# ERP IN THE NEW NORMAL

Enterprise Resource Planning in the Next Wave of Transformation

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*ERP in The New Normal* is a thought leadership whitepaper commissioned by Jeeves. It was produced by Radar during the first half of 2021 and it is based on in-house research covering the digital transformation of the Nordic ERP market in combination with public domain frameworks for understanding the transformation of business models in the digital age.

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#### Authors:

Måns Wallin, Radar Advisory mans.wallin@radareco.com

Sara Olofsson, Head of Research sara.olofsson@radareco.com

Hans Werner, CEOUtgivare:hans.werner@radareco.comHans Werner, CEO

#### 1. SUMMARY

Enterprise Resource Planning ('ERP') software is the single most important component of the IT architecture for most businesses, both in terms of costs and value creation. The Swedish ERP market turned over some 12 billion SEK in 2020 distributed across all delivery forms<sup>1</sup> and ERP spend is expected to grow substantially in 2021 as the economy recovers. As we enter a 'new normal', aggregated demand for digital transformation will put ERP at the centre of attention.

This paper will examine the applications of a 'new normal' from the perspective of ERP software. We will analyze general trends and vertical trends in three industry sectors. Radar regards the pandemic as an accelerator of already existing long-term patterns. Trends discussed in this report are forecast to continue to be relevant in the post-pandemic future because they are signs of a paradigm shift rather than a temporary change. This is valid for the accelerating technological change too.

The paper covers:

- The broader impact of new ways of working such as work-from-home, Virtual First, and Contactless
- The industry specific impact in Manufacturing, Logistics, and Retail, from applications such as the Industrial Internet of Things, Supply Chain Resilience, and Virtual First
- New demands to the digital workplace and digital processes
- The transformation of businesses based on the 'new normal' and experiences of the pandemic
- Why ERP remains central to new demands and provides a platform for digital business development

We also present a customer case story from Schalins Ringar, a manufacturer of jewelry, to highlight the successful application of some of the most important conclusions in the report.

The paper concludes with insights and practical recommendations for the ERP customer based on the findings and best practice outlined in the report.

<sup>&</sup>lt;sup>1</sup> Radar: Konkurrensanalys ERP, februari 2021.

# 2. THE NEW NORMAL

When the global pandemic hit the Western economies in 2020 the immediate impact presented itself as an accelerator of existing trends rather than an agent of fundamental change. The pandemic has acted as an accelerator and catalyst of macro trends as well as business transformation, and indeed individual change. Many of the expressions of 'new normal' trends were signs of change initiated long before the pandemic. And there is plenty of evidence to suggest that these shifts are secular, meaning they are not related to periodic business or macro cycles, and the consequences will stay with us for some time.

#### 2.1 UNIVERSAL IMPLICATIONS OF THE NEW NORMAL

To better analyze paradigm shifts tied to technological transformation it is useful to distinguish between universal change, such as applying to all industries, and industry specific change, which applies to or is more obviously evident in certain sectors of the economy. As the concept of the 'new normal' is viewed from a digital perspective it is also important to note the three components of change necessary for transformation: technology itself; the processes associated with that technology; and lastly of course: the human factor. The new normal is thus established by new technological applications supported by new processes and human labor. The shift becomes evident when all three are arranged in a novel or fundamentally different way from previous circumstances.

#### 2.1.1 WORKING FROM HOME

Working from home ("Remote Work") became a practical possibility for non-manual labor when global broadband capacity was expanded in the early beginning of this millennium. It has long been viewed as a useful supplement to normal office work and a way to reduce business travel. But during the pandemic, ways work of working previously seen as supplementary now became regular and universal. Along with the change, many of the initial fears related to loss of managerial control and worker productivity have been proven wrong. Current data estimates have shown that total worker productivity increased by 5% in the USA in 2020.<sup>2</sup> Based on insights such as these, a significant number of employers are now abandoning previous static models for how non-manual work is supposed to be carried out. There are much publicized examples of flexible arrangements for the post-pandemic office work where businesses are offering three types of future work: office-based (4 or 5 days in the office); flexible (1-3 days in the office); or remote (never in the office), and the estimate is that about 80% of the workforce will spend approximately one day in the office per week.<sup>3</sup> In total, based on US estimates again, 20% of all workdays regardless of professional category (including service and manual work) will be performed off-site from 2021 onwards. Before the pandemic, that same figure was only 5 %.<sup>2</sup>

The implication of this paradigm shift is that the majority of businesses, regardless of industry, needs to adapt current processes and technology to cater for workers outside the office and offer comprehensive digital solutions for the mobile workforce. Earlier efforts to provide some mobility, with certain restraints, are no longer sufficient. Workers working from home or elsewhere need to be able to access the same type of functionality that is offered in the office space or in the factory. That goes for the enterprise applications (ERP, CRM, HR, etc.) too.

