



INFORMATION AND EDUCATION FOR AND FROM THE COMMUNITY



# Composability

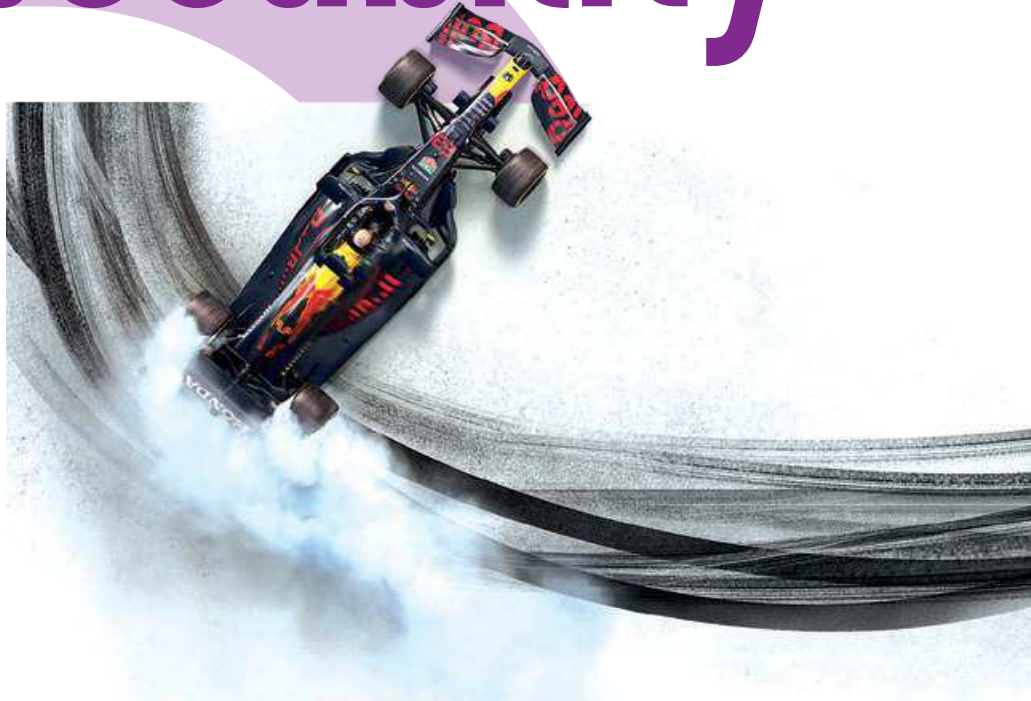
Juergen Lindner is Senior Vice President of Marketing for SaaS at Oracle with a primary focus on Enterprise Resource Planning (ERP), Supply Chain Management (SCM) and Human Capital Management (HCM). In conversation with E-3 Magazine, the term “composability”, coined by Gartner, plays an integral part in Oracle’s unique offering for SAP customers according to Lindner. From Page 36

## Quick Wins In A World Of Constant Change

# Composability

Composability for thinking, business architecture, and technologies is the alternative best-of-breed approach. This opens up completely new possibilities for SAP customers to escape the black box! This development started about five years ago, but Gartner only recently coined a term for it: composability. In the SAP community, Oracle is the one who supports this concept the most.

*By Peter M. Färbing*



**C**omposable business starts with three building blocks: composable thinking, which ensures creative thinking is never lost; composable business architecture, which ensure flexibility and resiliency and composable technologies, which are the tools for today and tomorrow. “Business composability isn’t uniformly high across the economy because it requires business thinking to be reinvented,” said Monika Sinha, a Gartner analyst. “Traditional business thinking views change as a risk, while composable thinking is the means to master the risk of accelerating change and to create new business value.” CIOs leading high-composability enterprises recognize that business conditions often change, from customer demands to financial models, and empower the teams that are closest to the action to respond and reform to those new conditions.

“We built a completely brand-new set of business capabilities for the cloud from the ground up, using a single data model for all line of business challenges,” explains Juergen Lindner, Senior Vice President at Oracle, in conversation with E-3 Magazine. Oracle’s offer is modular and composable by design but engineered to work together for seamless extension. Lindner adds, “Fusion launched in 2010 and is designed as a completely new suite of applications, with a new data model. That way, we can ensure that data is consistent and easy to interpret for end-users. Since we operate at every level of the entire stack, Oracle can be more innovative: every quarter, we can improve our software and provide new innovations, functions, and embedded technologies - for example, AI, machine learning, chatbots, digital assistants, IoT, blockchain, and other emerging technologies. Every company is developing into a





**Juergen Lindner, Oracle Senior Vice President of Marketing for SaaS**

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technology company and cloud is a great accelerator to get our customers there faster. For over 40 years, Oracle has been synonymous with helping our global customers manage, secure and act on the world's most important data."

