IDC

ANALYZE THE FUTURE

Preparing for Transformation to a Digital Platform in the SAP HANA Context With West Trax and Red Hat

Digital Transformation and the Modernization Mandate

Across industries, IDC is seeing IT dramatically change how organizations run their businesses. As organizations move to exploit the four technology forces of IDC's 3rd Platform (cloud, mobility, Big Data analytics, and social business) — we are now seeing those businesses start to exploit *innovation accelerators* such as the Internet of Things, AI and machine learning, and robotics, to dramatically change their business and operating models. In this way, they can keep up with newborn digital industry challengers and gain competitive advantage to their peers.

This digital transformation, or "DX," of organizations across Europe has become a critical issue of competition and even survival: IDC research reveals that it is a board-level mandate for over 80% of companies, generally CEO-driven. Most organizations involved in a DX journey are defining a road map of initiatives, starting with the implementation phases, and prioritizing the ones that will bring more benefits to customers.

But to undertake such a journey is a multidimensional issue. The fact that the majority of organizations are still in the early to medium stages of maturity shows that this is not as simple as buying a technology solution. DX requires organizations to radically rethink how they do business. IDC considers that there are in fact five key dimensions of digital transformation: leadership; worksource; omni-experience; information platform; and operating model. Organizations need to look at progressing in all of these dimensions: assessing where they are, before mapping out where they want to be and how to get there.

"By 2020, 60% of enterprises will have fully articulated an organization-wide digital transformation platform strategy and will be in the process of implementing that strategy as the new IT core for competing in the digital economy."
IDC FutureScape Prediction, October 2017

FIGURE 1
IDC MaturityScape Benchmark: Digital Transformation in Western Europe — Maturity Distribution Across the Stages
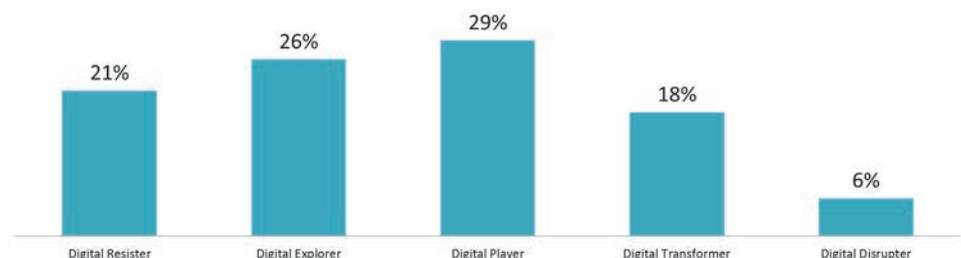
Source: IDC, European Digital Transformation Maturity Model Benchmark, 2017; n=403, May 2017

Furthermore, IDC's most recent research shows that over three-quarters of companies are in the early stages of DX. Furthermore, this number has not changed much in the last two years. Organizations are stuck in a "digital deadlock" — they are not, in general, moving rightwards along the maturity curve. To address this, IDC considers that, among other initiatives, they must move to base their transformation strategy on implementing a scalable, real-time and intelligent "DX platform." This platform needs to allow and indeed encourage:

- Operation at real time and at scale

- Dynamic interaction with the external ecosystem

- Easy integration points to internal systems

- Access to data-driven innovation services

IDC believes that SAP HANA® can play an important role in establishing a DX platform, and certainly SAP has positioned SAP HANA, together with SAP S/4HANA®, SAP Leonardo, and the SAP Data Hub, which run on SAP HANA, as key components of its customers' digital transformation efforts.

SAP HANA and Digital Transformation

Essential characteristics of the scalable, real-time DX platform, in IDC's view, include its ability to supply data services, including universal, standardized, timely access to data of any type; governance; integration and orchestration services; engagement services (for partners, customers, etc.); and development services.

The SAP HANA platform — when taken in conjunction with its SAP Leonardo "Innovation System" and SAP S/4HANA applications suite — fulfils many of these requirements. SAP S/4HANA with SAP HANA is being positioned as the digital core that enables organizations to move towards becoming "intelligent enterprises."

