge customers: "When I look at how every business is becoming a digital business and then I map that opportunity to our

capabilities, we just have the broadest platform of anyone in the tech sector to be able to really help every customer in every country become that digital business. And on top of that, we have the business model that aligns with them and their interests and their trust."

WORKDAY. Slugging it out in both cloud ERP and cloud HCM with giants SAP and Oracle, Workday has more than held its own as over the past several years it complement its leading HCM product suite by first creating a robust suite of Financials apps and more recently expanding that into a full-fledged ERP line-up by adding planning and forecasting services via the acquisition of Adaptive Insights.

Workday CEO Aneel Bhusri recently said his company's Financial Management suite is growing at more than 50 percent, with core financials up more than 60 percent.

Bhusri cited three factors behind the ongoing steep growth for Workday ERP: the broader lineup of products, "the increasing acceptance of the cloud by the office of the CFO," and a rapidly growing network of successful and happy financial management customers who Bhusri has always believed are the keys to Workday's success.

And that success has been substantial: while not nearly the size of SAP or Oracle, Workday is expected to generate close to \$2.7 billion in revenue for 2019, and its market cap has risen to about \$41 billion.

SERVICENOW. Conceived as a company that could help automate IT ser-

“With the addition of Qualtrics, SAP has the front and back office connected in ways that no one else can touch”

BILL McDERMOTT
CEO SAP



vice desks, ServiceNow has blossomed into a high-growth SaaS superstar that defies the approach of other leading SaaS vendors by operating in the white spaces between the core segments of ERP, HCM, and CRM where the giants play. With a new tagline of ‘We make work, work better for people,’ ServiceNow very specifically and proudly bills itself as an enterprise-app company that automates legacy processes to create enterprise-wide digital workflows.

The by-products of that, says CEO John Donahoe, are higher productivity and great experiences for both employees and customers.

“For the last 30 years, software has been functionally designed and functionally bought,” Donahoe said on ServiceNow’s most-recent earnings call. “And while that might have improved operations and those functions, it didn’t really drive great productivity or better work experiences because it didn’t reflect the reality that for employees and customers, most business processes are cross-functional in nature. Because digital business absolutely requires end-to-end collaboration.”

INFOR. Infor’s approach to SaaS applications is markedly different from its main ERP rivals. It does not have the same global brand awareness as its competitors, yet Infor can boast more than 68,000 customers in more than 170 countries and includes 19 of the top 20 aerospace companies, nine of the top ten high tech companies, 19 of the top 20 automotive suppliers, 15 of the top 20 global retailers and 17 of the top



“There are 2 billion front line workers and we deliver much needed communication and collaboration”

THOMAS KURIAN
CEO Google Cloud

20 industrial distributors as its clients. It’s somewhat surprising then that Infor’s corporate image is not akin to its combatant rivals. However, significant recent investment and a potential IPO could be the springboard for greater penetration into a market historically dominated by Oracle and SAP.

Read more on Infor and its products in Paul Esherwood’s interview with CEO Charles Phillips, elsewhere in this issue of **ERP Today**.



GOOGLE CLOUD. Under new CEO Thomas Kurian, Google Cloud is looking to raise its visibility in the marketplace, define more clearly its competitive advantages, and market its vast technological capabilities in ways that are more reflective of the needs and desires of business customers. As a big part of those efforts, Google Cloud has begun positioning its G Suite of applications as enterprise-collaboration solutions, and has even begun pushing

G Suite directly up against an initiative from Microsoft to meet the needs of two billion ‘first line’ workers by putting lightweight mobile apps in their hands for scheduling, communications, and more.

At a recent investors conference, Kurian said: “For many, many years, people were focused on productivity for professional workers. There’s about one billion professional people on Earth—people who work in corporate offices - but there are two billion-plus front-line workers.” G Suite apps, he said, will deliver much-needed communication and collaboration to those two billion on the front lines.

Conclusion

There has never been a better time to be a business executive looking to buy powerful, easy to use and thoroughly modern business applications. The competition among these big, fast-growing and financially strong global companies is ferocious, and for good reason: as hundreds of thousands or even millions of businesses around the globe prepare to surge into the digital economy, the winners in this battle for the hearts, minds and wallets of those business executives will reap tremendous rewards.

But the biggest winners - by far - will be those business execs doing the buying because they’re the beneficiaries of this relentless and high-stakes competition and innovation that are creating powerful, elegant, and customer-centric cloud applications that will power the digital economy for decades to come. ■

“A rapidly growing network of successful and happy Financial Management customers has seen growth surge past 50% year on year”

ANEEL BHUSRI
CEO Workday





CHARLES PHILLIPS

IPO set to catapult *Infor* into **the big** league

Charles Phillips is not your typical American tech CEO. He is an elegant man. Gently spoken, thoughtful in his responses and his calm and measured tone is to the point and unexaggerated; a far cry from the style of some of his contemporaries. As I open the interview with a very brief introduction to ERP Today, I am surprised at how interested he is in our project. Phillips shares some words of encouragement and asks questions which demonstrate a genuine interest in our fledgling start-up. Given that Phillips and the Infor leadership will have dozens of press-calls as part of the IPO-readiness machine, it's a great way to start the interview and sets us both at ease.

CHARLES PHILLIPS

As recently as last year, Infor was still being described as one of the biggest companies you have never heard of. Despite global sponsorship deals with top golfers, basketball teams and tennis stars, Infor's PR machine had not elevated it to the dizzy heights some of its numbers suggest it should have attained. However, the recent announcement of a second stage of significant funding from their long-time backers, Koch Industries, could catapult Infor into the big league with a mega-money IPO, potentially valuing the company at \$50bn - maybe more - making Infor the biggest NYC tech IPO in history.

Established in 2002, Infor has grown, almost silently, to become the world's third largest ERP vendor behind the mighty Oracle and SAP. And while under the stewardship of Charles Phillips, a former Oracle board executive, it has developed a vast array of products that has seen global sales push beyond \$3bn. Infor boasts a customer base of 68,000 companies supported by more than 15,000 employees and nearly 2,000 partners globally.

Micro-verticals

Infor's approach to building applications is unique - it has hundreds of product lines serving 'micro-verticals' with solutions optimised specifically for each business class. For example, instead of a product for the food and beverage sector, Infor offers discrete products for butchers, bakers and maybe even candlestick makers. Each product is embedded with specific insights amassed from other similar users to create a solution for everyone that is almost as personal as your fingerprint.

ERP Today discusses the changing notion of customisation in ERP platforms elsewhere, but

with this unique take on vertical centrality, Infor is changing the game with a suite of applications born in the cloud that offer tried and tested processes to organisations that historically had to rely on heavy local customisations to retain their competitive advantage. Infor applications are built on a proprietary single-stack operating system which is integrated with all of the function-

ality across its portfolio including applications, document management, CRM, eCommerce and analytics.

Multi-tenant cloud

Although SaaS is developing some degree of maturity it is still a very fluid sector. Most of the action is taking place in the infrastructure layer rather than in core applications. Cloud comes in many forms; public or private, SaaS, IaaS or PaaS, hybrid-cloud, single-tenant and multi-tenant - to name just a few. At the beginning, cloud was usually a single-tenant private offering where a single instance of the software and infrastructure served just one unique customer. Essentially, everyone who was on the cloud was on their own little piece of internet with no connectivity to other cloud users and no sharing of instances and environments. More recently, multi-tenant clouds have become popular with hundreds, perhaps thousands, of customers sharing the same applications, infrastructure and databases, but with each parties' data isolated and invisible to the others.

The benefits of a multi-tenanted cloud are obvious; lower costs through economies of scale, updates rolled out across all users with virtually zero downtime and elasticity that provides a level playing field for enterprises of all sizes, being just three. Infor has led the way in the adoption of multi-tenanted architecture and Phillips sees this as a key advantage over his nearest rivals. He said: "We launched a multi-tenant strategy in 2015 and now we have all of our core solutions and cloud suites fully multi-tenanted. It's not just one or two applications, it's the full cloud suite and environments. This drives significant efficiencies for our customers in terms of costs, time to implement and provides monthly updates across the full spectrum of applications to all customers, at the same time."

European eco-system

Despite being headquartered in New York, more than 40 percent of Infor's business is based in Europe. The company has seen its SaaS revenue grow by 36 percent in the last year and can now boast some very impressive names as its European customers; BAE Systems, Travis Perkins and Liberty Steel have all adopted Infor's full suite of technology and gaining traction in this sector is breaking new ground for Infor. In the past it had been seen



Under the stewardship of Charles Phillips Infor has developed a vast array of products that has seen global sales push beyond \$3bn



CHARLES PHILLIPS

as a mid-market player, mainly focussed on manufacturing. But today Infor has its sights set very firmly on Oracle and SAP and Phillips believes there is a significant opportunity to take market share away from the two largest players in the enterprise apps space. He said: “Companies who told us ‘no’ two years ago are now coming back to us and asking what we can do. When a SAP customer is facing a \$200m upgrade for no new functionality it’s not surprising that they are looking for an alternative option.”

So how does Infor differentiate itself from its two main rivals, and how seriously do they expect to take significant market-share away from Oracle and SAP?

Very seriously, if you ask Phillips. One of the key areas of focus is on their eco-system and significant emphasis was placed on this at the recent Inspire expo. Infor’s plan is simple enough – increase its visibility with the global SIs and boost its channel sales network with new partners. Just 12 months ago Infor only had one global alliance partner, whereas now it has eight. The likes of IBM, Deloitte and Accenture are taking a keen interest in the Infor offering and it’s not so unlikely that they may start to nibble away at the lower end of a market they have so far been unable to penetrate.

Another key area for Infor is its ability to stay ahead of the curve in such a rapidly changing landscape, and Phillips is keen to point out where Infor is leading against its competitors. “They’re talking about experience, but we started that conversation eight years ago with the first integrated design agency building our experiences. They are talking about cloud, but we built our applications

for the cloud rather than retooling on-premise apps. We made a decision not to get into the infrastructure business which means that all of our focus and budget is spent enriching our applications. Every dollar Infor spends in R&D is focussed on our cloud-native applications, whereas our competitors are having to spend on reinventing their proposition, and their database and infrastructure

businesses. Infor leverages Amazon’s huge investment in infrastructure services while our competitors are effectively competing against that. We’re very happy with every dollar Oracle spends on infrastructure.”

Improving productivity

Infor’s long-term strategy is centred around making people and enterprises more productive. Phillips points out that while technology has advanced significantly over the last 15 years, productivity has stagnated at just eight percent.

“We all have super-computers in our hands with smart phones, and yet most people are not significantly more productive than they were ten years ago. Through the data that we hold in our data lake, which takes information from all pillars of commerce including sales, production, HR and logistics, we can draw insights that help to drive productivity.

“We have about 100 million users of our applications and that gives us a lot of information to work with. How we work is changing, and it’s changing faster now than ever before with technology and automation driving efficiencies. But you have to look at the total picture to see how to improve people’s individual productivity. With the insights we get from all the user data we know how productive they are, we know who needs training and we know how to connect the data to improve productivity. The Infor Business Graph, which sits inside all of our applications, helps us to connect people with assets, production schedules, opportunities and sales. Historically, all of these areas were built in silos – they didn’t talk to each other and share information. Now we can analyse this connected data and answer questions like; which shift is the going to create the highest quality products? And, which production line is likely to break down?”

Infor Nexus

A significant amount of this data comes from Infor Nexus, a trading platform that connects an entire supply cycle and includes more than 65,000 trading partners. Combined, these enterprises generate more than \$1tn in trade and the system processes in excess of \$50bn of transactions. That’s a lot of data, and the combined weight of that commerce is being analysed by the Coleman AI platform to derive meaningful insights and competitive advantages. Phillips said: “Companies are collaborating far more now than they ever used to and supply chains are getting bigger as more enterprises be-



Infor has seen its SaaS revenue grow by 36 percent in the last year and can now boast some very impressive names as its European customers



come specialised and products and services become commoditised. If you look at automotive as an example, the big enterprise at the end of the chain may have had rubber trees to produce raw material for tyres or a steel factory for metal production, but now they aren't making tyres and steel, they are buying it in. This creates more tiers in the supply chain and more complexity. More decisions are having to be made, not less, and the combined data from all our companies on the Nexus platform helps optimise those decisions."

Infor going public

An IPO is a very public statement of intent. Infor is already a cash rich business with substantial private backers so the motivation for going public will not be simply to raise new capital. Koch Industries have invested significantly in Infor over the last five years - they are also a long-time customer, so they have two big interests in making the corporate strategy and product development stack up.

So, Infor has had the capital to grow, acquire, experiment and develop without the market pressures of a public listing. I ask Phillips how far does \$1.5bn go? And he laughs (a little) saying, "quite far". But he also points out that this is the second cash injection by Koch, taking their total investment in the last three years to a staggering \$4bn. As far as private equity investments go, those are big numbers and any modesty over the likelihood of an IPO should be dismissed - investors don't spend \$4bn unless they know where and when their return is coming from. The most recent investment of £1.5bn ranks in the top 10 all-time private equity deals into a tech firm. The first round of £2.5bn was the third largest in history.

I asked Phillips how the money will be spent, and he has a simple answer: "Customers first. Everything we do is focussed on our products and our custom-

ers and a significant amount of the new investment will go towards enhancing our portfolio of products. We have invested heavily over the last five years in making our applications fit for purpose and now we have a strong baseline we can focus more investment on enriching the experience and functionality of our products."

I asked Phillips about the timing for an IPO and he gives me a fairly standard line saying "when market conditions are right". He highlights the likelihood of several other big IPOs that have most of Wall Street in a frenzy, and says; "the market will only tolerate so much, so we have to get our timing right - it could be sooner or it could be later - there are several factors to consider but ultimately we will consider an IPO when the time is right for us, not just when we think the market wants it."

Whether Infor gets its IPO away this year or not is debatable. I suspect there will be an announcement before the end of the year with an offering lined up for the first half of 2020. How will a public listing change Infor? Well not as much as you might think. Infor already has publicly traded bonds and reports to the SEC meaning its accounting practices won't change much. Infor is very cash rich so the new money raised will be useful, but lack of funding is not something that's holding Infor back. And, Infor's customers won't notice much difference either - so who will? The other big ERP vendors and lots more fortune 500 companies, Infor hopes. As I said at the start of this editorial, an Infor IPO is as much about making a statement as it is about raising funds. A successful IPO, which could value the business at \$50bn, would set down a very clear marker. ■

We will consider an IPO when the time is right for us, not just when we think the market wants it







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ERP TODAY is hosting more than 20 events during 2019 ranging from small round table discussions through to 150 attendee lunches. And the big one comes later in 2020 when we will be hosting the inaugural ERP Today awards.

We work with our partners and sponsors to develop innovative event-based platforms that deliver credible editorial value for our printed product and allow our partners to get close to a carefully selected audience.

As the commercial events manager you will have previous experience organising and managing events in a professional services or technology environment and be able to manage complex logistics and commercial considerations.

Your remit will be to work closely with our partners to ensure every last detail of each event is organised to a tee. This will include:

- Ensure the attendee experience is exceptional
- Provide first-class liaison with our sponsors and partners
- Produce engaging marketing collateral, pre and post event
- Work closely with the editorial team to align event goals with our editorial values
- Manage on-day activities including speakers, exhibitors and AV etc

SYNDICATED DISTRIBUTION MANAGER

ERP TODAY is received by more than 10,000 CIOs, CFOs and ERP buyers in the UK. In addition, we syndicate our distribution with many of our partners to distribute unique or personalised magazines to their clients, customers and prospects. **Managing our distribution channels is a big task – and will only get bigger once we start publishing our pan-European edition.**

From simple day to day tasks like managing returns and dealing with our fulfilment house to working with global technology brands to ensure a unique copy of ERP Today is received by all of their customers in 10 countries.

To be considered for this role you must have very good logistics experience and be able to manage complex workloads with exceptional attention to detail. You will be managing our data and sometimes our client's data too, so a very good understanding of GDPR is essential and a strong belief that data is important and should be protected.

You will also work with our editorial and marketing teams to identify new opportunities to increase the penetration of ERP Today into its target verticals and geographies, so a good level of commercial experience is essential as you will be tasked with increasing the print run issue on issue.

ALLIANCES & ENGAGEMENT MANAGER

EXPERIENCE is a big theme for our clients – and it is for us too. We work with the world's largest technology companies and leading global transformation partners and it is vital that our customers have a warm and glowing feeling whenever they work with us.

To be considered for this role you will live and breathe customer success. You won't just go the extra mile, you will walk to the ends of the earth to ensure that all our partners love working with us. However, you will also be a realist and manage expectations within the bounds of what is possible to deliver. You will report directly to the MD and provide feedback and offer advice and guidance where necessary, to fine tune engagement and experience across the printed product and events platforms.

You will certainly have a strong marketing background, preferably in print, advertising or events and you will be comfortable working with leadership as well as marketing and PR teams with one goal – ensure the experience of working with ERP Today is second to none.



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- Ability to self-manage and work autonomously
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A R T I F I C I A L I N T E L L I G E N C E

..... DO
YOU
..... KNOW
WHAT
IT IS?

.....
AI IS THE HOTTEST TOPIC IN TECH RIGHT NOW.

But, like with so many other hot topics there is a lot of confusion, misunderstanding and false narrative. In this editorial, **Paul Esherwood** looks at the history of AI, how it will impact your business and asks what are we all doing to ensure AI is developed responsibly?

.....

DO YOU KNOW WHAT IT IS?

**DON'T FEEL
INADEQUATE
IF YOU'RE NOT
UP ON YOUR AI**

If you're not talking about artificial intelligence, blockchain and kubernetes you're just not keeping up, or at least that's what many commentators would like you to think. But let's have a bit of a reality check; What is AI? How will it affect you and your ERP platform and should you really be worried about it?

For the purposes of this editorial I will reference three stages of AI. The early iteration of narrow AI, the current emerging AI and the prospect of AI which will change the world as we know it.

The continuous development of AI will be the most disruptive invention ever. More revolutionary than the discovery of fire, more disruptive than the agricultural and industrial revolutions and more pervasive than the internet and social media. AI will solve the world's hardest problems and, when fully mature AGI (artificial general intelligence) is developed, it will be the last thing humanity ever invents. AGI may be some way off - perhaps ten, twenty or thirty years, we just don't know. But once we are able to create a general intelligence algorithm it will set the agenda, make the breakthroughs and determine the future.

**WE'VE BEEN USING
AI FOR 50 YEARS**

AI is not a new technology; we have all been using AI for decades. Every time you create a query in Excel. Every time you type something into Google. Every time you use your SatNav. There are literally millions of real-world applications most of us take for granted, that were once considered ground breaking and powered by AI.

Many emerging technologies were called AI in the development stage and once they have been built and deployed it's just called



The continuous development of AI will be the most disruptive invention ever

Historically emerging technologies were called AI in the development stage and once they have been built and deployed it's just called software

Applications that were once called AI look like a very pale comparison to the emerging deep learning algorithms being used today

software. Since the 1950s, programmers have been hand-crafting expert systems to make our lives easier or to challenge us in game play. In its simplest terms, a pocket calculator uses AI - it is an expert system that is very good at maths. The vast majority of historical AI applications follow the same logic. They are all expert systems, loaded with knowledge tokens to perform a very narrow task quicker and more accurately than a human can. Whilst these systems have developed significantly and can now perform very complex tasks, you only got out what you put in - at some point, the knowledge was programmed by a human. The advantage was that AI could access the knowledge and deploy it quicker than we could.

So why is there so much hype around AI now when we have been using it for the last fifty years? To understand this, you first need to appreciate that AI has recently evolved from the type of narrow expert systems I described above to more autonomous deep learning applications that perform tasks which we could only have dreamed of a few years ago. In the strictest sense of the word, the original flavour of AI wasn't that intelligent because its capacity to learn was zero. That has changed and the type of applications that were once called AI look like a very pale comparison to the emerging ML-based algorithms being used today.

There are two key drivers behind these recent advancements; firstly, hardware has improved immeasurably and the exponential developments in processing power, memory and storage have accounted for roughly half of the overall growth in application power. Secondly, we are getting better at developing algorithms and coding AI. Many current applications go far beyond the historically narrow expert systems of years gone by and can now 'learn on the job' and improve themselves without further coding from a human.

WHAT IS AGI AND SUPERINTELLIGENCE?

The holy grail for AI developers is AGI and superintelligence. AGI is a term coined to de-



NICK BOSTROM director of Future of Humanity Institute

scribe an AI that has many of the attributes that we do as humans; it learns from raw data in the way that a baby does and will become an expert across multiple domains in the same way an adult does. It stores knowledge, learns from experiences and ultimately will be able to perform a broad range of tasks equal to, or better than a human.

Superintelligence is one step forward, and although it's just one more step, it's so prodigious in terms of its implications that it should not be underestimated. Conservative estimates suggest AGI could be twenty or thirty years away – although it could come much sooner, or never – but it's almost certain that if we do reach that level of AI maturity, superintelligence would follow very soon after. Perhaps months, or weeks – even days or hours is possible – as the AGI teaches itself and learns at an exponential rate, an intelligence explosion will occur and put all of humanities combined achievements into the shadows at a stroke.

The term 'superintelligence' was popularised by Nick Bostrom from the **Future of Humanity Institute** at **Oxford University** and describes an intelligence that far outstrips human capacity. Comparing superintelligence to human level intelligence is similar to comparing the intelligence of an ant with a Cambridge Don...there really is no comparison.

AI has spawned a revolution in the most luddite of industries

The idea of 'ring-fencing' the AI with someone's finger hovering over the off switch in case it all goes wrong is fanciful

WHAT DOES THIS ALL MEAN FOR ENTERPRISE APPLICATIONS?

The impact of AI development really depends on what platform you use and what type of user you are. Undoubtedly, even the most basic out of the box solution will have some element of AI, but you won't know about it let alone have to worry about it. There are certain enterprise functions which have taken the lead in AI adoption whereas others have lagged behind for a variety of reasons such as regulation, governance and suitability.

HCM – or HR to the more traditional reader – which includes workforce management, absence, recruitment and payroll et al – is an enterprise function that has taken full advantage of AI capability. *More on this in the next issue in our HR Systems review – a comprehensive guide to digital HR.*

The same applies to verticals; some are more suited to take advantage of AI than others. The action area for the last few years has been in manufacturing through robotic process automation (RPA) and advanced supply chain management. The cosmic leaps that have been made in this area have revolutionised



DO YOU KNOW WHAT IT IS?



CATHY COBEY
EY's trusted global AI advisor

many traditional metal bashers into lean and agile Industry 4.0 forerunners. The ability to manage an end-to-end process that includes supply chain, manufacturing, distribution and sales with intelligent planning, predictions and analytics has spawned a revolution in the most luddite of industries.

Another vertical that has adopted AI, as *Georgina Elrington highlights in her editorial on the same subject*, is the financial services industry. Very sophisticated AI algorithms are being used to play the markets, tackle fraud and drive investment decisions. However, if you're not deploying your ERP in an industry that lends itself so well to AI, the benefits of all these bounds in capability will be almost imperceptible. As Anni Harju describes elsewhere, most adopters of AI tend to take a 'toe in the water approach' where AI is used to solve simple problems rather than address the big picture questions. And the adoption rates are largely driven by the vertical or function rather than the overall capability.

As consumers, we have also favoured this approach in our daily lives. Not many of us live in connected homes where our lives are organised and managed by AI – even though this is possible. Instead we have an Alexa that plays our favourite songs when we ask it to or a Hive device that keeps the temperature in our house just so. Hardly solving our biggest personal issues but all the same convenient and a nice easy opener into the world of AI for most people.



AI has the potential to transform many industries, but its pace of development has been impacted by a lack of trust

TRUST AND RESPONSIBILITY

In the same way, enterprises of all shapes and sizes are starting to embrace AI to solve their 'small problems' without having to dive headfirst into a world that frankly we don't yet fully understand and certainly don't yet trust. I won't labour the trust issue for now – it will be resolved – but only with time. And I don't see any way that vendors or buyers can expedite that process. The more adopters we have, the more positive use cases the vendors can quote and the more likely it is that others will follow suit. There are plenty of AI faux pas to hold the trust issue back, not to mention significant regulatory and compliance concerns, so for now the timeline for trusting AI is an unknown quantity.

Allied to the trust issue is that of responsibility. Most, if not all, of the effort in AI is geared towards creating more capability rather than considering the potential negative implications. Very little serious effort is currently being put into future proofing a technology which even the most learned experts agree they cannot predict what its final incarnation will look like – and more importantly, be capable of. The idea of 'ring-fencing' the AI with someone's finger hovering over the off switch in case it all goes wrong is as fanciful as the storyline in *Terminator 2* when Skynet became self-aware and launched Armageddon against its creator. *Terminator 2* was released nearly 30 years ago and whilst it's a Hollywood blockbuster designed to titillate, the central theme of that film should still give concern to those with the capability to one day build AGI – it's a fundamental, potentially existential, problem that we don't have an answer for.

Supporting this view, Cathy Cobey, EY's trusted global AI advisor, said: "AI has the potential to transform many industries, but its pace of development has been impacted by a lack of trust. In fact, although there is a growing consensus on the need for AI to be ethical and trustworthy, the development of AI functionality is outpacing developers' ability to ensure that it is transparent, unbiased, secure, accurate and auditable.

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DO YOU KNOW WHAT IT IS?

“The implications of a failed AI agent cascade beyond operational challenges, it may also lead to litigation, negative media attention, customer churn, reduced profitability and regulatory scrutiny.

“As a result, there needs to be a recognition that AI as a technology is still in its infancy, and therefore needs to have the appropriate guard-rails put in place. There also needs to be active dialogue and transparency with all parties, including the final user, on the opportunities and risks of AI – awareness will bring understanding and eventually acceptance.”

WHAT ARE THE ERP VENDORS SAYING ABOUT AI?

ERP vendors are all hard at play developing their cloud ERP platforms and all have some level of AI embedded. At **Oracle’s** recent Open-World Europe event, CEO Mark Hurd delivered his verdict on the impact of AI saying that all cloud applications would contain AI by 2025 and that cloud and AI strategy was far more than a technological advancement, it was “a business model” that all organisations must adopt. Hurd went on to say that 60 percent of the jobs needed to manage an AI economy had not yet been created and that cloud (in relation to AI) was “the movement of innovation” and “central to everything that we do at Oracle.” His speech was definitive and left no room for misunderstanding; AI and cloud is the only game in town and any organisation that doesn’t adopt its values will be left behind.

Another heavyweight from the cloud arena went further, believing that AI was not just central to corporate strategy, it was vital for the prosperity of humanity. Marc Benioff, CEO at **Salesforce** said at the World Economic Forum: “We are risking a new tech divide between those who have access to AI and those who don’t. Those without AI are going to be weaker and poorer, less educated and sicker.”

Given the far-reaching implications of AI, not just for your bottom line but for the future prosperity of humanity, it is high time that the issue

MARK HURD
CEO Oracle



I strongly believe that AI is going to be a new human right. Every person and every country needs to have access to this new critical technology



of responsibility was placed front and centre by all vendors and developers. Summing up, Cobey of EY said: “Creating trust in AI will require both technical and cultural solutions. On top of operating reliably, AI must also comply with ethical and social norms, including cultural values. In fact, teaching AI is analogous to parenting a child – you need to teach AI not only how to do a task but also all the social norms and values that determine acceptable behaviour. This will be the biggest barrier in moving from narrow to general AI.” ■

MARC BENIOFF
CEO Salesforce



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THE IMPACT FOR CFOs



AI FOR REAL INSIGHT

Information systems are increasingly driving the way we work. What does this mean for today's CFOs ?

BY GEORGINA ELRINGTON

The capabilities of artificial intelligence (AI) are starting to be fully realised for financial gains. In this feature we'll discuss how the role of the CFO is likely to change, and what those changes may entail.

How will the role of the CFO evolve?

There is no doubt that the march of AI into ERP systems is assisting with analysing massive volumes of historic data, trends, and past actions to help discover better future directives for profit (what worked, when, what didn't work, and why). On a time saving basis, AI can offer up automatic alerts and actions to identify unpaid invoices, deal with expenses, calculate fair bonuses, the list goes on and on. The CFO's role is morphing into one that needs to embrace the technology available now, to help them manage multiple aspects across the entire business, faster and more accurately.



GIANIUCA BISCEGLIE

Big finance teams will be replaced by integrated tools or an AI driven system staffed by a few specialists

Gianiuca Bisceglie, founder of the cloud-based spreadsheet software company, **Visyond** summed it up nicely: "A great CFO is not the one answering hindsight questions, as in 'how did we do last quarter', but is the one foreseeing and planning the company's financial position and risks in the future."

There's already a new generation of AI savvy jobseekers (including the CFOs of the future) armed with ideas about how technology can, should, and will be used in a modern business environment. The traits of today's tech-orientated finance executives include: using advancing applications for operational excellence (i.e. AI and blockchain); making sure that there is access to analysed, appropriate, and actionable data; and the realisation that live, connected data, which historically sat in disparate systems, can present new insights to help to make (or simply validate) profitable recommendations.



It will no longer be acceptable for CFOs to fail to maximise the vast amount of data available at their fingertips

MIKKO HEIKELA



The CFOs role will be to interpret numbers in real-time and ensure there is no room for misinterpretation

ANDREW HICKS



Mikko Heikela, technology director at the digital engineering and innovation consultancy, **Futurice** said that: “Given that AI can automate large amounts of analytics, it’s likely that the work of business controllers will be impacted the most, leaving them free to concentrate on more strategic issues. More generally, the arrival of AI could spell the end of big finance teams and departments which will be replaced by integrated tools or an AI driven system staffed by a few specialists. Given the technology challenges involved in integrating AI with ERP, these specialists are likely to include data scientists working alongside financial experts in multidisciplinary teams.”

