

| ERP VENDORS |

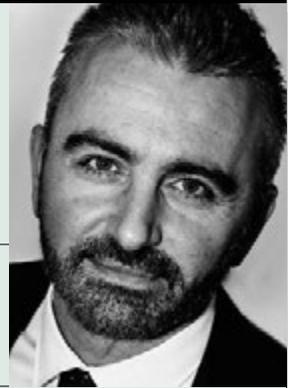


Annual vendor review 2020

Advanced
Epicor
IFS
Infor
Microsoft

QAD
Sage
SAP
Unit4
Workday

ERP buyers have never had it so good



The quality of the offerings from the major vendors continues to multiply as the top players develop specialisms and deliver greater value to customers. **BY PAUL ESHERWOOD**

The ERP marketplace is being disrupted and the opportunities for ERP buyers could not be better. Acquisitions, partnerships, new products and challenger brands are all making plays and the net result is greater choice, better tools and lower costs for customers.

Historically ERP was a product; a set of applications that you bought, installed and maintained. It was a monolithic beast that sat at the centre of an enterprise with its tentacles spread far and wide controlling every aspect of your business. Applications were customised and ERP systems were enhanced creating a sprawling network which required significant hardware to operate it. If you wanted a new process, report or piece of functionality you built it into the core of the system which created an increasing burden of complexity. Footprints grew as different environments were required for development, testing and production, and after years of tinkering and upgrading, most of them were a mess.

The vendor's proposition used to be built on the strength of their applications and the only 'value-add' was the bit they sold you post implementation to keep the whole thing going. Typically, an ERP project would be a huge undertaking that required a significant investment in time and money and often meant widespread business disruption. Little wonder that many ERP customers who had been through the mill on a previous implementation did

everything they could to postpone the next instalment of ERP misery that would inevitably be required when it was time to upgrade.

Today, ERP is very different and the vendor proposition has changed to focus much less on the product and more on ERP as a foundation for innovation. Modern ERP is more of a platform than an entity. It's the building blocks that enterprises use to support front and back office functions keeping their core processes inside the ERP and their non-core firmly outside. Customers are moving towards simpler systems and adopting integrations instead of customisations which keep the core clean and allow for joined-up interactions between lines-of-business, different systems and processes. Differentiation between the various suites of applications is far less obvious than it was 10 years ago and vendors position themselves as providers of enterprise intelligence through a portfolio of offerings, of which ERP is just one element.

Despite the lack of differentiation between some of the core applications, several vendors are increasingly becoming specialised; if you are in aerospace, IFS will be high on your priority list. If you are a manufacturer you will probably be talking to QAD. And if supply chain functionality is a priority then Infor is a good bet. These are just three examples and in each case the choice isn't binary. There are lots of good ERP systems that work in these verticals and as specialisms become more ingrained it

will become easier for customers to identify the vendor and product that best fits their needs.

SaaS applications are often written for specific industries – in some cases for micro-verticals that sit inside broader sectors – but it is the depth of industry knowledge, not the application itself, that is the key differentiator for the vendors today. Historically, when a vendor wanted to break new ground they built a set of applications, put a new badge on it and hired a sales team. Today, vendors have deep industry expertise and vertical specific propositions are built on the foundations of that knowledge. This all amounts to good news for ERP customers as they can be confident that they will be dealing with vendors that can walk as well as talk.

So how do six of the top ERP vendors that we have featured in this report shape up from a strategy point of view?

MICROSOFT

Microsoft may win less big ticket ERP deals than their global reputation suggests they should but that could start to change as enterprises switch their focus from 'applications' to 'platforms'. Microsoft is investing heavily in its enterprise offerings (and its sales teams) with an aggressive plan to go out and win more business. In the US alone they have recruited 1,000 new sales specialists and it won't be long before the effort ramps up in Europe as well. The latest release of D365 Finance

and SCM, which until recently was called D365 Finance and Operations, has more than 400 enhancements and updated features and in a recent blog post, James Phillips, president of business applications, said: "We're making enormous investments in Dynamics 365 across the company and across the globe. It's a scale-up velocity unlike anything we've ever done at Microsoft."

Microsoft has always been a major player but our prediction is that they will become increasingly visible in the market as they look to leverage their global sales force, incredible brand strength, public cloud dominance and boundless R&D resources.

UNIT4

Unit4 has been reborn under the new stewardship of CEO, Mike Ettling, and its recent financial results bear testament to the wisdom in taking the business in a new direction. Ettling has set a course that he is familiar with – people – and the newly branded Unit4 has made its play in that space. Focussing on just four verticals – professional services, public services, education and not-for-profit - Unit4 is the 'people's choice ERP'. Its products are built with users in mind, its platform has been developed using a microservices architecture and the ability to use a cloud-based extension kit, and its relationship with Azure is mature and delivers excellent TCO for users.

Unusually for a private company, Unit4 published an unadulterated version of its financial performance for 2019, which showed some impressive numbers. Perhaps not in comparison to some of the larger vendors but progress none-the-less. From a relatively low base and generally poor market perception, Ettling has transformed the business in under 18 months and positioned it for serious growth. Plans to roll out a single multi-tenant code line later

in 2020 will ease analysts' minds and reduce cost burden while also providing greater agility.

We expect Unit4 to continue the upwards trajectory in its chosen verticals and make more gains, particularly in the education sector. Its recent deal with **Galileo**, a network of 42 European schools, could give it the springboard and references to make a dent in the UK market.

IFS

IFS is also under new leadership, and ownership, and is another challenger vendor that has made huge strides in the last 18 months. A 'sleeping giant' that had a very messy corporate structure and disparate business model has been refocussed as a coherent contender with lofty ambitions and an aggressive growth strategy.