FIGURE 2

SAP HANA, SAP S/4 HANA and Digital Transformation
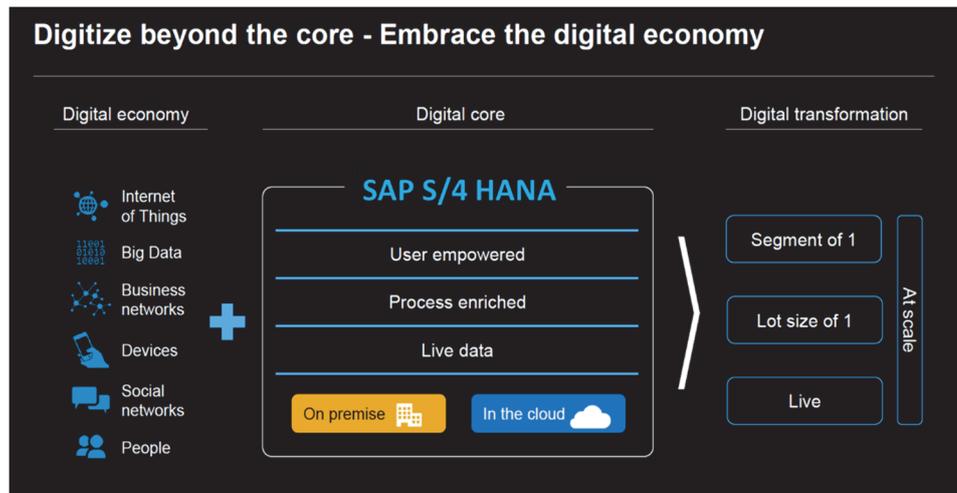
Source: SAP

In consequence, many, if not most, of SAP's 360,000 customers are considering a move from their current systems to SAP HANA, and the new SAP S/4HANA business applications, built on SAP HANA.

Around seven thousand customers have made this move to date, including some of the largest global companies, such as Royal Dutch Shell.

Of course, such a move is a significant change. This is a non-trivial systems re-architecting, from bottom to top, changing the middleware stack, the database, the applications and the processes that run on them. A significant change, but one undertaken for a very significant reward: a transformed business.

Importantly, a central tenet of SAP HANA is that, due to its modern, cloud-first, in-memory architecture, along with the SAP S/4HANA applications, it allows companies to operate differently; to transform their operations for the modern world.

As IDC DX research shows that most companies are still in the early stages of transforming their operating models, they need to baseline where they are today, to properly understand the journey to where they need to be tomorrow.

Issues they need to be aware of include the use of custom code that could inhibit the move to a new platform (and which may, in fact, no longer be necessary). This custom code is extremely prevalent: according to West Trax benchmarks, over 45% of application in SAP systems are in custom code, and more than 70% of that code is unused or out of date. West Trax also finds that over 80% of current business processes require modernization if they are not to impede the digital transformation effort, in particular by hampering the move to a new platform.

West Trax — Supporting the Move to SAP S/4HANA

West Trax, a SAP system-usage benchmarking and advisory services firm, based in Hahnstaetten, Germany, and a Red Hat and SAP partner, offers a unique *maturity assessment* of organizations' use of their SAP systems. This allows organizations to baseline the current state of their SAP systems and to assess the steps and effort needed to move to a new SAP system such as SAP S/4HANA. The most notable characteristic of the West Trax approach is that it is based on an automated benchmark report, rather than a manual assessment. West Trax clients such as Vaillant have described this approach as "disruptive"(in a good way).

West Trax has performed over 1,600 such benchmark assessments with companies in 15 different industries, for companies such as RWE, the €50 billion energy utility, and Boehringer Ingelheim, a €16 billion pharmaceutical company.