Oracle's offer leans into Gartner's definition of composable business architectures. Juergen Lindner describes the new ERP architecture. "We also offer Fusion Analytics Warehouse for all line of business scenarios, another powerful way to get access to predefined, cross-LOB KPIs, powerful dashboards, day-one analytics, machine learning-based recommendations, and voice interaction. It allows you to combine third-party data sets easily."

Industrial-era businesses were designed for stability and slow, predictable change. In the digital era, business architectures need to be designed for uncertainty and continuous change. Instead of optimizing for efficiency, the composable enterprise optimizes for adaptability. Systems, processes and workers no longer serve one predetermined use case or purpose. "Digital business initiatives fail when business leaders commission projects from the IT organization and then shirk accountability for the implementation results, treating it as just another IT project," said Sinha. "Instead, high-composability enterprises embrace distributed accountability for digital outcomes, reflecting a shift that most CIOs have been trying to make for several years, as well as creates multidisciplinary teams that blend business and IT units to drive business results."

## Unified data model

Oracle's Juergen Lindner is aligned with the Gartner analyst, saying, "Because we built it all from scratch, we have one consistent user experience called Redwood, which allows us to create solutions that span the depth and breadth of the challenges our customers face." Let's use an example: the Subscription Management application requires financial modeling, together with a customer-facing user interface, and it has supply chain dependencies to ensure that you can deliver the goods. "Try this with other vendors," Lindner prompts, "and you'll get different modules with different data models, different user experiences, different release timelines. Our fast and consistent innovation cycles across the line of business applications with hundreds of new features every quarter keep our customers ahead of change, and able to take full advantage of the underlying Oracle Cloud infrastructure." Homogeneous and consistent SaaS offer-

ings from Oracle offer better support for the business and make end-users more productive. Oracle has a unified data model, meaning all data is in one place and defined in one, and only one, way. "With Oracle Fusion Applications, we only define master data like customer, employee, product, and supplier once. No matter which pillar or module uses this master data, it always has the same definition. It's only defined once. That helps end-users. When an end-user wants to create a report or

where SaaS-based cloud ERP is simply not comparable to provisioning a legacy ERP using hyperscaler infrastructure. To be clear, if customers prefer this approach, that is perfectly fine. We also support our customers with that approach, but the experience for end-users and the business will not change. They still can't participate in the same innovation cycles



analysis, this user will know that customer, employee, product, and supplier are defined once, so when they pick one of these for a report or analysis, they will always have the right one. That seems logical, but you can only achieve this level of consistency if you have designed and built SaaS from scratch," Oracle executive Lindner adds.

What do ERP users need: SaaS in the context of best-of-breed or holistic cloud computing in the hyperscaler model? "Let's start by setting context in how ERP has evolved," advises Lindner. "Gone are the days of big, monolithic ERP implementations; those days have given way to more bite-sized, composable, business process-driven implementations. That's

and business process changes. They still can't benefit faster from technology catalysts such as AI, ML, IoT, blockchain, and new user experiences - not in the way that a real SaaS offering lets them do."

## Oracle Fusion

When a company uses Oracle cloud ERP, they get a fully-managed environment - but they don't have to run a complete suite. Oracle Fusion Cloud applications are modular. It's up to the user which modules they want to use. On-premises solutions were designed in the 1990s and are



ERP-centric, and so are the best practices delivered with those legacy, hosted applications. On-premises ERP had to be implemented first, before you can use any other module. This creates dependencies and often leads to sub-optimal environments. You often see companies running multiple on-premises ERP instances of the same on-premises software, for example - one

“You don’t have these issues with modern, modular software that is conceptualized and designed for cloud,” assures Lindner in conversation with E-3 Magazine. “You won’t need multiple instances. With our experience and expertise in driving automation through machine learning, we believe that business processes as we know them will eventually be eliminated and replaced with modern, agile processes every 90 days. This notion of business process flexibility is critical. Most perceived best practices of today originated a long time ago. With increased automation based on pattern recog-

and managing, securing, and acting on the world’s most important data sets. Oracle has deep rooted technology investments to help customers succeed and we have made nothing short of a remarkable pivot to the cloud as foundational technology.”