<sup>&</sup>lt;sup>2</sup> https://www.bloomberg.com/news/articles/2021-04-22/yes-working-from-home-makes-you-more-productive-study-finds

<sup>&</sup>lt;sup>3</sup> https://www.salesforce.com/news/stories/creating-a-best-workplace-from-anywhere/

#### 2.1.2 VIRTUAL FIRST – DIGITAL BY BIRTH

"Virtual First", a term denoting the digital world as the starting point, signifies a fundamental change of perspective employed in the design phase of digital tools and processes. Historically, the physical manual process has offered the blueprint for process automation and digitization. IT has been constructed to mirror and replace manual work. Virtual First represents a counterpoint where processes are designed from the digital world, from the outset.

Most people are familiar with digital banking, now the predominant form of banking for individual customers, and the omnipresence of digital authentication developed by the financial services industry (such as BankID) is a testimony to the unstoppable force of effective digital processes once they are released into the commons. The financial services industry is spearheading Virtual First and accelerated the digital transformation during the pandemic, and we are beginning to see the results of this in other industries too. The scope of Virtual First is expanding into further areas of customer-facing applications as well as internal, back-office processes. Less and less human transactions, whether with customers, service providers, or colleagues, are taking place face-to-face or over the phone.

The Virtual First concept as a basis for digital applications offers obvious advantages in a temporary crisis in society where physical contact outside the family must be restricted. But there are other inherent factors to Virtual First that have influenced or directly spurred transformation before the pandemic. And those factors will remain relevant long after the pandemic is over. *Accessibility* is a founding principle of Virtual First, meaning that the customer or user is granted full access to functionality or services that would otherwise require a journey or a reservation. *Quality* is a principle that promises an agreed outcome regardless of personal circumstances, situation, equipment, or special training. The principle of *Cost* assures less costs (or opportunity costs) associated with travel, less time wasted at work or during spare time, or costs incurred by tailored solutions to geography or individual circumstances.<sup>4</sup> The same arguments are valid for costs of externalization, where less *Cost* equals better environmental outcomes or higher sustainability.

There are of course risks associated with a blind virtual-first perspective that ignores the inherent value in human interaction. Many, perhaps most of human activities are more valuable when they are carried out in cooperation with others. But the core of the Virtual First concept have stood the test of time, this far, and there is every reason to suggest that the principles will remain relevant in the foreseeable future. In the case of ERP, historically correlated to a certain functionality offered to a certain user group, the challenges become evident if we would like to expand the user community. How do we offer ERP functionality *accessible* to a new type of user, regardless of external circumstances? How to guarantee *quality* of work performed in the ERP (and the quality of data generated by such activities) by supporting the end user through intuitive and user-friendly logic? What is the role of the modern ERP in productivity gains and *cost* by reducing waste and inefficiencies? Are these cost reductions also translated into *sustainability*?

<sup>&#</sup>x27;https://fopbenefitsplan.com/virtual-first-a-new-strategy-for-how-people-access-healthcare/



<sup>&</sup>lt;sup>4</sup> Patient Care Metrix is a commonly used set of indicators, revealing that health care professionals only spend 16% of working hours in contact with actual patients.

#### 2.1.3 CONTACTLESS: HANDS-OFF SERVICE

Contactless applications are similar to Virtual First by offering services with reduced need for human interaction. But Contactless is not designed to eliminate human contact (even though it is currently used to minimize sources of viral contagion on physical surfaces). The typical Contactless process involves a combination of digital tools and more practical, physical logic in the shape of signage, physical flow planning, continuous cleaning, etcetera. The breakthrough of Contactless in our daily life is fairly evident, at work as well as in our private life. It is displayed in retail stores, in primary care, in the hospitality industry, to name but a few of our most frequent places of association that have been transformed and adapted to pandemic conditions.