The *Red Hat and West Trax Future Readiness Assessment* is aimed at helping organizations to prepare for the introduction of advanced technologies and major lifecycle changes such as in-memory computing, mobile computing, Big Data, cloud, DevOps, and the intelligent ERP — the essential components of a DX platform. The assessment provides an objective determination of the "As-Is"

"Without employing great human resources, we get concrete indications of what we have to adapt to new release levels and can schedule the long-term."
Andreas Henrich, Head of IT ERP Platform at Boehringer Ingelheim, commenting on the use of West Trax benchmarking.

situation and from that suggests clear client actions to be taken to achieve the desired goals and benefits.

The assessment is based on a combination of the West Trax KPI scan methodology, and the West Trax Maturity Model described above. During the inventory, various KPI's are measured and benchmarked against comparable installations in the client's own industry. The benchmark assessments are performed offline based on data generated by standard SAP reporting facilities. The West Trax KPI model has been certified by the German Chamber of Commerce, IHK Darmstadt.

FIGURE 3
The West Trax Maturity Model for SAP Systems
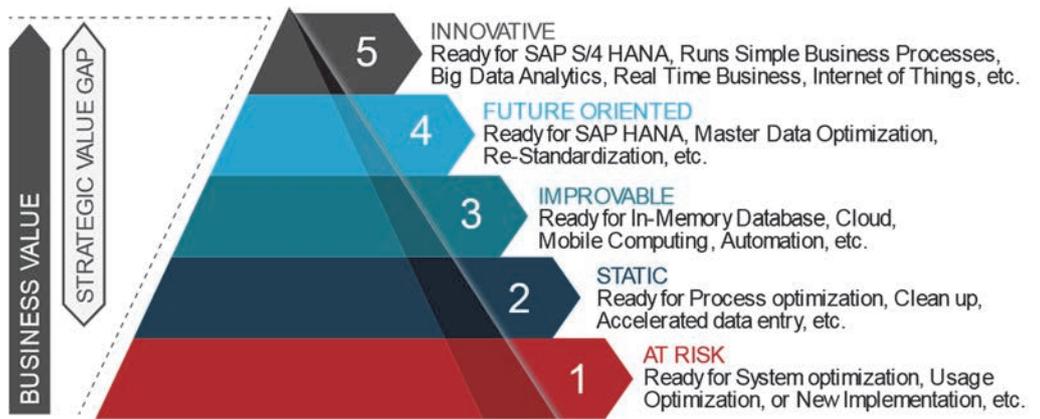
Source: West Trax

The results usually take around 1–2 weeks to process. The metrics are interpreted, the system classified according to its maturity, and projects that deliver value identified and documented. The results are interpreted in terms of costs, productivity, performance, and quality. Based on these results, measures are derived to help the client migrate from the current situation to the best possible target state. The lessons learned can be useful to all of an organization's stakeholders, including platform partners, applications developers, customers, suppliers, and business partners.

Red Hat and its Support for SAP HANA and SAP S/4HANA

One of the primary platforms for SAP HANA comes from open source champion **Red Hat**, which offers a broad range of products under the open source model, including *Red Hat Enterprise Linux for SAP® Solutions*, automation and hybrid cloud solutions, as well solutions to integrate non-SAP applications and sources, and a platform for application modernization and running SAP® Vora™ and SAP Data Hub.
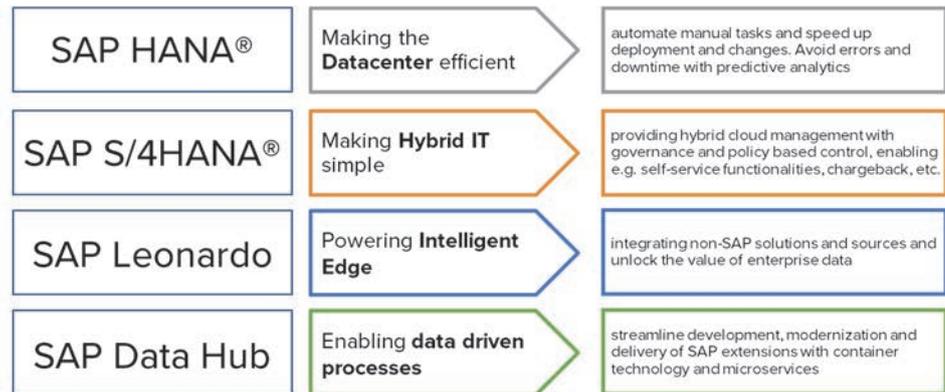
In many people's minds, open source is an approach that correlates with agility, flexibility, and value, and it could be said that the West Trax approach has similar virtues; thus the West Trax and Red Hat partnership is based on shared values and will be appealing to potential customers of both companies.