Darren Roos is the new CEO who set about remodelling IFS by harmonising the business units, refocussing the strategy and developing a solid partner ecosystem. IFS is very vertically focussed on asset-heavy industries and has an impressive book of clients across aerospace, defence, manufacturing and utilities.

Smart strategic acquisitions and a useful tie-up with **Acumatica** (read all about them in the next issue of ERP Today) has given IFS several new strings to its bow - a bow that Roos is pointing squarely at his former employer, **SAP**. IFS is ambitiously taking a swipe at SAP in its marketing efforts and that may not be such a bad play. IFS' big selling point is its time-to-value proposition and with many SAP users looking at S/4 and realising the complexity of the migration path there may well be some disgruntled customers that would welcome the IFS approach. However, if IFS is going to seriously challenge at the upper end of the enterprise sector they will need to invest more heavily in their sales teams, partner network and marketing. Picking some low hanging

fruit will be possible but Roos is ambitious and predicts £1bn in revenues by the end of next year. That will take some serious effort but I think they might just do it.

SAP

SAP is still the dominant ERP vendor globally and despite some misgivings about the way S/4 was conceived and brought to market, it still retains its number one status. The recent announcement to continue support for Business Suite 7 until 2027 (and 2030 if you are in the process of migrating to S/4) will give some comfort to ECC 6 users – but it doesn't solve the problem entirely.

SAP is an indomitable force in the enterprise tech space and it will take more than a few rumblings from analysts to knock them off course. However, a slowdown in cloud revenues left some disappointed with just 17 percent growth in Q4 2019 – and 10 percent of that was attributed to a single customer. However, they did add 1,200 S/4 HANA customers in the quarter bringing the total installed base to 13,800.

SAP has all-but abandoned its infrastructure ambitions in favour of partnering with the hyperscalers and concentrating on its SaaS business – a decision that also affected its top line performance but will likely pay dividends in the long term.

New co-CEOs, Jennifer Morgan and Christian Klein, have only been in the job for a few months so it will take time to see how the restructuring and refocussing shapes up. The SAP partner network is one of the vendors biggest strengths and with the likes of **IBM** and **Accenture** so heavily invested in the SAP proposition any minor bumps in the road will be ironed out and forgotten about over time.

INFOR

Infor is the world's third largest vendor of enterprise applications

and has recently been bought by **Koch Industries** – a US-based conglomerate that was already a 50 percent owner. There had been a lot of talk about an Infor IPO but the news that Koch had stumped up the cash to buy the business outright put an end to that speculation. On the face of it I would say this is good news for Infor and its customers. Koch is a huge business with very deep resources and the stability of private ownership coupled with the cash that Koch will invest should put Infor in a very happy place.

Infor's strengths lie in its very detailed and niche products. Its applications are finely tuned for micro-verticals providing off-the-shelf tools that are primed for best practice. It has taken many years and much investment to engineer these products and the granular nature of Infor's applications is a real differentiator.

Kevin Samuelson, Infor CEO, is a smart guy and he has overseen much of Infor's growth and strategy over a long 16 year career (apart from a brief hiatus between 2013 and 2016). Samuelson was instrumental in most of Infor's acquisitions in the last decade and then more recently occupied the role of CFO where he oversaw

significant revenue growth.

The only concern with Infor now that they are owned by Koch is around the future strategy – which at present is unclear. Since Koch first invested in Infor back in 2016 it has rolled out the Infor product to a number of its subsidiaries which at the time would have been great news and an easy win for both sides. But as Infor looks to increase its market share and penetrate the markets where Koch operates and competes with potential new customers – could this be seen as blocker? Will company X buy from Infor if company X competes with Koch? Perhaps it's not so much of a worry and any issues are far outweighed by the financial clout and flexibility that comes as part of the package. As Samuelson put it to me: "We are all super excited and feel that we have degrees of freedom and financial stability that is unmatched in tech." Financial stability for sure but let's reserve judgement on the freedom until we hear more about the long term strategy under new private ownership.

WORKDAY

Workday's may be close to stealing the crown from Oracle as the

brand of choice for the modern enterprise. Its cloud-native heritage and deep reach into the HR workings of many global enterprises has given Workday some incredible reference points. It has positioned itself as the platinum option by only going after marquee-signings and is more than a contender for global projects that require both cloud HCM and more traditional finance/ERP.

It is heavily invested in developing its offerings with the latest technology and at its global user conference last year went big on machine learning as a core capability. At the same event Workday also took the wraps off its newest UX, called People Experience, which also relies on ML to deliver an intuitive user experience. Its PaaS offering will also be generally available soon and this will add a new dimension for enterprises that require differentiation in their platform layers. However, Workday still needs to transition from its in-house cloud operating platform to a public cloud platform. For Workday to succeed with its push for ML, it will need to move more customers to the public cloud to benefit from the infinite storage and compute resources the public cloud offers.

A word about our partners

ERP TODAY has collaborated with Lumenia on our first annual ERP vendor review. Lumenia is an independent boutique consultancy that specialise in vendor selection and ERP planning and despite their size, are one of the most respected vendor-agnostic authorities of ERP knowledge in Europe. I have worked with the Lumenia team for nearly a decade and their expertise and impartial acumen sets them apart from all other sources of ERP know-how. Lumenia does not sell software and their independence means that they have no vested interest in pushing clients towards particular software solutions. They focus instead on how enterprise applications can best be used to transform business processes and deliver measurable business benefit to their clients, whether this is through the deployment of new software or by getting more value from systems that are already in use.

Lumenia has developed unique methodologies that allow clients to undertake ERP and business change programmes using structured processes that maximise the likelihood of project success by promoting business ownership, minimising risk and controlling cost, while ensuring that planned business benefits are realised.

Over the following 10 pages, the Lumenia team have brought together a comprehensive product assessment for each of the vendors in this review. None of the vendors have paid for their inclusion and the analysis which follows is our collective independent view of the respective offerings.