However, a report earlier this year, entitled *Agile Finance Unleashed: The Key Traits of Digital Finance Leaders*, from **Oracle** and Association of International Certified Professional Accountants states that almost 90 percent of finance teams felt that they did not

have the skills to support a digital transformation; and that only 11 percent of finance leaders involved in the 700-strong global survey have actually implemented AI into the financial function.

Making the transition to the most profitable decisions

Getting up to speed with the opportunities that AI can offer CFOs in terms of enterprise resource planning is a priority – and they need to be doing it right now. There are plenty of financial ERP application events, dedicated experts at established companies working on ERP advancement tools, as well as clusters of start-ups that will share their knowledge, understanding, and recommendations for a system overhaul.

What can be done more immediately, to expedite understanding, is to get cosy with the company’s data scientists, go out for dinner with the CIO, find out about what they’re investigating in terms of powerful business-enabling applications, divulge your resourcing headaches; they might already be working on a solution and appreciate your input.

Andrew Hicks is a CFO himself at **Advanced**, a software and services company. He said that: “As AI proliferates the ERP environment, the role of the CFO will be transformed, just as it did when cloud computing became mainstream in the finance function. The emergence of AI means that it will no longer be acceptable for CFOs to fail to maximise the vast amount of data available at their fingertips to provide the rest of the business with meaningful and insightful data analysis.

“By embracing this technology, they will elevate their own position in the company, and indeed the Board, and help create a more collaborative and informed workforce. They will become a strategic business partner to the CEO or owner as well as someone that people can turn to and use as a sounding-board for any critical business decisions.”

The CFO’s role will be to deliver the maximum valuation of their business and interpret numbers, in real-time, from across the organisation, and ensure that there is no room for misinterpretation or manipulation. Hicks concludes: “Distilling these figures into one single version of the truth will be essential for strategy forecasts and actual growth, as will having the right technology to make this complex task as simple as possible. An AI solution in a cloud environment, for example, will be a must.” ■

AI IN ENTERPRISE APPLICATIONS

SECURING YOUR STAKE IN THE MARKET

Artificial intelligence for competitiveness

BY GEORGINA ELRINGTON

Artificial intelligence (AI) for enterprise resource planning (ERP) seems to come with promises of bountiful benefits for time saving automation and hidden value from untapped data. This feature looks at how, and where, AI in action can help to maintain a profitable, competitive edge.

AI into action for ERP

One sector that can be intelligibly exemplified is finance. Michael Davison, industry principal for financial services at **Atos** UK and Ireland, told ERP Today that: “With clearly defined business goals, strong governance, and skilled data scientists, AI will enable progressive financial services businesses to transform processes, operate more efficiently, cut fraud and generate increased customer revenues. All four main areas of attention that the industry now faces - in customer experience, trust and compliance, business reinvention, and operational excellence - highlight specific issues or opportunities where at least one of the AI technologies can offer value.

“Some examples of use cases from these categories include automating client interaction to reduce the impact of service requests and raise client satisfaction; analysing personal data with financial transactions and claims to identify fraud rings; combining internal client data with publicly available data to generate the next best sale, and automating repetitive administration tasks to reduce processing time, cost and chance of errors.”

Craig Stewart, SVP of product management at **SnapLogic**, identifies the benefits of AI for finance departments in terms of improving the speed and accuracy of accounting projects during key reporting periods, such as end of quarter. This frees up the staff to “focus on higher



With clearly defined business goals and skilled data scientists, AI will enable progressive financial services businesses to transform processes



CRAIG STEWART
SNAPLOGIC

value tasks such as the analysis and reporting of information, leveraging predictive analytics to do the initial number crunch, help uncover fresh new insights, and inform decisions that will positively impact future business results.”

Forecasting, resourcing, and knowledge management at your fingertips

Stewart further highlights supply chain management and distribution as areas that show huge potential for AI-powered automation. “Increasingly, organisations - in retail for example - are moving to ‘just in time’ manufacturing models and holding minimal stock levels as a result. AI is being used to predict not only the requirements of different stores, but automatically fulfilling those requirements

and identifying stock shortages before they happen,” he said.

Futurice, a digital engineering and innovation consultancy, anticipates a role for AI within areas such as project management (using data from previous projects) to help to forecast for scheduling or project overruns. This could be useful in sectors such as construction where delays can have significant financial impact.

AI in HR applications can help to forecast for sick leave over peak periods and help identify staffing requirements more accurately. Jobs of the future can also be researched in advance by using AI for long-term talent acquisition. Candidates with desirable skill sets can be highlighted, via AI and machine learning, for specific jobs that the company expects high demand for in the future - even if that future is five to ten years from now.

Knowledge management can also be further enabled, in that AI-enabled search engines ‘discover’ areas of expertise from an existing pool of competencies in a workforce, cutting out the need to outsource for something a company already has. As an example, consider someone that works part-time as a PA for a company, but they’re also a highly qualified and trained accountant (as stated on their CV that’s saved in a forgotten folder on a company server with limited access). Over time, the original interviewer has forgotten about this person’s number crunching abilities and embarks on a resource draining recruitment effort to find a fresh financial analyst, without first considering an untapped skill that’s already sitting in the same office.

Are companies ready for AI saturation in ERP?

Nick Lefkonidjates, managing director and partner at transformation consultancy, **Value Insight** offers that we’re still at an early stage of bringing AI into the mainstream and very few, if any, companies are fully ready for AI across the board, let alone all the implications that come with it. He said: “In my experience, the biggest hindrance to AI adoption in ERP is simply that it’s not seen as part of the digital landscape.”

“In the vast majority of businesses I’ve worked with, AI is very much in an experimental phase and tends to be handled by either a specialist team convened for the purpose or an existing digital team, and in these cases the people very rarely have an ERP background or experience of this type of application. Couple

AI adoption in ERP is simply that it’s not seen as part of the digital landscape

The future is AI-embedded at the core of ERP applications. And we’re at a tipping point

this with the still-prevalent view of digital as a means of customer engagement, rather than an operational or back office enabler, and it’s easy to see why ERP isn’t included in the AI strategy.”

In terms of future escalation, John Erik Ellingsen, SAP Business Group Lead, Accenture UK said: “The future is AI-embedded at the core of ERP applications. And we’re at a tipping point. Widespread adoption of these intelligent ERP solutions will happen within the next few years. When asked how quickly he thought that UK businesses would shift towards more adoption, Ellingsen said: “If you are a CXO replacing or transforming your ERP today (or in the future), it is already difficult to ignore the business benefits of AI-enabled intelligent ERPs vis-à-vis legacy ERPs. Much like upgrading from your mobile phone, smartphones come out miles ahead of feature phones in any comparison. The UK is no exception to this global trend towards intelligent ERPs.

“Take **SAP** as an example, these capabilities are already available on the ERP suite S/4

JOHN ERIK ELLINGSEN
ACCENTURE



AI IN ENTERPRISE APPLICATIONS



ANNI HARJU | FUTURICE & STARTUPS

HANA. SAP has laid out its vision: beyond 2025 SAP will only focus on S/4 HANA, stopping active maintenance for the SAP Business Suite (traditional ERP). This is a big trigger for all organisations that consider SAP to think through how to unlock business value through AI.”

Progressing AI in ERP

Lefkonidjates advises that by recognising the different domains of ‘digital’ across customer engagement, employee productivity, and operational efficiency, some organisations are creating roadmaps that take all of their processes and underlying systems into account, which can help to really get ahead of the competition if they get it right.

While total upscaling can seem intimidating to initiate all at once, you can opt to take a

Much like upgrading from your mobile phone, smartphones come out miles ahead of feature phones in any comparison. The UK is no exception to this global trend towards intelligent ERPs

more manageable starting point. Anni Harju, principal at **Futurice & Startups**, says: “By applying algorithms intelligently to unusual combinations of data, companies wanting to experiment with artificial intelligence may uncover insights that they had not previously thought of. Instead of starting by trying to use artificial intelligence to solve a major problem it’s important to identify small experiments which can deliver value quickly.”

Different types and applications of AI include: RPA, machine learning, predictive analytics, deep learning, chatbots, virtual assistants, and smart sensors. So you can opt to adopt a sub-set of AI, starting with the simple things and working up to more complexity as both confidence and the system grow in terms of AI capabilities. ■

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OPINION

BY BOB DE CAUX*

By 2020 it is predicted that AI will be a top five priority investment for more than 30 percent of CIOs and incorporated into almost every new software product and service. However, there are still major hurdles that enterprises need to overcome to really exploit its full potential. The first is the very human issue of trust.

The perceived danger that AI possesses to humans, which has been well documented and hyperbolised throughout the last century in science fiction and popular culture, naturally plays a role in our scepticism. Often, one of the most significant blockers for an enterprise is the lack of confidence stemming from not knowing why AI has reached a particular conclusion. This reasoning is especially difficult to convey because AI draws on connections and makes inferences which may not be obvious to the human eye or brain and may even seem to be counter-intuitive.

Unless the business user is a data scientist, at present it is incredibly difficult to understand the reasoning behind many AI decisions. This can feed mistrust across an enterprise, which only becomes more palpable as the financial stakes grow. In addition, as customers become increasingly technologically savvy, and with regulations like GDPR now in effect, it will become ever more important for enterprises to explain how their AI solutions reached a conclusion, especially when personal or sensitive customer data is involved. Having intuitive platforms that show users the process behind an AI decision will be critical.

Laying the foundations for success

AI is not simply something that can be overlaid onto any organisation; it requires careful planning and has multiple stages of execution. Many enterprises are at an early stage in their digitalisation journey and are not yet set up to take advantage of AI, often in terms of their data capture and management. Even once organisations have beautifully curated data, they need the technical resource to be able to build machine learning models, the technological architecture to be able to run these models (often in real-time) and the means to communicate AI-driven results to non-technical users in a form that they can understand.

The tools that exist on today's market often do not meet business needs and therefore fail to

ARE ENTERPRISES READY

to embrace AI and exploit its full potential?



The tools that exist on today's market often do not meet business needs and therefore fail to make AI accessible and meaningful

make AI accessible and meaningful. They predominantly focus on the building of machine learning (ML) models, but typically require a deep understanding of data or data science to be able to use them, rather than being user-friendly. In addition to this, the hardest part of AI to deliver is at either end of the process, helping to prepare unstructured or semi-structured data for the algorithms at the start, then delivering insights or decisions to users in a meaningful way at the end. That last piece is probably the hardest of all. Almost all tools focus on algorithms that are essentially a black box, meaning that understanding or justifying a decision from them is very difficult.

Most businesses today are also too siloed to be able to exploit the full potential of AI. Even though more and more companies are establishing in-house data labs, the focus is often on



delivering narrow individual projects that do not scale broadly across the organisation rather than on introducing AI systemically in a strategic manner.

What about ERP infused AI?

ERP software by its nature is a logical platform for the implementation of forward-thinking technologies and the benefits of AI-driven ERP systems cannot really be contended. No business would refuse software that recognises patterns and automates routine tasks in the blink of an eye to enable unprecedented efficiency, functionality and data insight. However, whilst ERP represents an obvious choice for enterprises looking to infuse AI into their core business processes, there are some considerations that organisations need to be aware of now in order to exploit its full potential.

Most businesses today are also too siloed to be able to exploit the full potential of AI



For example, if we think about the end-to-end workflow for a machine learning problem, it broadly consists of data collection and preparation, model building and deployment, and ongoing model monitoring. The most effective tools on the market are those that handle this workflow for a specific business or industry problem, becoming adept at solving that problem very well using the appropriate language and data. However, ERP systems often work across several different industries and focus more on business processes, often requiring multiple different decisions along a complex workflow.

Therefore, to implement AI effectively for an ERP system requires universal integration between areas such as internet of things (IoT) and data capture, AI, ML, and robotic process automation (RPA), all the while allowing continuous learning and feedback to the business. A single ML decision in this context does not provide value, it must form part of a broader automated workflow.

What is therefore needed is a coherent strategy that considers the entire business. This strategy must integrate AI with other emerging technologies to form a seamless component of the overall ERP environment which is easily accessible to the end user. At its core an AI strategy needs to focus on automation. The goal here is not full automation (at least not for the most part) but being able to augment an organisation's capabilities, i.e. automating mundane tasks and providing better reporting and analysis for the more complex tasks that are controlled by humans. Maximising the effectiveness between automation and the augmentation of capabilities is also a key area of any coherent AI strategy.

Perhaps the key change required is for enterprises to stop thinking that AI is a magic wand that can be waved to solve every single business problem. Instead, AI should be viewed as an enabler, an opportunity to help core processes to run more efficiently via automation and a means of delivering unparalleled data insight – empowering staff to focus on innovation. First however, organisations need to think strategically about the problems they want to solve and the data they would need to do so. Only then can they be ready to outline the steps needed to implement AI and understand what technologies and partnerships can help them overcome any barriers to adoption. ■

**IFS, vice president of AI & RPA*

OPINION



THE TECHNOLOGY MARCH OF ERP SYSTEMS

Nick Lefkonidjates is the managing director and a partner at Value Insight, a management consulting firm that aims to assist CFOs, CIOs, and COOs with their transformation projects. In discussion with **ERP TODAY**, Georgina Elrington asked for Nick's views on the movement of smarter and more accurate ERP systems. His insights are shared in this article.

Looking at the landscape of ERP today, where are the most prolific advancements being made in your opinion?

NL While there have been some great advancements in specific industries (e.g. integration of smart meters in utilities, use of IoT/sensors in manufacturing and field service), the most widespread applications that I'm seeing in my work with clients can be boiled down to two key themes: intelligent automation (IA) and machine learning (ML).

With IA we're seeing a lot of organisations stitching together legacy systems to create straight-through processing, where data is entered once and then proliferates to everywhere it's needed via automated agents. This helps to extract more value from old technologies - thereby prolonging their usefulness - while also driving down costs by streamlining processes and reducing manual intervention and errors.

The other popular application of IA is when implementing a new ERP solution, which is a perfect time to completely re-design processes for the digital age and automate wherever possible. In the context of ERP investment, the incremental cost of IA tends to be relatively low and offers a high level of potential benefits, and so it's a bit of a no-brainer for most organisations.

With the number of established automation solutions out there, I wouldn't be surprised if one or two of the major ERP vendors accelerate this area by making a significant acquisition by the end of the year

With regard to machine learning, we're seeing a lot of organisations using the high volumes of data that are now available to them to improve their decision making. Popular applications include production planning, demand forecasting, buying and merchandising, and predictive maintenance.

These are all areas where volumes of data are extremely high, and so machine learning algorithms offer significant improvements over traditional methods in terms of accuracy. And because errors in these areas tend to carry a high cost in terms of inventory, assets or labour, even small improvements can translate to a big impact on the bottom line.

How are IA and ML enabling ERP?

NL I think the reason IA and machine learning are proving so popular is because they allow organisations to dip a toe in the AI world without having to commit to massive investments. Both are relatively low cost/high benefit, and can be applied to many of the legacy systems out there so don't require the cost, time, and overall headache of re-platforming.

In the current uncertain environment, a lot of organisations are keen to move forward with AI in a controlled way, and these methods allow them to create a solid foundation to build

on. For those organisations that are naturally replacing their ERP solution, adding IA and machine learning capabilities can significantly improve the business case while offering a massive leap forward in terms of digital capability.

How will such advantages progress, and in what timeframes?

NL One major advantage I'm expecting is where the major ERP vendors build AI capability directly into their products. We're seeing this already with SAP, Oracle, and Microsoft which can all leverage machine learning, data insights, and chatbots/conversational AI in their solutions, and there's definitely more to come.

The next logical step will be for vendors to embed intelligent automation more tightly into their ERP offerings and build out automated processes based on good practice at an industry and sub-vertical level so that organisations implementing a new ERP solution can take out of the box automations and tweak them to their specific context. With the number of established automation solutions out there, I wouldn't be surprised if one or two of the major ERP vendors accelerate this area by making a significant acquisition by the end of the year.

Another leap forward that I'm expecting in



the next year or two (and the more forward-thinking organisations are already doing this to some extent) is the widespread joining together of different styles of AI to transform multiple processes at once. For example, pairing IA with chatbots can help to automate the entire chain of activity on the back of a customer service event; and joining together things like IoT sensors, machine learning and IA will allow businesses to automate actions on the back of the data insights that they're getting.

A simple example of this would be where a manufacturer's algorithm identifies changes in variables that will likely lead to significant changes in demand for certain products, and this results in automated changes to materials ordering and production scheduling. Another simple application would be where a field service organisation joins up IoT, machine learning, and IA to automate the entire service scheduling process based on real-time component performance data.

Overall, I believe the next 12-24 months will be a very exciting time for AI in ERP. We're still at the early stages of seeing what the technology can do and finding ways to apply it to add real value, but there are so many possibilities and I'm really looking forward to helping organisations go beyond the hype to really maximise the value of AI. ■

Are you an AI expert?

Is your company using AI to solve problems, improve efficiency and make better decisions?

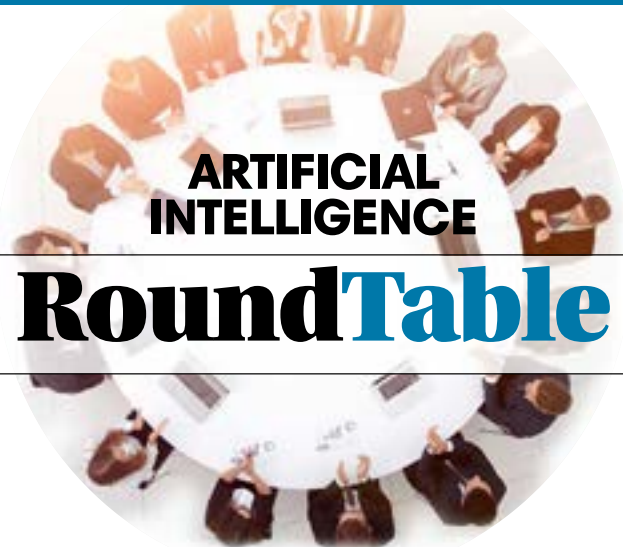


Our events are a great way to share ideas, meet like-minded people and raise the profile of your brand or company.

ERP TODAY is hosting a roundtable discussion on AI which will be reported on in the next issue. It will be a broad discussion

covering best use cases, trust and responsibility, social implications and likely future developments.

This is a free to attend event and will take place in London during June.



IF YOU WOULD LIKE TO ATTEND, PLEASE EXPRESS AN INTEREST BY EMAILING EVENTS@ERP.TODAY

REPORT

RESPONSIBLE RESOURCE PLANNING

Will new ERP tools finally put an end to diversity difficulties?

BY GEORGINA ELRINGTON

The tech skills pool is lacking a valuable resource, and valuable is a very relevant word regarding the profile of women in the workforce. In this feature **ERP Today** looks into some of the reasons why the ratio of women vs men working in the sector is still noticeably unbalanced, the barriers hindering women considering a career in technology in the first place, as well as their subsequent progression in the industry.

Given the speed at which technology advances there's a constant need to enlist expertise to facilitate progress in business operations. The shortage of specialist skills is cited again and again in survey studies and often tops the list when it comes to progress barriers; AI and blockchain are particularly hindered at the moment.

In the UK, only 15 percent of employees working in STEM (science, technology, engineering, mathematics) are female and only five percent of global leadership positions in the technology industry are held by women. Further, only 20 percent of the UK's current AI

workforce are women and, globally, the gender pay gap for AI roles is three times larger than other industry talent pools. Perhaps more worryingly is that less than one third of female university and A-level students are likely to even consider a career in technology and only three percent would make it their first choice. Why? There seems to be three prevailing barriers and none of them are new: opportunity, gender bias, and the ongoing pay gap issue that has been reported on for decades.

ENCOURAGING A POWERFUL AND CONFIDENT WORKFORCE

The fact that diversity in general adds beneficial layers to an organisation has been well documented. The good news is that there are more women working in technology than there were five years ago; but the not so good news is the seemingly never ending disparity regarding the gender pay gap. In a global study last year, carried out by **Ivanti** as part of its own 'Women in Technology' initiative, a whopping 75 percent of survey respondents said



that the best change that organisations could make to encourage more women into technology would be to pay women the same as their male counterparts. The confidence to 'know your worth' was also stressed by one fifth of the participants.

Recognising this from a gender perspective Nadira Hussain, director of leadership development and research at **Socitm**, is striving for change through two initiatives that she kick-started during her presidential tenure. In response to the impact of transformational working practices and championing female role models, Hussain heads up a 'Women in IT' network which helps people to build on leadership skills and encourage the diversity of the sector's workforce. She also works on the Society's Leadership Academy program entitled: Empowering Women in a Digital World (EWDW) which is aimed at aspiring female leaders, and building communities that drive both the diversity agenda and cross-sector collaboration. Perhaps initiatives like these can help to overcome some of the other sentiments identified in Ivanti's research which included that 63 percent felt that negative perceptions associated with inherent gender bias adversely affect their working environment and professional opportunities, being overlooked for promotion, and being talked over in meetings.

From a personal perspective I have long wondered about the psychological differences between men and women surrounding how each exudes confidence or, to put it a different way, power. Both confidence and power are desirable traits in a human resource but which will win the top spot in a team meeting or performance review; Does it depend on the audience? Or does it start with the individual? I'm no expert so will leave that one for the debate of company psychologists and specialist courses - if indeed there is a platform for it. Turning back to the current topic of fair rewards, this is clearly a fundamental starting point for attracting more women to tech roles. It's also a tired old issue that really shouldn't even exist anymore - anywhere.

The UK Government's Gender Pay Gap Survey reports that women are paid less than men as a national average across all sectors, not just in technology, and the World Economic

Forum estimates that it will take 100 years to close this gap. However, far sooner than that, by 2030 we will be in self driving cars and en-route to buying tickets to Mars. How's that for some crazy progress prioritisation. The fact that there's a lack of fair pay for female expertise is not only disheartening and frustrating, it's getting really boring. It doesn't make a whole lot of commercial sense either; over the last few years research has shown that female tech entrepreneurs are great at making good on ROI despite often receiving less investment from venture capitalists in the first place. Boom! Women are naturally resourceful and adept at laterally finding ways to solve problems. While that's not to say that men aren't just as good at this, the point is that there's no reason that women should be tasked to generate the same output for less recognition.

UNLOCKING VALUE BY HANDING THE DIVERSITY CHALLENGE OVER TO SOFTWARE

It's not all about gender, however. Traditional methods of equalising company resources haven't been that adept at catching the anomalies that lead to inequality at work. The entry of more artificial intelligence into the overall HR function can help to bridge the 'hu-



ANT KENNEDY
GAPSQUARE

man perception' influence by bringing up the hard facts when assessing job performance and personal profitability - as well as future profit probabilities - enabling clearer and fairer insights to identify where praise is due, where training may be required, and highlight previously overlooked remuneration blunders. The only factor that should matter is how an individual, regardless of gender, race, creed or mobility will (or could at the recruitment stage) positively impact revenue. Ant Kennedy is the lead developer at **Gapsquare**, a company that offers gender pay equalities analysis and data-driven recommendations for pioneering change. He highlighted that: "We need to be aware that creating a homogeneous culture can be bad for a team's ability to deliver. Recent studies have shown that diverse teams are better problem solvers than their less diverse counterparts."

Research from Harvard University, McKinsey, and Mercer shows clear evidence that greater diversity brings higher productivity and profitability. Some interesting statistics include that more diversity populated companies are 158 percent more likely to understand target consumers, obtain 19 percent higher innovation revenues, and nine percent higher EBIT margins. Those with increased racial and ethnic diversity have 35 percent higher financial returns; and the companies with increased gender diversity are typically achieving 15 percent higher financial returns.

"Our vision at Gapsquare is that, by using modern AI tools and technologies, businesses are able to monitor how they remunerate employees and take corrective action when the system has identified that there is no explanation for an identified pay gap, indicating bias regarding how employees are compensated for their work." The company is also looking at matching contractual terms to performance reviews to help ensure that decisions around pay, disciplinary procedures, and performance are considered in an unbiased way.

REPORT

COMPLIANCE AND CULTURE FOR CHANGE

Governments around the world are introducing legislation and asking firms to become more transparent around the gender pay gap, ethnicity pay, fair and equal pay for equal value. Here in the UK, businesses with more than 250 employees must report their gender pay gap on an annual basis to all of their stakeholders, as well as on a publicly available government equalities reporting portal. This can be troublesome for those that are lagging on equal pay policies as they run the risk of losing out on top talent when unattractive statistics are published. However until recently it was difficult to extract the data required to report gender pay gaps.



ZARA NANU
GAPSQUARE

These days, many HR software vendors include data analytics software to allow organisations to pull the data into one dashboard; **Cascade** for instance, has added a reporting module which is designed to allow clients to calculate the figures required for the gender pay gap reporting regulations. “Diversity and inclusion can be very political and emotional issues,” said Dr. Zara Nanu, CEO at Gapsquare. “There are constant debates about the role of quotas, targets, positive discrimination, and parental leave. This can often mean that issues remain unsolved. When done correctly AI can put the right data driven recommendations in front of decision makers and

we can even embed changes and make adjustments a part of the process.” She went on to say that partnering with large ERP providers can add value to their customers. “ERP providers, like Oracle for example, see the advantages of working together with a start-up developing new technologies around fair pay,” she said.



HELEN ARMSTRONG
SILVER CLOUD HR

The technology is one way to turn the issue around, there are certainly options available to implement. But change won’t happen if there isn’t the recognition and buy-in from the industry. When Helen Armstrong, managing director at **Silver Cloud HR** spoke to ERP Today on this issue she said that solving the gender pay gap in the tech sector – or any sector for that matter – is far from straightforward. “HRIS (Human Resources Information System) vendors have worked hard to incorporate gender pay gap reports into their systems with software that integrates HR and payroll. GapSquare and Curo, for example, both offer instant insights into pay gaps with inbuilt analysis into the causes with data-driven recommendations for change. But there must be an appetite for change,” she said.

Irene Papantoniou is a marketing executive at **JamieAi**, a recruitment firm that combines human and AI-powered processes to connect data professionals with employers looking for new talent. She believes that initiatives being deployed around the diversity topic are bringing greater transparency in

the public arena, which is empowering people from various backgrounds, including the female pool, to embark on careers in the technology industry. “We’re seeing that clarity and widespread appreciation of the benefits of a diverse workforce is prominent across the sector, leading to greater support to ensure that the changing workforce population is equipped to thrive in industries that are predominantly male dominated. This is happening hand-in-hand with businesses that are also transforming culturally so that the working environment is more inclusive and offers greater flexibility, as well as opportunities for clear and equal progression,” she said.



IRENE PAPANTONIOU
JAMIEAI

Concluding that a cultural shift towards more equality is a profitable one, Papantoniou said: “It’s widely acknowledged that diverse workforces pave the way for incredible levels of innovation, and ultimately business growth in the ever-competitive industry. Without a doubt, cultural change combined with technological advancements will be the way in which companies can best tackle this issue. Whilst we’re already seeing exciting things taking place across some businesses, it’s not widespread enough to eliminate the issues altogether. In our opinion, education and awareness is the way to go in order to tackle the issue at its roots.” ■

As AI gets smarter,
will it help or hinder
inclusivity?

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The better the question. The better the answer.
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A hand in a white shirt cuff is holding a white document. On the left side of the document, there is a blue circle containing the text 'WHAT'S COMING UP IN OUR'. To the right of the circle, the word 'Next' is written in a large, bold, black serif font. Below this, there are six sections, each with a blue header and a yellow highlight, followed by a paragraph of text.

WHAT'S
COMING
UP IN
OUR

Next

SECTOR FOCUS ERP IN RETAIL

ERP platforms play a pivotal role in retail and our sector focus will be the lead feature in the second issue of ERP Today. This will be the definitive review of the hottest topics affecting enterprise applications for retailers as we look at the changing landscape for retail as a whole and ask how can technology breathe new life into this demanding sector.

DIGITAL HR AND HCM SYSTEMS REVIEW

In depth analysis of key HR platforms and thorough review of innovations driving the next generation of smart HCM. Interviews with industry leaders responsible for some of the UK's largest workforces and case studies showcasing the leading digital HR solutions.

ADVANCED SUPPLY CHAIN

Following on from our ERP in manufacturing feature in this issue of ERP Today, we delve further into advanced supply chain and review all of the innovations and advantages that AI and ML are driving into supply chain across the UK.

THE ECONOMY OF X

Experience is the pillar on which all successful enterprises build from. Experiential data coupled with operational data is providing new insights that create an end of to end journey with high levels of personalisation. Our review looks at CX and EX and asks how the concept of 'experience' has so quickly become front and centre for vendors and the customers they serve.

APIs AND MICROSERVICES

APIs are the new lifeblood of competitive advantage for the cloud-enabled enterprise. Detailed look at how to build an API strategy and successful microservices architectures. Reviews of the leading developers and enablers. Plus case studies from the most innovative use cases.

CONSULTING

How will SIs adapt to the new delivery model that cloud requires? Can the new approach to implementations and the end of upgrades still support the headcount? Detailed review of SI capabilities across all vendor platforms. Interviews with leadership at key integrators and analysis of strengths and weaknesses.

issue

GRC

Governance, Risk and Compliance has always played a role in ERP. However, with the advent of cloud technologies and shifting infrastructure landscapes, embedding GRC as a core component of your ERP platform, smart HCM system or advanced supply chain is more important than ever.