The cloud has changed Oracle. Lindner describes how Oracle uses its own cloud offerings to run its business, “The words ‘service’ and ‘customer obsession’ are not lip service in this context. We have fundamentally changed our business model. You can see, for example, our Oracle Cloud Customer Connect community which



per business division or one per region. If the legacy software were flexible enough and modular, you wouldn’t need multiple instances of the same software. It’s expensive to run multiple instances, and it also leads to security vulnerabilities. Quite a few companies want to reduce costs and move back to a single instance, only to find out that this is extremely complicated. This type of software doesn’t lend itself for these types of reorganizations and the alleged “best practices” might very well be the reason for your demise - they’re not evolving fast enough in the on-premises environment.

...nition using ML, those business processes evolve constantly - and at a much faster rate than any on-premises or hosted environment. If you stick with the old approach, you’re at a disadvantage compared to peers who made more decisive moves towards SaaS.”

“Business runs on technology, but technology itself must be composable to run composable businesses,” said Gartner analyst Monika Sinha. “Composability needs to extend throughout the technology stack, from infrastructure that supports rapid integration of new systems and new partners to workplace technology that supports the exchange of ideas.”

Juergen Lindner also recognizes the importance of suitable technology, explaining, “As mentioned earlier, Oracle is focused on helping customers with data,

connects over 200,000 members.” This network allows Oracle to communicate more intensely and more intimately with its customers. It was designed to promote peer-to-peer collaboration, collaboration between customers and partners, sharing of best practices, and to help members communicate with Oracle product development teams directly. Within this community, members benefit by leveraging the collective knowledge of Oracle Cloud customers and product experts. “The majority of our new features have been suggested by our customers,” Lindner states proudly. “Bear in mind that Oracle uses its own software internally. We run our finances on Fusion Cloud ERP the same way that any other customer would. Over the course of the pandemic this helped tremendously. We did not skip a beat in closing the books remotely. In



*CIOs at organizations with high composability reported superior business performance compared with peers or competitors in the past year.*

*Monika Sinha,  
research vice president, Gartner*

fact, we closed the books faster. We can report back to the street within 10 days after the quarter close. This is quite compelling. With AI and ML, we manage to close our books twice as fast as SAP or Workday. That experience of how you can speed up a company is not our internal secret but something we share with our customers. The program is called 'Oracle@Oracle' - one of our best and most sought-after engagements with clients around the world. Our own practitioners share their experiences and our approach. These are all well documented, so that others can learn from our own experiences."

### Antidote to volatility

"Business composability is an antidote to volatility," said Monika Sinha, research vice president at Gartner. "Sixty-three percent of CIOs at organizations with high composability reported superior business performance compared with peers or competitors in the past year. They are better able to pursue new value streams through technology, too."

Business processes don't stop at application boundaries. Companies that can take advantage of tremendous amounts of data are proving to be more agile and resilient, especially as the world recovers from the pandemic and other disruptive market challenges; the benefits enabled by digital technology have become powerful differentiators. The concept of a "digital business platform" describes a collection of integrated, next-generation capabilities that help make it easier to orchestrate end-to-end, so you can drive value. "It's close to impossible to do this across best-of-breed applications," warns Juergen Lindner. "The data is too disparate because the applications are too disparate."

Oracle's next-generation platform for digital business combines powerful business applications, comprehensive core services, and sophisticated cloud infrastructure to support value creation. "Value, of course, varies by company and will be a balance of aspirational and operational drivers like process transformation or the ability to pivot to new, digital business models, with tactical goals like launching a new product, creating superior customer and employee experiences, designing resilient supply and value chains, or completing a financial close in a few days instead of a few weeks," Lindner explains. "But," he cautions, "to make this work - to be able to optimize continuously across all business processes - you need a SaaS suite."

### Suite or best-of-breed?

Companies need to move toward a portfolio that is more adaptable to business change, with composable applications that can be assembled, reassembled, and extended. "That is more important than the notion of suite versus best-of-breed," affirms Oracle executive Lindner. "Oracle can provide these composable applications because we have the entire suite of applications: ERP, EPM, CRM, HCM, and SCM. Many vendors started with one of those, like Workday with HCM or Salesforce with CRM, and SAP with HCM (with the acquisition of SuccessFactors), but with just one of those cloud solutions, you cannot offer the composition capabilities that Oracle can."

According to Juergen Lindner, it is important to clarify that best-of-breed does not necessarily translate into being the richest functionality; rather, it's just having the best-fit solution to solve a specific business problem or need. The problem with this is that best-of-breed applications are silos, and business processes

don't stop at application boundaries. "Oracle can offer a SaaS-based, business-centric application to complement any customer's on-premises footprint. It adds immediate value, and we can seamlessly extend this partnership over time," Lindner adds. "With Oracle you have the possibility to compose this all into one cohesive suite, engineered to work together. No other vendor can do this right now."