Oracle declined to participate in this review.



John Donagher



Ian O'Toole



Lumenia was delighted to partner with **ERP Today** in the production of this vendor review. 10 of the leading ERP providers are profiled over the following pages. The individual profiles cover products that fit different organisation sizes and different industry verticals. The vendor organisations themselves range from mid-size to some of the largest global enterprises operating today. Despite that, there are market trends that are discernible across the ERP and enterprise software sector overall.

Functionality Trends

Business software in general has seen the impact of the consumerisation of IT on user expectations and has had to respond. Newer generations of users expect all software interactions to be as simple as the mobile apps and websites that they use outside of work. ERP vendors have had to respond. The clunky interfaces of legacy suites have largely been replaced by more user-friendly intuitive interfaces. User interaction constructs have been deployed by many vendors that mimic our interactions on social media or with chat bots.

Most vendors have incorporated functionality or tools to leverage AI and RPA capabilities now widely available. These are bringing efficiencies to repetitive and administrative tasks and freeing up capacity for higher value and fulfilling work. IoT data-feeds are being incorporated into ERP processes, particularly in manufacturing and asset intensive implementations.

HCM has become a key focus of many ERP vendors as it was one of the first lines of business that lent itself to a cloud ERP model where implementations that touched physical processes, such as manufacturing, were slower to adopt.

Cloud Trends

This migration of ERP to the cloud has continued at pace albeit after a slow start. The variety of cloud solutions can be seen in the following pages. There is still a variety of cloud deployment models reflecting the need amongst buyers for options as much as differing pace of development and technical evolution amongst vendors. With few exceptions, ERP vendors are pushing this trend. Whether this is a reaction to customer demand for OpEx based investment or technology vendor shareholder demand for predictable revenue is questionable. Regardless of the financial aspects of the cloud migration, most CIOs and IT managers are happy to move some of the technical overhead of managing complex ERP solutions outside.

SAP's recently announced slowdown in cloud bookings and extension of support for its legacy ECC6 (non-cloud) suite however are examples illustrating that there is not, and probably never will be, a one size fits all approach to cloud ERP.

Architectural Trends

There has been a trend in recent years to decouple the components of the vendor suites into their constituent parts. This is partly enabled by technology (SOA based integration), partly driven by market dynamics (acquisitions are easier to integrate in a SOA environment than to bake into a different code base) and partly driven by commercial considerations (enabling clients to pick subscriptions from a shopping list of options). Almost all of the leading suites described over the following pages are actually made up of multiple components now. ERP buyers should understand this. Contrary to many tech commentators' views that big suites are too complex, many buyers still like to think that one solution supporting everything is easier to manage than multiple moving parts with different integrations to manage. This may not be what they are buying, despite branding.

Commercial Market Trends

Finally, it is worth stating that the ERP market remains vibrant, if not as headline grabbing as some newer technology markets. The reality is that many of these new technologies enable most benefit when integrated to, or coupled with, processes that are recorded and transacted in ERP systems. Continued equity investment in the market (see Infor and Advanced notes in the coming pages) and continuing acquisitions are testament to this vitality. As ERP vendors' offerings continue to mature, they are broadening their reach into CX and other digital technologies. The future for ERP is bright.



| Product Range | | | Notable UK Customers | | |
|---------------------------|--------------------|-------------------|-----------------------|--|------------------------------------|
| PRODUCT | DEPLOYMENT OPTIONS | LICENSING OPTIONS | | | |
| CLOUD FINANCIALS | Cloud | Subscription | ST ANDREWS HEALTHCARE | Charity providing psychiatric services | |
| CLOUD HR | Cloud | Subscription | | HARVEY NICHOLS | Luxury department store – retailer |
| BUSINESS CLOUD ESSENTIALS | Cloud | Subscription | | NHS | National Health Service |

Advanced is a large UK-based provider of business software solutions (including ERP) which provides a variety of solutions targeted at businesses ranging in size from SME's to larger mid-size or enterprise organisations. Of the products listed above Cloud Financials and Cloud HR are targeted at mid-size to enterprise organisations across all markets while Business Cloud Essentials is targeted at small to medium manufacturers. Advanced also has a very broad range of line-of-business offerings covering areas such as payroll, procurement, membership and fundraising, rostering, sports ticketing and many more. In addition, it provides a solution called MyWorkplace which is a unified, open-standards cloud platform that enables deployment of multiple Advanced solutions together with a unified user interface and single sign-on with additional

workflows and apps. Advanced also provides outsourced IT operations, managed services and application modernisation services. Cloud products are updated either bi-weekly or monthly.

The Advanced product range is cross-sectoral in scope and serves public and private sector organisations and verticals such as legal, education, healthcare and non-profit. The range of lines of business supported across the product range include finance, HR/ payroll, procurement and document management as well as specific solutions for each of the verticals mentioned above. These include;

- Vertical solutions for non-profit, membership and sports
- Healthcare: out-of-hours, urgent and unplanned care, document management/ workflow for primary and

secondary care, EHR community and clinical decision support

- Legal: case management solutions for solicitors and barristers, plus legal forms software.
- Education: student information systems for schools, academies/multi academy trusts, further education and private training providers.

Advanced is a private company with co-controlling stakes from two private equity investors **Vista Equity Partners** (since 2015) and **BC Partners** (since October 2019) – the most recent round of investment valued the company at £2bn. Advanced global revenue for financial year ending February 2019 was £239m with subscription revenue accounting for £41m of that. Advanced claims 19,000 customers in the UK with 3,600 of those subscription based.