Chart 1. A contactless process for car service maintenance

A future projection for the contactless post-pandemic society is difficult to make. Some applications will probably be dismantled pretty quickly while others may remain. In areas where human contact is the prime driver of value the concept of contactless will soon fade. The main long-term impact, however, will in all likelihood leave traces in digital applications as a secondary effect of the accumulated experience of contactless applications in the pandemic. The considerable amounts of intellectual capital invested in designing contactless processes (for example in healthcare) will be translated into further process automation and efficiencies. Workers experienced in business process re-engineering, having designed contactless value chains, will be available to contribute also in post-pandemic process re-engineering. Recently acquired intellectual capital will be brought to bear across the enterprise (or public agency) in core processes such as production planning, supply chain, logistics, and the quality management process. The potential for efficiencies and increased productivity is ready to be realized by a flexible and modular ERP. All the necessary components--- human knowledge and digital tools--- are at hand. The experience and intellectual capital accumulated during the pandemic will long outlast the contactless society in lockdown.

#### 2.2 INDUSTRY-SPECIFIC APPLICATIONS

#### 2.2.1 MANUFACTURING

The manufacturing industry quickly had to respond to the initial phase of the pandemic which presented manufacturers with a unique and combined decline in both supply and demand. Customers cancelled orders while simultaneously plants had to halt production as factory workers were locked down in their homes. But the manufacturing industry is well accustomed to business cycle swings, probably more so than many other sectors. Many companies seized the opportunity to accelerate digital transformation and go ahead with already planned initiatives. This was especially true of the strategic decision to integrate OT (Operational Technology), IT on the factory floor, with the traditional administrative IT dominated by enterprise systems such as ERP. The drive to integrate production data from sensors and robots was prioritized by many manufacturers who are now able to orchestrate real-time data for production planning, materials supply, quality control, etc. As the recession turned a corner in the second half of 2020, the manufacturing industry was ready to capitalize on digital investments. The long-term consequences of this shift will be evident for an extended period of time. Manufacturers will be more efficient and will have a wealth of data at their disposal. Data driven business development will become more relevant than ever.

Much of the data generated by new nodes in the integrated network is collected by the ERP platform or by ERPadjacent applications. The convergence of IIoT (Industrial Internet of Things) and IoT data from the factory or warehouse will drive demand for more flexibility in existing ERP solutions in terms of data integration capacity, customization, and a rational information architecture which supports continuous change. This demand, not quite fulfilled, is clearly expressed by Radar's customers in the manufacturing industry who make up the least satisfied industry segment of all in our annual customer satisfaction surveys (2020). We will analyze the changes in demand in chapter 5 below, where many of the root causes of dissatisfaction are discussed in detail.



*Chart 1. Tearing down the wall between IT and OT – the demand for convergence* 

#### 2.2.2 LOGISTICS

The logistics industry lived through the same business cycle swings as the manufacturers and it responded in a similar fashion, even though some structural problems specifically related to logistics will remain for yet a while. The way by which the industry adapted to cyclical headwinds was coined Supply Chain Resilience--- the design of durable, shock-proof supply chains. The concept entails founding principles such as supply chain transparency, accurate forecasting, and dynamic transport sourcing. All of these are resting on the pillar of digital solutions. Digital applications and available data are supposed to offer managers and workers transparent processes, relevant decision support, flexible choices for sourcing, and support for cooperation. High levels of control allow for accurate forecasting and agility when circumstances change.



Chart 2. Resilient Supply Chain – The durable supply chain.

By applying the fundamentals of Supply Chain Management, successful companies are today able to design dynamic digital supply chains flexible enough to manage a variety of structural challenges. One example of such challenges is the container shortage and the one-directional container traffic, adversely affecting not just costs and delivery on time but also sustainability targets. Another example would be the drastic shortage of certain materials or goods, such as semiconductors, which will pose a fundamental predicament for years to come. A third example is the unbroken cold chain, now widely known because of Covid vaccine transports, but a continuous headache which compromises margins and the competitive edge of many members of the logistics industry. The need to be able to navigate such impediments with a resilient supply chain characterized by transparency, accurate forecasting, and dynamic sourcing will remain guiding priorities for digital development in the logistics industry in the foreseeable future.