EPM

Modern EPM has capabilities that incorporate artificial intelligence and machine learning. These technologies are powerful decision-making tools that close the gap between analytics and actionable insights. Our review looks at the various EPM platforms and provides a detailed analysis of how best to plan, budget and control your enterprise resources.

BI & ANALYTICS

The demands on BI and Analytics have grown exponentially as customers require greater intelligence-led insights from every area of their business. AI is the key driving force behind more intuitive and predictive business intelligence and our review will look at the key players in this highly competitive and increasingly innovative sector.

PROJECTS & IMPLEMENTATION

This extended feature on Projects and Implementation takes a detailed look at the murkier side of ERP and provides a step by step guide to ensuring your project is as performant as the system itself. Featuring case studies from the most innovative go-lives from the first 6 months of 2019.

See our case study on HS2 in this issue of ERP Today for an example of how we review projects.



MAKING TAX DIGITAL

Hot on the heels of the implementation of the new digital tax regime, ERP Today looks at the various platforms that are facilitating this transition and provides advice and guidance to those businesses that are still trying to make sense of the options and new obligations.

CRM HEAD TO HEAD

We evaluate the CRM offerings from the major vendors and ask what innovations can we expect to see as businesses demand more intuitive insights into customer contact.

OPINION

The Power of Purpose

BY STEPHEN JAMIESON

It wasn't Bono who stole the show at Davos. It wasn't even Will.i.am, Marc Benioff or Gary Cohn. Nor was it any of the cohort of billionaire bankers, or the powerful and connected.

It was a 16-year-old schoolgirl from Sweden. Between organising student strikes in protest of climate change, Greta Thunberg took a 32-hour train journey to make her mark on the World Economic Forum. The global hobnobbing event for the rich and famous was not her usual style. Rather than 5-star luxury, Greta was happy in a canvas tent in the freezing winter weather in Switzerland. It was ridiculous, she thought, to be hosting a global conference with a focus on climate change with everybody flying in on private jets and staying in 5-star hotels.

And she told them so.

Out of the mouths of children, as the saying goes. Sometimes, the truth comes from the most unlikely sources. But Greta had blame shamed some of the most powerful people in the world. "You are not mature enough to make the right decisions for the planet," she told them.

It's a bit like the questions my own child asks me at home. It's a little uncomfortable but you feel overawed to think you can do something. Until you see somebody like Greta.

Companies, after all, have tremendous power. They have the power to make a lot

of money. They also have a power to do things for other reasons, and not everything we do should be defined by chasing profit.

So, when my own daughter asked me not only the classic question: "What do you do at work?", but also "Does it help the planet?", I was proud to have a worthy answer.

We work under a purpose statement that defines the company: "To help the world run better and improve people's lives." It's not lip service or a slogan it can display in the company reception to impress visitors. It's something employees believe in and something that is driving growth and innovation within the organisation.

Today, there is incredible convergence in our professional and personal lives. We're seeing individuals unwilling to compromise on personal beliefs and values. Often, it's the youngest generation, the 'Gretas', who are coming into the workplace who are driving the change.



"A purposeful business asks how it makes its money and creates positive value, rather than shareholder dividend"

Purpose in practice

Much has been written over the years about the 'Millennial' generation. In fact, we have been writing about Millennials for so long that we are seeing the first cohort of the generation below, Gen Z, now coming into the workplace.

By 2025, Millennials will make up 75 percent of the world's working population. Millennials want change

and are committed to doing something about it. The Millennial manifesto is different to the one their parents lived by. Millennials will put purpose above profit and seek out a business that does good. They view positive social change as a life goal, and prefer to buy brands from companies with a purpose beyond products.

This is at the heart of purpose. A purposeful business doesn't just ask itself about what it does with the money it makes. It asks itself how it makes its money and creates positive value, rather than just shareholder dividend. It's where the 'what's good for the world' and the 'what's good for businesses' align.

Purpose as a movement

We work with 92 percent of Forbes' Global 2000, and our technology touches 77 percent of the world's supply chain. We have extensive technological resources and talent around the



planet, and that's something we want to leverage to have a positive impact. And so, we've aligned our purpose to helping tackle some of the world's biggest problems, recognised as the UN's Sustainable Development Goals.

We are by no means alone in our resolve to make the world a better, more sustainable place. Many of the companies and organisations we work with, both large and small, have also made these goals a guiding tenant of their businesses. With the power of many organisations working together towards the same goals, purpose has the force to become a global movement.

Taking on the plastics challenge

In 2018, we partnered with **WRAP UK** to help it take on one of the SDGs: Responsible Consumption and Production. Of the 9.1 billion tonnes of plastic waste accumulated in the world, just nine per cent has been recycled and

just 12 percent has been incinerated. The rest ends up in our oceans, landfills and general environment.

But WRAP is striving to change that. To back that effort, and alongside some of the world's biggest companies, including **Coca-Cola, Danone and PepsiCo**, we pledged to support The Plastics Pact. What does that mean? It means that, with our partners, we're using technology to help businesses actively solve the problem of plastic waste.

The data already exists to solve the problem of plastic waste, but it's trapped behind company firewalls. Through informed partnerships with people and organisations all along the plastics supply chain, from manufacturing to waste management, we can use our Leonardo technology, including IoT, AI and machine learning, to share real-time data that will allow responsible consumption and sustainable goals while retaining trust and privacy compliance.

Companies are often blamed for many of the biggest challenges in the world – but they are also the most equipped to lead a change, often using technology. I believe every company needs to take a stand to drive action on the issues that are plaguing the world. It's how companies respond to those that will influence where people spend their money or where they choose to work. When we are diverse and open-minded employers, it also makes us better companies to work for and produces better results.

When my daughter asks me what I'm doing to save the world, I'm proud I have an answer, and am working for a company that has an impact. But as Greta showed us at Davos, it's a question being asked by many around the world. And they're not hearing an adequate response. We need to act now to ensure that, next time the question is asked, we have a better answer, and that we have a purpose. ■

C U S T O M I



S A T I O N

No more sprinkles on your vanilla applications

BY PAUL ESHERWOOD

There was once a well-trodden path for ERP implementations. Buy a licence from **Oracle** or **SAP** for some generic finance and HR software and then give **Deloitte** or **Capgemini** several million pounds to dismantle that product and re-assemble it to suit your unique business processes over a grisly two-year implementation. Most ERP customers inherited a highly customised solution, prone to cracks, immune to updates, burdened with redundant code and user interfaces that were unappealing, cumbersome and not fit for purpose. It is therefore unsurprising that ERP takes such a panning in the mainstream business media when so few customers report a happy outcome from their ERP implementation – and even fewer from the long term usability and scalability of the system.

The **Lidl** story has been around for a while so I won't labour that one again – but it is worth noting that there was one (or maybe two if you include the human decision making process) root cause for that €500m ERP disaster – customisation.

The story has been repeated time and again. A customer is married to a process and rather than adopt vanilla principles, the old process is forced into the new system through customisation. The digital revolution is set to transform that outdated process with

|||||

“The increasing adoption of cloud ERP solutions should mark the end of customisation as we know it”

cloud-native applications and API integrations which still afford customers the flexibility to maintain competitive advantage whilst following tried, tested and best practice application architecture.

Debbie Green, newly promoted VP of applications at Oracle said: “The increasing adoption of cloud ERP solutions should mark the end of customisation as we know it, not least because it is impossible to make the type of fundamental changes to the source code that many



DEBBIE GREEN, VP OF APPS AT ORACLE

CUSTOMISATION

organisations or partners were able to make to on-premise solutions. While it's true that different businesses are subject to different pressures and have different requirements from their finance systems, starting down the road of customisation immediately limits the scalability of the product and forces finance teams into a trade-off between long-term benefits and short-term convenience. To get the most out of any technology implementation - ERP or otherwise - users should take the opportunity to re-evaluate their working practices in the context of what the new solution enables, rather than look at how they can change the solution to fit existing established processes."

Green's statement leaves little room for doubt; customisation as we know it is a thing of the past and post-modern ERP vendors are now delivering solutions that do away with the old notion of customisation in favour of 'personalisation' through APIs and other bolt-ons.



Mark Hughes, regional vice president for UK and Ireland at **Epicor** agrees that personalisation is the new advantage for ERP customers and warns against the use of customisation in modern ERP practices. He said: "For many years, ERP providers have traded on the fact that the software they sell is hugely customisable. However, for many businesses using ERP software, the difference between actual customisation and personalisation remains unclear. Personalisation is a non-invasive means of tailoring software; for example, changing the way reports are produced, or altering the tracking of KPIs. Customisation, on the other hand, often requires code, technical expertise, and access to how a system works. In addition, it can have significant knock-on effects further down the line.

"The main problem with customisation is that businesses end up with a solution that is completely different to everybody else's - and this matters for a number of reasons. In terms of



"For many businesses using ERP software, the difference between actual customisation and personalisation remains unclear"

MARK HUGHES - Epicor

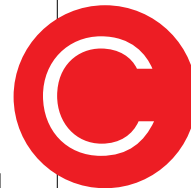


"To make ERP deliver value, companies have to innovate at the edge with microservices and extensible technologies"

CLAUS JEPSEN - Unit 4

supporting and maintaining ERP systems, if you are using standard, configured, personalised software, any errors found in your system are more than likely to have been found in others. However, as soon as you begin to customise the software, any bugs or problems will be limited solely to that system and will need to be solved on an individual basis. This makes supporting customised software much harder.

"ERP technology has been around a long time, and its capability is much greater than it once was. Due to advancements in ERP systems, businesses can make adequate changes through simple personalisation, which many would have previously considered as a customisation or modification of the software. By putting an agile and modern ERP system in place, businesses will be able to fully utilise their software and avoid the need to customise."



laus Jepsen, Deputy CTO at **Unit4** also has strong views on how customisation has hindered ERP value and suggests that microservices (APIs and bolt-ons) are the new frontier of value drivers in modern ERP solutions: He said: "In the past, organisations saw the value of ERP in the customisations they could build. They would





“ERP was built to address the needs of the many, not the few. It was never engineered for you and you alone”

MATTHEW JOHNSON - Deloitte

Johnson said: “ERP was built to address the core transactional needs of the many, not the few. It was never engineered for you and you alone. The more you add and bolt on to the core, the bigger the impact to test and deploy those changes back into productive use. Years of customising and incrementally enhancing your existing ERP landscape, often results in an architecture that is burdened with technical debt. Evidence of technical debt can be found in areas such as reports that are compiled but no longer used, transactions that are optimised for outdated business models, and infrastructure that is always scaled for performance and business exceptions that nobody recalls.

“Over the last 12 months, there have been two key technology introductions into the SAP eco-system - Leonardo and SAP Cloud Platform - that have allowed us to look at making your legacy SAP landscape, relevant for the demands of today and future-proofed for the expectations of tomorrow.

“At Deloitte, I have been working with our global SAP practice to introduce an approach and set of enabling technologies that help our clients to leverage these key innovations. We call this ‘CleanERP and Innovate off any core’, working on the basis that you innovate and develop - using SAP Cloud Platform and SAP Leonardo - outside of your core ERP and leave your solution ‘clean’. This changing notion of customisation allows you to leverage the full value of best in class technology.”

work hard to make the ERP system fit their business and not the other way around – that was the accepted thinking. As cloud advantages and new technology have emerged, it’s those customisations that have held organisations back from modernising, upgrading and implementing new systems.

“To make it deliver value in the future, companies have to innovate at the edge with microservices and extensible technologies that efficiently facilitate and underpin delivery of new business models. Very specific service applications coming out of the ERP system at the core are the new way to customise, and will deliver great advantages in terms of speed of digital change and user experience.”



Matthew Johnson from **Deloitte** also believes that the notion of customisation is changing and cites innovations in PaaS and IaaS as key drivers for these new advantages. ERP users can now innovate without having to customise their core system as products released by SAP, such as the Leonardo platform, are allowing customers – even those who run their applications on-premise – to create competitive advantage through intelligent integrations while keeping their core ERP landscape ‘clean’ from customisations.



AP has also tackled the problem of customisation directly through their junior product suite called Business ByDesign. Unlike their flagship product, S/4HANA, Business ByDesign offers customers an out of the box solution that is almost exclusively used without customisation. **In Cloud Solutions** are the UK’s leading Business ByDesign partner with more than 50 percent of SAP BBD customers on their books. Bob Atkinson, managing director at In Cloud Solutions went on to ex-



“The Business ByDesign customer wants the convenience of a good quality product without the huge expense and time of creating the bespoke version”

BOB ATKINSON - In Cloud Solutions

CUSTOMISATION

plain: “Out of the box ERP is attractive to business for its many advantages. It’s quick to implement - in around 14 weeks - and builds on the best practices of thousands of businesses who have gone before. The Business ByDesign customer wants the convenience of a good quality product without the huge expense and time of creating the bespoke version.”

Atkinson continued to note that he had not yet come across a customer who did not want some form of customisation even though they have selected a solution knowing that this is not bespoke. “This is OK up to a point - we have a fantastic team of skilled consultants and developers and we ‘could’ re-write the whole of SAP Business ByDesign for a customer if that is what they want. But this is not the point, although manipulation of the system doesn’t cause us any sleepless nights, it’s just not effective use of a system that was already globally compliant with best business practices to start with.”

Another vendor which has sought to tackle the problem of customisation head-on is Infor. The largest privately held enterprise software company in the world, has taken a very different approach to product development from its main rivals and has developed a suite of applications focussed on micro-verticals. In effect, the customisation happens at the core, rather than locally, and each customer simply switches on or off the discrete modules or functionality that it does or doesn’t require. Infor has invested a huge amount of capital in developing these products and boasts a team of more than 5000 developers who are focussed on building industry specific products which require zero customisation.

Read more on Infor in my interview with CEO, Charles Phillips, elsewhere in ERP Today.



Phil Lewis, VP of consulting at Infor explained: “We are committed to this industry specific model that combats customisations. We have invested approximately \$2.5 billion in product design and development over



“We have to gently show them that the customisations they love, don’t love them back.”

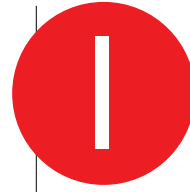
PHIL LEWIS - Infor



the last five years and delivered more than 475 new products, 1,870 integrations, and 20,700 industry features in our CloudSuite product line.

“The big question is of course how do you establish in the minds of customers, be they new or existing, the clear case for cloud and that the mass of customisations they have developed over years is no longer needed, or indeed actually helps their business.

“We have found that it is vital to demonstrate that this is not just a technology decision but a part of a transformation project. *Read more on this in our Cloud Readiness feature elsewhere in ERP Today.* This means we often have to challenge our customers, asking why they do something in a given way, especially when competitors or best practice is something else entirely. We have to gently show them that the customisations they love, don’t love them back.”



IFS is also on a mission to eradicate the need for customisations by continuing to enhance their core offering and by providing unique capability and tooling to configure the solution to a business’ needs. Aaron Sleight, a senior project manager at IFS said: “This is an area we have focused on within IFS Field Service Management mobile application over recent years. IFS released extended configuration capability in workflow definition and scripting that resulted in more than 90 percent of our new mobile deployments being achieved through configuration only. Not a single line of core code modified or customised code written. Because of its success, we are extending this across IFS FSM with new scripting



“90% of mobile deployments are achieved without a single line of core code being modified or custom code written”

AARON SLEIGHT - IFS



capability to continue to eradicate customisations and maximise business value. This enhancement means it is truly an exciting time to invest in field service software.”

One thing is clear from all the comments – customisations, at least as we have known them – are a thing of the past and the new breed of SaaS applications should revolutionise the ERP implementation saga once and for all. By utilising best in class business processes, supported by SaaS applications and microservices, business can now face ERP implementations with a fresh perspective and look forward to using a solution that they will never need to upgrade again. Great news for ERP buyers but perhaps not such great news for the many System Integrators who have grown fat on the back of ERP projects which have historically required so much effort and resource.

More on this in our next edition as we take a deeper look into the changing role of the SI and ask how they will survive in the new era of autonomous and automated migration capability and how they will compete with the new breed of integration tools that can accelerate cloud migration in timescales of weeks rather than years.



Back to customisations and to conclude, I asked Martin Burden, director of business applications at **Avanade** for his top tips for businesses who are trying to find the balance between vanilla applications and the evolving needs of their business, he said: “The dreaded ‘C’ word - Customisation - is often brought up when I speak with clients who are looking to transform from old legacy to the new world. In many cases legacy business applications have been heavily customised over many years to get it to do specifically what the business wants - often significantly over-engineered and tuned to within an inch of its life.

“We suggest considering the following steps to assess whether customisations are necessary and urge management teams to evaluate the



“The dreaded ‘C’ word – is often brought up when I speak to clients – their legacy system has often been over-engineered within an inch of its life”

MARTIN BURDEN - Avanade

true value of the customisations they have developed over the years against the benefit of adopting standard applications.”

- **Be pragmatic.** Review the actual needs you have as a business and review how sensible it is to actually put into a business application. There could be business functions that are better served with different technology. Your ERP business application does not need to contain everything. A consultancy should be able to support your organisation and architect the optimal solution (which may contain multiple pieces of software).

- **Be led by standard ways of working** and processes that have already been

defined for your organisations industry. Why? If you start from a blank piece of paper to analyse the business requirements you are more likely to re-engineer what you currently have (including customisations). This approach will focus minds on adoption of standard solutions and ways of working.

- **Focus on business benefits case for change / customisation.** If there is truly little business value that will make your organisation significantly better for it – why customise?

- **Have clear and concise stakeholder management.** Have clear internal guidelines to encourage the business to adopt off the shelf solutions (with the message coming down from the project sponsors). It’s important to have strong internal change management to communicate the objects and benefits of what is trying to be achieved.

- **Look for pre-built solutions to fill gaps.** In the **Microsoft** world, there is access to product extensions (an application store) where you can buy additional functionality to extend the scope of the core solution. Make the most of pre-build applications to fill any gaps raised. These solutions will have Microsoft roadmaps and upgrade cycles in line with Microsoft plug and play solutions.

- **Finally,** it goes without saying, select an ERP platform which provides standard functionality that meets your business function needs.

Burden concluded: “With every organisation I work with, I focus on how we support a business to adopt off the shelf solutions as much as possible and customisations should only be deployed as a last resort. Management of this has to be attacked in two ways; the first being the appetite and focus within the business to challenge existing ways of working to adopt standard solutions, and the second is defining the correct solution and architecture. This may embrace multiple technologies or solutions, to achieve the best possible outcome.” ■



| PHOTODIARY |

UNLEASH YOUR HR POTENTIAL

We talk to the leading enablers of digital HR as a prelude to our deep-dive review in the next issue of ERP Today.



The UNLEASH expo at the ExCel in London was a glorious showcase for digital HR and the future of workforce management. Nearly 100 exhibitors were staged in the main exhibition hall, all with innovative technology designed to improve efficiency and experience across HCM capability. I was surprised at how many ‘recruitment’ type products were on show with all suggesting that their talent acquisition proposition was the future of recruitment.

As you would expect, employee experience was a hot topic throughout the two days and it was fascinating to speak to the X-enablers, many of whom were scale-ups, about their take on employee engagement and experience. I’m sure that many had taken a keen interest in SAP’s recent acquisition of Qualtrics and getting ahead of the pack in this crowded space could see the winners snapped up by other vendor powerhouses.

We particularly liked the **hibob** proposition and it wouldn’t be a surprise to see these guys within the cross-hairs of a vendor acquisition at some point in the near future.

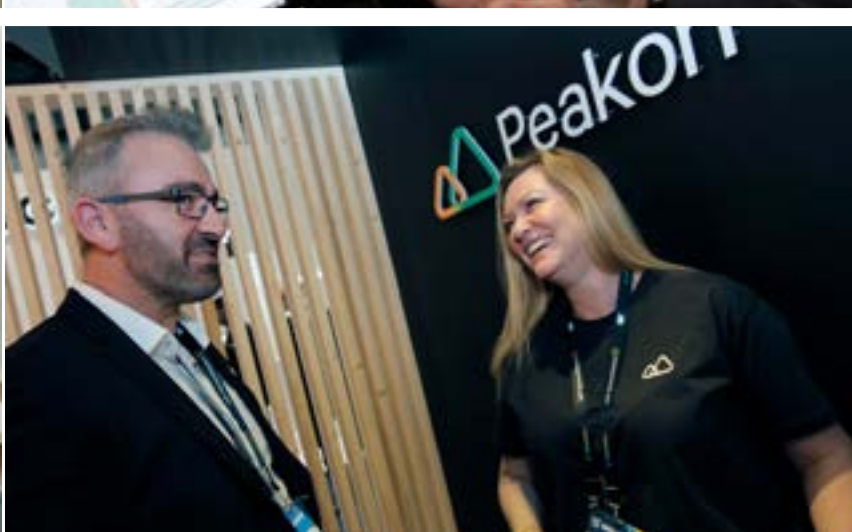
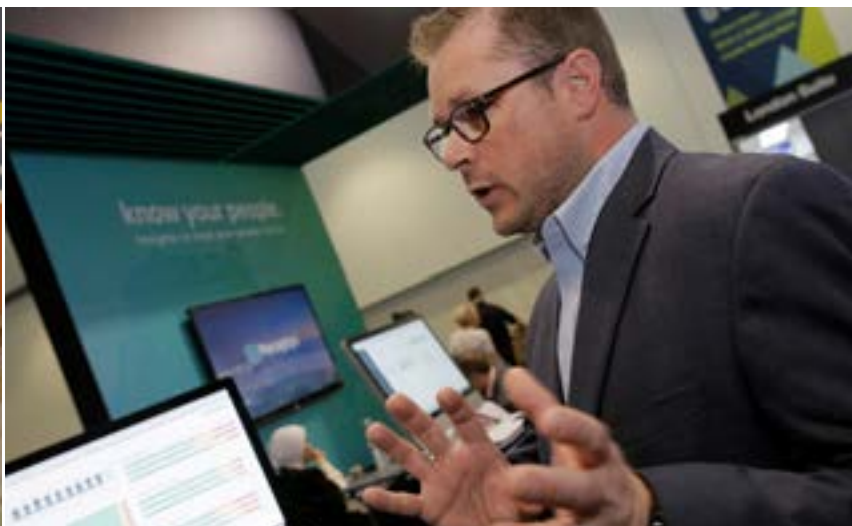
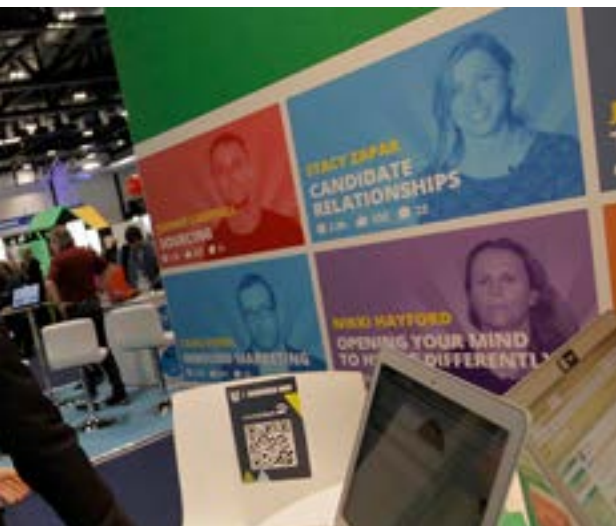
Other key topics were analytics and user adoption; never before have we had so much data but knowing what to do with it, and more importantly, knowing how to get value out of it is central to the analytics value-add proposition. It was hard to really find too many differentiators between the analytics offerings; all used AI-infused engines that could not only provide data insights, but also predictive insights that could forecast everything

from when an employee was likely to leave a business right through to how often they might catch a cold.

The user-adoption offerings were interesting as several had taken a different tack on this; Adopt from **AppLearn** now acts as a content enabler rather than a content provider, while others favoured an approach delivering proprietary content as part of the overall solution. AppLearn’s ability to effectively whilable their product and embed it in the core HCM system could set it apart from the others and it will be interesting to see how these products develop over the next 12 months.

NEXT ISSUE

Our lead feature in the next issue of **ERP TODAY** is “digital HR & HR systems review”. A deep dive into all of the latest innovations, products, trends and hot topics. So, if you are involved in the new generation of digital HR or have something interesting to say about workforce management, employee engagement, user adoption or training – **get in touch with editorial@erp.today**



Are you an HR leader?

Would you like to participate in our digital HR roundtable?



Our events are a great way to share ideas, meet like-minded people and raise the profile of your brand or company.

ERP Today is hosting a free to attend event on the subject of digital HR and we are keen to talk to HR leaders who can share their experiences for an editorial which will appear in the next

issue of ERP Today. Topics will include connected workforce, talent acquisition, employee experience & engagement, HR analytics and HCM platforms.

This is a free to attend event and will take place in London during June.

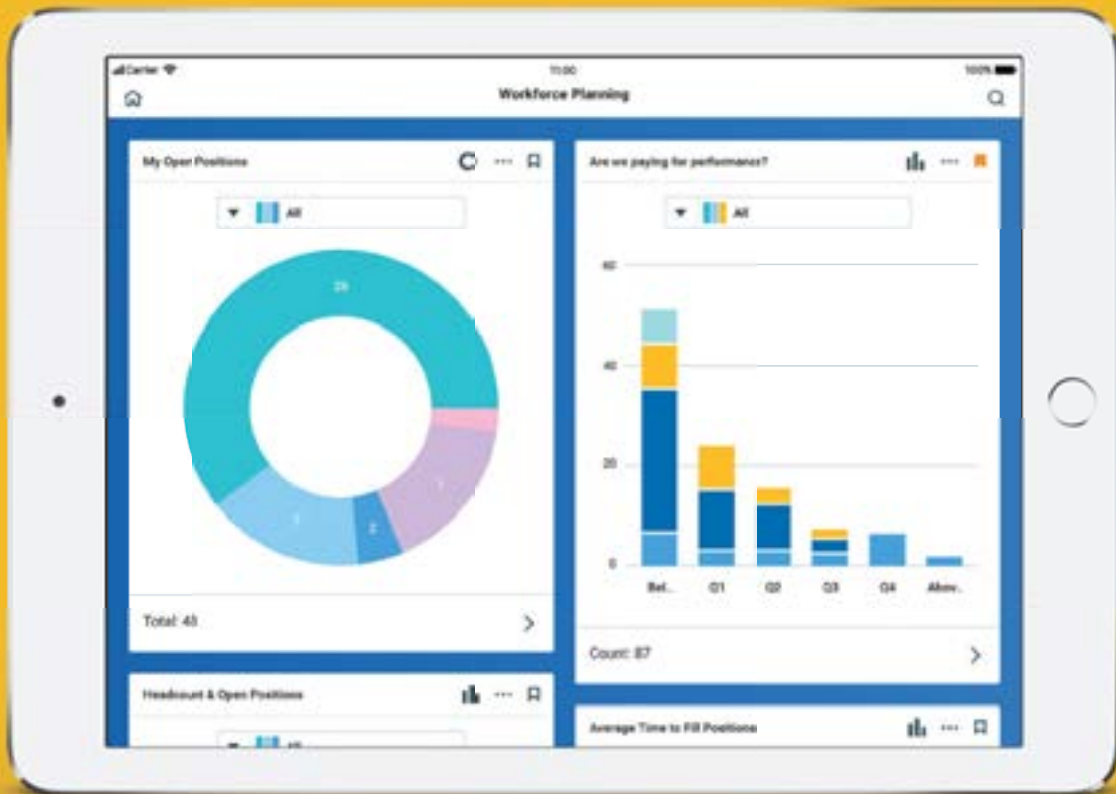


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THE EVOLUTION OF

ERP

AND WHAT IT MEANS FOR
MODERN MANUFACTURERS



DIGITAL MANUFACTURING

THE EVOLUTION OF ERP AND WHAT IT MEANS FOR MODERN MANUFACTURERS

BY HELEN PEATFIELD

Over the last decade, ERP systems have gained increased adoption among manufacturers. In recent years one of the biggest barriers to entry - upfront cost - has reduced significantly thanks to cloud-based offerings.

But that's not the only shift that's taking the ERP manufacturing world by storm.

Manufacturing businesses are complex, making it difficult to gain visibility and control. The more people, locations and workflows in your business, the more potential for errors. But where there's a disadvantage, there's also an opportunity.

After all, if you're experiencing these challenges, it's likely your competitors are too. Leveraging the right tools at the right time can give you a competitive edge. Helping you improve quality, speed of delivery and operational overheads.

What's driving ERP adoption?

In the past, ERPs were considered a high-cost solution only accessible to enterprises in the £50m+ range. Smaller businesses just couldn't make the numbers stack up. High upfront costs and slow ROIs froze many manufacturers out.

According to **Gartner's** latest report, *Forecast Overview: ERP Manufacturing*

and Operations Applications, Worldwide, "By 2021, SMBs will account for more than 60 percent of ERP MO cloud spending as they take advantage of cloud ERP MO solutions to replace manual or in-house-built systems."

The recent increase in adoption has largely been put down to the emergence of the cloud. But even though SaaS options have a lower upfront cost, it isn't necessarily the best option for every business.

Besides, the cost isn't the only factor. In fact, according to some industry experts, it's a comparatively small trigger for modern manufacturers. In particular, despite the trend towards subscription buying vs capital expenditure, many mid-sized discrete manufacturers still choose on-premise solutions over cloud solutions, still preferring the CAPEX model to the rising trend of SaaS and OPEX.

In reality, the rise of ERP is far more complex. It's driven by changing customer expectations, servitisation over pure-play manufacturing, changing perceptions in the industry and im-



proved services from vendors. Likewise, some argue that the advantages of cloud-based SaaS options are less about cost-management and more about future-proofing and 4.0 readiness.