Many companies are moving from on-premises systems to the cloud, but you cannot expect them to do this overnight. Whether they are an SAP or Oracle customer, or any other, regardless of their starting point, they can reap instant business value with Oracle Cloud. This is not a rip-and-replace scenario. While their on-premises backbone ERP solutions are still up and running, these companies start to deploy Oracle SaaS in parallel; for example, Oracle Cloud EPM for planning, budgeting, tax, and profitability management or Oracle Cloud Transportation Management connected to their on-premises ERP. Pick any business process and extend as you see fit. That is what a lot of Oracle customers do.

The ongoing pandemic and the surge in digital services are making cloud the centerpiece of new digital experiences. Global cloud revenue will rise to a total of \$474 billion in 2022, up from \$408 billion in 2021, according to research company Gartner. "There is no business strategy without a cloud strategy," said Milind Govekar, distinguished vice president at Gartner. "The adoption and interest in public cloud continues unabated as organizations pursue a 'cloud first' policy for on-boarding new workloads. Cloud has enabled new digital experiences such as mobile payment systems where banks have invested in startups, energy companies using cloud to improve their customers' retail experiences or car companies launching new personalization services for customer's safety and infotainment."

### Cloud First

SAP has been trying a cloud-first strategy for many years - sometimes alone, sometimes in partnership with the hyperscalers. How does Juergen Lindner perceive the SAP offering? How is SAP's "Cloud First" strategy being perceived in the market? "We have taken different approaches," replies Lindner. "SAP has taken a strategy where, initially, cloud growth was acquired with Concur, Ariba, SuccessFactors, and so on - yet the most business-critical core did not see any re-write for cloud or SaaS for a long time,



other than partial offerings. So, the resulting architectural complexity, integration challenges, and associated costs of a cloud journey - if you want to run your entire business in the cloud - are high." Another complication comes from SAP customers that have customized their SAP solutions. Research shows that around 90 percent of all on-premises SAP customers have customized their SAP on-premises solutions. All of those customizations are not tested or guaranteed to run on S/4 Hana, the Hana database, or the hyperscaler of choice. In addition, those customizations were not created with AI and ML, blockchain, or IoT in mind. "This means a lot of code lines and investments of customers have no viable strategy to be brought over to the Hana world - the costs and effort of reimplementing them are incalculable," Juergen Lindner recounts from conversations with customers.

### On-premises or hyperscalers?

"You have to maneuver various levels of public cloud elements, on-prem, hosted, private, and hyperscaler dependencies to be successful, and I think that this is what is reflected in customer sentiment," explains Lindner. "Terminology around Hana, S/4 Hana, S/4 public cloud, and various ongoing branding efforts make it challenging for their customer base to land on the right engagement model. The SAP industry solutions have not seen at lot of cloud investment, either. They're still mostly old code, and sometimes require on-premises deployment. The foundational decision to invest in Hana as a database has taken focus away from line-of-business innovation, which is what SAP used to be known for. They have significant catch-up work to do. That is what we are hearing from their customer base, and the user group and analyst sentiments seem to reflect this as well."

Oracle has taken a more decisive approach to the cloud and with that created a noticeable distance between it and the rest of the market. "We did not take an 'easy way out' and created a new offering from the ground up, allowing us to partner immediately with any customer, regardless of their starting point," Lindner describes Oracle's approach. "In the past, Oracle and SAP had similar applications, based on similar technologies: Oracle E-Business Suite, PeopleSoft, JD Edwards, and Siebel. SAP had R/3, followed by ECC and Business Suite. Then Oracle decided to create a brand-new suite for the age of cloud, Fusion. We started

this investment 10 years ago, so we're 10 years ahead of nearly everybody else in SaaS ERP. You can see this reflected in analyst reports from Gartner, IDC, and others."

At least in Germany, the SAP "Cloud First" strategy is not accepted, according to E-3 Magazine. Research shows that the majority of the members of the German-speaking SAP user group, DSAG, are in favor of an on-prem infrastructure. Are the cloud and ERP an incompatible contradiction?

"You bring up an interesting point," replies Juergen Lindner in conversation with E-3 Magazine. "We know from DSAG and ASUG that SAP D/A/CH customers are more reserved in their move to the cloud, but SAP customers elsewhere are more inclined to consider cloud." This creates an interesting dynamic, with different cloud adoption clock speeds to cater to. Or as Lindner describes it, "If you move too fast and too aggressively, you risk alienating customers. If you move too slowly, you risk losing customers. Doing both - designing and building a completely new suite for public cloud while providing new capabilities for on-premises customers, too - is very expensive and takes a long time. That's why we started 10 years ago."