It is growing through acquisition as well as development with four acquisitions completed in 2019 (**Oyez** - legal forms solutions for legal practitioners; **Kirona** - cloud based field service management solutions; **Modern Systems** - application modernisation business that transitions customers from legacy systems to modern environments; **Careworks** - cloud-based integrated health and social care solution). In addition, the core product range has continued to be developed with the current focus on further developing the cloud platform MyWorkplace in line with its cloud-based solution strategy.

With more acquisitions to come Advanced will need ensure they retain their focus on building value-add capability where products and services dovetail rather than building a disparate set of applications.

EPICOR

| Product Range | | | Notable UK Customers | |
|----------------------------|--|-------------------|--|--|
| PRODUCT | DEPLOYMENT OPTIONS | LICENSING OPTIONS | | |
| EPICOR ERP | On-premise, multi-tenant, single-tenant and dedicated tenant | Perpetual & SaaS | LONDON ELECTRIC VEHICLE COMPANY | Manufacturer and retailer of electric commercial vehicles |
| EPICOR ADVANCED MES | | | | Manufacture, sales and distribution of maintenance, homeware and cleaning products |
| EPICOR TROPOS | | | | |
| EPICOR BISTRACK | | | | Supplier of precision sheet metal fabrication and engineering solutions service |
| | | | WD-40 | |
| | | | KMF GROUP | |

Epicor's range of enterprise software solutions for the UK and Ireland market includes two ERP solutions, an MES system and a niche product for timber and builders' merchants. Customer size varies from SMEs (<20 users, <£20m) to enterprise (>2500 users, >£1bn), with a core focus on midsize manufacturers (100-1000 users). Epicor has a long pedigree in the enterprise software market with many different ERP product offerings over the years. Headquartered in Austin, Texas, the business is a global player in the sector and has offices and customers in Europe, Asia, Australia, Africa and Latin America. The business has been owned by global investment firm **KKR** since 2016 and does not disclose revenue figures. The company is understood to have around 4,000 employees. Epicor provides a range of deployment and licensing

options for its products with major releases for SaaS products every six months. Like other enterprise vendors the number of SaaS customers is growing and now accounts for 30 percent of UK customers. Epicor has a strategic partnership with **Microsoft** to deliver cloud solutions on the Azure platform with Epicor incorporating Microsoft's technologies in areas such as AI, IoT and machine learning into its products.

Epicor ERP is a full ERP suite aimed primarily at discrete manufacturers and can be deployed in the cloud or on-premise. It is a broad-based ERP solution which is a very strong candidate for mid-size manufacturing organisations and claims particular suitability in aerospace and defence, electronics, fabricated metals, industrial machining, medical devices and rubber and plastics. Other target sectors include distributors

and engineering field services. The system supports various manufacturing modes, including design-to-order, engineer-to-order, make-to-order, configure-to-order and assemble-to-order. Epicor ERP gains regular plaudits from industry analysts for its depth of functionality for manufacturers although **IDC** point out some gaps in relation to quality management.

Epicor Advanced MES, formerly known as Mattec MES, provides real-time shop-floor monitoring and control for discrete manufacturers.

Epicor Tropos is an ERP solution for process manufacturers. Part of the Epicor UK stable since 2012 when it acquired **Solarsoft Business Systems**, Tropos has historically been a very successful solution for process manufacturers, with a strong track record

in specific industry sectors such as distilleries, bakeries and pharmaceuticals.

Epicor BisTrack is a leading construction supplier software solution on the UK market tailored to the unique needs of the building supply, manufacturing and distribution industries. Recent notable product developments include the introduction of artificial intelligence with Epicor Virtual Agent, Epicor IoT to connect machines to Epicor ERP and Epicor Collaborate, a cloud-based integrated digital messaging platform. Epicor also acquired 1 EDI Source to further enhance EDI capabilities. Epicor sells its products directly and through a partner channel. Some partners have developed particular expertise in sectors outside of Epicor's usual sweet spots and can provide innovative solutions built on Epicor's flexible technology platform.



| Product Range | | | Notable UK Customers | | |
|-------------------------------------|--------------------------------------|---------------------------|------------------------------|-------------------------------------|---|
| PRODUCT | DEPLOYMENT OPTIONS | LICENSING OPTIONS | | | |
| IFS APPLICATIONS | On-premise Single-tenant cloud | Perpetual Subscription | BABCOCK INTERNATIONAL | Asset and infrastructure management | |
| IFS FIELD SERVICE MANAGEMENT | On-premise Single-tenant cloud | Perpetual Subscription | | PUKKA HERBS | Organic herbal tea and supplements producer |
| IFS MAINTENIX | On-premise (some cloud options) | Perpetual Subscription | | AUTO WINDSCREENS | Automotive glass repair and replacement |

IFS' range of enterprise applications are targeted at upper mid-market enterprises and lower large-enterprise customers that manufacture and distribute goods, maintain assets, and manage service-focussed operations. IFS specifically focusses on five vertical markets; manufacturing; engineering, construction and infrastructure; energy, utilities and resources; service industries; and aerospace and defence. It also has specific expertise in a number of associated sub-verticals.

IFS is headquartered in Sweden, where it was originally founded in the early 1980s, and has over 3,500 employees and operations globally. Owned by Swedish private equity group **EQT**, its financial results for 2019 continued to show strong growth, with net revenue of \$668m. IFS has traditionally relied on their own consulting team to deliver implementations but this approach is changing and

a partner channel is actively being developed. IFS now has strong relationships with the likes of **Tech Mahindra**, **TCS** and **Accenture** to implement its technology on the global stage and also works with an increasingly diverse range of partners in the UK such as **Anthesis**, **Vanilla Solution** and **Mitec**.

IFS' policy is to offer customers choice in what they buy and where they deploy it and they offer a range of licensing and deployment options. Customers can choose traditional on-premise deployments with perpetual licensing, or the IFS Managed Cloud, a single-tenant solution deployed on **Microsoft Azure**, with perpetual licensing or SaaS subscription. Updates are currently released quarterly, however a change to a bi-annual release cadence is planned.