#### 2.2.3 RETAIL

The retail industry including wholesale is yet another example of an economic sector where long term trends were accelerated by the pandemic. Just like the other industries mentioned earlier, it responded by speeding up the rate of change supported by digital transformation. The strategic shift from physical to digital marketplaces immediately became more pronounced when lockdowns were applied, but in reality, this development was already well underway, albeit at a slower pace. D2C (direct to customer) retail has seen double digit growth for several years and is expected to grow by 19% in 2021 globally.<sup>5</sup> The pandemic has further increased the speed of change. D2C, with its strong digital presence, in many aspects provides the image of the future for the rest of the retail industry.

Virtual First and Contactless in retail are also logical conclusions of long term trends. As the physical retail business is deserting physical stores and warehouses, the digital share of the customer journey grows. At the same time, the remaining physical retail stores are converted into hybrid environments where digital interfaces are integrated in order to generate the same kind of data flows that emanate from the online business. The virtual retail shopping experience, rich in data, has become the template for physical store design. Not the other way around. The concept of Omnichannel (to each its own experience) is in effect obsolete. The transformation of retail is really guided by Virtual First--- the online experience dictates the design of the physical space.



Chart 3. The Connected Store--- Virtual First applied to the physical space

The type of fundamental digital transformation entailed in concepts such as the Connected Store puts great demand on the design of interfaces, both customer facing and those used by internal processes or partners in the ecosystem. New data flows are created in new places and data grows exponentially. The integration and interpretation of data becomes a key capability for the execution of the existing business as well as for the development of entirely new business models and products. The Radar annual survey of digital priorities and challenges in Retail ranks *Digital acceleration* as the number one priority in 2021, followed by the previously mentioned *Supply Chain Resilience*. The number three priority is *Health and safety*, followed by *Cost structure review* (fourth place). In the longer-term perspective, the results are hardly surprising. *Health and safety*, directly related to the pandemic, will probably disappear from next year's ranking. But the other top three challenges will probably dominate Retail priorities, whether D2C, B2C or B2B, in the near and middle term future.

<sup>&</sup>lt;sup>5</sup> https://medium.com/@goodrebels/the-rise-of-direct-to-consumer-7fb82066d40d



# 3. NEW WAYS OF WORKING

As new circumstances evolve for businesses along the trendlines we have identified, and the accelerating effects imposed by the pandemic, the management of demand for digital services becomes more complex. How should decision-makers in IT and the business units prioritize challenges? What are the most important factors in the calculation? What conclusions can be drawn from the fresh experience of rapid change and widespread adoption of certain applications or concepts?

A reasonable starting point is the human being/colleague/customer and the analysis of processes and data generated by that individual. More important than systems, applications, and enterprise architecture is the individual workplace or customer experience as a source of knowledge upon which processes can be modelled in a relatively straightforward fashion. Keep it simple, watch the flow: two important lessons from the successful concepts discussed earlier in this paper. The main goal is to build a flexible, easy-to-grasp framework of basic components before entering any discussions about systems or enterprise applications. This mindset is of particular importance to organizations that cannot afford massive IT departments or digital investments.

# 3.1 ACCESSIBLE AND INTUITIVE

Recent events have demonstrated the necessity to make data available and accessible to all workers. In the initial phase, access was largely centered around the digital workplace and collaboration tools. But businesses quickly realized that business applications such as ERP were due a review from a usability perspective. When colleagues are not readily available for a quick consultation, even supposedly "simple" tasks can become difficult, particularly for users not familiar with the logical design of the system they are using. The guiding principle is that data must be *accessible* regardless of equipment, geography, and time of day. Backed by another principle from Virtual First, *intuitive*, the demand for ease of use was sharply highlighted by the pandemic when users were left to their own devices. The lack of tolerance for unnecessary complexity and fuss became obvious, and this insight will drive future digital development in the anticipated future.

A practical consequence of such insight is that the future looks rather bleak for ERP systems that expect very high prerequisite user skills. There are several examples of good principles of ERP design where relevant data is made accessible to users while superfluous functionality and data is scaled back. The customer case present in chapter 6 below, Schalins Ringar, illustrates well how the user-centric functionality can be a guiding foundation for an ERP design that is not driven by heavy processes, needless complexity, or overburdened with functionality that most users never need in their daily work.

#### 3.2 SIMPLE, STRAIGHTFORWARD PROCESSES

When data is made accessible to users who can make use of it in intuitive ways the data must be supported by coherent processes. As we are moving towards ever greater autonomy in the user experience, expecting the users to fend for themselves, greater demands are put on the digital tools. Such demand will relate to user experience and system design, but may also cover external support processes such as user training or on-site replacement kit if equipment breaks down.