The trouble with digital transformation

Most people hate change. Yet, everyone wants easier work days, happier customers and fatter bottom lines. Figuring out how to get there and implementing new systems takes time and energy. Then there are the changes that an ERP will drive after implementation.

An ERP's very reason for being is to help businesses find opportunities, threats and weaknesses faster than before. Identifying those trends in-

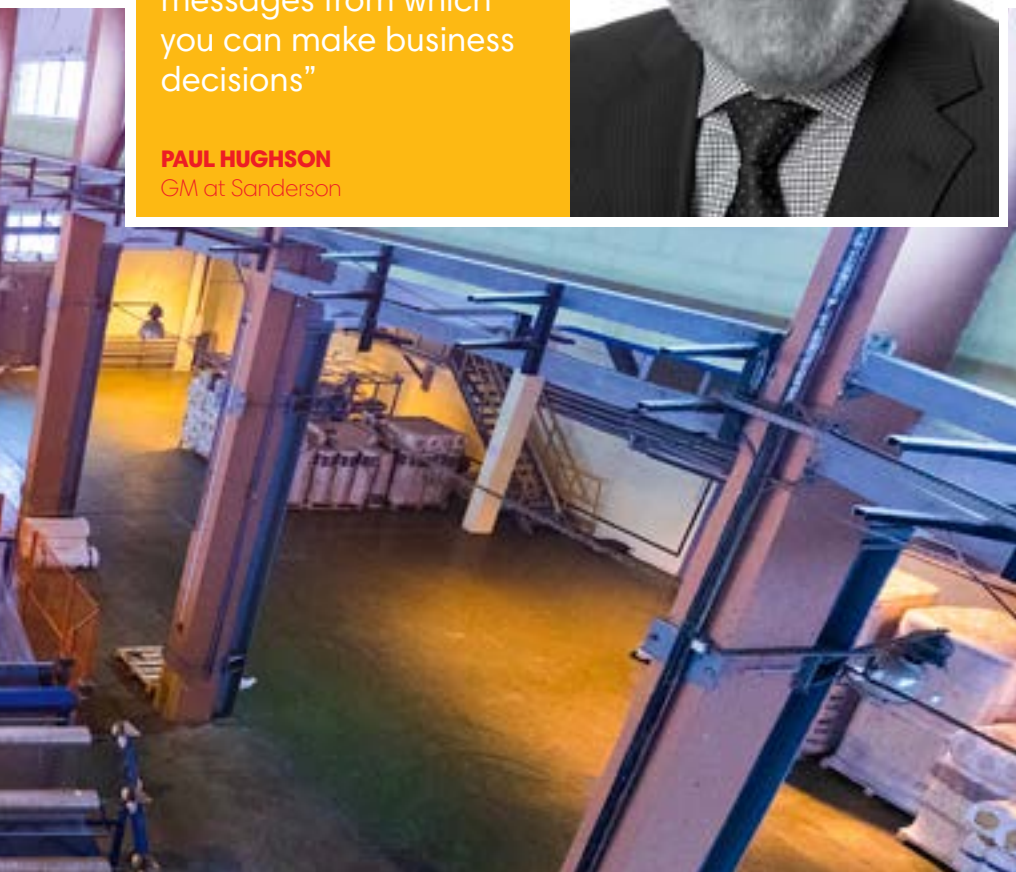
evitably leads to further changes; to workflows, value chains, new market opportunities and more. The implementation itself is the beginning of a long chain of changes and adaptations in the business - but with more reliable data founding smarter decisions and the tools to make those changes faster.

Paul Hughson, general manager for the discrete manufacturing arm of **Sanderson**, explained the key purpose of ERP isn't to tick a buzzword box. The core function of ERP is to "give one version of the truth. I've been into sizeable businesses (£5m-50m) who are looking to invest in an ERP system and there's spreadsheets all over the place, and bits of paper, and saved files that aren't shared."



"The right ERP not only helps capture data but it also gives very clear messages from which you can make business decisions"

PAUL HUGHSON
GM at Sanderson



Say hello to local support.

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Enterprise Management

DIGITAL MANUFACTURING



MARSHALL TRAILERS

INCREASES SALES AND REDUCES ADMIN TIME WITH SAP ADIMA

ESTABLISHED

nearly 70 years ago, Marshall Trailers, has built an international reputation for producing the highest quality agricultural machinery. Pass an agricultural trailer or container on the road, or on farming land and there's a good chance that it's a Marshall product.

THE CHALLENGE

GROWING WITH AUTOMATION

To grow and improve efficiency it was clear that automation must be adopted wherever possible; from manufacturing through accounting to customer engagement and beyond. It became clear that the business also needed to replace its creaking IT systems and move to a 21st century business solution capable of supporting ambitious growth plans whilst protecting Marshall's hard earned reputation for quality.

THE SOLUTION

ABSOFT ADIMA FOR GROWING SMEs

The 21st century business system chosen by Marshall Trailers was Absoft Adima, Absoft's pre-packaged version of SAP the world renowned and world class software product.

Absoft took baseline SAP Adima, a software specifically created to address the needs of UK-based SME manufacturing companies. Having investigated a number of ERP software options, Marshall's understood that SAP was the only system geared towards their needs. Adima provides all the benefits of SAP but is tailored specifically towards smaller manufacturers, providing enhanced production flow, increased security, and incredible administrative efficiency.

THE RESULTS

TIME SAVINGS AND INCREASED SALES

Since implementation, Adima has impacted significantly upon Marshall Trailers' operations. Material wastage has been cut, as production mistakes are eradicated. Administration has become almost paperless. An invoice can be prepared and sent within 30 seconds, rather than 15 minutes. Customer communication has been revolutionised. The creation of accurate timelines has further increased confidence in Marshall's service and led to increased sales. Marshall Trailers has confirmed that making the move to Absoft Adima has had a fundamental effect upon the business.

"Any change of this scale is difficult, but for us, the adoption of Adima was both necessary and revolutionary. Marshall Trailers wants to grow – this is the route to ensure that happens. The pre-implementation process can take some time, but this is time well spent, and no company will assist in that process more than Absoft."



“Learn fast or fail fast with a smaller project before you tackle a full scale ERP implementation”

ANTHONY BOURNE
Project manager at IFS

He continued, “The other key benefit is visibility of the information that’s captured. Capturing data is the first step. If you can’t access it easily, if it’s not fed to you and giving you the right message because your data are bits and bites of what’s happening on the factory floor, you can’t get the headline facts, like ‘this cell isn’t doing well’ or ‘this process is down’. This is the information you need to guide people in the right direction. The right ERP not only helps capture the data, but it also gives very clear messages from which you can make business decisions.”

Preparing the business for upheaval means getting stakeholder buy-in from the boardroom to the shop floor. Everyone needs to understand how the positive outcomes outweigh the initial hard work if they’re to embrace it fully.

For many medium and large manufacturers looking for an ERP, it’s not their first rodeo. For those who have seen large business transformation projects fail before, the fear of change is understandably amplified. For that reason, it’s important to look back and understand why ERP implementations have broken down in the past.

The way ERP has been labelled ‘an IT project’ hasn’t helped. Selecting, implementing and using a business tool of this breadth makes it a business-wide project. One that has to be aligned with long-term strategic goals.

Then there is the curse of the buzzwords... ‘digital transformation’. It sounds exciting, cutting-edge and something akin to magic IT dust that you sprinkle over your business and abracadabra, you’re the market leader. Crushing your competitors



“The trouble was that the shop floor was well over 250 yards long. The production manager often had to sprint across floor to tell the distribution guys there was an issue or that something was late.”

ROB SINFELD
Product manager at SAGE



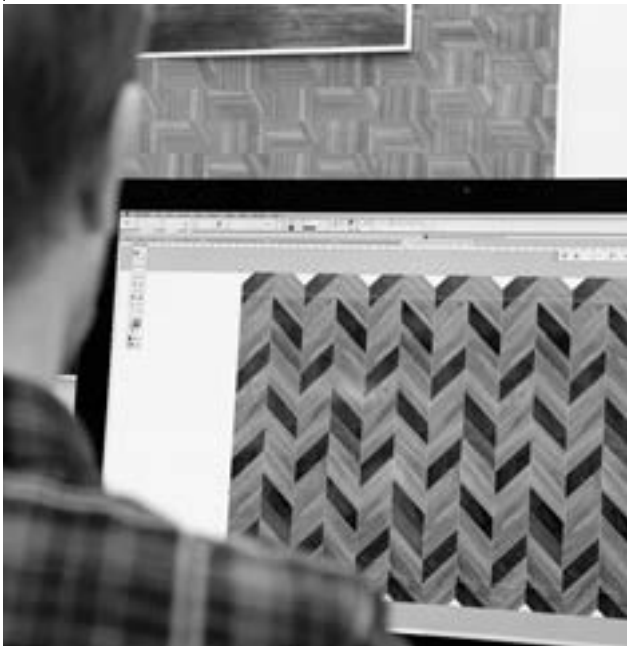
From the largest UK based ERP provider.

[sage.com/hello](https://www.sage.com/hello)

sage Business Cloud

Enterprise Management

DIGITAL MANUFACTURING



AMTICO INTERNATIONAL
MAKES UPGRADE LEAP USING QAD EASY ON BOARDING

A LEADER in the specialty flooring market, Amtico International (a subsidiary of the U.S.-based Mannington Mills, Inc.) is headquartered in the United Kingdom with operations in Europe, the Middle East and Asia employing approximately 500 people around the world.

THE CHALLENGE AN AGING ON-PREMISE ERP SYSTEM IN A GROWING COMPANY

Since joining Mannington Mills, Amtico’s product portfolio has grown and become more complex, their customer base larger and their supply chain more intricate. As a global manufacturer, Amtico recognised that they could improve their operational efficiency and realise cost savings by upgrading their ERP and migrating to the cloud at their sites in the United Kingdom, Germany and Hong Kong.

“Our business goals include increasing our product portfolio, growing our customer base and expanding into new geographies and sectors,” comments Andrew Elsby-Smith, finance director. “We had outgrown our existing system and expanding our IT capabilities to continue on premise was not a good investment for us. We need to concentrate on our core business and leave 24/7 ERP vigilance to the experts,” comments Simon Smith, head of IT.

THE SOLUTION UPGRADING TO QAD CLOUD ERP USING EASY ONBOARDING

“QAD Easy On Boarding was the key that gave us a good sense of where we were going. The planning stage gave us a head start with good building blocks to work from,” remarks Martin Stott, project manager. Moving into design and configuration, QAD Services worked with Amtico’s project team finalising business processes, process roles and responsibilities. This collaborative approach created enthusiasm among users for the new system. “Go live’ went astonishingly well,” notes Simon Smith. “The day we went live everything was working as expected. It was a very successful implementation”.

THE RESULTS SAVINGS, EFFICIENCIES, SCALABILITY, ACCESSIBLE DATA,

24/7 CLOUD SUPPORT Amtico has realised savings of more than 330 man hours per month due to improved inventory management, better visibility into customer orders and information availability, and a 50 percent time reduction in period end reporting. Amtico estimates their cost-savings to be over £119,000 per year.

with your state-of-the-art software. In reality, digital transformation has so many meanings that ubiquitous nature often confuses rather than inspires. Anyone who's been tasked with managing digital transformation (or selling it) feels this.

It's no use looking to vendors and consultants asking for a bag of magic transformation dust. Instead, go back to basics. What are your desired outcomes? You might find you don't need a new ERP or upgrade but rather an add-on, integration with IaaS or PaaS to enhance your current solution or perhaps simply some expert help to train users on getting the most from your existing investment. Vendors and their partners have upped their support game to reduce the risk of failed projects. Lean on them for help. It's in their interests to see your business succeed.

If this is your first foray into digital transformation, start small.

"Don't try and do everything straight away. Start with a project that lasts weeks, not months. ERP systems take months to implement. Start by working on a particular product line or business unit. Set yourself a target of three weeks or four weeks and then learn fast or fail fast with that smaller project before you tackle a full-scale ERP implementation", said Antony Bourne, **IFS**.

This way, you reduce the risk of negative impact, spend less time and money learning about change management and later, you'll find it much easier to get stakeholder buy-in for bigger investments.

Automating core business processes with ERP

Even something as simple as procurement sign-off can create havoc; choking your supply chain with unnecessary bottlenecks. Does your senior management team really need to approve that £200 order? Or would you rather set rules in your system so only the biggest decisions require executive involvement?

- **Operational workflows** are improved with automation.
- **Supply Chain Management automation** reduces time, expenditure and mistakes.
- **Access inventory** reporting across every warehouse, business unit and supply chain.
- **Your inventory reordering** happens automatically too... no more running out of stock.
- **Sales, production and procurement** are synced via one database to give one single view.
- **Cut revenue leakage** in real-time, not when you notice a pattern post-manual reporting.
- **Accounting is integrated** so you can retrieve financial reports instantly.
- **Business intelligence & forecasting** don't take hours, days or weeks. Your ERP uses real-time data for faster decision-making.
- **Stakeholders gain greater** workflow visibility across the business with one single view.
- **One of the overarching** messages you'll hear from ERP vendors and their customers is the benefit of combining automation with the breaking down of silos.



"The biggest challenge for manufacturers is workforce management on the shop floor"

DON VALENTINE
Commercial director at Absoft

Helping British businesses grow since 1981.

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sage Business Cloud

Enterprise Management

DIGITAL MANUFACTURING



BURBIDGE | HOW BURBIDGE KITCHENS MADE COMPLEX PRODUCTS EASIER TO DELIVER WITH SAGE

BURBIDGE is a fifth-generation manufacturing business employing 75 people. Over the years, Burbidge has made everything from cricket stumps to automotive parts but today the company specialises in manufacturing and distributing premium quality kitchens to the independent retail sector across the UK.

THE CHALLENGE COORDINATING MANUFACTURING & DISPATCH

Financial director Graham Heaven explains how Burbidge's Sage Enterprise Management deployment has become rich and diverse, supporting many parts of the business: "We use many modules within the Enterprise Management platform. We have a fairly complex challenge, having to manufacture and despatch to order, and also supply and distribute both from stock and made-to-order products." Coordinating both sides of the business is critical because the product that Burbidge supplies is a unique manufacturing proposition."

THE SOLUTION SAGE BUSINESS CLOUD MOULDS TO FIT BUSINESS NEEDS

A Burbidge kitchen is often made up of many premium bespoke component parts. Heaven continued: "We're effectively supplying a kit of parts and we sell those parts literally kitchen by kitchen to our retail base. In terms of ensuring the availability and coordinating the despatch of all those parts, it is a complex business and the Sage solution we have is well suited to ensuring that we're able to achieve a very efficient operation. I think that's one of the great qualities of the software. It can be moulded to fit your business rather than your business having to be moulded to fit it."

THE RESULTS ADAPTABLE ERP SUPPORTS NEW & COMPLEX PRODUCT LINES

Heaven goes on to explain how the solution has become a key competitive edge and helped shape the direction of the company: "Obviously, operating in a manufacturing environment where you are spraying specifically to many differing customer requirements – particularly on a small number of units – is quite complex when you are set up to manufacture in bulk and supply a stock situation. But Enterprise Management has proved adaptable enough to meet that challenge whilst still allowing us to manufacture stock items too. We've been able to do what we want as a business and the software has fully supported us."

Rob Sinfeld from Sage gave us a real-life example: "I'll always remember a particular manufacturing company that I was implementing an ERP with. They told me they were highly joined up, and they were. They had a shop floor. They had an admin building on one side, their distribution centre on the other side, and the shop floor in the middle. The orders came in and physically moved through the chain. They built it that way.

"The trouble was that the shop floor was well over 250 yards long. The production manager often had to sprint across floor to tell the distribution guys there was an issue or that something was late. He was running marathons. They implemented an ERP, and for the first few weeks he was still running across the shop floor because he hadn't learned to trust the system yet.

"But soon, because of the new collaboration, workflow and visibility the ERP gave him, he stopped running. It changed behaviours and broke down the silos but also made him, and the production line, far more efficient. Instead of running marathons, he was able to focus in on the procurement process and planning."

The truth about emerging tech: RPA, IoT, AI, AR, ML and other trends

I asked ERP experts which of the myriad emerging technologies are most useful for their manufacturing clients today. The truth was quite illuminating. The one thing everyone agreed on was that 'readiness' is key. *Read Paul Esherwood's editorial on 'Business Readiness' elsewhere in this issue of ERP Today.* That you should be thinking about which business goals will be aided by which technologies. Naturally, that looks different for every manufacturer. But otherwise, everyone had different viewpoints based on their own experience and the kind of manufacturers they serve.

I wanted to cut through the hype and find out what the experts think manufacturers should be ready for. Here's what I learned...

Antony Bourne, IFS: "You can't lump all manufacturers into one category and ask 'what's best for manufacturing?'. If you're a company that's in repetitive manufacturing then it could possibly be an RPA or machine learning tool to help you be more efficient.

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sage Business Cloud

Enterprise Management



DIGITAL MANUFACTURING



MORGAN | MORGAN MOTORS INCREASES EFFICIENCY BY 30 PERCENT WITH IFS

ESTABLISHED
in 1909 by H.F.S. Morgan, the Morgan Motor Company is an iconic British automotive manufacturer, famed for creating sports cars that boast a unique blend of craft, heritage and pure driving experience.

THE CHALLENGE **SILOS AND CONFLICTING DATA**

As the company evolved, Morgan found itself in a position where it had four different systems and eight different databases each working in isolation. This created a situation where inaccurate and, quite often, conflicting data was holding the business back. Morgan went to market looking for a system that could handle finance, business analytics, procurement, service, configure-to-order manufacturing, sales and spare parts. “We carried out extensive research into the systems available within the market, IFS Applications™ was the only system we could find that was able to manage all of the day to day requirements of the business,” notes Graham Chapman, technology director, at Morgan.

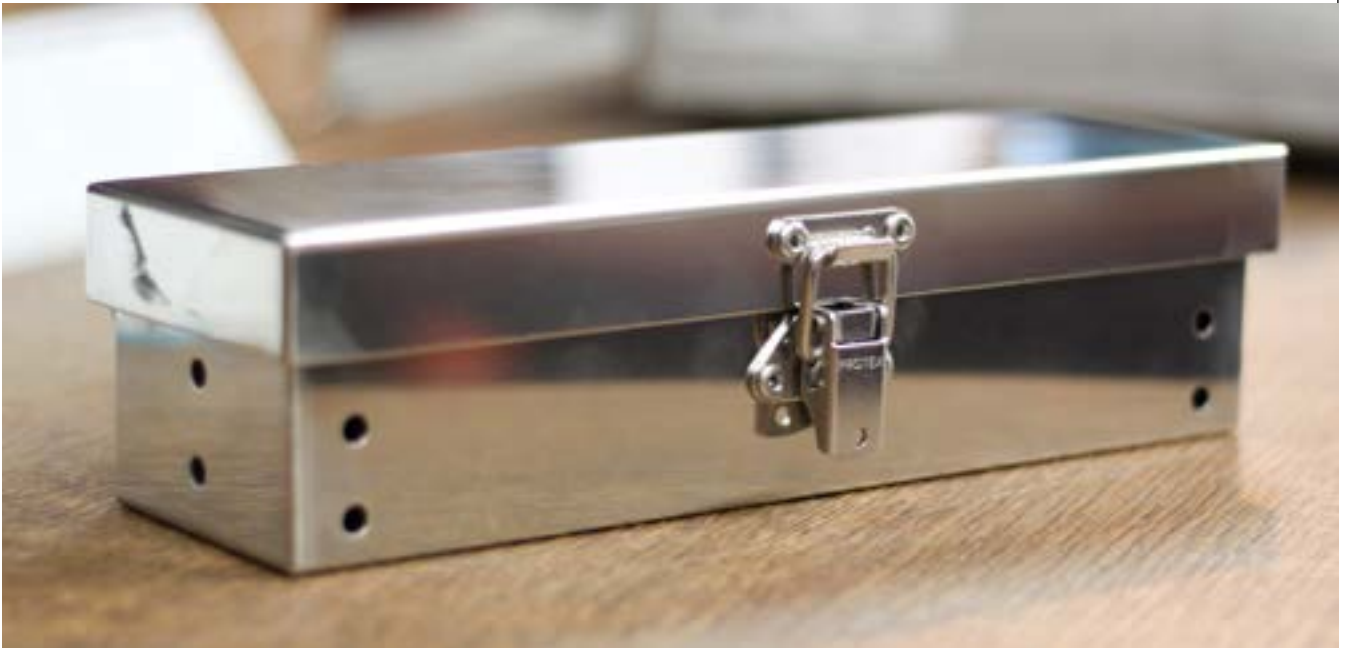
THE SOLUTION **A CHANGE MANAGEMENT JOURNEY**

With the full support of IFS throughout, Morgan has a team of people who fully understand the functionality and power of IFS Applications. “My advice for people looking to implement a new system is to actually understand the state of your business today before trying to move forward. You need to understand where you’re starting from and then you can go forward and correct the necessary issues, whether it’s at system level or operational level,” notes Chapman.

THE RESULTS **MASSIVE EFFICIENCY GAINS**

Chapman estimates that Morgan’s employees will gain 25-30 percent in additional time. But the real value gain, he says, is that orders will be more accurate. “When it comes to configure-to-order, for every customer we know exactly what’s going into that vehicle and that translates into our legal requirements for the sale of that car. Before IFS Applications we wouldn’t have been able to do that.”

- Consolidation from eight systems onto a single platform
- 25-30 percent increase in staff time efficiency • Increased customer satisfaction
- More accurate data throughout the business
- A final product that lives up to expectations buyer expectations
- Unique car specification job process reduced from hours to seconds



PROTEX | PROTEX FASTENERS TRANSFORMS SHOP FLOOR EFFICIENCY WITH UNITY ERP

PROTEX FASTENERS

transform shop floor efficiency with Unity ERP's Shop Floor Data Collection. Protex Fasteners began trading in the 1950's. Today it fulfils orders to customers in the UK and across the globe. Its standard catalogue range carries over 700 items; including light, medium and heavy-duty adjustable fasteners, latches, handles and bandclamps. A 'made to order' service is also available.

THE CHALLENGE

PROCESSES THAT KEEP UP WITH BUSINESS GROWTH

As business growth continued, it became clear that resource planning had to be improved to provide greater shop floor efficiency and prevent delivery promises from slipping. Protex was looking to improve internal processes, including ledgers, MRP, payroll, stock control, work in progress (WIP), sales and purchase orders and time and attendance (T&A).

Howard Cooke, managing director of Protex Fasteners described the business change he needed to achieve.

"Our shop floor data was collected and calculated manually which was slow and subject to human error. We needed to manage information to get a clear view of what was happening, so we could calculate cost and capacity accurately."

THE SOLUTION

REAL-TIME DATA COLLECTION MODULE AUTOMATES SHOP FLOOR

The company had used a prior Sanderson system to manage its business since 1992, and as it considered a move to Unity ERP the company reviewed the market. Cooke recalls: "We looked at competitors and couldn't find any that rivalled either the Sanderson software or their expertise. "We worked closely with Sanderson to configure the Shop Floor Data Collection module to automate collection of this data in real-time. Since it went live we haven't looked back."

THE RESULTS

ACCURATE PLANNING BOOSTS CUSTOMER SERVICE

With the help of their new system, Protex fixed their capacity planning and reaped the rewards of greater visibility:

"Now that planning has become meaningful, we know exactly what capacity we have, so we can plan and cost accurately. Improving our internal efficiency has enabled us to supply orders on time, thus we've also improved our customer service. Our ability to manage operations has improved dramatically thanks to the dynamic IT and support services Sanderson have available", said Cooke.

DIGITAL MANUFACTURING



But if you're producing a product and you want to servitise it, then IoT might be more useful. For some, it could be that the cloud is the biggest hurdle they need to get their minds around. There is no one thing to fit all. The key is to focus on desired outcomes first."

Don Valentine, **Absoft**: "The biggest challenge for the manufacturers we speak to is workforce management on the shop floor. Ruggedised tablets collecting real-time data reduces paperwork, speeds up processes and decision-making. This means manufacturers can grow with the same sized workforce they have today.

For some of our customers, this is more important in the here and now than RPA and other emerging tech. But those technologies are coming - and if you don't have the right solution now you won't be ready to scale when the time is right."

Paul Hughson, **Sanderson**: "The next logical step, in my mind, is the Internet of Things. You implement your ERP and suddenly you've got this whole raft of information that you've

never had before. ERP is becoming an intelligent tool and IoT can help to better interface with the machines on the shop floor. Not just capture barcoded information and keyed in information, but actually take readings from the machines themselves.

Suddenly you're improving both your customer experience and your shop floor visibility. Now you can see what's happening in the factory while you're away, freeing you up to travel or focus on other areas of the business. It's an enabler to growth."

Rob Sinfeld, **Sage**: "I think that's where you're going to see the biggest impact on manufacturing. People seem to get bogged down by this idea of technology for technology's sake. I often get asked, oh, should we be implementing IoT? I have to ask, 'do you just want to say that you have it or do you want IoT because you're trying to address a specific problem? Do you want to know where a forklift is? Do you want to know where a pallet is?'

"IoT is valuable to those who need a certain set of outcomes but not for every business. One area I think is particularly interesting is AR. In the near

future, Augmented Reality will help machine operators that don't necessarily see what's happening inside of the machine. They'll be able to get a virtual view because the sensors will be telling them what's going on with a virtual view. They'll know what needs to be done, and they can see with their eyes and interact with the world around them to make corrective actions."

Whether you're considering your first ERP, a change of vendor or upgrade to the cloud or IaaS as an innovation on top of your existing platform, the first port of call is identifying your outcomes. This has to happen way before you create a shortlist of solutions to send out your RFP to.

We've gathered case studies showcasing a variety of manufacturing businesses and how their ERP has brought them in line with their short and long-term goals. You'll also find a list of vendors with short product overviews to help you identify platforms that best fit your aims. ■

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We know what it takes to run a large business on these shores. We know when people, processes, and technology are aligned you can focus on growth. We've been helping UK businesses steer through change since 1981—and we're here for the challenges ahead with the kind of support only a UK-based business, like Sage, can offer.

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Enterprise Management

DIGITAL MANUFACTURING

THIRD-PARTY AND SUPPLY CHAIN RISK

IN MANUFACTURING

BY ANNA MAZZONE*

Due to the nature of the industry, manufacturing has been dealing with supply chain and third-party risk (TPR) for much longer than financial and services industries and, as such, already has a foothold on managing it. Traditionally, financial firms have sourced everything in-house and didn't use vendors critical to delivering products and services. In manufacturing, the volume of vendors can be high and up to a million providers. The key challenges in managing third parties lie in understanding and managing the risks of the entire supplier portfolio and mitigating any identified risks and their impact on the supply chain.

When organisations conduct due diligence on a third-party supplier, it reveals the risk profile at that specific point in time. In a tea manufacturing business, the organisation will send an auditor out to the tea plantation to determine if there are issues associated with health & safety, labour practices, or environmental stability. The challenge for the tea grower is really understanding on-going business practices of the tea grower. Prior to the day the auditor arrives, the farm will have been notified of the inspection, a date agreed, giving plenty of time for preparation. What really concerns a large organisation, is the usual business practices while they are not 'being audited'. Therefore large enterprises today are working to identify ongoing monitoring processes to ensure they are not exposed to disruption in the

supply chain or reputational damage that may be caused from poor labour and environmental practices. There is a drive in the manufacturing industry to find a way for real time reporting and visibility across their third-party and supply chain ecosystem.

To keep on top of these risks, businesses should utilise technology to manage on-going risk monitoring and reporting throughout the enterprise. This will enable an account management team to manage the third parties against SLAs and KPIs, key criteria for measuring how the third party is supporting the business. Regular monthly or quarterly reporting to a governance board can also be easily conducted for each supplier.

Increasingly, more manufacturers are looking at indirect supply chain risk, which involves identifying risk



associated with the fourth- and fifth-parties and monitoring them for a change in their risk profile. A large organisation may be making promises as to the quality of a product, but without vetting its supplier's suppliers, i.e. fourth parties, there may be risk to stand behind these claims associated with the brand, particularly when a firm is highly dependent on a fourth or fifth party in delivering that product. Monitoring weather disruptions is important to identify delivery risk in the supply chain. Integration between extreme risk protection orders (ERPO) and risk management platforms enable organisations to make maps of where services are coming from and switching to alternative suppliers to source products to meet the continuous delivery schedules.

Tracking and on-going monitoring of third parties and the entire supplier ecosystem is still in its infancy. Enterprises are moving quickly to improve the maturity of their third-party risk and performance management programs, driven in many cases by the Board and Executive Leadership who now recognise the long-term impact a third party's poor performance can have on their brand, reputation and valuation. ■

“The key challenge in managing third parties lie in understanding and managing the risks of the entire supplier portfolio”

*Anna Mazzone is managing director and general manager UK & Ireland at Metricstream.

TECHNOLOGY IS TACKLING THE PROBLEM OF DEMAND UNPREDICTABILITY

Pam Wilde, marketing director at QAD writes on the subject of unpredictable demand and looks at the new innovations which are driving elasticity in the supply chain.

Europe's flagship football competition, the UEFA Champions League, is reaching the exciting final stages. And who could have predicted that Manchester United would have got through the first stage knock out round with an injury time 3-1 away win at romping French champions, Paris Saint Germain.

I wonder how many extra beers were ordered in celebration, how many extra shirts, and the impact on attendance at upcoming matches was changed by this one late penalty goal? None of which was anticipated with time well up on the clock.

This illustrates how unpredictability is prevalent everywhere, not least in consumer behaviour. And the manufacturing industry, driven by customer behaviour and consumer demand, has similar predictability challenges.