What value do customers get? Lindner says, "We can provide a very attractive alternative, and we are having a lot of dialogue with that customer base. More and more companies are coming to Oracle for distinct line-of-business challenges. Quite a few SAP customers are accelerating business value creation with us, since there is no lead time required and you can start right away. Examples include Oracle Cloud Enterprise Performance Management (EPM), a very strategic offering, especially since cash position and scenario planning have become top priorities during and post-pandemic."

### Oracle Transportation Management

Another example is Oracle Cloud Transportation Management (OTM), a key solution since the pandemic has hit logistics very hard. These offerings don't require a complete parting with your prior SAP investment, however. "Some customers do go that route," knows Lindner, "but co-existence and cloud-based modernization over time is the preferred route. Our architecture makes it very simple to partner with us for immediate returns, and the customer is in control on where to start." Oracle just announced

Connected Enterprise Planning, addressing the need for holistic financial planning and analysis across HR, projects, and supply chain. It connects workforce planning, integrated business planning and execution (IBPX), and financial planning. "Oracle can do this because we have a unified data model, so you can plan holistically across ERP, HCM, CRM and SCM," Oracle executive Lindner explains. In today's business environment, it doesn't make sense to just plan your workforce; you need to include your financial resources, sales capacity, and production resources too. "We can do that with Connected Enterprise Planning, and this is what makes Oracle an attractive option to SAP customers," highlights Juergen Lindner.

It is similar with OTM. "You know about the current bottlenecks in the global economy, where hundreds of ships are currently waiting at sea to be unloaded. Thousands of empty containers are waiting to be transported back to Asia," Lindner describes the current situation. "SAP customers are starting to use Oracle OTM to help them manage all these disruptions and find alternative transportation routes."

### Conclusion

Oracle has been synonymous with managing, securing and acting on the world's most important data sets since the company was founded. "We know this business deeply and take it tremendously seriously, as shown with recent innovations such as the autonomous database," Lindner explains, and adds, "But we also have a strong heritage in business applications managing and acting on those data sets, so data is our DNA. Compared to SAP, we always looked very holistically at all layers of the technology stack. Consequently, we can offer a unique ability to partner with our customers. When SAP ventured into database technology, it took a toll on their engineering efforts in other parts of the business that, to this day and for years to come, will slow their customer base ability to innovate. SAP's innovations on the applications and industry side were inconsistent for years, and they remain so. Customer disgruntlement - which is apparent through user group feedback - is profound, and makes customers evaluate other options. SAP customers can postpone their choice: They can run their SAP ECC and Business Suite solution on Oracle Cloud Infrastructure, continuing to use the Oracle database." Thank you for the interview.

Whitepaper about the development and metamorphosis of ERP systems

# Quick Wins In A World Of Constant Change

It feels like nothing is the same anymore, doesn't it? COVID-19, economic upheavals, and an unprecedented labor shortage have turned the world upside down, and many companies are struggling to stay right-side up.

By Charles Homs, Vice President Global Competitive Strategies, Oracle

Employees are resigning en masse, opting for early retirement, or driven out of the workforce by burnout. Consumers are abandoning their favorite brands because of supply chain issues; a recent Oracle survey found that 80 percent of respondents would stop buying a brand completely because of delayed orders. Meanwhile, treasury and the cash position is top-of-mind for every CxO. They need to reduce costs, but they also need to understand their cash position so they can make the right investments in their next business model.

These are big challenges, and they can feel overwhelming. But the good news is, you don't need to tackle every problem at once. You can start by focusing on a single business challenge - reducing procurement costs, improving planning cycles, or finding and keeping the best employees.

Many companies are moving from on-premises systems to the cloud, but you can't expect to do this overnight. Whether you're an Oracle or SAP customer, regardless of your starting point, you can reap instant business value with Oracle Cloud. This is not a rip-and-replace scenario. While your on-premises backbone ERP solutions are still up and running, you can start to deploy Oracle SaaS too - for example, Oracle Cloud EPM for planning, budgeting, tax and profitability management, or Oracle Transportation Management.

## Profitability through planning

Over the past couple of years, how many times did you need to revise your plans and forecasts? How long did it take you? As we cope with the fallout of a global pandemic, planning cycles have shortened from months to weeks, or even days

and hours, to real-time planning. The business environment continues to change at a moment's notice, so you need to be agile enough to re-plan and re-forecast quickly.