In this area, Radar would point to best practice and intellectual capital available from concepts such as Contactless. The relationship between the digital environment, the physical environment, and the ambition to support the autonomous user is just as relevant in a primary care context as it is on the factory floor in a manufacturing company. The key to effective autonomous processes is found in practical, sensible modelling of process flows in a real-life situation. Digital tools such as ERP must also support configuration of such process modelling. Enterprise applications that require wholesale organizational changes before deployment have become obsolete. In fresh memory we have seen rapid comprehensive changes undertaken to successfully adapt to external factors. Without flexible digital tools, such rapid change becomes very difficult or even impossible.

#### 3.3 CYBERSECURITY CHALLENGES

The importance of digital cybersecurity is growing in pace with increased connectivity and network exposure. The distribution of ever more devices and computer logic deployed online, with high degrees of integration, raises the general level of cybersecurity threat. In chart 4 above, The Connected Store, eight different data sources are presented. These data sources hold a promise of great potential value for the retailer to capture data flows in the design of products and customer experiences. But the chart also presents eight potential targets for a cybersecurity attack.

While IoT (Internet of Things, connected devices) and IIoT (Industrial Internet of Things, connected industrial machines) bring amazing opportunities for the manufacturing and logistics industries they are also vulnerable to a new, different threat environment than the traditional isolated network in the factory or the warehouse. An infamous cybersecurity attack on a large global corporation was carried out via a thermostat in a reception aquarium. The hacker gained access to the corporate network and then stealthily broke into the enterprise applications and databases containing the most valuable company information. ERP is considered the "jewel in the crown" by hackers, not just because it holds the company ledger, employee data, production planning, etc., but also because it contains interfaces to other key systems that can be exploited. ERP security is indeed one of the highest ranked areas of priority and challenge by Nordic customers in Radar's annual survey for 2021.<sup>6</sup>

Cybersecurity for our new, more vulnerable connected environment has become a key parameter in all aspects of digital development. Again, there is best practice and intellectual capital available from concepts such as Virtual First and Contactless. The straightforward method of process modelling described above can without difficulty be augmented with cybersecurity principles. Using transparent, flexible processes based on simple components makes the identification of threats and vulnerabilities a lot easier.

# 4. BUSINESS TRANSFORMATION

In a short period of time, we have seen fundamental change to everyday processes in a way that was difficult to imagine a couple of years ago. Large parts of this change have of course had very real negative connotations, tied to human suffering and adverse economic consequences. But the pandemic has also reminded us of our adaptability to changes in the external environment. It also brought home some very real insights into how digital development can support societal change and the role of digital tools in work, social interaction, and consumption of goods and services. Digital development will transform established business processes in a similar fashion. But

<sup>&</sup>lt;sup>6</sup> IT-Radar 2021, februari 2021.

this time under different circumstances: voluntarily, controlled, and, hopefully, based upon gained experiences and insights.

#### 4.1 PROCESS TRANSFORMATION

The transformation of business processes will be underpinned by a larger wealth of data and computer processor output than ever before. There is a huge potential for disruptive change with a release of untapped value. But such potential is relative to the capacity to use technology, interpret data, and create algorithms and automation to support us in a meaningful and efficient way.

Readers looking to understand the potential breakthrough of digital transformation will find useful examples in this report such as Virtual First and Contactless. They are showcases for the transformation of processes supported by greater volumes of data, better computing performance, and advanced algorithms combined with practical applications adapted to external change. The core principles for transformation are universal, not industry-specific, and can be applied to most processes in a majority of organizations.

- 1. Is digital development in your business supporting more autonomous workers that can carry out their main work on their own?
- 2. Do the digital tools give users access to relevant data regardless of digital device, geography, or time of day?
- 3. Do the tools support transparent processes and data?
- 4. Are the tools intuitive to use?
- 5. Do the tools raise the quality of work performed in the form of products or services?
- 6. Do they support revenue growth or cost efficiency?

#### 4.2 THE HUB OF TRANSFORMATION

ERP provides the starting point for economic planning, "the single point of truth", in a majority of businesses in the Nordic. By this function it will be a key component for large parts of the digital development because financial management requires relevant updates of all transactions associated with costs or revenue, i.e. almost all activities performed in a business or government agency. Relevant external data from customer facing functions such as CRM usually tends to end up in ERP too or is made available through integrations and warehouses.