Manufacturing and the supply chain operate in an ever-changing environment. This dynamic environment in-

cludes the influence of external factors such as traffic accidents, bad weather, and strikes. All of which impact on plant output and the quickly shifting political landscape. Historically, inventory has buffered the peaks and troughs of supply and demand so that manufacturers could produce at a steady rate. But in attempts to minimise inventory to free up space and money, it is now widely accepted that holding more inventory to cover unforeseen events is not a viable strategy.

Enterprise Resource Planning. ERP software is essential to enable manufacturers to run their plants efficiently and effectively. Historically, on-premise solutions prevailed but these are being replaced by the more agile cloud-based ERP solutions. One key advantage of these, in addition to letting the manufacturer use the ERP solution to focus on their core strengths, is the ability of cloud ERP solutions to integrate with other cloud solutions and provide a modern interactive user experience.

Data Analytics. A few years ago, big data was the buzz word of the moment, with many companies left wondering how to gather, analyse and optimise all the data available to them.

Fortunately, tools and analytics products are now available which can consolidate data from multiple sources to provide new insights into demand patterns, product quality, purchasing and even equipment maintenance.

Predictive Maintenance. By using the insights from data analytics manufacturers are able to monitor production equipment performance more

accurately and predict when individual machines require servicing or maintenance procedures. This allows manufacturers to switch from time or usage-based maintenance schedules to a predictive approach.

Cobots. Automated robotic workers, known as collaborative robots, or 'cobots', are seen as being more flexible and more productive than the classic robot, which requires more extensive safety protection. Instead of needing separating from the existing workforce, cobots can work directly alongside human workers through the use of sensor and control elements.

Artificial Intelligence / Robotics Process Automation (AI and RPA).

RPA is best suited in processes that handle significant amounts of data and have a clear workflow or processes. Whilst physical robots have been used by manufactured in operations such as assembly, testing and packaging, back-office operations are where manufacturers are now seeing great benefits from RPA technology.

3D printing. Also known as additive manufacturing, 3D printing is well suited to low-volume discrete part manufacturing. Whilst slower than most conventional processes, additive manufacturing approaches used tactically can consolidate manufacturing steps and eliminate delays due to setting up tooling requirements, thus enabling shorter lead times to be realised.

Augmented Reality. Augmented reality (AR) uses digital technology to produce displays of real-work scenes. Using this imagery can reduce the need for specialist support and enable equipment maintenance to be completed quicker, reducing downtime.

Handling a Fast-moving World. The days of predictable demand and dependable supply are long gone, which is forcing manufacturers to adapt quickly to unforeseen changes. Fortunately, the new emerging technologies, from ERP solutions to AR, help businesses address uncertainty and handle the unpredictability that is the new norm. ■





	EPICOR ERP	ORACLE NETSUITE	IQMS ENTERPRISE IQ
PRODUCT NAME			
BUSINESS SIZE SUITABILITY	S, M, L	M, L	S, M, L
DEPLOYMENT	Cloud & Infrastructure	Cloud & Infrastructure	Cloud & Infrastructure
PRICING	££	£££	££
VENDOR OVERVIEW	<p>EPICOR ERP offers a comprehensive range of services tailored to the manufacturing industry. With 40 years in the field, Epicor offers a trusted name and modern features – including AI-based reporting and a comprehensive compliance module. The focus of this ERP is to increase productivity and agility.</p>	<p>NETSUITE'S offering is aimed at medium and large enterprises that manage complex supply and manufacturing processes on a global scale. They offer a suite of solutions to various manufacturing sub-sectors. In addition, they offer customisation options and support including consultancy to assist in transitioning to the platform.</p>	<p>IQMS ENTERPRISE IQ ERP is dedicated to the needs of manufacturers. Its offering embodies the standard modules needed to manage a manufacturing entity but has fine-tuned through specialisation. IQMS' product can be deployed to manage global supply chains and plants.</p>
CORE BENEFITS FOR MANUFACTURERS	<p>Any manufacturer requiring inventory and distribution management would be advised to explore EPICOR. They offer a range of pricing options and offer a consultancy service to assist in transitioning to the system and for customisation.</p> <hr/> <p>Manufacturing industries benefit from:</p> <ul style="list-style-type: none"> • Enhanced product management • Accounting automation • Compliance management • Supplier collaboration and SCM • Comprehensive AI based reporting • Inventory management • Workload distribution • Cloud based options via MS Azure 	<p>A key aspect of NETSUITE'S offering is its focus on manufacturing and entwining this with commercial aspects of a global corporation.</p> <hr/> <p>As well as standard ERP modules, NETSUITE provides visibility on:</p> <ul style="list-style-type: none"> • Time to market of new products • Order processing • Costings featuring robust cost control options • Quality assurance • Reduce time to invoice • Mission critical compliance 	<p>With its dedication to manufacturing industries IQMS should be on the radar of anyone whose primary focus is to manufacture products on a mass scale.</p> <hr/> <p>IQMS offers:</p> <ul style="list-style-type: none"> • Supply chain management & customer portals • Efficient scheduling and planning • Tailored compliance modules • Inventory management • Workflow management • Cost management to reduce revenue leakage • Alerts set for mission critical business aspects



ORACLE ERP CLOUD

MS DYNAMICS BUSINESS CENTRAL

INFOR CLOUDSUITE INDUSTRIAL (SYTELINE)

PRODUCT NAME

S, M, L

S, M

S, M, L

BUSINESS SIZE SUITABILITY

Cloud

Cloud & Infrastructure

Cloud & Infrastructure

DEPLOYMENT

££

£

££

PRICING

ORACLE ERP CLOUD put a strong focus on a global management chains and have built a system that is ready to adapt to incoming automation processes and blockchain readiness. While Oracle Cloud isn't purely aimed at manufacturers, they have a range of features specifically designed for the industry.

MS DYNAMICS BUSINESS CENTRAL is suited to small and mid-sized operations. Developed by one of the biggest corporations on the planet that shaped computing and workflow practices as we know them, MS Dynamics Nav is not solely built for manufacturers. As with other software giants, they have a suite of features and modules to cater for various industries - including Manufacturing. It's a surprisingly affordable solution providing solid operational management to the right business.

INFOR CLOUDSUITE INDUSTRIAL (SYTELINE) ERP is designed to operate in process and discrete environments. It offers a highly customisable interface and puts a strong emphasis on customer service, allowing customers to enter orders via their own portal. Infor's offering also puts a strong emphasis on generating leads and making sales, together with supply chain visibility tools.

VENDOR OVERVIEW

ORACLE ERP CLOUD has put a strong emphasis on adaptability. This should be of particular interest to manufacturers that feel their workflows & processes are going to change rapidly.

MS DYNAMICS NAV may not be a dedicated manufacturing ERP but has an array of features that fit the bill.

INFOR CLOUDSUITE INDUSTRIAL (SYTELINE) ERP is the company's dedicated manufacturing offering.

CORE BENEFITS FOR MANUFACTURERS

- ORACLE ERP CLOUD** includes:
- Product services development
 - Integrated business planning featuring supply chain, operations, demand, and distribution management
 - Smart solutions designed to monitor performance of individuals and equipment, use smart sensors, improve maintenance cycles, predict demand, and improve inventory management
 - AI reporting and alerts
 - Blockchain readiness

- These include:
- Collaborative tools with the entire 365 suite of applications
 - Dedicated time and cost management
 - Offline management capabilities
 - Intuitive interface
 - AI reporting capability
 - Project visibility

- It offers a comprehensive suite of modules and options including:
- Comprehensive customisation of UI, reporting options and customer service forms
 - Comprehensive lead and sales tracking / generation module
 - Full supply chain tracking including alerts and AI scheduling
 - Suitable for multisite businesses across borders



PRODUCT NAME	SAP BUSINESS ONE	SAGE BUSINESS CLOUD	S2K MANUFACTURING
BUSINESS SIZE SUITABILITY	S M	S M	M
DEPLOYMENT	Infrastructure	Cloud & Infrastructure	Cloud & Infrastructure
PRICING	£££	£	££
VENDOR OVERVIEW	<p>SAP BUSINESS ONE is the small to medium enterprise ERP that brings the excellence of SAP, the most popular ERP in the world to the smaller entity.</p>	<p>SAGE BUSINESS CLOUD is a comprehensive ERP placing a strong emphasis on controlling costs. The cost control element is applied across the business and there are plenty of CRM tools that allow orders to be taken and change existing ones as per the client wishes. SAGE have also looked at staff management and provided modules to better manage workflows.</p>	<p>S2K MANUFACTURING has taken a robust approach to ERP. Although it takes a big picture approach and configured its offering for a range of industries, it does provide specific manufacturing modules to better manage every aspect of operations. It is squarely aimed at the midsize enterprise.</p>
CORE BENEFITS FOR MANUFACTURERS	<p>SAP BUSINESS ONE has several features that are useful for small and medium businesses.</p> <hr/> <p>With SAP, manufacturers can leverage:</p> <ul style="list-style-type: none"> • Dedicated modules to streamlining supply chain costs • Comprehensive business intelligence • Big picture view of operations and supply chain management • Leverage 500 modules designed for various industries • Suitable for multisite across borders 	<p>SAGE BUSINESS CLOUD is more than capable of running a manufacturing operation in its entirety.</p> <hr/> <p>As such manufacturers can leverage:</p> <ul style="list-style-type: none"> • Full cost visibility on every aspect of the business. • Business intelligence on the entire operation • Employee performance management • Virtual team management • Flexibility built into operations modules • Strong emphasis on eliminating unnecessary 	<p>S2K MANUFACTURING is a highly capable ERP. It is designed to promote growth and streamline costs and sits in the middle of a stripped back ERP and one aimed at multinationals.</p> <hr/> <p>Using S2K manufacturers can leverage:</p> <ul style="list-style-type: none"> • Advanced finite scheduling • Good, easy to use operations overview interface • Integrated quality control, inventory management, manufacturing process applications • Staff, material use, batch flow process tracking in real time • Advanced capacity and material requirements planning



QAD ENTERPRISE APPLICATIONS

SAP S/4 HANA

SYSPRO ERP

PRODUCT NAME

BUSINESS SIZE SUITABILITY

DEPLOYMENT

PRICING

VENDOR OVERVIEW

CORE BENEFITS FOR MANUFACTURERS

M L

S M L

S M L

Cloud & Infrastructure

Cloud & Infrastructure

Cloud & Infrastructure

££

£££

££

QAD'S ERP offering is dedicated to the manufacturing industry allowing for discrete, repetitive and lean processes. QAD has put a lot of emphasis on collaboration. Positioning itself as the go-to for businesses with a high number of personnel needing notifications and workflow input.

SAP S/4 HANA ERP utilises smart features to make a manufacturing business run more efficiently. Compatible with SAP Business One, **SAP S/4 HANA** has been designed to leverage AI to automate as many tasks as possible and notifies staff when their input is required. It has AI driven reporting capabilities and offers businesses key insights by leveraging big data.

SYSPRO ERP brings 40 years of experience to the table. They offer a dedicated manufacturing and distribution ERP. Given this wealth of experience and know-how, the company tries to keep their offering as easy to use as possible and flexible customisation options.

QAD ENTERPRISE APPLICATION is a powerful ERP designed to run large scale operations. It could prove invaluable to businesses that need multimode functionality across the business.

It is fair to say that **SAP S/4 HANA** has more than one eye on the future. It has been designed to leverage data and automate tasks effectively taking the load.

As well as utilising the core features of **SYSPRO ERP**, manufacturers can implement Industry 4.0 features which **SYSPRO** has developed.

- Manufacturers can:
- Collaborate smoothly and efficiently
 - Maintain an overview on all business operations
 - Make use of advanced scheduling tools
 - Leverage big data
 - the system automatically captures a vast range of data
 - Keep compliant
 - the system accesses compliance information and relays it to those that need it

- Using the ERP, manufacturers can leverage:
- Advanced business intelligence gaining insights into each aspect of the operation
 - Collaborate easier and speed up workflows
 - Automate large swathes of the business freeing up time of staff
 - Make workflow faster through notifying staff when input is required
 - Keep compliant with legislation. S/4 Hana is designed to operate in a closed loop to be onboard with ISO
 - Cloud based options available

- This results in:
- Manufacturers leveraging smart insights to achieve full business optimisation
 - Automation of repetitive tasks
 - Utilising APIs for better efficiency
 - Leveraging AI insights of data
 - An ERP customised to your requirements



PRODUCT NAME	IFS MANUFACTURING ERP	GLOBAL SHOP SOLUTIONS	ODOO
BUSINESS SIZE SUITABILITY	S M L	S M L	S
DEPLOYMENT	Cloud & Infrastructure	Cloud & Infrastructure	Cloud & Infrastructure
PRICING	£££	££	£
VENDOR OVERVIEW	<p>IFS has created an ERP that is designed to operate in more demanding environments. This makes it ideal if you need an ERP where intensive traceability is a must-have feature.</p> <p>IFS has put emphasis on AI assisted reporting and their modular system can be implemented gradually to help ease transitional issues. As well as the complex, IFS can handle the standard manufacturing plant processes.</p>	<p>GLOBAL SHOP SOLUTIONS ERP has practical features that streamline workflows and provide operational overviews. Global Shop integrates with third-party software such as CAD - allowing data to flow between the two. The system has several other bolt-on applications that manufacturers can choose to enhance operational efficiency.</p>	<p>ODOO is not so much a dedicated manufacturing ERP but a vast collection of open source apps. Theoretically, it could be possible to put together the right apps to create a good manufacturing ERP tool.</p> <p>There are thousands of apps to choose from if you have the right team to develop it.</p>
CORE BENEFITS FOR MANUFACTURERS	<p>IFS MANUFACTURING ERP is designed to simplify complex manufacturing tasks.</p> <hr/> <p>This makes it ideal to:</p> <ul style="list-style-type: none"> • Place intensive compliance and traceability requirements on products made • Fabricate from raw materials • Handle multimode requirements • Ease implementation through adding modules gradually • Leverage AI assisted reports for better business decisions 	<p>GLOBAL SHOP SOLUTIONS will be of particular interest to manufacturers that fabricate their own parts or use complex manufacturing processes on a day to day basis.</p> <hr/> <p>As such, manufactures can leverage:</p> <ul style="list-style-type: none"> • A system purpose built for complex manufacturing processes featuring third party integration • RFID and other process improvement technology • Collaboration and alert tools • Advanced reporting and version control tools • Time management and budgeting operational tools 	<p>ODOO is a low cost solution to running a manufacturing business. Due to its hybrid nature it will not suit every business. It is worth investigating, however, as it just might have the right collection of apps to keep a business running smoothly.</p> <hr/> <p>ODOO features:</p> <ul style="list-style-type: none"> • A vast collection of apps to improve business workflows and efficiency • Customisable by design • Dedicated manufacturing apps available, many feature free trials to assess suitability • Only pay for the apps needed to run the business • A large community of devs releasing free and paid apps



ROSS ERP FROM APTEAN

WINMAN ERP

UNIT4

PRODUCT NAME

BUSINESS SIZE SUITABILITY

DEPLOYMENT

PRICING

VENDOR OVERVIEW

CORE BENEFITS FOR MANUFACTURERS

S M L

S M L

S M L

Cloud & Infrastructure

Infrastructure

Cloud

££

££

££

ROSS ERP focuses on bringing customers online as quickly as possible.

Given the nature of this type of manufacturing, this ERP has powerful traceability modules and puts a lot of information at a manager's fingertips.

WINMAN ERP offers a range of options for different types of manufacturing business. This makes it a viable solution for multimode manufacturing operations, easily slotting into a business to help run it more efficiently.

UNIT4 positions itself as a people centric ERP. As such, it doesn't specialise in the manufacturing sector. Nonetheless, its offering is dedicated to streamlining workflow and maximising efficiency. Where possible, it removes admin tasks using sophisticated AI.

ROSS ERP claims to be the best operations management ERP for recipe and formula-based manufacturing businesses.

It offers:

- Dedicated modules/ applications to run a manufacturing business of this type as efficiently as possible
- Gives instant access to real time business intelligence including profit/loss
- Powerful recall and traceability tools
- Quality Assurance tools
- Enhanced BOM functionality taking into account the complex nature of recipe and formula-based manufacture

WINMAN ERP offers a comprehensive base for various manufacturing industries.

The core modules are dedicated to making a plant run more efficiently and include:

- MRP and inventory management
- Shop floor efficiency modules
- Scheduling and planning
- Resource planning
- Engineer manufacturing and configure to order manufacturing process support
- Batch process support

UNIT4 provides a good solution to a manufacturing business and tries to remove and automate time consuming admin-based processes.

Benefits include:

- Streamlining workflow through visibility and removing or automating routine admin tasks
- Smooth supply chain management
- Resource and staff management applications
- Good overview tools to make better business decisions
- Integration with other non-manufacturing ERP modules

WE ARE ERP TODAY

ERP TODAY is a small group of very dedicated people on a mission to bring ERP and purposeful technology to life. If you would like to join our team, please take a look at our job opportunities elsewhere in this issue.

We are keen to hear from people with ideas for future articles and features so if you have something interesting to say on any of our topics, please get in contact with us.

ERP TODAY doesn't publish any paid for editorial and all ideas, comments and submissions are considered on their editorial merits

PAUL ESHERWOOD EDITOR

I started my career in publishing more than 20 years ago and for the last ten years I have been running a small consultancy that does ERP project implementation work. I believe that technology can change the world but technology for its own sake is pointless and more effort should be spent developing tech with a purpose. When I am not writing about ERP or resourcing an ERP project, I can be found in a tent fishing.



GEORGINA ELRINGTON DEPUTY EDITOR

From 1998 I spent ten years in public relations for B2B technology and communications companies before jumping over the fence to write and edit for high profile tech trade press. When I'm not thinking about technology advancement for enterprises, you'll find me working on a never-ending French house renovation or landscaping the garden while daydreaming about my next desert island adventure.



Meet THE

VICKI WRIGHT CHIEF ORGANISER

I've worked with Paul in his other ERP business for the last five years and I am married to an ERP man - I live and breathe ERP! However, I try to avoid talking about technology and spend most of my time making sure everyone else knows what they are doing and where they should be. When I'm not organising events, chasing agreements or managing Paul's diary I very occasionally get five minutes to read my book.



CECILIA PERRIARD HEAD OF DESIGN

Based in Buenos Aires, I have inhabited the world of publishing since the late 90s, having worked for Newsweek, Reader's Digest and Forbes Magazine, among others.

Print media is fighting hard to stay relevant in digital times and a simpler reading experience might just be the answer. ERP Today was designed with that premise in mind. When not worrying about the future of print, you will find me chasing the next pair of trainers to add to my ever growing collection.



HELEN PEATFIELD FEATURES WRITER

Since leaving my advertising job in London five years ago, I have been writing for enterprise software and IT services readers around the world. When I'm not at my desk rebelling against grammar rules, I can be found scuba diving and falling off of wakeboards in the sunny Gulf of Thailand.



ERP TODAY has enlisted the help of global leaders with unique experience and insights to help shape our editorial. Each member of the committee has provided their services on a pro bono basis, to help **ERP TODAY** bring its readers up to date and credible commentary on the issues that most affect business leaders.

You won't see self-promotion from any of our committee members; they are all as committed as we are to provide our readers with the best information possible, written in a way that is accessible for all.

We are still looking for two additional people to join our editorial committee to cover **Industries** and **People**. Each role is for a tenure of 12 months, after which we will welcome new committee members to the team for each topic.

If you are interested in joining us or would like to find out more, please say hello.

**BOB EVANS
VENDORS**

Bob is an expert analyst and commentator covering the digital revolution. He reported directly to Larry Ellison as Oracle's chief communications officer and is also the former VP of communications at SAP. He also runs his own 'Cloud Wars' franchise of news, analysis and top 10 rankings through Evans Strategic Communications.



**CATHY COBEY
AI**

Cathy is EY's global trusted AI advisory leader. She leads a global team that considers the ethical and control implications of AI and autonomous systems. Cathy leverages her unique background as a CPA to consider the full spectrum of technological and societal implications in intelligent automation development.



T Team



**STEPHEN JAMIESON
INNOVATION**

Stephen is head of SAP Leonardo, UK & Ireland. He leads the innovation function at SAP where he works with organisations to improve performance and find new markets through the use of digital technology and design thinking. He also leads SAP's global initiative to help reduce plastic waste from the supply chain.



**ZARA NANU
DIVERSITY**

Dr Zara Nanu is a leading voice in driving fair pay and inclusion through intelligent tech and AI. Wielding extensive diversity and inclusion expertise developed throughout a remarkable career, Zara has taken on the task of linking data science, technology and the drive to close the gender pay gap and build fair pay into the future of work.



**IAN SMITH
DLT**

Ian is the CEO of Gospel Technology and an experienced technology executive. While gaining a wealth of experience working in enterprise business, Ian noticed a clear disconnect between how businesses use their data and how they collaborate. He founded Gospel to help solve this issue and enforce the fundamentals of the ethical use of data.

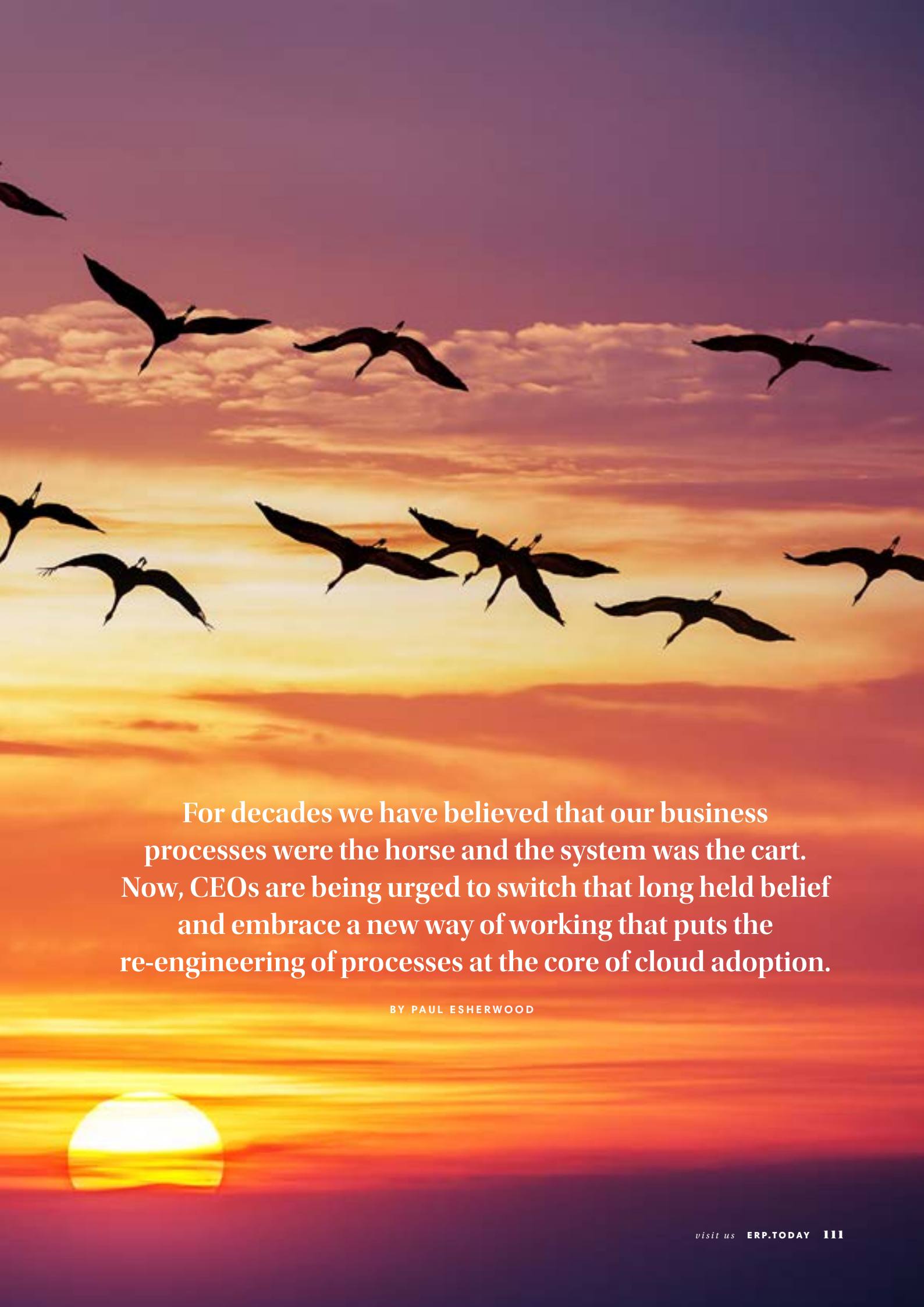


**TONY SUMMERS
PUBLIC SECTOR**

Tony is the chief executive of Socitm Advisory, the commercial services arm of Socitm - the professional network for digital leaders in the transformation of public services. Tony has spent over 37 years working in the public sector, is a qualified public sector accountant and former COO in the criminal justice sector.

A vibrant sunset sky with a gradient from deep purple at the top to bright orange and yellow at the bottom. Several birds are silhouetted against the sky, flying in various directions. The text is centered and reads:

Are you
Ready
to get ready
for the
Cloud?

A sunset sky with silhouettes of birds in flight. The sun is low on the horizon, creating a warm orange and yellow glow. Several birds are flying across the sky, their wings spread wide. The sky transitions from a deep orange near the horizon to a darker purple at the top.

For decades we have believed that our business processes were the horse and the system was the cart. Now, CEOs are being urged to switch that long held belief and embrace a new way of working that puts the re-engineering of processes at the core of cloud adoption.

BY PAUL ESHERWOOD

ARE YOU READY FOR THE CLOUD?



IAIN FOX
CEO
KPMG

ject and those who view it as such are unlikely to derive the most benefit from the exercise. Iain Fox, CEO at **KPMG** agrees and said: “Organisations that consider it an IT project are likely missing the bigger picture of what a business transformation could mean for their future success, and in many ways, their survival. Cloud adoption is a component of a business transformation initiative: to transform their customer experiences, operational processes and business models.

“It’s often a case of helping our clients understand the value that a cloud-based digital platform will bring to their organisation and then demystifying the steps and costs involved in delivering it. This can be done as a one-off exercise but is also a focus within the first phase of a ‘KPMG Powered Enterprise’ engagement; our proprietary approach to accelerating the path to business

ported by the system, driving through an ‘if not, why not’ style of change and challenge. Depending on the type of engagement and customer, we may run ‘user story’ scenarios where we start looking at what the expected outcome is, and then define what is needed on and off system to realise that outcome. Limited gap analysis is performed as this tends to trap us in conversations which discuss the legacy process and the common statement ‘because we have always done it that way’ can get in the way.

“In order to ensure you are able to maximise your benefits from moving to the cloud, there are three areas of key focus;”

- **Streamline and simplify** processes to ensure they are as efficient as possible.
- **Align to the processes** delivered by the system. Straying too far away from standard ‘best practice’ increases

Unlike all previous business-enabling innovations, cloud offers – in fact demands – a new way of working for those companies and individuals who wish to exploit its many advantages. The notion of adopt not adapt – a key mantra for our contributing editor, Tony Summers, could not be truer when considering moving One’s applications and infrastructure to the cloud. It is not simply that cloud is a different environment and therefore some change should be obvious; the fundamental principles of cloud applications require a business-wide and cultural transformation in order for its many advantages to be realised.

Whilst it’s true that physical migrations can be rapidly deployed, the organisational change required to support a successful migration can be complex and getting to grips with the concept of change is a bedrock of moving your applications and IT estate to the cloud. Cloud migration is not another IT pro-

“Show me an organisation that doesn’t want to cut costs, become more efficient and have the ability to ramp up and down on demand and I’ll show you a Midlands-based car maker from the 60s”

transformation via a combination of leading practices and processes, proven technology solutions and a next-generation delivery framework.”

Putting business processes – aligned to what the solution can support – at the forefront of your strategy rather than customising the solution to fit existing processes, is a fundamental pillar of cloud adoption. This re-engineering of processes which may have evolved over many decades must be central to any cloud strategy and Chris Mason, CEO at **Namos Solution** believes that breaking down the barriers of how businesses have been used to operating is one of the first principles of cloud strategy. He said: “The Namos approach to implementing cloud begins with a process, sup-

your costs and efforts to maintain the solution.

- **Create a guiding principle** of a single global design, only supporting divergence where there is a legislative or compliance reason for doing so.

Readiness

You will often hear the term ‘cloud readiness’ being banded around by both small and large consultancies who offer to help you assess what your journey to the cloud might look like. But long before you engage in activity geared towards the technical aspect of cloud adoption, business leaders need to look inwards; they need to take a long hard look in the mirror and ask if their organisation has the stomach for root and branch change – even when the upsides of such a move seem so compelling.

Some CIOs may not like what's looking back at them when they gaze into the proverbial mirror and ask are we ready to embrace the cloud? Not because there is a lack of appetite for new and emerging technologies – show me an organisation that doesn't want to cut costs, become more efficient and have the ability to ramp up and down on demand and I'll show you a Midlands-based car maker from the 60s. The desire to be part of the cloud-glitterati is strong and if you're not already on your journey you would be unwise not to consider the options. That said, true cloud adoption as a fundamental business principal is so disruptive that those who attempt to embrace it must overcome some serious hurdles.

Which flavour cloud should you choose?

There are degrees of cloud adoption and choosing the right level of uptake is the first decision customers need to consider. Some may choose full scale SaaS applications coupled with autonomous databases and public cloud hosting. Others may consider a toe-in-the-water approach which might look something like moving your infrastructure to the cloud whilst retaining on-premise applications.