## The big picture

Finance has typically taken the lead on budgeting and forecasting, but finance can't plan accurately without looking across the entire business. When your workforce, supply chain, and operations are among your biggest challenges, you need to bring in data from all these departments for a holistic plan. That's where connected enterprise planning comes in. Connected enterprise planning breaks down the silos between departments, combining all plans - HR, supply chain, sales, marketing, projects, and more - on a single platform.

When the business environment was stable in times past, your company could get by with siloed plans. Departments could send their budgets to finance to consolidate periodically, but each team executed its individual plan without expecting much change. That's no longer the case. In today's era of constant disruption, plans need to be changed and adjusted continuously. It's less about creating the perfect plan, and more about re-financing and reforecasting.

We see organizations constantly running scenarios and planning for contingencies, as well as creating new models and rethinking strategies. The role of finance has evolved from consolidating plans to helping guide the company's strategy and roadmap. They're collaborating with line of business teams on tactical steps to achieve their long-term vision. You can see this in the way that Kraft Heinz, an SAP customer,

gained more granular insights into each of its brands with Oracle Cloud EPM. Kraft Heinz now has fast, detailed insights across its many lines of business, with unprecedented access to product-level profitability and cost management.

"We now have visibility of our entire P&L down to the SKU level," said Eric Mendez, Kraft Heinz's associate director of finance and IT, in a recent interview. "We can allocate our costs globally down to the SKU level for the first time. That's exciting."

## Connected thinking and integration

Connected enterprise planning gives leaders the decision support to act quickly on real-time information and stay ahead





of disruptions. Traditionally, however, pulling together data across lines of business has been painfully slow. True integration requires an end-to-end, planning-to-execution, closed-loop system. With integrated business planning and execution (IBPX) from Oracle, you can help speed up planning cycles, react to the unexpected, and readjust your plans

ders have visibility into what they need to make effective, rapid decisions and avoid the information gaps of the past.

For example, Juniper Networks makes high-performance networking products and services. Their supply chain team felt they were underperforming on customer service and cost. The team wanted to extend the principles of sales and operations planning (S&OP) throughout the

cess for all our Juniper employees.” It turns out that innovation, perhaps more than anything else, is the real engine of business success. And it pays big dividends. Research from Boston Consulting Group found that, over the last 14 years, the most innovative companies outperformed the broader market on shareholder return by 5.6 percent.

Yet maintaining leadership in innovation is tough: only eight of the original “Top 50 Most Innovative Companies” have managed to stay on the list over 14 years of research. Oracle is number 15 on the 2021 list, up 10 places from 2020. SAP



to fit your new reality. While long-range planning features are important to integrated business planning, advances in technology and compute power help planners adjust to near-term shifts in demand or supply with more success. Oracle’s ability to integrate the execution details from supply, manufacturing, logistics, and order management systems give planners the ability to adjust to change and continuously improve long-range planning. True integration requires this end-to-end, planning-to-execution, closed-loop system. The ultimate goal is to know sooner, act faster, and adapt to change. With a single hub, lea-

supply chain, delivering one seamless management system with supporting business processes. With Oracle Cloud, Juniper incorporated important supplier data into its business plans, reducing inventory costs by 15 percent.

### Added value of SaaS

“The key benefits of being on SaaS is not only the reduction in the total cost of ownership,” said Kiran Garlapati, Juniper’s senior director of IT solutions, “but there is also 99-percent availability of the system, new features coming every quarter, availability of Industry 4.0 technology like AI, blockchain, IoT etc., and easy ac-

is number 40 - down 13 places. The reason for the churn? Part of the problem is that companies are stuck with aging business systems that make it hard to access critical data. Hampered by fragmented data and a lack of process integration, companies suffer from slower time to market, product quality issues, and slim margins. The result is an “innovation gap” that can leave your company lagging.

To jump start innovation - and keep driving it over time - the most successful companies unify their data and processes on a single “platform for innovation”. This integrates the entire value chain, from idea capture and product development, to supply chain planning, manufacturing and maintenance, to post-delivery customer service.

In short, you translate the right ideas into value and sales sooner. Let’s look how continuous innovation drives suc-



cess across five areas of your product and service lifecycle: develop, plan, source, make, and serve.

## 1. Develop

Ideas for great products or services can come from anywhere. But for innovation to be continuous and profitable, you need a framework to identify and select great ideas that align with business strategy. And you need to develop them quickly and cost-effectively, while ensuring they meet customer requirements, regulatory compliance, and market demand. This can be a challenge when your product lifecycle management (PLM), supply chain and manufacturing systems are outdated and managed in separate silos or third-party applications that are badly integrated. These disconnected legacy systems weren't designed to meet the digital requirements of today's development processes. Often, they're engineering-centric, do a poor job of managing the complexities of global product launches, and aren't built to support complete service offerings.