Chart 4. ERP as the hub of digital transformation

For businesses using further enhanced ERP functionality for process management, such as Production or Purchasing, the platform will be the hub for digital transformation that supports efficiency or productivity improvements. ERP is the starting point for fully or partly automated processes (RPA). Decision support, a function with growing importance as data volumes and possibilities for analytics expand, also starts from ERP. And as business development shifts to revenue growth, quite possibly based on advanced data flow analysis, ERP will perform the key role in digital transformation. In this regard, the perception of ERP is changing from the "engine of efficiency" to a driver of revenue growth.

The report has analyzed three industries in depth (Manufacturing, Logistics, and Retail) and the digital challenges and priorities in 2021 and ahead. The common denominator for them, as well as in many other industries, is the role of ERP as the hub of transformation, the enabling platform, for the main part of the most important digital initiatives.

# 5. THE RIGHT TYPE OF ERP

If ERP is the key component or the hub of transformation of digital business development and efficiency drives, what are the current key customer requirements for Nordic businesses?

The most important requirements on ERP platforms ranked by Radar's customers in March 2021 were the following eight (not in order of importance):

- $\circ$  Security
- o Flexibility
- $\circ \quad \text{Ability to scale} \\$
- User centricity
- Access to third party tools
- Ease of integration
- o Analytics support
- Support for resource allocation efficiencies
- Support for Decision Support

# 5.1 SECURITY

Security is a fundamental factor when choosing ERP and we have discussed the reasons why in chapter 3.3 above. Worth mentioning in this context is that the requirement is expressed specifically for ERP, meaning that the platform in itself is secure and supports the secure use of it, rather than a general aspect of the IT environment. The sentiment is testimony to the importance and value of the information stored in ERP and its interfaces and is also an expression of the challenge of cybersecurity applied to ERP as perceived by many customers.

#### 5.2 SCALE: CLOUD SERVICES OR ON-PREMISE

Roughly 25% of all Nordic ERP-customers are today running their application locally only ("on-premise") while the rest have some kind of cloud deployment contained in their form of delivery. About 45% of customers run ERP in a private cloud, some 10% use public cloud services, and the remainder use hybrid forms of delivery.<sup>7</sup>

First-time customers typically choose public cloud services but there is also a trend of migration from private clouds and on-premise with customers opting to integrate public cloud services (fully or partially). A segment of customers will keep their systems on-premise for the foreseeable future. But the more flexible ERP vendors will continue to offer mixed forms of delivery where individual customer circumstances and requirements will guide how the service is best delivered without lock-in effects. The ERP of the future is probably cloud based for the majority of customers but with some freedom of maneuver. Customers need the flexibility to scale up or down depending on how the business develops.

<sup>&</sup>lt;sup>7</sup> Radar: Konkurrensanalys ERP, februari 2021.

#### 5.3 MOBILE, EASY TO USE

As noted earlier, an increasing number of customers are exploring the possibility to offer ERP to a wider community of users outside the traditional base. These customers typically seek user-centric ERP solutions that deliver the relevant functionality regardless of external circumstances, for example by matching desktop user experience in a mobile device. And previous principles of hierarchical design (from full user down to read-only) are replaced by role-based functionality. The aim is to include as many contributors as possible, not just experts with full overview of the system. The democratization of ERP enables decentralization and distribution of data, offering decision support to users previously outside the loop. This is a practical application of data transparency mentioned earlier as a principle of Supply Chain Resilience. Mobility, real-time updates, and access to relevant functionality in an intuitive format are features of the ERP of the future.

# 5.4 FLEXIBILITY, INTEGRATION, AND ACCESS TO THIRD PARTIES

The conventional large enterprise applications, defined by comprehensive and compelling business processes, are struggling in an environment where most customers are looking for flexible solutions with room for customization, "light" versions of the enterprise application, or core ERP platforms stripped of excess functionality. This trend is partly a function of spiraling license costs associated with enterprise systems where customers really only use a fraction of all the available functionality. But is also a consequence of the perception of ERP as a core component to which other modules or solutions are added, often from a third party. The role of ERP as a hub for other applications (and other vendors) becomes particularly evident when advanced digital solutions such as AI or IIoT are integrated. At the same time, conventional ERP vendors are adding on even more functions such as CRM and HR. They also seek partnerships with industrial vendors to offer integrated IIoT solutions as a part of the ERP.