IFS' longest-established and best-known product is IFS Applications, a modular ERP solution covering financials, human resources, quality

management, document management, customer relationship management, business intelligence, sustainability management and other core functionality to facilitate full lifecycle management of products, assets, customers and projects. IFS is known for its particularly strong offering for asset-intensive and project-based organisations and has invested in the new wave of technology augmenting traditional ERP capabilities, particularly in areas such as enterprise mobility, IoT, artificial intelligence, machine learning and an updated user interface.

IFS Maintenix is a best-of-breed aviation maintenance management solution.

IFS Field Service Management is a leading product in the sector, providing work order management, spare parts management, service contract management, warranty management and service project management capabilities for enterprises

across multiple sectors. To augment this capability, IFS acquired the leading global field service management software company, **Astea International**, in December 2019.

IFS has their own well-defined implementation methodology although partners have latitude to use their own methodologies. The IFS strategy is to position themselves for delivery of larger and more complex or strategic implementations, with partners delivering SME projects.

IDC positioned IFS Applications as a 'major player' in their 2019 MarketScape report, noting their deep expertise in their target sectors, the product's flexibility and IFS's commitment to innovation. **Gartner's** 2019 magic quadrant for Field Service management positioned IFS as a 'leader' in the market segment. Both reports noted that IFS could improve their marketing to drive brand awareness.



| Product Range | | | Notable UK Customers | |
|---|--|---|---|--------------------------------------|
| PRODUCT | DEPLOYMENT OPTIONS | LICENSING OPTIONS | BAE SYSTEMS | Defence, security and aerospace |
| INFOR CLOUDSUITES (Industrial Enterprise; Industrial; Financials; Automotive; Aerospace and Defence; Fashion; Distribution; Equipment; Food & Beverage; Retail) | Infor claim the dominant deployment method across their application range is multi-tenant cloud. Most core ERP components are available on-premise, multi-tenant or single tenant. | Subscription primarily with perpetual available for on-premise deployments. | LIBERTY SPECIALITY STEEL TRIUMPH MOTORCYCLES | Industrial metals Motorcycles |

Infor's range of applications suites target mid-size to large enterprise organisations across a variety of sectors. Traditionally, Infor was strong across various facets of manufacturing with particular depth of capability in certain micro-verticals. So, for example, within food and beverage Infor has particular strengths in brewing, meat processing and baking. Infor's breadth of products now cover such verticals as automotive, industrial manufacturing and equipment, hi-tech, food and beverage, construction, distribution, equipment rental, retail, fashion, aerospace and defence and chemicals. Beyond core ERP solutions, Infor has products with strengths in sectors such as hospitality, facilities management, financial services, professional services, public sector, healthcare, non-profit and 3PL logistics providers.

Infor's product range has evolved through acquisition and development. The solutions are grouped together into CloudSuites with a particular industry focus. These CloudSuites are often comprised of a core ERP product like Infor M3, Infor LN or Infor Syteline with additional components and workflows integrated using Infor integration tools (ION) and deployed on Infor OS cloud operating platform (usually on Amazon AWS). In addition to the core ERP products Infor has a range of strategic solutions including SunSystems (financials), Infor EAM (enterprise asset management), Infor Nexus (networked supply chains), Infor Coleman (AI) and Birst (analytics).

Infor claims that its vertical focus with pre-configured CloudSuites means that preconfigured industry processes and predefined industry analytics shorten the time to value. The

breadth of Infor's product offering means that a very wide variety of business processes are supported by their ERP applications, including finance, HR, distribution, manufacturing operations, supply chain and customer services.

Infor's CloudSuite's are primarily deployed as multi-tenant cloud solutions with a monthly update release cycle. However, other deployment models are available and customers can choose single-tenant or on-premise options for most applications.

Headquartered in New York, Infor recently became wholly owned by (former majority shareholder) **Koch Industries** in a deal that values the company at \$13bn. Infor claims 68,000 customers globally of which 13,500 are cloud customers. Total revenue for the last financial year was \$3.2bn. Infor has a significant presence and

customer base in the UK.

Historically, Infor has implemented directly using its own services organisation. It has been aggressively developing a partner channel over the past number of years and now many smaller implementations are partner led.

In its June 2019 Technology Value Matrix, **Nucleus Research** placed Infor Cloudsuite in the 'Leader' quadrant highlighting continued strategic investment in industry vertical support and growth of its partner network. Similarly **IDC** positioned Infor as a 'major player' in their March 2019 MarketScape report for worldwide SaaS and cloud-enabled operational ERP applications highlighting that vertical specialisation can mean less customisation and faster implementations.



| Product Range | | | Notable UK Customers | | |
|---|--|-------------------|----------------------|----------------------|------------------|
| PRODUCT | DEPLOYMENT OPTIONS | LICENSING OPTIONS | DR MARTENS | Footwear | |
| DYNAMICS 365 FINANCE AND SUPPLY CHAIN MANAGEMENT | Single-tenant cloud | Subscription | | TGI FRIDAYS | Restaurant chain |
| DYNAMICS 365 BUSINESS CENTRAL | Single tenant or multi-tenant cloud or on-premises | Subscription | | RENAULT SPORT | Formula One team |

Microsoft core ERP solutions are both branded within the Dynamics 365 suite of enterprise applications which also include customer engagement (CRM) and HCM solutions.

D365 Finance and SCM was until recently sold as D365 Finance and Operations. Now each element can be purchased separately and the suite has been rebranded as Finance and SCM. This product has a long pedigree having evolved out of the AX application suite. It is suitable for most industry sectors including manufacturing, distribution, retail, professional services, healthcare and financial services and particularly in global organisations ranging in size from mid-sized to large enterprise. D365 Finance and SCM is a broad application suite covering lines of business including core financials, project operations, manufacturing, warehouse

management, asset management, supply chain and human resources.