To adopt a continuous innovation approach, you should consider a collaborative, end-to-end system that shares realtime data and standardizes development processes for faster decision-making. When that data is tied together with built-in analytics, IoT, AI, and digital twin capabilities, you can make better product development decisions and go to market faster while ensuring the highest quality of offerings. A great example of this is Vodafone, which has moved beyond telecommunications into other lines of business, including IoT services. From connec-

ted factories to cars making automatic emergency calls after an accident to electricity meters reporting on usage, Vodafone Business links IoT devices in more than 180 countries and over 570 networks. "I think what really wows people is that IoT applies to everything these days," said Erik Brenneis, director of IoT at Vodafone Business. "When cars make emergency calls after an accident, lives are saved. When commercial trucks automatically take the most efficient routes, that saves a lot of CO<sub>2</sub>. IoT connects many things people aren't even aware of."

Vodafone Business worked with Oracle to develop technologies supporting its IoT global platform, including billing and revenue management. The company currently supports 2 million customer transactions per month, 1 billion usage events per day, and more than 123 million total devices. Along with scalability, security is a must when it comes to IoT. "The systems must be designed securely throughout the chain - from the application in the cloud, through the communications lines, all the way to a device with built-in security authentication," Brenneis said. "That's why security has always been top of mind for us and why it's important to have partners like Oracle that share our security-first approach."

## 2. Plan

Top innovators have found that better planning can help them anticipate market demand and meet it with the right products and services. This requires you to closely align supply chain planning with product development and design. A single

platform with built-in analytics can help you do that, allowing you to deliver realtime insights and share accurate master data. These teams get a head start on identifying the right parts and suppliers, at the right price, and they can match inventories to meet demand forecasts. IDC recently estimated that companies that institute a single, collaborative supply chain platform can improve innovation productivity by 10 percent and reduce product lead times by 42 percent.

## 3. Source

Most organizations only involve their suppliers when it comes time to buy goods and materials; they don't include them early in new product development. This can lead to higher product costs, lost savings, reduced quality, and latency, and you can end up with suppliers that don't align with your social or ethical standards. Unifying procurement and product development on a single, integrated platform can help you accelerate the pace of product development, improve the supplier qualification process, and select the best suppliers. A unified cloud, running on a single data model, lets you extend the product record across internal teams and external suppliers. You can share transparent information throughout the product lifecycle to increase collaboration with your suppliers and mitigate potential disruptions.

## 4. Make

To keep customers coming back, you need to keep quality high and produce volumes that can scale quickly to meet

### Drive growth with better planning, budgeting, and reporting

In services industries, human capital is the primary product - but the ability to effectively plan around resourcing, demand, staffing mixtures, skill sets, and utilization extends beyond the workforce. Financial statements, cash, depreciation and amortization, marketing, and project financials are just some of the other areas where effective forecasting and reporting can help drive growth. Professional services company Inoapps is intimately familiar with the challenges of running a rapidly expanding professional services business. Like many of their customers, Inoapps' challenge was to create a structured process to model their budget across all lines of business,

operating units, divisions, and sub-divisions, by individual project - while keeping the flexibility for individual plan owners to perform monthly forecasting and what-if modelling. To achieve a complete yearly picture, Oracle Cloud EPM collates the following sources: actual data, meaning work already complete and billed in a historical period, sourced from Oracle Cloud ERP; orderbook data, meaning work already contracted and assigned to a billable resource for a future period, sourced from a custom resource allocation tool; and pipeline data, meaning work currently being bid on at some stage of the sales process, sourced from a sales/CRM system. Inoapps can now measure performance over time and use the system to

drive informed business decisions as the year progresses. The company can see how to maximize not just immediate margin but growth aspirations (for example, growing a line of business in a specific location, or expanding an offshore team in another). Oracle Cloud EPM gives Inoapps a tightly connected system that, at the touch of a button, can report across multiple versions of budgets and forecasts, taking into account resource costs, utilization, skillset and availability. Now that their commercial and finance teams have these capabilities, Inoapps can continue to grow with confidence and help many more customers over the years to come.



demand. Even better is when you can rapidly create personalized, customer-configured products that further differentiate your offerings and propel revenue. Top manufacturers are using IoT and AI technologies to bring together and analyze feedback from customers, factories, and even the products themselves (via IoT sensors), helping them to continually improve their offerings. They're also using these technologies to help automate production processes and analytics to gain predictive insights that can avert unexpected downtime and costly equipment failures.