Understanding the cloud options is an important part of the mix, and by extension, understanding which option is going to offer the most benefit within the bounds of your readiness. In short, there are three options to consider and James Cowe, head of professional services at Google sets them out as follows;

- **IaaS (Infrastructure as a Service)** is an infrastructure-based product which offers the primitives to build your own solutions. Typically, these include capabilities such as compute, storage, networking or database services.

- **SaaS (Software as a Service)** delivers functional end-user capability without any need to 'know' about the infrastructure running it.

- **PaaS (Platform as a Service)** is a middle ground between IaaS and SaaS; typically, a managed offering that lets you deploy your own application code and services but abstracts the infrastructure layer away.



JAMES COWE
head of professional services at Google

“With cloud OPEX models our clients are able to invest in a solution that is the right size for the business”

“Streamline and simplify processes so they are as efficient as possible”



CHRIS MASON
CEO
Namos Solution

ARE YOU READY FOR THE CLOUD?

Cowe said: “Cloud is a viable option for any business today, although the level to which you invest in cloud should vary depending on your needs and goals. A hyperscale cloud provider has the ability to operationalise technology and associated capabilities at a far more cost effective price point than most other organisations; this means every organisation should be considering the benefits of leveraging cloud in some or all parts of their business.

“Taking a simple example, most large organisations have a need for some kind of data warehouse and analytics capability - today it is possible for them to build this capability on-premise themselves, but often the capabilities it brings will remain static in features and become increasingly difficult or complex to manage and scale. Leveraging a cloud offering provides an organisa-

tion with a scalable, fully managed data warehousing capability which is continually updated, improved and secured. The cost to benefit of such an approach tilts heavily towards a cloud solution, and there are many such scenarios in which an organisation should consider moving to the cloud - even if they aren't going 'all in'.

has always been a CAPEX cost which was paid for, and the value realised, over a five, ten or even fifteen years cycle.

Whilst this may not seem like a particularly daunting issue to navigate there are many good reasons why this shift to a cloud cost model will pose some questions and why many businesses are calculating the ROI of cloud incorrectly. If you're a start up or installing new applications the argument for OPEX is simple. However, for established enterprises that have invested in hardware which is in 'mid-term' of its lifecycle, the arguments are more complex. That said, a pay as you go model is something that we have all become accustomed to and even the most CAPEXy investments like aerospace engines are now being utilised through 'Product as a Service' rather than an ownership model.

umes and you have a fixed hardware and infrastructure limitation. You can also match system investment to your activity in the market. For example, compute elasticity and/or temporary business users can scale to meet periods of high demand. Clients should be budgeting for continuous spend on cloud solutions as their needs and businesses evolve. This has the benefit of spreading the investment.”

ROI and TCO

Many CFOs that I have spoken to view ROI as a simple comparison of costs and savings between cloud and on-premise, whereas true ROI from cloud must include an analysis of benefit as well - and not just the obvious upsides. Value drivers that are typically overlooked in ROI calculations include accelerated time to market, improved productivity, decreased provisioning time, greater customer engagement, employee satisfaction and many more soft benefits that are difficult to put a precise number on. Cloud also provides significant value through cost avoidance with integrated assets such as embedded security and uninterrupted up-time. Further, the removal of manual processes decreases the opportunity for human error. We have all been guilty of clicking the wrong button at times, and although most human errors are uncostly, some can be financially devastating and defining for a company's reputation. Determining a value for each of these benefits is not an exact science but should help CFOs see the full 'cloud ROI' picture.

Typically, a TCO analysis is much easier to calculate than ROI and, with on-premise applications and infrastructure, the numbers were plain to see. The difference between a TCO and an ROI analysis is that a TCO defines the costs and savings, whereas the ROI determines the value generated, while taking spending and savings into ac-

“Leveraging a cloud offering provides an organisation with a scalable data warehousing solution which is continually updated, improved and secured”

The Financial Model

Also at the top of page one is something for the CFOs to sweat over; cloud applications and infrastructure are paid for through license agreements which are firmly an OPEX consideration. Whereas, historical IT investment

OPEX flexibility for infrastructure and applications is a game changer as businesses can ramp up or down as market conditions and opportunities change, as Fox from KPMG explained: “With cloud OPEX models our clients are able to invest in a solution that is the right size for the business at the time of initial deployment and then, with confidence, they can build on this as their needs scale and evolve. This scaling can go in both directions: up and down. Conversely, CAPEX models can be restrictive when you come to scale a solution in terms of rolling out new regions, business functions, and transactional vol-

“With cloud OPEX models our clients are able invest to in a solution that is the right size for the business”

count. It's critical that CFOs understand both, and their differences, in order to effectively define the full value of cloud for your business.

However, TCO for cloud is an evolving, fluid set of numbers and although easier to calculate than ROI per se, still only provides the CFO with a narrow view of the financial impact of moving to the cloud. Whilst all ERP vendors would like you to believe that the TCO for cloud is much lower than for installed application - and the headlines costs are - the missing piece from the jigsaw is the likely cost of complex change management. The further you move towards low cost vanilla SaaS applications, the closer you move towards high cost process transformation and training.

Managing the disruption

Cloud by its very nature is disruptive. Generally, the disruption is positive as the term is used mainly to describe the 'disruption' of legacy processes and technologies being replaced with more agile and best in class solutions. However, the disruption isn't confined to delivering new ways of working - the disruption will be felt much closer to home - by employees throughout your business and the customers you serve.

"Integrating your change management practices into every facet of the project is the only path to success."

Mason from Namos, believes that defining an approach that has minimal impact on BAU activities should be a cornerstone of any readiness activity. He said: "Any cloud adoption strategy should be clear about the business drivers for making the transition and the commitments involved in doing so. Customers often look to move their ERP application to cloud in order to stay agile, flexible and competitive but they need to do it without risking business disruption, security, compliance or performance."

Unlike historic IT-system upgrades, where risk, disruption and resource-demand could be ringfenced, cloud adoption does not work within the same confines. It is virtually impossible to leverage value from a true ERP cloud programme without fundamental changes in business processes and working practices. These 'cloud principles' must not only be embraced by the staff who are at the coalface of the ERP

solution, but also by the broader workforce who will inevitably see changes to the way they work and perform their daily tasks.

Fox from KPMG points out that ensuring the technology team, who are going to be most affected by cloud adoption, are in with both feet is imperative: "Migrating to the cloud offers many benefits - flexibility, collaboration, costs and so on - but in order to maximise these benefits, organisations need to carefully consider their technology team's skills, structures and ways of working. Critically, your technology team must buy in to the cloud vision and be the proactive enablers of its execution. This can mean educating, upskilling and bringing in new talent before the migration begins. Preparation is key."

Change Management

Historically, change management in ERP implementations has been an after-thought and always focussed on making employees feel better about using the new software post go-live. Change and training went hand-in-hand with 'user manuals' and internal communications that did little to boost the morale of the workforce and applied a 'one size fits all' approach to training and user adoption. However, cloud migrations require a far more integrated effort to change activities which must be embedded as a core component of any transformation exercise.

Chris Burns head of change at Kainos believes that modernising change management practices to suit cloud principles is a linchpin of a successful and cohesive transformation. He said: "It is no longer adequate for change management to operate as a workstream issuing generic communications and

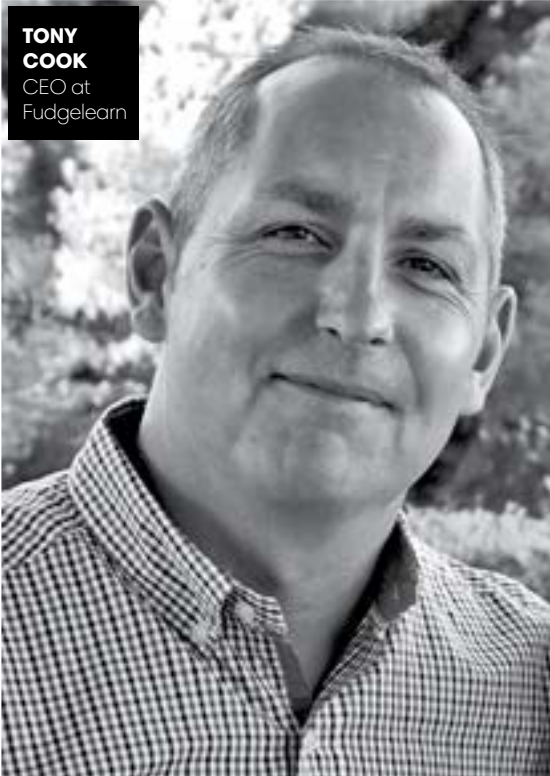


CHRIS BURNS
Kainos

"It's essential that the people impacted by the change are clearly identified and their needs understood"

ARE YOU READY FOR THE CLOUD?

TONY COOK
CEO at
Fudgelearn



“Engage with your business from C-level down to ensure an understanding of the vision beyond the project”

supporting end user training just before go-live. In our modern fast paced world that simply doesn't cut it. Integrating your change management practices into every facet of the project is the only path to success. Change efforts must include plans for identifying leaders throughout the company and pushing responsibility for design and implementation down, so that change cascades through the organisation. The goal of this approach is to build the capacity and capability of the organisation we support. Our aim is to ensure the transformation is integrated into every facet of your organisation to increase the chances of success. It's essential that the people impacted by the change are clearly identified and their needs understood. It sounds like such a simple thing, but this rarely happens effectively. It is all too easy to focus on the process or the plan - things that don't react emotionally. Change should be explained explicitly to individuals including how the change will affect them, their role and the opportunities it opens for them."

Central to the change approach is 'user adoption', a term broadly used to

describe making sure that the people in the business are willing and able to use the solution that has been

implemented. Any successful cloud transformation plan must be blended with the concept of modern user adoption and continuous learning. The skills and methods used to change behaviour and drive cultural change are very different to those needed to build and deliver an ERP system. Meaning that the people who lead and deliver your cloud ERP system may not be - and probably are not - the right people to lead the user adoption program.

Tony Cook, founder of **Fudgelearn**, a training and user adoption company specialising in cloud migrations said: "Communicate, communicate, communicate - engage with your business from C-level down to ensure an understanding of the vision behind the project, the

benefits of the change and the objectives aligned to the business and how this will impact business units and its users. It is vital that this is continued throughout the project and beyond. It should be treated as an internal marketing campaign.

"You can train your business users in a number of ways; starting with your business process owners and key stakeholders to your administrators and then user community. The early stages of this knowledge transfer can be benefited from running physical classes, virtual webinars or hybrid-based workshops, making these very specific to the configuration, processes and enterprise structures. Supporting this learning can be training materials such as QRG's (Quick Reference Guides), manuals or presentations."

Andy Bell, CTO at **Edenhouse Solutions** also believes that user adoption should be front and centre for all businesses when considering a cloud transformation and reiterates the importance of clear and regular communication. He said: "User adoption is key to driving value for the business. To ensure this is successful, clear and frequent communication is critical throughout the entire project lifecycle. More often than not, it is due to ineffectively managing this that leads to project failure. An important aspect of change management, therefore, is to carefully identify all stakeholder groups within the business, understand their needs, and ensure they are specifically catered for as appropriate to their roles or job functions. Individuals need to clearly understand what the project means for them, so defining outcomes and setting clear expectations is essential."

“It is virtually impossible to leverage full value from a true cloud ERP project without fundamental changes in business processes and working practices”



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ARE YOU READY FOR THE CLOUD?

“The key products in modern adoption are contextual help solutions, giving the organisation the ability to place the help within the core ERP applications in real time”

Contextual help driving personal experiences for users

One of the key innovations to come out of modern cloud applications for UX and user adoption is contextual help. A concept readily deployed in customer service environments, contextual help is the epitome of an internal CX solution. Historically, the entire user manual for a given solution was thrust upon end users who were either expected to read and retain the information or search through endless pages of irrelevant information until they found the nugget that they were looking for. By utilising the same principals as the core ERP solution, modern contextual help provides relevant and personal tuition and support to users navigating the ERP system.

Cook from Fudgelearn went on to explain: “The key products in modern adoption are contextual help solutions, giving the organisation the ability to place the learning within the new cloud ERP applications in real time. These solutions give users step-by-step guidance, context sensitive, role-based learning. Following the processes within the system with fully customisable content to support policy and process changes, company-wide announcements enable users to learn ‘on the job’. These just-in-time solutions allow continuous learning; when coupled with a light touch methodology and workshop based specific learning, an agile adoption is secured.

“The benefits from adopting contextual help solutions are numerous, from a huge reduction in operational support costs, to rapid deployment of usability training to suppliers as well as employees.”

Conclusion

Are all businesses ready for the cloud? Certainly not. Will all business eventually join the cloud? Almost certainly yes. To determine where you are on the scale of readiness you really only need to focus on one key area;

Does your management team have the ability and desire to embrace cloud technology and drive the ‘first principles’ from the top down? If the answer to that question is yes, then everything else will fall in behind it. However, if you try to force a cloud solution into a luddite business where management are unsure of the value drivers and are implementing cloud as a vanity project, then you are sure to fail - or at least come up short.

I have been fortunate enough to see cloud ERP implemented beautifully. A management team which understood the opportunity and was able to bring an entire organisation along on a collective journey. Costs cut in half, deployment of fresh ideas at a stroke, customer experience revolutionised, and new business insights gained leading to increased profitability. I have also been party to cloud implementations very much at the other end of the scale where the management team simply did not understand the technology or the guiding principles of cloud and made a complete hash of it.

“User adoption is key to driving value for the business. To ensure this is successful, clear and frequent communication is critical”

Look inwards first. Ask the hard questions internally and then work with a partner that truly understands cloud. As I have said elsewhere in this issue, fundamentally the technology works so don’t be too pre-occupied with the vendor selection process until you have concluded your internal examination and then go forward, boldly, into a new era of the ‘intelligent enterprise.’ ■

IF YOU ARE UNSURE of your options and would like to participate in one of our events that are designed to help CFOs and CIOs understand the opportunities, then look out for our event leaders. ERP Today events are free to attend, and they are structured to help management teams understand the options in a non-salesy environment. We are partnering with many of the world’s leading cloud enablers on various topics throughout 2019 so if you ‘would like to know more’ send us an email to events@erp.today



ANDY BELL
Edenhouse Solutions



Are you a CIO or CFO interested in Microsoft technology and considering your cloud options?

Our events are a great way to share ideas, meet like-minded people and raise the profile of your brand or company.



ERP TODAY is hosting a free to attend event on the subject of Business Readiness with a special focus on the Microsoft product range. The event will include product demos of the

latest Microsoft technology, advice and guidance on how to prepare for your cloud journey and insights from existing users. The event will be supported

by Microsoft experts to help business leaders understand their cloud options and make the best decisions, whatever stage you are at with digital transformation.

This is a free to attend event and will take place in London during June.

IF YOU WOULD LIKE TO ATTEND, PLEASE EXPRESS AN INTEREST BY EMAILING EVENTS@ERP.TODAY

EDITION DATES

2019
2020

UK LAUNCH APR 2019	ISSUE 2 JUL 2019	ISSUE 3 OCT 2019	EUROPEAN EDITION LAUNCHES 2020
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ISSUE 5 SEPT2020	INAUGURAL ERP TODAY AWARDS NOV 2020	ISSUE 6 NOV 2020	



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VENDOR SELECTION

4 steps

CIOs MUST TAKE BEFORE SELECTING AN ERP VENDOR

BY MIKE GUAY*



In the digital era, CIOs have two jobs: business leader and IT leader. But, for many CIOs, the expectation placed on them by their organisations, and in some cases by themselves, has been that they should focus first and foremost on technology.

ERP projects are as much about business processes and organisational change management as they are about technology. Vendor-first ERP strategies often result in poor business value because the business assumes new software and processes will deliver inherent value, and therefore fails to establish measurable value propositions.

When embarking on an ERP initiative, Gartner recommends that CIOs and their organisation start with a strategy before jumping straight to vendor evaluation and selection.

No organisation would spend millions of pounds on a new building, for example, without understanding why it needs to build it in the first place, its proposed use and the benefits the organisation will get from its investment, and without having a plan for how it should be built and maintained. Yet, organisations do this frequently when it comes to ERP investments.

To succeed, CIOs must think strategically and get involved with things such as assessing the organisation's readiness for ERP initiatives, addressing issues around organisational change and culture, determining business value and metrics, and agreeing on how the business will go to tender and what support will look like in the future.

CIOs should take the following four important steps before beginning the vendor selection process to maximise success.

1 PREPARE
CIO must prepare for an ERP initiative by identifying the challenges involved with current ERP systems and determining how investments with an ERP Vendor

can support strategic business goals. Additionally, CIOs should partner with peers to define how their organisation can benefit from the increased flexibility and agility of a new ERP system.

2 ASSESS
ERP projects are risky, complex and significant investments for an organisation. Yet, far too many organisations start their

ERP projects without assessing whether they are really ready to do so. To avoid future problems, CIOs must assess their organisation's readiness for adopting a new ERP strategy then communicate the vision that will bring the strategy to fruition.

3 PLAN
Before taking major action on an ERP initiative, plan for the initiative by partnering closely with business leaders to create a strategy or refine an existing one. Understand current business KPIs and identify metrics for measuring success, and align the strategy to support measurable business outcomes.

4 ACT
Act on your plan by establishing governance, identifying a change management team and creating foundational value documents. Ensure you have nominated executives with the power to drive change throughout the organisation.

Completing the above steps will allow CIOs to begin a vendor selection process that results in selecting the best solutions to support the ERP strategy and larger business strategy.

*Senior Research Director, Gartner

“
No organisation would spend millions of pounds on a new building without understanding why it needs to build it



| PHOTODIARY |

ERP HEAD2HEAD

HOW DO YOU CHOOSE YOUR TECHNOLOGY PARTNER?

Vendor selection is just one hurdle that ERP buyers have to navigate – in this editorial we help CIOs navigate the minefield of product demos and sales pitches.



The ERP Head2Head event is now in its fifth year and back in March the **Lumenia** team rolled into Milton Keynes along with 12 ERP vendors to pitch their products in a structure environment to a variety of end-users who were considering their ERP options.

The event kicked off with four-minute presentations by each of the vendors to a packed room of CIOs, IT leaders and ERP buyers, as they attempted to encourage the audience to participate in their product demos to be held later in the day. The one

thing that was most striking about the pitches was that they all seemed quite happy to admit that there were very few differentiators between the product stacks. Several commented that “all the ERP systems here today can do a job for you” so it really comes down to finding a partner that understands your business and a team that you want to work with. I think the messages would have been slightly different if the vendors had been pitching directly, but the demos were mainly led by partners, with the exception of **IFS**, **Unit4**

and **Infor**. Our view is that there are many differentiators between the products, and I think it was a bit of a miss by some partners to lump all ERPs together and focus solely on the delivery of the product rather than the product itself.

The event was organised seamlessly by the **Lumenia** team and Sean Jackson’s keynote on ERP readiness was spot on. Jackson highlighted the key traits of a company and its culture which lead to success or failure, and the recognition in the room was palpable as many customers started



to realise where they were on the readiness scale. If you are considering an ERP project, I would urge you to get a copy of that presentation as its probably the best I have seen when it comes to identifying the traits of those who are likely to succeed and those who will endure ERP misery.

Over the course of the two days I spoke to dozens of ERP customers – mainly mid-market manufacturers and makers of things - with an all too familiar story. Their current system was creaking, it was highly customised, hated by most of its users

and generally provided more problems than solutions. They all accepted they needed to modernise their systems and processes but were concerned that the narrative around cloud first principles was going to be a serious challenge for them to embrace.

If SaaS applications are going to become mainstream, there needs to be a realignment. Either, the vendors need to push PaaS and IaaS more or some sea-change in thinking from customers, because the SaaS ideology isn't quite matching up to the reality - especially for smaller more

traditional businesses. Of the hundreds of ERP buyers I have spoken to over the last year, very few are willing or able to follow the vendors' lead on process re-engineering and until something significant gives I think full scale SaaS adoption rates will remain relatively low.

The next **ERP Head2Head** event is in the Netherlands on 18th and 19th of June and after that the **Lumenia** team take their event to Dublin in October. If you are at a cross-roads on your ERP journey I recommend you get along to one of these events. ■

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VENDOR SELECTION

How to make sure your vendor selection process is as robust as the system itself and avoid the common pitfalls of choosing an ERP partner.

BY PAUL ESHERWOOD

Selecting the right technology partner is a complicated business. If you take the view that all ERP vendors know what they are doing, and in the main, their technology works – how do you choose between products with very similar narratives?

In some cases, trimming the list of possi-

ble ERP partners to a manageable group is easy. If for example you are a manufacturer, certain ERP products will be on your radar that would not figure in the considerations of a retailer or service company. Similarly, if you are a global enterprise with assets across all seven continents, you are unlikely to trust your mission critical applications and infrastructure to a niche player.

Don't fail before you START



VENDOR SELECTION

However, if you discount the extreme ends of the choice matrix you are left with a swathe of businesses, which on paper could select **SAP** just as easily as **Oracle**, **Workday** or **Infor**.

How then should management teams approach vendor selection and what should they consider when entering into a partnership that would likely tie them to a platform, set of processes and methodologies for a decade or more?

Don't believe (all of) the hype

Top of page one is some clear and unambiguous advice. Don't believe everything that you are told by the vendor's sales rep. This isn't the opening gambit in an attack on vendors, or indeed their sales people, but it is a very strong note of caution that just because the sales team say something, it does not mean it is so. I guess that could be said for all sales people across all industries, but there is a distinct whiff of the dark arts when it comes to some sales demos in the ERP space and the only way to check your facts is to speak to similar customers who have been through a similar process. Even then you should be cautious as most vendors have fairly strong wording around what customers can and can't say, so it will be up to you to read between the lines.

Demos will often focus on the most functionally rich parts of the system, some of which you may not need. While others which you do need may not be showcased at all. If you are going to get the most out of a product demonstration you should define in advance what it is you want to see and set out some scenarios that are critical to your business.

Defining Scope

It is natural for an ERP selection project to include an assessment of functionality that a business may need in the future. However, real decisions around software and project scope are required before signing the contract and clarity around the scope is important right from the start.

Virtually every ERP selection project considers functionality that might be required in the future. Deciding which ERP system best suits your organisa-



tion means assessing both the functionality you need now, as well as the functionality that may be required in the medium to long term. It is prudent to think strategically and find the solution that will support the business as it grows or diversifies, and to think ahead in relation to legacy systems that will need to be replaced sooner or later.

All of this helps inform the selection decision; which system is best for this business? Towards the end of the selection process the focus changes, and attention must turn to questions such as, what software modules are we going to buy? What functionality are we going to implement? and, how will the implementation be structured or phased?

“There is a distinct whiff of the dark arts when it comes to some sales demos”

It will prove impossible to agree a contract with an ERP vendor without answers to these questions.

Deciding on the software and implementation scope

The initial draft of the project scope should happen at the beginning of the selection project. Even if the detail needs more thought, it's important to have a realistic plan in mind so that prospective vendors can work out their costs and you can assess their proposals on a like-for-like basis.

A useful technique for managing scope during a selection project is to document the following;

- What is in scope for the selection project?
- What is in scope for each phase of the implementation?
- What software you plan to buy now, but isn't included as part of the initial implementation plan?
- What is a future requirement? (i.e. you are going to look at it during the selection project, but you don't intend to buy the software or implement it now).
- What is not in scope?

In its simplest form this can be documented by functional area, but more complex scenarios may require analysis of phasing by business unit, site or country.

Getting down to brass tacks

Your negotiations with each vendor should conclude with a firm offer setting out the deliverables, timelines and TCO for the solution. Once you have this final offer you can compare like for like proposals and then take your preferred partner forward to contract negotiation.

John Donagher, principal consultant at Lumenia Consulting, said: “The purpose of the BAFO (Best and Final Offer) stage is to allow vendors to submit a final proposal based on an agreed understanding of project scope, solution landscape, implementation approach and timescales. It also provides a forum to allow the vendors that have made the final shortlist to meet with the client in a workshop environment so that they can ask any questions they may have. Finally, it allows each ven-



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VENDOR SELECTION

dor to present the actual implementation team they are proposing.

“This is a critical stage in the selection process, as it marks the point at which theoretical options start to be replaced by firm decisions. The conversation changes in tone, as the reality of the imminent implementation project looms and the prospect of making choices on the software and project scope must be faced.”

An evolving picture

As the selection project progresses, it is common to find stronger opinions beginning to form around what should be in or out of scope, and for the original plan to change to some degree. Using the techniques described here ensures everyone is clear throughout on the scope of the selection project and how it relates to the proposed ERP implementation.

5 Common pitfalls of ERP selection

Many organisations set about the task of selecting a new ERP system and implementation partner for their organisation but run aground when trying to compare the various options. Lumenia propose five steps to help avoid common pitfalls when selecting a new ERP system.

1 LACK OF A SYSTEMS STRATEGY

The first priority when setting out to select a new ERP system is to have a clear vision as to what you are looking for. You need to know what is definitely in scope, what is definitely out of scope and what might be in scope should the right solution be available. This should be driven by an ERP systems strategy that assesses the benefits of implementing ERP – strategic, financial and intangible – and the likely costs of the various options. Unfortunately, many organisations jump

“This is a critical stage in the selection process, as it marks the point at which theoretical options start to be replaced by firm decisions”

straight into systems selection projects without taking the time to consider what the business needs and what it’s going to cost. Clarity on the benefits of ERP is vital, both because it will drive your strategy and because it will inform your decisions during the system selection project and beyond.

2 INADEQUATE SPECIFICATION OF REQUIREMENTS

Failure to spend time defining and documenting your requirements may mean that you select a system that works perfectly well in certain industries but lacks functionality that is a differentiator in your industry or sector. The important thing to remember is that most systems on your shortlist will probably do 80 percent to 90 percent of what you need as standard. Clearly there’s no value in documenting those requirements – your time and the vendors’ time is much better spent on the differentiator requirements. Focus on requirements that give you a competitive advantage, that drive business benefits, that are peculiar to your industry or that your current systems struggle to manage.

3 USING THE VENDOR’S SALES DEMO TO EVALUATE THE SYSTEM

Every ERP vendor will be delighted to demonstrate their system to you based on their interpretation of what you are looking for. Unfortunately, each ven-

dor will have their own interpretation and it will prove extremely difficult to compare what you have seen. You can avoid this pitfall by having a structured demonstration that gives you the ‘apples with apples’ comparison you need. The critical component in achieving this is a test script that each vendor is asked to deliver. The script should outline the scenarios you need to see demonstrated, focussing on how well their solution meets your differentiator requirements as well as giving you the chance to evaluate how the various usability features provided can benefit your business.

4 LACK OF FOCUS ON THE VENDOR’S ABILITY TO DELIVER

Regardless of the functional capability of any ERP system, a successful ERP project is hugely reliant on the vendor’s ability to help you build a solution that delivers the expected benefits. A common pitfall is to focus almost entirely on system functionality and cost. However, a comprehensive selection process will also involve reference site visits and calls, an assessment of the calibre and experience of the consultants being proposed for your project, and an assessment of the implementation methodology being proposed.

5 FOCUSING ON COSTS RATHER THAN BENEFITS

Everyone wants their ERP implementation to be delivered on time and on budget. In general, that’s considered a success. As a consequence, it is natural during the ERP selection project to ensure that software and implementation costs are kept within initial expectations. However, this approach takes no account of the ability of the solutions being assessed to deliver the expected business benefits. Everything else being equal, a solution that costs 15 percent more than expected but helps you achieve multiples of that in financial benefits over a period of time is clearly a better option. ■



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OPINION

ERP Readiness IN THE PUBLIC SECTOR

BY TONY SUMMERS



People often make assumptions about the difference between public sector versus private sector readiness. The most common is that there is a great deal more due diligence, bureaucracy and compliance hurdles compared to private businesses. That somehow, the private sector finds it easier to glide through governance and change management along a relatively smooth transformation roadmap.

To my mind, this isn't the main differentiator. From my observations, there are private sector industries that have equally strict compliance and procurement processes. Take banking for example. In a heavily regulated industry like finance, there are as many red-tape challenges as there are in the public sector.

So what is the difference? Service complexity and culture...

In local government, which is where I spend most of my time, organisations tend to be very complex, delivering a wide range of services - large local authorities can deliver up to 500 different types of services.

While I'm sure there are

large private sector enterprises that have a similar number of services, the most obvious point of difference is the different nature of each service a public sector organisation delivers from one unit.

For example, big councils like Birmingham or London Borough provide services that are as diverse as social care and housing on one end, to highways and council tax selection on the other. Each of these service lines has a very different nature, culture and business language.

Having worked with dozens of public sector organisations to deliver ERP systems, it's those very disparate cultures that make readiness such a challenge. Those cultural differences may appear subtle to an outsider because it's as much about the language and terminology each department uses as much as it's about functional variation.

When we are talking about ERP readiness to those responsible for a particular service line, they don't see

it as solving problems for their core business. Each local authority service line has its own specific IT system requirements. In social care there will be case management systems, in housing, there will be property systems to help them manage the collection of rent against properties. The point of view of each of these departments is that its current system is their primary requirement; not 'this ERP thing'. By many, the ERP is seen as something that the finance or HR people impose upon the wider organisation rather than something that will help them save time, improve efficiency or even use in their daily duties.

For this reason, it is especially important that buy-in comes from the top down and spreads throughout all service lines. In 95 percent of cases, the decision to embark on digital transformation comes from the corporate centre (be that the finance director or the HR director). People outside the corpo-



“In local government, organisations tend to be very complex, delivering a wide range of diverse services”

rate centre need to understand the necessity and the urgency of the change.