D365 Business Central is more targeted at small to mid-sized businesses. It also has a long pedigree having evolved out of the widely used NAV solution. Business Central is also a broadly functional solution covering core financials, supply chain, sales, projects and more. It is also used across many industry sectors including manufacturing, distribution, retail, professional services and non-profit.

Both these Microsoft ERP solutions provide native integration or integration frameworks to a variety of other Microsoft products providing extensibility, analytics and productivity. These include Office 365, PowerApps, PowerBI and Microsoft's Azure cloud platform.

In line with the industry trends, Microsoft advocates

subscription based Azure cloud deployments. Both solutions were available on-premise until recently but this is clearly not the direction of travel for Dynamics deployments. The release cycle for both products is twice per year.

Microsoft has a particularly wide channel and implements almost exclusively through its partners. These range from large consulting organisations and systems integrators such as KPMG and PowerObjects (an HCL company) supporting global projects to smaller niche focussed partners with particular vertical expertise and experience. In addition, many of these channel partners have developed Microsoft Certified Independent Software Vendor (ISV) solutions to extend the reach of both products. These range from extensions of functional reach to vertical focussed solutions. This channel

tends to co-operate, so that one partner may team up with others to implement their ISV solutions as part of an overall D365 implementation. Historically, Microsoft has acquired some of these solutions and fully integrated them into the core product sets – warehouse management and asset management are two examples in the D365 Finance and SCM product.

IDC positioned D365 Finance & Operations (now Finance and SCM) as a 'major player' in their March 2019 MarketScape report, highlighting their global partner ecosystem as a particular strength citing more than 300 ISV solutions and in excess of 1,000 ISV partners. Its ISV network and rapidly expanding sales force will see Microsoft making gains in the mid-market ERP sector. However, Microsoft often struggles to win big-ticket global ERP projects due to the structure of its partner network.



| Product Range | | | Notable UK Customers | |
|-------------------------|---------------------------|--------------------------|------------------------|---|
| PRODUCT | DEPLOYMENT OPTIONS | LICENSING OPTIONS | CATERPILLAR | Industrial machinery |
| QAD ADAPTIVE ERP | Single-tenant cloud | Subscription | GKN AUTOMOTIVE | Automotive driveline technology and systems |
| | | | IMPERIAL BRANDS | Tobacco and related products |

QAD's application suites are targeted exclusively at manufacturing organisations with a particular focus on six manufacturing verticals; automotive, life sciences, consumer products, food and beverage, industrial and high-tech.

QAD claims to take an active role with industry groups and standards bodies in these verticals to comply with new manufacturing practices, provide innovative solutions to give customers a competitive advantage and deliver capabilities to address regulatory compliance. Furthermore, it continues to research into emerging industry issues and leverage its manufacturing sector experience to develop products and services to address industry-specific needs.

QAD has a long ERP heritage in these sectors and can rightly claim to

have deep manufacturing ERP capability. QAD users range in scale from global enterprises to mid-market manufacturers with many being 'life-long' users of QAD products.

The Adaptive ERP suite covers the broad range of business processes that a manufacturing organisation will require including financials, customer management, supply chain, manufacturing, service and support. It also provides capabilities in analytics, business process management and integration. As well as the core ERP product QAD's portfolio of related solutions includes products addressing quality management, supply chain management, transportation management and B2B interoperability.

QAD is deployed as a single tenant cloud solution with the option to deploy on dedicated virtual

hosts. It is subscription based with enterprise subscription licencing available in enterprise scale implementations. The release cycle is twice per year.

Over the last decade QAD has re-engineered its applications to be geared for the cloud and has made significant improvements to its UIs, dashboards and analytics making for a much-improved user experience. It has also integrated emerging technologies like AI into its capabilities and developed its platform to allow for easy integrations with other systems.

QAD is headquartered in California and listed on the NASDAQ. It has in the region of 2,000 employees and revenues of \$333m to financial year end 2019. QAD implements directly and through channel partners. It is well represented in the UK market with 245

customers with almost 20 percent of those either new cloud customers or having migrated to QAD cloud solutions.

In its 2019 ERP Value Matrix, **Nucleus Research** positioned QAD in the 'expert' quadrant highlighting a depth of capability in its focus verticals as well as recent functional and UI improvements. QAD's DynaSys Supply Chain Demand Planning application was recognised as a 'major player' by **IDC** in their September 2019 MarketScape Supply Chain Demand Planning. While DynaSys is not explicitly in the ERP space this perhaps illustrates QAD Adaptive Applications reach into related lines of business for manufacturing organisations.



| Product Range | | | Notable UK Customers | |
|----------------------|---------------------|-------------------|-----------------------------------|-----------------------------|
| PRODUCT | DEPLOYMENT OPTIONS | LICENSING OPTIONS | | |
| SAGE X3 | On-premise Cloud | Subscription | CITY CRUISES (SAGE X3) | Sightseeing cruise operator |
| SAGE 200CLOUD | | | | |
| SAGE INTACCT | Cloud | Subscription | PUKKA PADS (SAGE 200CLOUD) | Stationery manufacturer |
| SAGE PEOPLE | Cloud | Subscription | | |
| | | | ARLINGTON | Portfolio management |

Sage is one of the best known names in business software. Often associated with payroll and basic accounting tools, Sage also has a range of enterprise products.