The struggle for market share is far from decided: some customers, especially the larger organizations, opt to supplement and defend previous large investments by buying more functionality from the same vendor. Others, especially first-time buyers, choose flexibility and scalability and run smaller implementation projects. In terms of flexibility, we have arrived at a watershed. 44% of Nordic customers in 2020 found their ERP "lacking" in flexibility and 15% had decided to stop all development activities on the current platform.<sup>8</sup> In practical terms, this means that a significant portion of customers are about to replace their ERP platform because it has become obsolete for digital transformation.

<sup>&</sup>lt;sup>8</sup> Radar: Konkurrensanalys ERP, februari 2021.

# 5.5 DECISION SUPPORT AND ANALYTICS

The long-term trends presented in Chapter 2 are confirmed by data from Radar's annual surveys. 41% of all Nordic ERP-customers are actively at work identifying and choosing advanced technology (expressed as AI, Machine Learning, Automation, or Predictive Analysis) to integrate with their ERP.<sup>9</sup>

For many customers in the industries we covered in depth (Manufacturing, Logistics, Retail), the advanced applications are intended to support production, logistics, or analysis of demand. For other sectors advanced technology is integrated mainly to drive efficiencies in administration. Regardless of the motive, the survey responses indicate that the advanced applications are viewed as an extension of ERP rather than any other function in the business. The role of the ERP as a hub or key component for digital transformation is reinforced.

When it comes to new technology, and particularly advanced technology, it is understood that the integration of it will put the existing architecture under the spotlight. As ERP is seen as the single source of truth it will dictate much of the logic applied in automated information flows and data architecture. The fact that 15% of ERP customers, as mentioned above, are mothballing the current platform is an illustration of the dividing line between what is seen as future-proof solutions in contrast to obsolete burning platforms.

#### 5.6 **RESOURCE ALLOCATION EFFICIENCIES**

The demand for digital support for better resource allocation and efficiency improvements is in many ways selfexplanatory since enterprise resource planning was created for that reason. But the high priority expressed by customers also reveal that they are ready to move to the next stage of digital transformation. The reference case described below (Schalins Ringar) provides a good guide to the new approach to ERP: more widely distributed in the business, more accessible, more adapted to the user environment. A high priority put on resource allocation should also be viewed in light of Supply Chain Resilience in Manufacturing and Logistics, as discussed above. Many customers in those industries are facing considerable investments in more resilient supply chains and higher process efficiencies.

<sup>&</sup>lt;sup>9</sup> Radar: Konkurrensanalys ERP, februari 2021.

# 6. SCHALINS RINGAR: FLEXIBLE, USER-FRIENDLY, MOBILE

Schalins Ringar, a Swedish manufacturer of jewelry turning over some 15 M euros annually, chose Jeeves ERP to support the essential business processes. Apart from core functions, Schalins also uses Jeeves to manage production and engages 43% of all employees as active ERP users.

Schalins serves more than 2500 retailers internationally and their Jeeves configuration contains inventory management, product management, order management, purchasing, quality control, and resource management, besides core functions such as general ledger and finance. The differentiating factors in Schalins' use of their ERP is the combination of essential functionality with a wider distribution to a large base of users. One way of achieving this goal was to start from principles of mobility and the extensive use of smart mobiles. Since almost half of the workforce is actively using the ERP, real-time management of production is possible. "Our mobile app is used from A to Z, from assembling raw materials to the finished product, including quality control and management of events. It also supports advanced resource allocation in real-time by allowing production managers to coordinate work", says Johan Redhe, the Managing Director of Schalins Ringar. Production flows are transparent to everybody which allows workers to help out wherever needed. Smart mobiles are used to scan bar codes, making the production process event-driven, supporting instantaneous analytics as well as long-term production planning. The Supply Chain Resilience principle of transparency is implemented and in operation at Schalins.

Schalins has also taken Just In Time one step further with a slim production structure. "We don't hold any inventory apart from metals, everything is Made to Order", Johan Redhe explains. Mobile functionality supports impulse inventory control, ordering, controlled inventory movement, real-time pricing updates and a seamless order management function through a web shop where the only variable is the spot price of precious metals and stones. "Our employees are the key to our internal efficiency, and through the widespread use of the ERP the production process becomes transparent for a large part of our operational staff and, in the wider picture, the entire company" Johan Redhe says. "It stimulates engagement, improvements, and individual initiative".