Due to the significance of the SAP platform market, Red Hat created an optimized version of its Red Hat Enterprise Linux (RHEL) for the SAP environment, Red Hat

Enterprise Linux for SAP Solutions. This includes high availability and predictive management solutions, helping to increase uptime.

Alongside these products and solutions, Red Hat provides enterprise-standard support services; its engineers are SAP-certified and work closely with SAP on joint development projects, Red Hat being a SAP global co-innovation lab member, and member of the SAP Benchmark Council. Red Hat is also a West Trax partner.

FIGURE 4

Red Hat's SAP Value Proposition

SAP HANA®	Making the **Datacenter** efficient	automate manual tasks and speed up deployment and changes. Avoid errors and downtime with predictive analytics
SAP S/4HANA®	Making **Hybrid IT** simple	providing hybrid cloud management with governance and policy based control, enabling e.g. self-service functionalities, chargeback, etc.
SAP Leonardo	Powering **Intelligent Edge**	integrating non-SAP solutions and sources and unlock the value of enterprise data
SAP Data Hub	Enabling **data driven processes**	streamline development, modernization and delivery of SAP extensions with container technology and microservices

Source: Red Hat

Another relevant offering, Red Hat Ansible offers automated system provisioning using configuration management, in principle allowing customers to set up a SAP (HANA) instance including best practices and tuning within 10 minutes, while its orchestration enables secure and faster deployment of changes into the production landscape.

Finally, Red Hat CloudForms allows customers to create a self-service catalogue of standard SAP operations to automatically deploy workloads on-premise and in the cloud and manage across both environments.

Essential Guidance

To move up the maturity ladder, organizational leaders must prepare and educate business and IT stakeholders on the importance, impact, and benefits of DX across the organization. They will need to focus on developing their vision and strategies for DX of products, services, and experiences to deliver value to partners, customers, and employees.

DX is not just another technology trend — it is a critical business priority for most organizations. The fact that the majority are still in the early to medium stages of maturity underscores that DX is not as simple as buying a technology solution: it is a journey. And like all journeys, it requires knowledge of the starting point and the intended direction of travel — although like many journeys, the destination may well change as the journey evolves.

Given this, IDC views the best way to plan the route map to be through developing appropriate use cases, which themselves will evolve or have multiple stages, giving marker points along the journey. What are the best use cases to adopt will depend

on the organization: its current situation, its potential market, its resources, and so on. The data-driven nature of the transformations means that IT will need to work hand-in-hand with the digital and business teams to redefine the way existing and proposed processes link to the services and use cases being developed and delivered. A key differentiator for the organization will be the algorithms, code and models that sit within and atop the intelligent core.

IDC believes that organizations that can successfully rearchitect toward a new scalable, intelligent platform will be the most likely to emerge as successful inhabitants of the DX economy in the coming years.

About IDC

International Data Corporation (IDC) is the premier global provider of market intelligence, advisory services, and events for the information technology, telecommunications and consumer technology markets. IDC helps IT professionals, business executives, and the investment community make fact-based decisions on technology purchases and business strategy. More than 1,100 IDC analysts provide global, regional, and local expertise on technology and industry opportunities and trends in over 110 countries worldwide. For 50 years, IDC has provided strategic insights to help our clients achieve their key business objectives. IDC is a subsidiary of IDG, the world's leading technology media, research, and events company.