The Sage Group plc is headquartered in Newcastle and has over 12,700 employees worldwide. The business operates globally, and although the bulk of its £1.9bn revenue in 2019 was in Europe and North America it also has a significant presence in Africa, Middle East, Australia and Asia. A notable landmark for Sage in 2019 came with the news that subscriptions accounted for over half of revenue for the first time. This is in line with the stated aim of 'transitioning from an on-premise licence-based model to one of subscription and the cloud.' All four Sage products considered in this report are available as SaaS offerings with updates three or four

times a year depending on the product.

Sage X3 is Sage's full ERP suite targeted at a broad range of sectors including manufacturing, wholesale, distribution, and services. After a brief sojourn, when the name was changed to Sage Business Cloud Enterprise Management, the snappier and more memorable X3 moniker has now been reinstated. It's typically aimed at business with over 200 employees and a turnover between £20m and £450m and provides a full range of functionality covering everything from procurement to production, warehousing, sales, customer service and financial management. Sage offers on-premise and cloud (managed by Sage) deployment options, both with subscription licensing.

Sage 200cloud is an entry-level ERP product, with a broad range of functionality suitable for many sectors.

It's aimed at small to mid-sized businesses with between 10 and 200 employees and turnover between £1m and £20m.

Sage Intacct is a cloud-native financial management suite aimed at small to medium enterprises. Acquired by Sage in 2017, the product originated in the US and has a strong track record in the North American market. It is now being sold in Australia, the UK and South Africa as part of the internationalisation of Sage's key cloud-native products. It scored the highest product score for Core Financials for the Lower Midsize Enterprises use case in the 2019 **Gartner** report Critical Capabilities for Cloud Core Financial Management Suites for Midsize, Large, and Global Enterprises.

Sage People is a comprehensive HR solution aimed at organisations with between 200 and 5,000

employees in a wide range of sectors. Recent Sage acquisitions include **CakeHR**, a cloud native HR solution, and **AutoEntry**, a data entry automation solution.

IDC's 2019 ERP MarketScape placed Sage X3 as a contender, citing strengths in the Sage partner and developer ecosystem (with a marketplace for a range of add-on vertical business solutions) and the mobile experience. Gartner named Sage Intacct as a 'visionary' in its 2019 Magic Quadrant for Cloud Financials, with very positive commentary on a number of fronts including functionality, customer satisfaction and commitment to cloud technologies. One of the main notes of caution was the limited presence outside North America. It was only launched in the UK last November so it will be interesting to see how quickly the product gains traction in the UK market.



| Product Range | | | Notable UK Customers | |
|------------------------------|--|-------------------------------|--|----------------------|
| PRODUCT | DEPLOYMENT OPTIONS | LICENSING OPTIONS | BP DIXONS CARPHONE NEWCASTLE UNIVERSITY | Energy |
| SAP S/4HANA | Multi-tenant, single-tenant, hosted, on-premises | SaaS, subscription, perpetual | | Consumer electronics |
| SAP BUSINESS BYDESIGN | Multi-tenant | SaaS | | Education |
| SAP BUSINESS ONE | Single-tenant, hosted, on-premises | Subscription or perpetual | | |

SAP continues to lead not just the global ERP market but the broader enterprise systems space encompassing ERP, HCM, CRM (or CX) and more. Headquartered in Walldorf, Germany and operating globally, revenues are mainly concentrated in EMEA (44 percent) and Americas (41 percent). Revenue for FY2019 was up 12 percent to €27.6bn and employee numbers exceeded 100,000 at the end of 2019.

Although often mistakenly perceived as a tier 1 only vendor, SAP has three different ERP offerings fitting small to mid-size organisations as well as large enterprises across a huge range of vertical markets. In fact it would be difficult to identify a sector where SAP doesn't have an offering.

SAP S/4HANA is SAP's top end offering aimed at mid-sized to large businesses. It is available

in various formats – a pure cloud SaaS version, updated quarterly, as well as on-premise and hybrid offerings. The functional depth and maturity of each differs so any organisation evaluating S/4HANA should be clear that the version selected fits their requirements. In addition, the cloud deployment models available have continued to broaden and we have even seen some deployments on Microsoft's Azure cloud in the past year.

SAP Business ByDesign is aimed at mid-sized businesses. It is a multi-tenant cloud-only solution, updated quarterly, covering finance, customer relationship management, human resources, project management, procurement and supply chain management, and offers a particularly strong solution for project and service businesses.

SAP Business One is a broad scope ERP aimed

at small businesses. It can be deployed on-premise or in the cloud (single or multi-tenant), purchased by subscription or perpetually licenced and run on SAP's own HANA database or on Microsoft SQL Server. The system has a good range of functionality, covering financials, sales, purchasing, projects, inventory and distribution and light manufacturing. Business One also has a broad channel of ISV partners, many of which have developed niche or vertical specific solutions to augment the core offering.

As well as these ERP offerings SAP has C/4HANA (CRM), Hybris (eCommerce), Ariba (procurement network), Success Factors (HCM), Concur (Expenses) and has made further acquisitions to broaden and deepen its array of offerings.

SAP has a large portfolio of partners operating in the UK and Ireland each with

their own specific focus in terms of SAP products and industry focus areas. Many have the scale to provide the global presence demanded by larger multi-national organisations.