## 5. Serve

Increasingly, companies are not just selling products, they're selling "products as a service". The traditional sell-and-forget sales model is being outpaced by the growing adoption of subscription services, pay-as-you-go, and consumption-based revenue models. According to a recent MIT survey, four out of five companies are currently evaluating these approaches. Leading innovators are building new "anything as a service" business models around centralized, cloud-based "insight engines" that continually collect and analyze feedback from customers and combine it with data from factories and products. This helps to prioritize innovations across the value chain and ensure a better customer experience.

## Risk and compliance

Organizations process and maintain large amounts of data from their customers. With increasingly better data intelligence tools, this information can be used to provide rich new value for companies and customers alike. However, this value is matched with new security threats and privacy concerns.

A big part of maintaining data security and confidentiality is controlling who has access to it. Access to confidential data is often determined by the roles and responsibilities of individuals within the organization. But their roles or responsibilities (and with it, the need for access to specific information) may change over time. For example, when employees change departments, they may accidentally maintain access to confidential information they're no longer authorized to have. With Oracle Cloud ERP, you can enforce access controls and separation of duties using Oracle Cloud Risk Management. It can continuously analyze

every user's security configuration to identify policy violations and it can monitor any changes to critical access configurations. Oracle Cloud Risk Management uses built-in machine learning to strengthen controls, stop cash leaks, and detect emerging risks. Unlike traditional audits or spot-checks, it can monitor every single transaction, giving you documentation that you can share with auditors and use to streamline audit workflows. This high level of automation helps reduce the time you spend on labor-intensive security and compliance tasks.

In addition to our cloud applications, Oracle builds security into every layer of our technology stack - databases, middleware, developer tools, all the way down to our global data centers. Our entire public cloud offers high customer isolation and automated protections. Data residency, sovereignty, and cloud security are at the core of our operations. We have more than 40 years of experience securing the world's most valuable datasets, and we roll out new capabilities every quarter - which makes it much easier to meet the latest industry, national, and global compliance standards.

## Improve the customer experience to drive more revenue

Data is the currency of the experience economy. The ability to organize it, gain insights from it, and then use it as fuel to power contextual experiences across the customer journey - whatever path that takes - is critical. It's an extremely difficult engineering task to corral demograph-

ic data, transactional data, and behavioral data and integrate it across devices and channels to create a complete, connected, insightful, and actionable customer profile. That's why thriving in the experience economy requires a partner that has data at the core of its business. At Oracle, we think delivering an enterprise-grade customer intelligence platform isn't about point solutions, content, or CRM - it's about expertise in managing data at scale.

## CX Unity and AI

Oracle CX Unity can help your company thrive in the experience economy by weaving disparate customer data from marketing, sales, commerce, and service into strategic intelligence. It can merge online, offline, and third-party data to create a single source of real-time customer truth, helping eliminate the "blind spots" that prevent so many companies from better understanding their customers and delivering richer interactions. What's more, Oracle CX Unity applies built-in AI and machine learning to set out the optimal experience within existing business processes. Data is everywhere for you to identify and harness. You can even use it to target audiences based on the weather! At Oracle, we use demographic, transactional, behavioral, first-party, and third-party data to drive our CX applications and help you give every customer, prospect, and website visitor a personalized experience, driving them into the funnel and creating more revenue opportunities.

## Conclusion: Quick wins in a world of change

Companies need to move toward a portfolio that is more adaptable to business change, with composable applications that can be assembled, reassembled, and extended. Oracle can provide these composable applications because we have the entire suite of cloud applications: ERP, EPM, advertising, customer experience, HR, and supply chain. Many vendors started with one of those - like Workday with HR, Salesforce with CRM, or SAP with HR in the cloud (with the acquisition of SuccessFactors) - but with just one of those cloud solutions, they can't offer the composition capabilities that Oracle can. Oracle can offer a SaaS-based, business-centric application to complement any customer's

on-premises footprint. It adds immediate value, and we can seamlessly extend this partnership over time. With Oracle, you have the possibility to compose this all into one cohesive suite, engineered to work together. No other vendor can do this right now. Oracle is partnering with thousands of customers worldwide to help them achieve quick wins and be more innovative. Every quarter, we improve our software with new capabilities, functions, and built-in technologies like AI and machine learning. With our software-as-a-service approach, you're always up to date with the latest innovations, so you can focus on solving your most immediate business challenges.