The executive leaders need to explain what, when and why. As with any big business change, individuals worry it might cause job losses, ineffectiveness and a have a negative impact on their own ability to succeed. In the public sector, you will find a higher number of people who have been in the organisation for life... or plan to stay for life. They are heavily emotionally invested in providing high-level service to citizens and also fiercely protective of their colleagues.

Combine this with the sense that only their team fully understands their own service line and that an ERP couldn't possibly bend to fit each very specific need and you have an increased need to ensure that the top down communication doesn't feel like an ill-conceived top-down imposition.

Most decisions around ERP changes take a year or more, and the implementation takes many months, or

even years. For most people, this feels very far off. Getting future ERP users to take an interest early enough isn't easy. But it is fundamental to successful digital transformation.

Defining desired outcomes, identifying stakeholders and building a business case has to take all service lines into account. Whoever leads the charge must speak the same language as each of those individual departments and the individuals who will ultimately use the system.

Don't confuse top-down communication with one-way communication. Get feedback from key stakeholders on current business processes - not just current technology. Software that works doesn't equate to processes that work. Business processes shouldn't be defined by an IT department, ERP project team or your leadership in a vacuum. Have key stakeholders help define, validate and test. Those stake-



“Get feedback from key stakeholders on current business processes - not just current technology”

holders shouldn't just be managers and supervisors. In the public sector, you will have employees who have been with the organisation for decades. They are just as respected by their peers as anyone from the corporate centre.

These long-termers are often the ones most likely to resist change. They come from a culture of unionised action. They have seen big changes fail. It's those stakeholders that you need

to turn into advocates. Include them in your steering committee, get them involved in collecting feedback and concerns from their peers. Have them involved in testing, training and then championing your digital transformation. Without them, you won't get the level of detail you need to build change readiness across such intricately nuanced service lines. With them on your side, you will gain valuable insights for readiness, adoption and post-implementation success. ■

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This is a free to attend event and will take place in Birmingham during July.



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HS2

IBM and Oracle POWER HS2 into the fast lane

Paul Esherwood spoke exclusively to Bill Gayler, ERP system owner, about the HS2 ERP journey and what it means for the business going forward.

If you are going to start a business with a £55bn budget, you will need a finance system capable of supporting volume, scale and flexibility. At least that's what HS2 believes as it comes to the final stages of implementing an Oracle ERP Cloud solution. The new system is a full suite of Oracle ERP Cloud, HCM and SCM, and is one of the first deployments of the full Oracle SaaS product stack in the UK. IBM Services is the implementation partner and EY has provided change management and programme governance.

Putting aside any mixed feelings about HS2 and the sensational headlines in some red tops, HS2 is a project that the UK should be proud of. It is after all, the largest, most complex infrastructure project the UK has ever undertaken and will connect over 25 towns and cities from Scotland to the South East, serving nearly half of the UK population. It will make journeys between major population centres easier, increase space on the existing lines for more local journeys, and take passenger and freight traffic off our motorways. More than 7000 jobs, including over 250 apprentices, are being supported by HS2 and the project has already injected £10bn worth of contracts into the UK supply chain.

The background

The technical infrastructure required to support a business which is yet to hit top gear is complex. Finding a solution that meets the current needs, while also developing systems, processes and technology that will support HS2 in the future is a huge challenge. HS2 effectively started out as a scale-up with a Sage accounting system which was soon replaced with SAP Business ByDesign. The SAP system was supported in-house and was not meeting the needs of the business through a mixture of poor user adoption, lack of functionality and disparate architecture. SuccessFactors was not integrated with the core ERP solution meaning HS2 was effectively running two solutions from the same vendor as separate systems.

The decision to replace SAP with a



new solution was taken back in 2017 and the first phase of the Oracle implementation went live at the end of 2018, with a second release going live in April 2019.

Bill Gayler, ERP system owner at HS2 explained why they needed to replace SAP for several key reasons, he said: "The business had the entry level SAP products for small-to-medium sized enterprises across two systems and we needed an integrated one. We also supported SAP in-house and it was chal-





lenging to retain the depth and breadth of skills necessary. The Oracle solution we were able to secure is much more comprehensive. One obvious example is that it enables us to have a standardised purchase-to-pay process which, in an organisation like this, is hugely beneficially. Ultimately, it's a single integrated system across ERP and HCM which has enabled us to streamline our own business processes and overcome the challenges of synchronising the two legacy SAP systems."

The rationale

The rationale for moving to Oracle was put forward by former CIO, James Findlay - now director of his own digital advisory company. Subsequently, the ERP baton was picked up Stephen Potter who took the role of interim CIO before leaving to join NATS, the UK air traffic control services company. More latterly, Robert Kirkwood had been appointed as a permanent CIO, although on the day we went to print we learned he had left his post with immediate effect.

Back in 2018 Potter said of the challenges facing HS2: "We had to make the right transition from what was effectively a very large start-up and scale up pretty quickly to ensure we have a modern organisation capable of delivering the project. This meant having to put in enterprise-level capabilities required for that mandate. One of these technologies was Oracle Fusion. It was a decision made before I arrived, but we went through a rigorous validation process."

The problems to solve

HS2 is an arms-length body of DfT, but the HS2 line is being built by construction and engineering JV partners and the organisation therefore has the challenge of ensuring that the right information is accessible through the entire HS2 ecosystem.

Building a railway, buying land and providing infrastructure all generate huge amounts of data, and it's HS2 job to get the most value out of that data, both internally and externally. Historically, one of the most difficult issues had been locating and extracting valuable data, but the new Oracle solution which includes intelligent analytics, should see an end to siloed data.

But while emerging technologies are very much in the thought process of the HS2 team, the biggest challenge is the time scales involved. "Most organisations have an IT strategy that covers 18-24 months, but because of the scale of the programme, HS2's horizon is eight to ten years. Starting to do procurement now for eight years' time and trying to predict what ticketing systems you need and what you need to underpin all of that is a major challenge," said Gayler.



"Most organisations have an IT strategy that covers 18-24 months, but because of the scale of the programme, HS2's horizon is eight to ten years"



HS2



The Oracle team is being led by executive sponsor, John Abel, who joined the project six months ago. Although the Oracle relationship is being managed by IBM and licenses have been procured as part of the IBM deal, Abel was keen to point out how integrated the three teams have been which has ultimately led to a successful go-live, on time and on budget. He said, “The best endorsement I can give is that it’s very hard to see where the Oracle, IBM and HS2 teams start and finish. All parties involved have worked collaboratively as one team focussed on delivering a first-class solution and Oracle is delighted that its technology is underpinning such a prestigious project. HS2 is utilising the full power of the Oracle ERP Cloud suite, coupled with our PaaS offering and Oracle Cage (Government Cloud).”

The implementation journey

The implementation partner for the project is IBM Services, led by executive partner, Jamie Cole. IBM won both the build and managed services contracts through a tendering process



“IBM brought something that we were lacking – a vision for the solution and knowledge of the product – and they got us on track quickly”

and provides ongoing support for the solution. Cole said, “IBM Services is delighted to have partnered HS2 on such a high profile and important project. The Oracle solution will serve HS2 into the future and we are very pleased to have played a major role in its success.”

Commenting on the tribulations of the ERP journey, Gayler outlined several key areas where IBM has added significant value. “IBM brought something that we were lacking – a vision for the solution and knowledge of the product – and they got us on track quickly. They also manage the relationship with Oracle. They speak the same language

as the vendor and having our trusted partner dealing with Oracle has freed us up to concentrate on other tasks and duties”, said Gayler.

Given the complexity of the project and the scrutiny under-which HS2 operates, it is remarkable that a relatively small team has brought the project together so quickly and efficiently. As far as cloud ERP projects go, the headline architecture for this project was relatively straightforward. It was SaaS to SaaS - and although I can’t imagine there has been too many other similar projects, the fact that the legacy systems were cloud-native and the target system was as well, has meant that many of the big bumps often felt along the ERP journey have been avoided. Gayler commented: “Like any ERP roll-out, we’ve faced challenges. But I have to say, although we expected more challenges during the hypercare period, the implementation across the business has gone well. The fact this is a SaaS service seems to have been a big factor. The user uptake rate – particularly in the first two weeks – exceeded expectations.” ■



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HS2



How to get a tune out of your

project team

ERP projects are difficult. Even the most successful implementations take some casualties along the way. What steps can you take to minimise the risk and increase your chances of success? Think about resourcing as a critical component of your overall strategy, says **Paul Esherwood**.

PROJECT RESOURCING

Ask any regular attendee at the London Symphony Orchestra what they thought of Valerie Gergiev and you will get a very clear answer. Gergiev took over the baton - literally - from the world-renowned conductor, Sir Colin Davis, in 2007. For the next eight years he waved his stick furiously but couldn't get a tune out of the ensemble of 106 of the world's finest musicians. Gergiev's credentials were impeccable and yet his performances were panned in the high-brow media throughout his tenure and many symphony goers went as far as to boycott his performances. He is currently the chief conductor of the Munich Philharmonic where he's apparently doing a great job and generating rave reviews.

Jose Mourinho has been voted the world's best club coach four times; he has won the Champions League twice, the Premier League three times, the Spanish La Liga and English Cup four times. He is widely regarded as one of the greatest football managers in history, and yet as every Manchester United fan will attest, couldn't get a tune out of a United side that cost £400m to assemble, and which has gone on to make Ole Gunnar Solskjaer the most successful new manager in all of Premier League history.

THE ROLE OF THE PROGRAMME SPONSOR

ERP programme sponsors face many of the same challenges as Messrs Gergiev and Mourinho did. They are at the helm of large organisations with a lot of moving parts, which working independently, are unlikely to produce a decent tune. Whilst very few programme sponsors are likely to see themselves in the same light as a football manager, the analogy should not be dismissed and those who take responsibility for an ERP transformation will need to deploy many of the same skills as the aforementioned 'Special One'.

I have seen too many programme sponsors tucked away in an ivory tower, door closed, hunched over a desk, sweating on the latest project

board review and endlessly looking at a plan that has red ink all over it. Top of page one for any ERP project is to have top-down visible leadership where the business case and benefits are communicated on a daily basis. The programme sponsor, whether that is the CIO or CFO (and its increasingly the CFO as ERP becomes less IT-orientated) must be the champion of the cause. They must extol the virtues of ERP transformation as a crucial ingredient of the company's future success and manage the impact - both perceived and reality - for each and every member of the organisation.

CHOOSING YOUR PROGRAMME LEADER

The programme leader is not the same as the project sponsor. The sponsor is almost always the CIO, CFO or another C-level exec belonging to the business. The leader is a tried and tested ERP specialist brought in as an external re-

job? Well it's not easy. There are more people calling themselves programme managers on LinkedIn than there have been successful ERP projects in the entire history of ERP, so they can't all have 'managed an end-to-end implementation on time and on budget'.

101 for this critical appointment is to find someone with a referenceable track record of end-to-end delivery. Whilst there may be some value in recruiting someone with strong tender, RFP or selection experience during the preliminary stages, identifying the person who will carry the metaphoric baton from kick-off to go-live must be a priority. The best way to do this is to speak to your contemporaries and try to identify someone who has managed a similar project in a similar business. Whilst it's a lot more effort than handing the responsibility to an agency or your internal recruitment team, there is no better way to recruit than through personal recommendation. As part of your broader ERP strategy, it is always

“I have seen too many programme sponsors tucked away in an ivory tower, door closed, hunched over a desk, sweating on the latest project board review and endlessly looking at a plan that has red ink all over it”

source to navigate the choppy ERP waters. Continuing the football analogy; your leader is the club captain while the sponsor is the manager.

Appointing the right programme manager is probably more important to the successful outcome of an ERP project than selecting the vendor or SI. Virtually all ERP platforms work and most SIs know what they are doing. However, the client-side programme manager is often the person leading the decisions on design, strategy, timelines and processes - and if you get these fundamentals wrong, your ERP project can start down a path that it is very difficult to recover from.

So how do you select the right person for the



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PROJECT RESOURCING

advisable to talk to other ERP customers to see what lessons can be learned from their successes and failures, and most businesses will be more than happy to give you some pointers.

WHEN TO START RESOURCING?

Your resource profile should be one of the first things to consider. After all, if you don't know how many people you will need and in what areas, it will be very difficult to calculate your project budget. How many times have I seen projects go cap-in-hand to the business because they didn't budget for a solution architect, or didn't realise they needed specialist DM resources or hadn't factored in a cost for a PMO? The answer is a lot, in fact I would go so far as to say, almost always.

Another consideration that is almost always overlooked is the lead time it can take to identify, interview and onboard suitable talent. If you want the best resources, it's likely they are already in a role, and even if they aren't, it can still take weeks if not months to get the right people through the door. A month is a very long time to wait for someone who has the answer to a question you need answering immediately.

Lloyd Gordon is CEO at **Focus Cloud**, a specialist resourcing agency focussed on the Workday market, he

said: "Be aware of the different lead times you are recruiting for around the world. Getting this wrong could cost you up to three months of delays. Different countries have different notice periods, so to prevent you from having to spend on contractors as a last-minute fix, you need to plan and be aware of the time it may take to resource candidates in specific regions.

"Probably the most critical piece of advice I can give is to hire before there is a looming problem. If you're in charge of a project, you want to be recognised for its seamless delivery - being on time and budget. Be prepared and prevent problems that will impact the budget and timescales you are working to."

INTERNAL RESOURCES AND BACK-FILLING

A very common mistake on large ERP projects is to take the internal resources from a suboptimal pool of candidates. Of course, BAU activities have to continue as unaffected as possible. But when a sponsor is looking for internal resources and is told by the business that it can't manage without 'John and Jennie' for 12 months. It is precisely for that reason that you need John and Jennie on the project.

tation they will be interacting with the SI, the vendor, ISVs and independent contractors. You need your best people at the coalface to manage these relationships and ensuring they don't suffer project fatigue is a key role for the sponsor. Projects can take a long time to complete - often longer than anticipated. Maintaining a happy and stable team for 12-18 months is no mean feat.

EXTERNAL RESOURCES

However, no matter how successful a company is at bringing in the right people from existing headcount, it will be almost impossible to deliver an ERP project without external resources. Even the largest of enterprises with a huge pool of people to choose from will need to augment their own skills with contractors who bring specialist knowledge and experience - and that usually means engaging with a recruitment agency.

There are thousands of agencies, some good, some bad and a lot in the middle. Entrusting the resourcing of a critical ERP project to an agency that doesn't have very specific knowledge can be a huge risk to a project. Dean Harrison managing director at

DEAN HARRISON
GORILLA ERP



“There are more people calling themselves programme managers on LinkedIn than there have been successful ERP projects in the entire history of ERP, so they can't all have managed an end-to-end implementation on time and on budget”

The project team should be made up from the very best people within the business. If the rationale for taking the top performing talent falls on deaf ears, it's likely the business case for change has not been adequately communicated.

Serious demands will be placed on your project team and you need it to be as robust as possible. Over the life-cycle of the implemen-

Gorilla ERP, an agency that specialises in SAP technology, said: "Over the last 15 years, I have supported some of the world's largest and most complex SAP projects. Whilst I'm not able to implement SAP myself, having dealt with and spoken to experts across the full spectrum of SAP, I have been able to build up a strong understanding of what pieces slot where in successful projects and ultimately, what good look likes.

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PROJECT RESOURCING

“Quite often I am dealing with people who have a resource need but are time poor and so my understanding of SAP and the intricacies of the skill set means that I’m able to quickly understand a customer need and match this with an associate in my network that I’ve worked with before. This level of understanding, which has been gained over many years, would not necessarily be the same for someone from a more generic resource delivery background.”

Identifying an agency or agent with specific knowledge of the product you are implementing is essential if you want to engage with the best talent available. Just as there are thousands of recruiters, there are even more contractors. If you multiply a bad recruiter with a poor resource base you are unlikely to end up with the solution you need.

Recruiters who live and breath ERP not only know which contractors can and which can’t, they also talk the language which inspires confidence in the best resources. The recruitment dynamic for the most talented contractors tips very heavily in their favour – how many successful SaaS projects

“Identifying an agency or agent with specific knowledge of the product is essential if you want to engage with the best talent available.... if you multiply a bad recruiter with a poor resource base you are unlikely to end up with the solution you need”

are there in the UK? Not many. So it follows that there are very few contractors who can genuinely claim to have that experience, and they can choose which project to work on rather than having to duke it out with hundreds or thousands of contractors with less desirable experience. Having a recruiter

on board who can understand your requirements, talk the same language as the resources and has a deep network, is an invaluable asset.

Project resourcing in summary

There are many critical choices to make during an ERP project. Which product to buy? Which SI to trust with the build? Who to appoint as project leader? The list goes on. Each decision is critical, each has an effect on the other and each can lead to success or failure. No one said ERP was easy. But it’s easier now than ever, and there are lots of ways you can stack the deck in your favour. As far as resourcing is concerned, the best advice is to think about it early and don’t be afraid to engage with an agency. Recruitment agencies are often seen as the vultures in ERP, but the good ones can add some real value. It’s often said, but think about the benefit rather than the cost – a few extra pounds spent on a great resource who stays the course of the project, far outweighs the saving you might make by not utilising a specialist. ■

Are you considering an ERP or transformation programme and would like to understand how to attract the best talent for your project?



Our events are a great way to share ideas, meet like-minded people and raise the profile of your brand or company.

ERP TODAY is hosting a free to attend event for project sponsors who would like to know more about the pitfalls of project resourcing. The event will include

sessions on how to structure your project team, how to attract the best contractors and how to identify and motivate the best internal resources.

This is a free to attend event and will take place in London during July.



IF YOU WOULD LIKE TO ATTEND, PLEASE EXPRESS AN INTEREST BY EMAILING EVENTS@ERP.TODAY

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**WHAT
FUTURE
FOR ON
PREMISE**

PAUL ESHERWOOD LOOKS AT THE OPTIONS FOR ORACLE CUSTOMERS.
TUNE IN NEXT ISSUE FOR A SIMILAR REVIEW FOR SAP INSTALLED APPLICATIONS.

E-BUSINESS SUITE

As a journalist, I find myself at the same crossroads as many CIOs; I know cloud technologies – whether applications or infrastructure – are complete game changers. I understand that AI-infused ERP systems will continue to deliver efficiencies, advantages and insights beyond their on-premise equivalents. And I realise that installed applications are legacy technologies that one day will be as forgotten about as an 8-track player and VHS recorder. But I can't ignore the fact that the vast majority of enterprises are not on the cloud with many of them harbouring legitimate concerns about costs and business-wide disruption. Whilst the focus of **ERP TODAY** is to champion emerging technologies, we are equally committed to providing balanced and realistic commentary that is accessible and relevant – we can't ignore the fact that most businesses aren't running cloud apps.

Ask any senior exec at one of the big ERP vendors if they are focussed on cloud or on-premise applications and you will only get one answer. However, 90 percent of their customers have not joined the cloud revolution with many standing station and looking at ways to maximise their investment in existing technology before jumping ship and joining the cloud elite.

We all know that feeling when you've spent your hard-earned cash on a new TV or smart phone, only for the manufacturer to bring out an even better version a few months later. You feel like a second-class citizen almost unable to watch TV in 4K UHD when you know your neighbours are basking in 8K viewing nirvana.

Many IT directors would be forgiven for feeling the same. Having invested heavily in on-premise ERP technology only to be told that the platforms are redundant, and cloud is the only game in town. However, despite the very strong message from all of the vendors, more than 90 percent of ERP customers remain stubbornly on-premise, with a variety of reasons being offered up to account for the slow adoption rates.



Oracle has the largest customer base of all the ERP vendors with some 430,000 customers running various elements of their technology. E-Business has its roots back in the late 1980's, when Oracle first released their Financial Applications. These enterprise systems form a critical part of the IT backbone of many large enterprises globally, supporting finance, procurement, HR and supply chain processes.

Until recently, many E-Business customers were nervously looking over their shoulder due to significant doubt concerning the on-going commitment from Oracle to support on-premise customers. A recent announcement which pledges support for E-Business Suite up to 2030 (provided you upgrade to the latest 12.2 version) has put many concerns to rest and now E-Business users can look forward with confidence and consider what their future roadmap will look like.

E-BUSINESS SUITE CROSSROADS

Despite the positive news around support, E-Business users still remain at a crossroad; continue with E-Business Suite by upgrading to 12.2 and start to deploy some of the cloud options to innovate from a core installed platform. Or, take a leap into the cloud and migrate all applications off-premise. Both options have their challenges and in many cases the decision is dictated by a number of factors.

“Businesses need to weigh up the pros and cons carefully.

IS THE DESTINATION WORTH THE JOURNEY?”

MARK SMITH
CEO Support Revolution

“THE MAJORITY OF ORACLE CUSTOMERS

we talk to are looking at IaaS at this point, in conjunction with an upgrade to the latest release of the product”

MARK VIVIAN
CEO Claremont



Mark Smith, CEO of Support Revolution believes that the ‘cloud now’ argument isn’t as strong as the vendors would like us to believe: “In theory the customer will benefit from lower cost, less hassle and no need to upgrade hardware. However, whether this is worthwhile or not depends on how these benefits compare to the cost, complexity and time it takes to complete cloud migration. The journey to cloud is likely to be complex and even when complete the resulting system will likely not meet every requirement. Oracle is very focussed on cloud and moving their customers to a SaaS subscription model - but businesses need to weigh the pros and cons carefully. Is the destination worth the journey?”

Gartner’s most recent report into E-Business Suite also sets out a number of considerations for any E-Business customer contemplating their options. The report advised CIOs to “avoid confusing the sourcing of new technology with the fulfilment of business requirements - a full ‘rip and replace’ of your current applications may not be your best option.”

There are a number of reasons why this advice stands true;

- **Some verticals** are less suited to cloud innovation and many of the advantages that cloud offers do not resonate across all domains. And some simply cannot adopt cloud-native principles due to regulatory and governance issues.

- **Many customers** are reluctant to write-off their investment in on-premise applications and infrastructure until the original lifecycle of the platform has matured.

- **Full adoption of cloud** principles and technologies is far more than another IT project. To leverage the full value of cloud applications, customers need to embrace a business-wide transformation which many are reluctant or ill-equipped to do.

- **The vast majority of customers** are not on the latest release of the product and even those that are, have usually arrived there via a series of technical upgrades, and therefore aren’t leveraging the latest functionality that the product has to offer.

- **From a functionality** point of view, Oracle E-Business is still generally more functionally-rich than its cloud applications counterpart, particularly in terms of module coverage, where some areas have not been implemented in the cloud product yet.

- **Moving to SaaS** means that you are ceding the support of your critical business system to a large software vendor. Whilst there may be some advantages to this, there are also issues to consider as well.

VALUE DEFICIT AT THE CROSSROAD

Unlike pay and play options in the cloud, investment in on-premise applications and infrastructure is costly and has a lifecycle over which the value is realised. Many installed ERP customers are in the middle phases of that return on investment so throwing the baby out with the bath water and abandoning a ten year plan half way through is not an option.

Mark Vivian, CEO at Claremont, an Oracle gold partner specialising in the implementation and management of E-Business Suite said: “Due to the longevity of the product lifecycle, organisations who implemented Oracle E-Business some years ago can experience a gap between what the system is actually delivering for the business, and what it is currently capable of. E-Business users who linger in the void between running old versions of applications and upgrading E-Business Suite often find themselves operating a system that is seen as the problem rather than the solution as ‘off-system’ manual processes breed like wildfire and a proliferation of Excel spreadsheets appear.”

In other words, a value deficit builds up between the capability of the software - which the organisation pays for in licence fees, ongoing support and maintenance costs - and the business value actually delivered to the organisation. By upgrading to the latest version of 12.2 and harmonising that process with the introduction of IaaS or PaaS innovations, customers have the opportunity to maintain their investment in the core technology but also breathe a new lease of life into creaking systems.

OPTIONS FOR E-BUSINESS USERS

- **Infrastructure cloud:** This means retiring the physical hardware on which your Oracle E-Business system sits and

E-BUSINESS SUITE

**ORACLE
E-BUSINESS
R12.1
ON
PREMISE**

UPGRADE TO R12.2
REMAIN ON PREMISE

An existing software platform that supports organisation until at least 2030.

UPGRADE TO R12.2
MOVE TO INFRASTRUCTURE CLOUD
MAKE FURTHER IMPROVEMENTS

As above, but management of own hardware/data centre goes away, plus opportunity to deliver further benefits.

CO-EXIST EBS
& ORACLE SAAS
(e.g. Talent Management)

Hybrid approach which combines benefits of existing system with new functionality from Oracle SaaS

IMPLEMENT ORACLE SAAS
OR OTHER CLOUD APPLICATION

Re-implement a new product to replace Oracle EBS, with associated cost and business change

deploying it on a cloud infrastructure instead.

- **Co-existence:** This means implementing one or more SaaS modules alongside your existing Oracle E-Business system.

- **SaaS:** This means replacing Oracle E-Business with Oracle ERP Cloud, in other words a full migration to the cloud.

For the purposes of this editorial, we are looking at the future of on-premise applications so we will discount the full SaaS option at this point. That leaves two options (or three if you consider that doing nothing and running old applications which will soon be unsupported as an option).

**UNDERSTANDING
THE CLOUD OPTIONS**

The word ‘cloud’ is ubiquitous in the marketplace, but it is also ambiguous and often misunderstood. Many of the themes covered in **ERP Today’s** editorials on artificial intelligence can also be applied to cloud technologies in general.

And, in this instance it couldn’t be truer. Cloud is the hottest topic in tech-

nology but it is often seen as an ‘all or nothing’ option and many businesses, large and small, simply do not understand enough, or have confidence in, cloud technologies to consider them. Whereas your historical upgrade project was always an IT-lead initiative, cloud demands a much deeper assessment of business processes and company culture that many are unwilling or unable to embrace.

Similarly to how AI is solving some of the small problems both at home and work, cloud technologies can also present on-premise customers with opportunities to innovate and gain competitive advantage without a root and branch transformation of their entire business. Customers who can’t or won’t migrate their application estate to the cloud can still embrace some of the cloud advantages in one of two ways.

**CO-EXISTENCE BETWEEN
YOUR INSTALLED PLATFORM
AND CLOUD INNOVATIONS**

Some customers choose to go down the co-existence path by implementing discrete SaaS modules such as talent

management or expenses alongside their existing Oracle E-Business footprint. It allows customers to leverage some of the best functionality available in the cloud product suite, dip their metaphorical toe in the SaaS water, and retain their existing investment in Oracle E-Business at the same time.

**IAAS AND PAAS
AS A STEPPING STONE
TO ERP CLOUD**

There are many benefits to moving your existing Oracle E-Business system to a cloud infrastructure. You no longer have to worry about purchasing and maintaining the hardware yourself, up-front CAPEX costs are replaced with OPEX costs, and you will typically have more flexibility to scale resources such as CPU, memory and storage as well. Features such as disaster recovery and security are embedded in these solutions. It’s usually cheaper to take this option, and typically you will get a service level agreement that goes along with this.

Customers who choose to move their infrastructure to the cloud have a

number of options; Oracle's *Infrastructure as a Service* (IaaS) and *Platform as a Service* (PaaS) offerings, **Azure** and **AWS** et al. Whilst hosting on the Azure or AWS public clouds is generally very popular, the cost of licencing Oracle software on these platforms is at least twice as expensive, and this can offset any savings on the actual hosting.

Vivian from **Claremont** summed up the options facing E-Business Suite users nicely: "The majority of Oracle E-Business users we're talking to are opting to look at infrastructure cloud at this point, in conjunction with an upgrade to the latest release of the product. They want to 'sweat the assets' and maximise the value that they get out of their existing investment in Oracle E-Business technology before considering migrating their mission critical applications to the cloud."

WHAT ARE THE HIGHLIGHTS YOU NEED TO KNOW ABOUT THE E-BUSINESS SUITE ROADMAP?

- The current latest major release of

the product, Oracle E-Business Suite 12.2, will be the last major release of the product.

- **Previously**, it was implied that a 12.3 release would come in 2019. Instead, this will be replaced with a 'continuous innovation' release model for Oracle E-Business 12.2, which will have ongoing applications and underlying technology stack updates without the need for a major upgrade.

- **Premier support** for Oracle E-Business 12.1 will cease in December 2021 as previously communicated.

- **Oracle E-Business 12.2** remains in premier support until at least 2030 with the support horizon being reviewed annually.

WHAT DOES THIS MEAN FOR ORACLE E-BUSINESS USERS?

- **Guaranteed Support for Twelve Years:** Whichever version of Oracle E-Business you are currently on, if you upgrade to 12.2, you will receive premier support until at least 2030. This twelve-year support horizon provides certainty for organisations planning

their IT roadmaps.

- **Access to Ongoing Applications Innovation:** The 'continuous innovation' for applications is akin to the 12.2.x updates that have been made available annually in recent years. This will benefit E-Business users with Oracle's ongoing product development, making new functionality available as it is developed until at least 2030 with cumulative patches.

- **Independent Technology Stack Updates and Protected Customisations:** Crucially, as the underlying technology stack is independent under the 'continuous innovation' model, new versions of this can be deployed without having to upgrade Oracle E-Business applications code, meaning that customisations don't have to be modified as a result of these new versions.

- **One Last Major Upgrade in the Next Three Years:** What all of this means is that if you're currently on 12.1, like most of our customers, then you have until the end of 2021 to upgrade to 12.2. ■

Are you an Oracle customer running E-Business Suite?



Our events are a great way to share ideas, meet like-minded people and raise the profile of your brand or company.