As the enterprise systems market focusses more and more on customer engagement and digital transformation, SAP describe their HANA-based platforms and services as a digital core which can sit at the centre of digital transformation projects and developments. Positioned as a leader for SaaS ERP applications in the 2019 IDC MarketScape report, SAP has a clear focus on enabling intelligent enterprises, with technologies such as robotic process automation (RPA), machine learning (ML) and artificial intelligence (AI) being used to automate and speed up business processes.



| Product Range | | | Notable UK Customers | |
|---------------------------------|---|-----------------------------------|------------------------------|--|
| PRODUCT | DEPLOYMENT OPTIONS | LICENSING OPTIONS | | |
| UNIT4 BUSINESS WORLD | On-premise, single-tenant (shared and dedicated deployment) | Perpetual licence Subscription | ST ANDREWS HEALTHCARE | Charity providing psychiatric services |
| UNIT4 FINANCIALS | On-premise, single-tenant | Perpetual licence Subscription | | |
| UNIT4 PREVERO | On-premise, single-tenant, multi-tenant | Perpetual licence Subscription | | |
| UNIT4 STUDENT MANAGEMENT | Single-tenant, multi-tenant | Subscription | | |
| INTUO BY UNIT4 | Multi-tenant | Subscription | | |
| | | | | |
| | | | NHS | National Health Service |

Unit4 offers a range of software solutions for medium to large people-centric organisations. Typical customers will have between 200 and 10,000 employees with turnover of £150m and upwards. Key target sectors include people-centred services industries, higher education, public services, not for profits and professional services, and Unit4's offerings are all very firmly focussed on these sectors. Headquartered in the Netherlands and operating globally, Unit4 sell and deliver their solutions directly and through a partner network. The business has been owned by private equity firm **Advent International** since 2014, and while it doesn't publish detailed accounts the Unit4 website claims revenue of close to €500m and over 3,000 employees. On-premise deployments and perpetual licensing are available for some

Unit4 products, and their own news releases claim very strong growth in the last year for cloud-based solutions. SaaS products typically have two to four major releases per year. Unit4's leading product is **Unit4 Business World** (formerly Agresso), which delivers a full ERP suite covering financials, human resources and payroll, procurement management, project management, and enterprise/estate asset management services. A digital assistant, Wanda, allows users to interact with the system using natural language and mobile apps to support and streamline common employee self-service tasks such as submitting expense claims or recording time. Unit4 Business World can be purchased as an on-premise and perpetually licensed solution, but cloud deployments are increasingly popular. The Unit4 Business World Software as a Service

(SaaS) solution provides a managed solution deployed in Microsoft Azure data centres, with shared and dedicated deployment options. A range of Azure data centre location options are available, covering UK, EU, Nordics, USA, Canada, Asia and Australia. **Unit4 Financials** (formerly Coda) is a full financial management suite, which includes procurement, assets and billing as well as comprehensive reporting. The product is known for scalability and is suitable for global deployments. **Unit4 Prevero** is a standalone corporate performance management and BI tool, often sold as an integrated solution with Business World to provide a more comprehensive offering. **Unit4 Student Management** is a full Student Information System software package built from the ground up for higher education institutions where Unit4 is a well-

established name. **Intuo**, a cloud-native talent and learning management platform, is the newest member of the Unit4 family, having been acquired in 2019. It is available both standalone and integrated with Unit4 Business World, Unit4 Financials, and Unit4 Prevero via the Unit4 People Platform. As an employee engagement solution it has a much broader target market than the rest of Unit4's solutions. Unit4's delivery methodology uses 'Value Accelerators' with pre-defined processes and best practices to establish the core solution for each workstream, then building on additional functionality and expansions to create the overall solution. **Nucleus Research** recently named Unit4 as a 'Hot Company to Watch' in 2020, based on their performance in the market, the breadth and depth of their applications, and their ability to take on the tier 1 vendors.



| Product Range | | | Notable UK Customers | |
|---|--------------------|-------------------|---|--|
| PRODUCT | DEPLOYMENT OPTIONS | LICENSING OPTIONS | | |
| <ul style="list-style-type: none"> • Adaptive Insights Business Planning Cloud • Workday Financial Management • Workday Human Capital Management • Workday Payroll • Workday Analytics • Workday Professional Services Automation • Workday Student • Workday Cloud Platform • Data-as-a-service | Multi-tenant | Subscription | LLOYDS BANK UNILEVER PRIMARK | Financial Services Consumer products Fashion |

Workday provides a strong set of cloud only solutions with particular depth in HCM and financial management. Workday is deployed in large enterprises across all industry sectors and it has significant implementations in communications, energy and resources, financial services, government, healthcare, education, hospitality, insurance, life sciences, manufacturing, media and entertainment, retail and professional. Workday competes at the top tier of ERP projects where the scope is within its functional focus.

Unlike many cloud ERP suites, Workday was developed for the cloud and has no legacy pre-cloud technological heritage. It is a multi-tenant solution with a release cycle of twice per year. Workday

highlights this single application in a multi-tenant environment as a key value enabler calling it 'the power of one'. This is meant to allude to a single application with a single experience, security model and code base compared to many other solutions which are comprised of many moving parts.

Workday is beginning to branch out beyond the single core solution and in November 2019 announced the acquisition of **Scout RFP**, a strategic sourcing and supplier engagement solution, which will extend the breadth and depth of the procurement capability in the Workday solution. As well as expanding through acquisition, Workday is continuing to develop its core product offering with multiple enhancements in both HCM and financial

management announced at its Workday Rising conference in 2019. These range from blockchain-powered credentialing technologies to enhanced talent management capabilities and the application of machine learning technologies to bring efficiencies to labour intensive and repetitive finance processes.

Headquartered in California, Workday has significant presence in the UK, in Ireland and around Europe. It has in excess of 10,000 employees and posted revenues of \$2.8bn in 2019, up 32 percent on the previous year and with 85 percent of that total coming from subscriptions.

Workday provides deployment services directly but also has a broad channel network

which includes large global consultancies and systems integrators as well as some specialist or niche implementation partners.

Workday selects its customers with considerable diligence, often qualifying out of opportunities, and this leads to very strong customer references.

Workday is sometimes perceived as a solution that is limited to HCM processes. It does have very strong financial management capabilities too and was recognised in Gartner's 2019 Magic Quadrant for Cloud Core Financial Management Suites for Midsize, Large and Global Enterprises as a 'leader'. **Gartner** highlighted strong customer references as well as functional capability in this evaluation.