In line with the rapid development of digital solutions for B2B Schalins need to make sure that their ERP solution is not curbed by a specific technology, allowing for future integration with other functionality. This is true for areas such as customer care, product lifecycle management through service, information feedback from retailers, etc. The flexible architecture of Jeeves is very important for this purpose, by not limiting choices. "We are actively analyzing different solutions for things like advanced analytics, especially from a perspective of market competition, and it is crucial to be able to pick and choose without being locked in by a tech choice [such as ERP] made earlier", Redhe explains.

Schalins like many other customers are opting for an ERP solution that provides the hub of digital transformation while offering the opportunities to integrate external functions, supporting the business while revenue grows and the market changes.

# 7. CONCLUSIONS AND RECOMMENDATIONS

This report analyzed the characteristics of the new normal and the impact on digital transformation from an ERP perspective. We have identified a group of trends and applications that put ERP at the very center of current and future efforts to drive digital business development and transformation.

#### THIS REPORT INFORMS DECISION-MAKERS ABOUT:

- Universal trends influencing all industries
- The founding principles for universal applications, relevant to all ERP-customers
- Industry-specific applications that will inspire and influence other sectors of the economy, by applying founding principles outside the original domain
- How businesses can be transformed based on a "new normal"
- $\circ$   $\;$  The best practice and intellectual capital earned during the pandemic
- The role of ERP in view of new requirements and its role of key component and hub for digital transformation

#### RADAR RECOMMENDS DECISION-MAKERS TO:

- Begin with small step improvements based on individual circumstances, creating the foundation for digital transformation
- Avoid a systemic or vendor perspective that may constrain digital transformation suitable for your individual purposes
- Use best practice and knowledge from the pandemic transformation: it will continue to be relevant for some time ahead
- Analyze Contactless or Supply Chain Resilience if your goal is to improve resource allocation and productivity in existing processes
- $\circ$   $\;$  Analyze Virtual First if your main concern is increased revenue
- o Make sure to tailor to all components of the digital transformation: tech, people, processes
- Scrutinize your ERP requirements carefully: it must serve as a platform for substantial digital business development in your organization, for a long time

# **APPENDIX: CHARTS**

Cover photo by Umberto Gnocchi

# ABOUT RADAR

Radar is the leading fact-based provider of insight for the Nordic IT industry and the IT decision makers.

Through unique ecosystem coverage Radar provides analysis and insight to service- and technology suppliers, IT decision makers and institutional investors in the Nordic IT sector.

Radar was founded in 2006 with the idea of facts creating a better decision foundation for all parties within the IT-ecosystem. The company is specialized on the IT-ecosystem and is working for IT-providers as well as IT-departments amongst other parties within the IT-ecosystem.

Today Radar orchestrates data flows and is delivering value to our customers through models and recommendations in real time as well as through the company's experienced advisors. The value for our customers is made available through the Nordic market's most used subscription based service for a 360-degree IT decision-making support and through market leading experts in fact based advice.

#### What we do

Radar is leading the market in orchestrating different types of local and global data flows through our own developed models as well as delivering in depth analysis as fact-based recommendations to all parties in the IT-ecosystem. The company builds its business on three main pillars.

- Data based research which is collected through a value network which relies on the party leaving data in return for receiving fact-based advice.
- An ecosystem that builds value networks through data models and a meeting place for key IT individuals.
- Trustworthy advice built on local data as well as expertise within IT-strategic areas for CIOs and providers and other parties within the IT-ecosystem.

#### Services

Radar offers services to all parties within the IT-ecosystem. The services are built around three main categories: Research – When giving Radar data one gets advice back. Ecosystem – Radar's models are used within the organization to increase company competitiveness or through the activation of a value driven relationship network of relevant individuals within the IT-ecosystem. Advice – Radar's experts in strategy, benchmarks, evaluations and sourcing delivers customer unique reports and evaluations.

Radar offers the most insightful data and advise to empower suppliers on the local Nordic market. Radar has deep knowledge in values, growth and conditions on the local IT market, customer preferences, trends as well as local competition.

Contact +46812208000 www.radareco.com Head Office Hammarby allé 47 120 30, Stockholm