ERP TODAY is hosting an event for Oracle customers who want to know more about their options. The event will be supported by Oracle experts who will offer advice and

guidance on the E-Business Suite roadmap and provide insights into the latest Oracle technology that can compliment your investment in on-premise applications.

This is a free to attend event and will take place in London during June.



IF YOU WOULD LIKE TO ATTEND, PLEASE EXPRESS AN INTEREST BY EMAILING EVENTS@ERP.TODAY



Blockchain

VERIFICATION

VALIDATION

What started out as a secure, digital, peer-to-peer electronic cash transaction system back in 2009 is now infiltrating far wider sectors than just finance. However, blockchain hasn't proven to be that simple to comprehend, let alone

in Business

VIGILANCE

AND VIPs

BY GEORGINA ELRINGTON

visualise how and where it fits to benefit the general business environment. In this feature, ERP Today explores the role of blockchain in business, where it can deliver a significant resourcing advantage, and speed the way to smoother profits.

DLT IN BUSINESS

These days a blockchain system has the capacity to encompass many more types of information management requirements than just a cash exchange. Largely, due to its enhanced trust and transparency characteristics, a blockchain has the capability to improve trading relationships by expediting all kinds of business administration processes on multiple systems across multiple domains. This can also streamline operations and enable the re-portionment of costly administration resources; and other exulted benefits claim to address some of the heavy regulatory, governance, risk, and compliance burdens by enabling higher levels of security vigilance, verification, and veracity. That’s an impressive list for something that is, conceptually, quite simply a secure record of digitised data.

There’s yet more to it too. By further digitising and recording transactional data activities in a securely shared environment, a blockchain can significantly reduce audit and dispute costs and enable improved production quality assurance. To put that into some context, blockchain can aid industries that use supply chains, offer detailed and accurate logging for the intricate legal environment, as well as bring heightened levels of security to financial and health industry data transactions – to name just a few use cases.

Blockchain records ‘blocks’ of information immutably, and it’s the security element that holds the most weight in conversations surrounding this relatively new technological kid on the block. Each piece of data that enters the ledger (for example, an invoice, a shipping order, a legal document, an actual financial transaction) contains proof of its origination, gets timestamped and is therefore locatable in a thread of a process that can only be accessed by approved parties. With that in mind, we can start to look how blockchain for business can improve efficiency by enabling such immutable accuracy.

BLOCKCHAIN FOR BUSINESS BENEFIT

While most of the early adopters of this emerging data logging technology have tended to be large and complex organisations with vast trading networks and multi-tiered channels, Wayne Lloyd, CEO of **Smarter Contracts** believes that blockchains will transform many back office systems and processes into front and centre technologies and opportunities. In doing so, companies will be able to create new, more immersive and relevant digital experiences for their customers, ultimately changing the way they do business.

“Today we have wine companies that have used the technology to track production from the grape to the bottle so customers can understand how much carbon was emitted in order to make the product,” explained Lloyd. Another example that he highlighted in conversation with ERP Today is how China’s largest car brand **BYD** is using **VeChain** technology to track how responsible customers are at driving their blockchain-based electric cars (e.g. for carbon emission imbalances).

“These new data points will provide BYD with untold opportunities to interact with their customers and their partners, giving them a huge competitive advantage over those companies that choose to ignore its potential,” he said.

However Lloyd also said that the traction regarding blockchain take-up will not be that fast due to the limited amount of people, relatively speaking, that understand the technology; and to code it that pool is even smaller. He said: “I speak with many business owners and it is unfortunate that many still base the opportunities of blockchain technology on the perceived limitations of Bitcoin, whilst others haven’t even heard of it at all.” He goes so far as to say that the companies which are not seeking to grasp the potential of blockchain in their business run the risk of becoming as irrelevant as those that chose to ignore the internet in the 1990s.

WAYNE LLOYD
SMARTER CONTRACTS

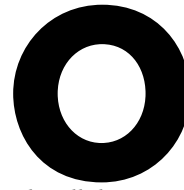


THE ROLE OF A BLOCKCHAIN IN ERP

Blockchain is becoming a considerable element of the digitalisation and automation journey en route to creating a decentralised transaction processing model. In enterprise resource planning, various applications handle business operations such as staffing, products, annual audits, procurement, and shipping; all of which have multiple informational routes that need to be tracked and recorded for process evidence and compliance. By integrating a cloud-based blockchain platform, this data can be registered absolutely on a shared system and accessed anywhere at any time by permitted users. Should, for example, a business need to confirm a piece of information, such as an order quantity approval or a logistics route, the evidence will exist on the blockchain with the absolute security that the information held there is authentic. The accuracy of the actual information is still subject to human error, information is always only as good as the source that created it.

It is this trusted level of transparency that can reduce the cost of operations by helping to identify gaps and solve disputes between company suppliers, buyers, and customers thanks to blockchain's tracking and reporting capabilities. It can also become the 'one place to look' for information, which cuts down the need to search several different locations (such as a team member's computer or email account) for a particular document.

There is a longer-sighted notion that blockchain has the potential to strengthen the much wider procurement function, as in, evaluating quality, raising purchase orders, managing inventory, and even negotiating prices by spotting differences to identify the best deal for buying goods. But for now, with what seems like endless regulation stipulations and auditing requirements for today's data and business transactions, blockchain becomes interesting for secure access to authentic information trails for compliance.



One challenge to an effective blockchain is getting all the players on board. Collaboration is a necessity and can involve multiple external sources from multiple regions. In a supply chain environment for example, all the stages of production and distribution must adhere and comply with being involved. If a manufacturer uses blockchain but the distributor doesn't, then any activity after the product has been manufactured and sent will not be logged. The chain of proof will end prematurely in the overall process. For the entire transaction system to operate beautifully and enable smoother operations from start to finish, a high functioning blockchain relies on all the parties involved to commit to it.

Once all elements required in the chain are enlisted then the route to more streamlined business operations become possible. To put that into working context we can consider a scenario where, currently, more than 80 percent of the goods that consumers use daily are transported by the shipping industry. One aspect of this activity from a resource perspective is that the administration required, to process the logistics and adhere to all the transitional regulations involved in the movement of these goods, is estimated to reach one fifth of the physical transportation cost. According to **The World Economic Forum**, reducing the resourcing effort load of such international supply chain requirements could increase global trade by nearly 15 percent. Right on the point of this is the blockchain venture between the shipping company,

Maersk and **IBM** which aims to digitise a global supply chain by introducing a 'new form of command and consent' to the flow of information, empower multiple trading partners to collaborate, and establish a single shared view of a transaction without compromising details, privacy or confidentiality.

Another current example which highlights the benefits of blockchain for supply chain visibility, quality and control comes from brewery company **Alpha Acid Brewing**. The organisation has added its ingredient suppliers of malt, yeast, and hops onto a blockchain distributed ledger using **Intelligent Track and Trace** from Oracle to keep an eye on the ingredients trail from the harvest crop, right through to the actual

“Blockchain is a major element of the digitalisation journey that is en route to a more trusted automation of a decentralised transaction model”

DLT IN BUSINESS



production of the beer products and final route to the customer. The system provides valuable insight into each of the ingredient's prime harvest time, the conditions and route of transit for those ingredients to the brewery, which elements went into each batch brew, and where each brew ended up. Not only does this help to facilitate targeted recalls should they be necessary, it also gifts customers with knowledge and trust regarding the quality and origin of the product's components.

But blockchain can assist with far more than product origination and tracking. It can help to ensure that contractual commitments at each link in a supply chain are adhered to. Manufacturers - especially across borders - need to ensure that suppliers comply to standards and commitments around, for example, privacy, sustainability, ethics, and labour laws. And from the other side, suppliers will want to prove that they do indeed comply, sometimes without having to fully disclose the details of their subcontractors. When the supply chain is global this can become a complex and time consuming task fraught with resource costs, legalities, regulations, and regional implications.

Icertis, a provider of enterprise contract management in the cloud, and **Mercedes-Benz Cars** recently partnered to address such issues. In this case, smart contracts on Icertis' blockchain foundation will help to make sure that global sourcing and contracting practices are in line with Mercedes's requirements for, amongst other things: working conditions, environmental protection, safety, business ethics and compliance - all without compromising contractual confidentiality. In a consortium blockchain, an immutable public ledger of transactions will hold the overall compliance terms to help with

“When the supply chain is global this can become a complex and time consuming task fraught with resource costs, legalities and regulations”

adherence from everyone involved in the chain - granting access privileges where necessary to help protect sensitive commercial information, while at the same time granting new levels of commercial collaboration, visibility, and accountability. There's an AI element in this too, whereby involved parties can verify the obligations around agreed terms, and enforce compliance requirements such as GDPR, data security, International Trade in Arms Regulations, and Foreign Corrupt Practices Act. Any gaps or anomalies can be highlighted and addressed sooner rather than later, smooth the overall process and avoid complicated problems further down the line..

Looking at the business operations opportunities that can be enabled by the implementation of a secure ledger-led environment, we can see that a blockchain has the potential to assist the development of distributed and autonomous marketplaces. A blockchain-based transaction removes the need for third party oversight as the software itself is a controlled and open framework that is visible to all permitted participants. David Haimes, senior director of ERP Development at Oracle, believes that blockchain will eventually become a standard offering in cloud ERP applications, saying that it allows asset owners to track and trade elements of value such as outstanding invoices in a secure, transparent, private, and self-reconciling 'chain' of transactions. Organisations will be able to view their assets multi-dimensionally in terms of value; so instead of having just a face-value, they will have an opportunity value. ■

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BLOCKCHAIN SUMMIT

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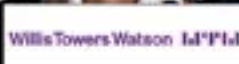
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DE-RISKING DATA MIGRATION

D - A

You should make DM a core component of your ERP Strategy



T _ T _ A M I _ G R A T I O N _

and de-risk the activity by following these fundamental steps

DE-RISKING DATA MIGRATION

Data Migration is to most ERP projects what taking the lights down is to Christmas. It's something that you know you have to do, wish you didn't and put off for as long as possible. It is an oddity - when we are constantly 'educated' about the value of data - that most customers view their most prized asset as a burdensome issue that is pushed as far down the agenda as possible and often left to 'someone in IT' to manage.

**DATA
MIGRATION**
IS OFTEN THE WEAKEST LINK
IN ERP IMPLEMENTATIONS.

De-risking your ERP project is a critical component of a successful outcome. Whilst it's true that all upgrades, re-implementations and migrations carry some risk - there are a number of ways that you can reduce the opportunities

for something to go wrong. As a baseline, it doesn't matter whether we are talking about a global **Workday** rollout, **IQMS** in a manufacturer or an obscure bit of kit used only by tobacco-nists - the applications work just fine. The issue with getting ERP projects to deliver value and efficiency is often only related to two things - data and people.

We deal with the human element elsewhere in this edition when we endeavour to coach programme spon-

sors to 'get a tune' out of your project team. So that leaves us with data, and more specifically data migration, as the other most likely cause of ERP implementation misery.

But don't despair. Data migration doesn't have to be dull, difficult or defeating. There are some fundamental checks and balances that all ERP customers should consider when thinking about moving their data from one system to another.

Steve Pullee, CEO at **Egress**, a specialist data migration company that has completed more than 500 large-scale migrations said: "Data migration is a crucial element of any ERP project and embedding a sound DM strategy as a core component of your ERP journey is essential. However, it is often perceived as a simple, one time, 'lift and shift' process that can be managed by existing head count with SQL skills or by leveraging a locally devised ETL tool to deliver the required out-



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come. In many ERP projects the client is faced with two choices; assume control of DM activities and manage it directly, or package it with the SI as part of their contract to deliver the solution. In both cases the DM journey can be fraught with danger and unless management has a clear understanding of the potential pitfalls, it is often the case that DM causes the host heartache on the ERP journey.”

A successful migration of data, whether from multiple legacy systems or the cleanest of transitions in upgrade, must be tackled using best practice methods and strong governance. In this editorial we look at the fundamental components of a migration project that should be adhered to in order to drive the best outcome.

DATA STRATEGY

Data migration is routed within the critical path of any ERP deployment programme and ensuring the workstream aligns with all of the relevant dependencies of the programme is crucial to achieving a positive outcome. Frank Schuler, VP technical architecture at **BackOffice Associates** said: “Firstly, data migrations are opportunities to improve the data quality by aligning data across system boundaries towards a common metadata model. Without a data migration strategy, individual migrations would most likely only improve the data quality locally, if at all. Secondly, with a data migration strategy towards a common metadata model, many of the necessary mappings and transformation can be reused between multiple individual system migrations. And lastly, with a data migration strategy towards a common metadata model, defined KPIs can be monitored across system boundaries to provide an insight into the actual data quality versus target.”

Put simply, the key tenet of an effective migration is the development and implementation of strong DM strategy with governance and programme management principles embedded at



_FRANK SCHULER

VP at BackOffice Associates

an early stage. Detailed analysis of the data in advance of the first trial load and clear documentation of the transformation rules are imperative. These all rely on a comprehensive data migration strategy being in place at the earliest possible opportunity.

However, data migration should not be seen purely as a technical exercise and understanding how the DM workstream dovetails with the broader project objectives is also a key component of a successful ERP project.

Ben McGrail, managing director at **SNP**, a specialist DM company that focusses mainly on **SAP** technology, encourages CIOs to consider

THE BIGGEST MISTAKE

THAT COMPANIES MAKE IS TO TREAT DATA MIGRATION AS A PURELY TECHNICAL EXERCISE. IT'S MUCH MORE THAN THAT

_BEN McGRAIL

the broader implications of a data migration exercise and argues the importance of understanding both the technical and functional elements of the workstream.

“The biggest mistake that companies make is to treat data migration as a purely technical exercise. It is much more than that. In any data migration, we are testing to what extent the legacy data from the source system fits with the new solution in the target system. This requires specialists with deep knowledge of both technology and business process.”

Regardless of whether you are outsourcing the DM activity, or tackling it yourself, there are some specific recommendations that we can make to CIOs when considering DM strategy.

- **Develop a comprehensive** data migration strategy as early as possible in the programme (even pre-procurement where appropriate) to ensure appropriate budgetary considerations.
- **Baseline the quality of data** held within the existing legacy systems.





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IT Programme Manager – Janus Henderson Investors

DE-RISKING DATA MIGRATION

- **Manage your standardisation** early – identify data items which cannot be mapped between source and target as like-for-like and implementing a fit-for-purpose transformation.

- **Identify all sources of data** and engage with suppliers to understand available extract delivery methods, options for bulk/delta delivery, indication of expected extract timings, data extract costs, lead times and restrictions (e.g. resource availability).

- **Conduct source data analysis** to understand and agree the in-scope data, the volume involved and the subsequent impact on target system configuration and data cleansing requirements.

- **Complete analysis** around configuration alignment to detail the scope of the existing mapping process; investigating the configuration items and comparing the values mapped with the expected values for data migration to identify any gaps where the organisation will need to decide how data items are mapped and aligned to a single target configuration.

Completing these six elements as part of your data migration strategy will help ensure a more successful data migration workstream. “Whilst it is possible to deliver these fundamentals without using a dedicated supplier of data migration services, organisations who make the choice to de-risk the critical path of their ERP project by utilising specific third-party expertise invariably enjoy more successful, cost effective projects,” said Pullee.

DATA QUALITY

Data quality is a crucial factor in an organisation’s ability to make strategic decisions, and the process of migrating to a new ERP is an ideal time to upgrade the quality of your data. Bringing poor data across from your legacy system can cause major issues in the short, mid and long term and can be a significant drain on resources, time and money.

“Poor data quality is a major risk to the success of an ERP implementation

POOR DATA QUALITY
IS A MAJOR RISK TO THE SUCCESS OF AN ERP IMPLEMENTATION, LEADING TO OVERRUN AND ESCALATING COSTS”
_BEN McGRAIL

project, leading to significant overrun and escalating costs. It can also adversely affect adoption of the new solution and reduce the benefits to the business. Data profiling and data quality analysis should be key priorities at the earliest stage of an ERP programme,” said McGrail.

Data cleansing should form a key part of your organisation’s data migration strategy and preparation. It should also be embedded within your project governance and post deployment system management. Karl Bount, also from Egress said: “Most data migration service suppliers will take responsibility for moving data exactly as it is in the legacy system to the new system. However, they won’t take ownership of the quality of this data and do not have the tools or expertise required to support a data cleansing project. Organisations must either complete a data cleansing exercise themselves, select a supplier who will support this as part of the migration or procure a second third party who specialise in completing data quality projects”.

Schuler also believes that data quality and cost control are inextricably linked and cites irrelevant data as a key contributor to increased costs on DM projects. He said: “Good quality data is up-to-date, relevant information. The bad stuff is when there are years and years worth of data collected from day-to-day activity, mergers and acquisitions and different cycles of employees and organisational

changes. Hoarding irrelevant data leads to a huge amount of over-spend on operational costs. It consumes IT support costs, time and efficiency of supporting systems and the user ability to understand what to use and when. It also hampers all ongoing operational activity.”

Specifically focussing on the elements of data quality to consider throughout an ERP migration project, the key recommendations include;

- **Ensure there is a process** embedded which reconciles the migrated data against the source data to ensure data integrity has been maintained.

- **Understand the current data** quality which exists within the legacy system and put in place a process to monitor ongoing improvements.

- **Do as much transformation** work up front as possible to avoid late changes in configuration and scope as these are have the highest risk of impacting data quality (as well as project timelines and costs).

- **Address the issue of duplicate** entries early, particularly when migrating from multiple systems – this may include selecting and implementing a master data management tool where appropriate and working to merge multiple records.

- **Identify inconsistencies** between duplicate records for agreed core data items and develop a process of validating the data.

- **Implement tools** and / or processes which will detect dips in data quality and flag incomplete and poor quality records on an ongoing basis.

HOARDING IRRELEVANT DATA
LEADS TO A HUGE AMOUNT OF OVER-SPEND ON OPERATIONAL COSTS”
_FRANK SCHULER

DE-RISKING DATA MIGRATION

Organisations that have been most successful in managing their data quality tend to have procured or developed solutions which show high-level data performance at a solution-wide, organisation and data-set level and allow users to drill-down to see individual records where quality is below a given threshold. This approach also enables organisations to be proactive with their data quality as they are able to see trends for data quality performance and highlight potential issues at the source of entry. This allows opportunities for re-training or process changes which have a significant impact on the consistency of the data on an ongoing basis.

THIRD PARTY SUPPLIER UNDERSTANDING THE CHALLENGE

It's not uncommon for ERP customers to think they can take on the challenge of data migration themselves – in one sense, it is best practice for the customer to own the DM process rather than package it with the SI. However, owning the process and physically undertaking the activity are two very different propositions and without specialist knowledge onboarded and embedded into the programme, self-serve DM can be the weakest link in any ERP implementation.

“We have often seen organisations who have felt they would be able to deliver this critical workstream without third party assistance, believing the skill, dedication and willingness to learn of their existing team will see them through. This is understandable, particularly where the organisation has a proven track record of project delivery and a highly capable development team. However, this approach almost always leads to delayed project timelines, costs which spiral well in excess of the initial expected budget and, in the worst cases, major long-standing data issues within the new system. This is especially true of more complex projects involving multiple sources of data,” said Pullee.

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— STEVE PULLEE

Bloor Research's study 'Data Migration in the Global 2000,' bears this out, demonstrating that when this approach is taken, a third of data migration projects suffer significant cost overruns, two-thirds are not delivered on time and more than three-quarters fail to meet expectations. In short, the majority of ERP data migrations do not deliver to a consistent level of quality or demonstrate value for money. However, organisations who make the choice to de-risk the critical path of their ERP project by utilising specific third party data migration subject matter expertise at an early stage tend to enjoy more successful, cost effective projects.

SELECTING A SUPPLIER

There are three critical elements which you should expect from your supplier;

- **Risk mitigation** of the data migration workstream from the critical path of the project.
- **Delivery of the highest** possible quality of data into the new solution first time; providing a foundation upon which the customer can make the necessary operational changes to achieve the return on investment it requires.

- **A cost model** based on milestone outcomes; enabling maximum control, minimum risk, and complete quality assurance.

However, even with these three cornerstone principles in place, selecting the right supplier is not easy.

Suppliers who suggest they will save organisations time and cost by leveraging standardised template documents, scripts and workbooks can subsequently prove to be unfit for purpose and result in a reliance on manual processes and expensive manpower to develop scripts to 'fire-fight' issues as they occur. Similarly, suppliers will sometimes offer to include a full user testing capability within their service; selling this as a cost and effort reducing provision. However, this essentially allows them to mark their own homework and tailor the quality of the data based on their data selection.

To avoid these challenges, you should ask your DM partner to demonstrate the following;

- **Has existing proprietary** toolsets which will require only re-configuration, rather than ground up development and which enable automation of the majority of required effort.
- **Views testing and reconciliation** as an integral element of each ETL, not a separate task conducted towards the latter stages of a data migration project.
- **Has the ability** to plan and execute transformation-only runs, without having to complete a full trial load.
- **Implement** fit-for-purpose transformation rules rather than leveraging template rules which have been utilised in other deployments.
- **Is able to support** your organisation with cleansing your data prior to migration.

Summing up McGrail said: “A successful data migration needs a clear strategy, a structured and scalable methodology and effective integration with other parts of the project. Money spent by a project to ensure a successful data migration is strongly outweighed by the benefits of reducing the risk of project delay.” ■

THINKING ABOUT DATA MIGRATION? IT'S PROBABLY TOO LATE



...or so the adage goes. The fact is the majority of ERP Data migrations do not deliver quality or value for money.

37% OF MIGRATION
PROJECTS SUFFER
SIGNIFICANT COST
OVERRUNS

67% ARE
DELIVERED
LATE

84% FAIL
TO MEET
EXPECTATIONS

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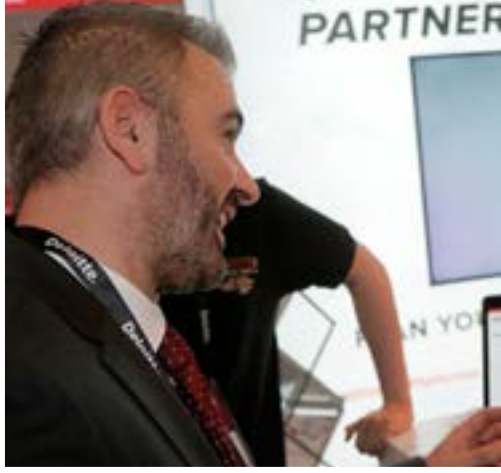


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ORACLE OPENWORLD

LONDON

Big Red rolls into London for the first time to talk cloud and AI as they set out an agenda for the future of the intelligent enterprise.



Back in January, Big Red rolled into town for the first OpenWorld outside of the US. A reported 15,000 people attended the two day event which was slightly overshadowed by Mark Hurd's absence, but nonetheless, the event was a triumph in terms of pushing Oracle's cloud-first agenda.

Three keys words from the event; Cloud, Autonomous and Intelligent.

There was no mention at all of E-Business Suite across the two days

and all of Oracle's efforts went into pushing ERP Cloud, their Autonomous Database and other 'intelligent' products, broadly wrapped up in themes of Blockchain, AI and IoT.

The Autonomous Database is interesting because in large part we are taking Oracle's word for it that it actually works. Given Oracle's position in the database market we should assume that it does (or at least will) and they are clearly hoping to recover some ground

that has been lost following the aggressive narrative waged by other cloud and ERP vendors keen to see Oracle's stranglehold in the DB sector loosened. There are very few real world examples of the autonomous products, although those that have deployed it claim significant cost and time savings and more trials by customers are being taken frequently. It will be a while before the product matures enough for meaningful comparisons to be made but



essentially both the warehouse and transaction processing products are fully managed by Oracle, performing many of the tasks that your traditional DBA would have with a product that can be scaled up and down on demand. Sounds great but food for thought for CIOs – do you really want your infrastructure, databases and applications owned and managed by any one vendor?

Yves Bernaert from **Accenture** opened proceedings on day one with

the first keynote and focussed heavily on ‘the intelligent enterprise’ and suggested that IoT was already dead and we have entered an era of IoT2, neatly captioned as IIoT or “Intelligent Internet of Things”. His presentation was interesting and included some augmented reality which was nice to look at but only really served to demonstrate a capability which is yet to find a real purpose.

The majority of other presentations and speeches across the two days

continued the three headline topics with most showcasing new capabilities underpinned by intelligent technology. It will be interesting to see how many of these capabilities become purpose driven products over the next 12 months.

In summary, the event was typical Oracle. Big, red and all about cloud. A great showcase for the Oracle community; huge in scale, bold in production and exceptionally well organised. ■



| PHOTODIARY |

SAP INNOVATIONX

LONDON

Purpose and experience hot topics for SAP, as world's biggest apps vendor disrupts itself with new vision and focus on making the world a better place through technology.



SAP's **InnovationX** event was held at the Printworks factory in London and had a very different feel compared with many other tech summits I have been to. There was very little talk around metrics and most of the narrative was centred on problem solving, experience and purpose. Jens Amail, UK&I managing director opened the show – once the dancers had got off stage – with an

understated keynote that focussed heavily on SAP's responsibility as a global tech firm to 'do good'. Akin to Google's long-held mantra of 'don't be evil', the SAP spiel was focussed on how it can make the world a better place rather than how many cloud ERP customers it has. That may be because they don't actually have many cloud ERP customers, but it didn't feel insincere and made a refreshing change to listen to a tech

giant talk about something other than world domination. The recent acquisition of **Qualtrics** was placed front and centre – as you'd expect it to be having spent \$8bn on it – as Amail laid out a vision of experience-led innovation centred around the new jewel in the SAP crown. Unlike acquisitions for scale, Qualtrics brings something entirely new to the party and it's not just rhetoric



designed to justify the price tag that is fuelling SAP's narrative. The surge towards customer and employee centric products and experiences is gathering pace. In fact, it has picked up such momentum over the last 12-18 months that it is starting to reshape how SAP positions itself in the market.

Amail talked about the connection of 'O' and 'X' to create a unified view between operational information

and experiential data, noting that more three quarters of the worlds transactions touch a SAP system and this plethora of operational data coupled with new experiential understanding will radically change the shape of enterprise applications. Bill McDermott, talking at SAP's Capital Markets Day, described Qualtrics as having "the biggest leverage of any acquisition we've ever made" and went on to state

that "Qualtrics will not only turn SAP into a very different type of company, but will radically alter how businesses around the world understand, engage with, and delight their customers". A bold statement considering not too many people had heard of Qualtrics 12 months ago - but I have a feeling that unlike many other proclamations from the big vendors - this one might actually come true. ■

OPINION



DLT

AN INTRODUCTION TO DISTRIBUTED LEDGER TECHNOLOGY

BY IAN SMITH

Distributed ledger technology (DLT), also known as a shared or distributed ledger, is amongst the most frequently used buzzwords in business. However, despite the attention it receives and its widely mooted potential, few understand precisely what DLT is, how it works, and what it can be used for. Practical applications of the technology often being crowded out by businesses using the term as a marketing lever without having any real intentions of implementing.

So, what exactly is DLT, and how can it be put to effective use for businesses?

Ledgers have existed for centuries in accounting. Essentially, they are a list of transactions explaining how data has changed over time, used to gain an understanding of the world as it is now, or at any point in the past.

Put simply, DLT is a digital counterpart to this, but with each company maintaining its own copy of the transaction history. All transactions can be verified against the copies held by other mem-

bers of the network and, once a transaction is verified by the network, the information is written to the ledger and cannot be subsequently altered. Because of the way the data is recorded and verified, it is immutable, incorruptible and therefore, trustworthy.

Bitcoin represented the first notable use-case for DLT, closely mirroring traditional ledgers in many ways. Since then, businesses have discovered a wealth of applications for the underlying technology, that often have nothing to do with cryptocurrency and its controversies.

Even so, many struggle to distinguish between DLT, blockchain and

cryptocurrency. Blockchain is just one of the more popular applications of DLT. A blockchain system groups transactions into blocks which are then executed against a shared database. A blockchain system underwritten by DLT can be either public or private and stimulates the results of a proposed transaction in terms of changes to data, and groups those sets of changes into blocks which are then ex-



Bitcoin represented the first notable use-case for DLT, mirroring traditional ledgers in many ways.

ecuted against a shared database – the ‘world state’.

Most of the overzealous excitement about blockchain has focussed solely on the public variant. Massive, open systems threatening to overthrow the global economy and bring forth an anarchist utopia according to some; simply an interesting, if technically challenging way to build distributed systems according to others. As interesting as public blockchain may be, the less discussed variant (the private, permissioned blockchain) is becoming more prominent.

What are its use-cases?

Previously, it has been claimed that DLT is set to revolutionise finance, supply chain, asset ownership, digital identity and much more. Many of these projects, though, are still in their infancy and won’t mature into products with full functionality for a little while yet.

One tangible application of DLT already acknowledged as adding increased value, would be to supplement the huge amounts of time and money enterprises are spending on expensive cybersecurity solutions which fail to protect from breaches and hacks, but stifle business agility. A private permissioned DLT platform solves this challenge along with one of the thorniest challenges in the today’s digital economy; how to securely share data.

What is becoming clearer is that blockchain technology is still on track to become a transformative and disruptive force. Yes, market conditions and sentiment are bad, there are many average projects out there, and some critical technological shortcomings still need to be overcome. But there are good projects and initiatives too, building great products and services and actively solving these issues.

If you zoom out a bit, get some perspective and put the current market into context, you will realise that blockchain is on a rather typical journey to maturity and mainstream adoption. Once the key benefits and applications of DLT have been communicated and digested, we will begin to see the difference between the hype surrounding this transformative technology, and its tangible value to enterprise. ■



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