

Effective Enterprise Architecture – An Important Building Block for Corporate Success

By Dr. Volker Barent and Jochen Fauser

We look ahead to 2026: The manufacturing company has had two difficult years: Markets and customers changed rapidly, acquisitions and sales brought a lot of disruption, and IT lagged behind. But the difficult years were used for complete digitization. In development, marketing, sales and service, the teams now work seamlessly together and adapt flexibly to market changes. The introduction of an enterprise architecture (EA) played a decisive role in this, as it was the only way to seamlessly connect business and IT. This helped to adapt the corporate strategy and thus made a decisive contribution to digitalization. In this special, we'll use best practices, trends, and real-world examples to show you how to prepare your business with EA to increase agility, reduce costs, and improve business and IT integration by 2026.

What does enterprise architecture do?

Enterprise Architecture (EA) is a strategic approach to analyzing and designing a company's structure and processes. It combines business strategy, information technology and organizational procedures and creates transparency about processes and information flows. The benefits of EA lie in improved decision-making, faster adaptation to market changes and cost reduction through optimized use of resources. EA promotes innovation and strengthens the competitiveness and long-term strategic orientation of a company. An "EA roadmap" helps to better plan and implement future developments. Similar to a map, it provides "navigation instructions" for the targeted design of company processes and concretely implementable recommendations for action.

Anchoring architectural competence in the organization

Innovative companies distribute architectural expertise across the entire organization, creating a strong network for short- and long-term measures. Traditionally, enterprise architects have often evolved from technical solution architects. In view of the increasing complexity of IT landscapes and their inter-

locking with business processes, enterprise architects today also have to take on strategic and department-specific tasks. The role of the "Chief Architect" is of particular importance. He acts as the "primus inter pares" within the architectural team and plans the architecture of the entire company or a large area. The first companies have recognized the potential and are positioning the Chief Architect in parallel with the CIO or in the strategy department. Special training formats such as "Chief Architects Labs" or architecture bootcamps increase productivity and quality.

Challenges in measuring success

EA activities should always be made measurable. Examples of metrics (KPIs) include: realized cost savings potential, number of projects without architects, reuse of architecture assets, number of cross-departmental applications, number and skill of IT architects, and EA maturity compared to the industry benchmark. The EA maturity level varies greatly in German-speaking countries. While digitalization-focused companies (e.g. car manufacturers, energy suppliers and logistics companies) rely heavily on EA, EA is still underrepresented in digitally less de-

veloped industries such as the public sector and retail. Companies and institutions in all industries can benefit from EA if they use it as a strategic tool that goes far beyond IT support.

Balancing agility and long-term planning

While long-term IT planning used to be standard, today project projects are implemented much more iteratively and agilely. This development presents architects with the challenge of keeping an eye on the "big picture" and at the same time having to deliver results at short notice. This is precisely one of the main strengths of an EA, which allows the interaction between agile teams and the higher-level EA management to be controlled via suitable governance and accompanied with suitable EA tools.

Exploiting the potential benefits of EA with modern tools

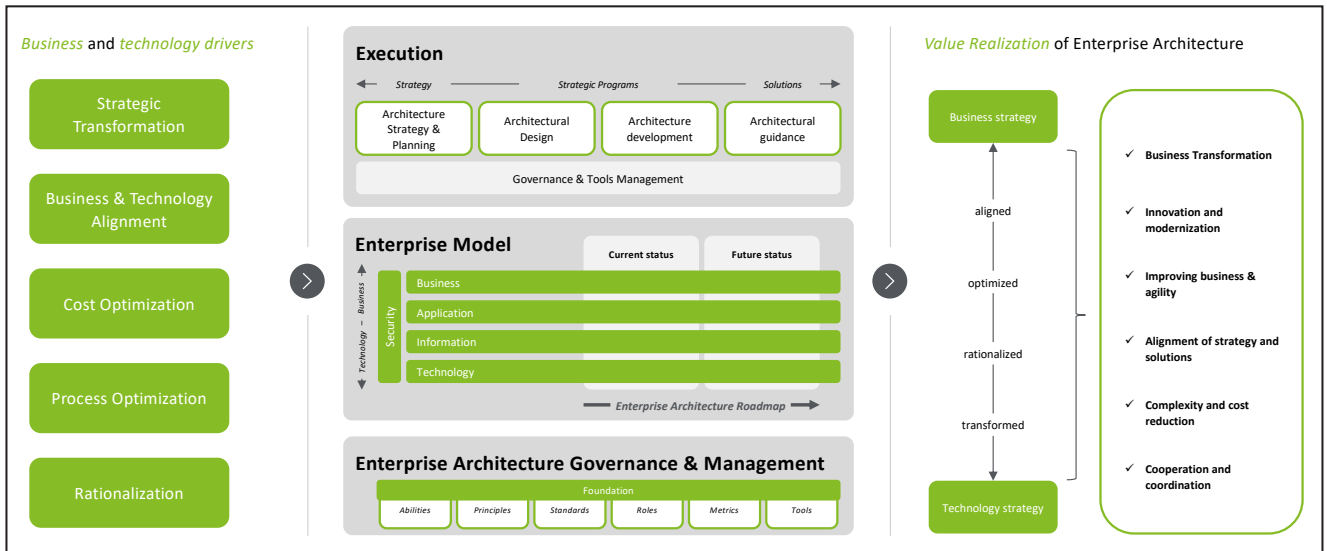
Modern EA tools, together with business capabilities provide comprehensive transparency about the IT landscape, identify design potentials and help to better integrate the entire IT into business processes via (AI-generated) roadmaps. This allows risk assessments of extensive projects – such as major SAP transformations or M&A activities – to be made more precisely. EA thus offers an end-to-end view of all relevant components (IT and business) and creates a transparency that is often obscured by firmly anchored silos in the company. This creates room for manoeuvre that can otherwise only be achieved through elaborate reorganisation measures. For example, cloud activities, which often take place in an uncoordinated manner, can be implemented much more effectively using such tools.

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Recommendations for a successful implementation of EA

From numerous projects for the introduction and further development of Enterprise Architecture (EA), some essential recommendations for action have emerged:

1. EA is a “top priority” and part of the corporate strategy:

The classic approach of anchoring EA in IT is outdated. EA should be designed from the perspective of the CxO or the business unit and be anchored in the respective business unit strategies or close to the board. This is the only way to plan and implement a digitization strategy holistically. Only then is the interaction with IT determined.

Tip: Define key stakeholders and involve this group regularly in order to reflect on short- and long-term goals together. Integrate EA goals into annual business unit strategic planning.

2. Implement EA quickly, leanly and iteratively:

Proceed iteratively: Define what you want to achieve with EA, by when and with what effort. Determine the status quo (maturity level across processes, organization, business, capabilities) and create a compact EA framework that covers all actions as a leitmotif.

Tip: Use agile architecture methods and plan your activities in monthly sprints.

3. Understand EA as a “spider in the web”:

EA translates between business and IT. Use it to break down silos and optimize value chains in terms of processes, capabilities and IT assets. It is crucial to find the right degree

of freedom between central specifications and decentralized flexibility.

Tip: Define overarching guidelines (e.g., for cloud strategies), while teams can set individual preferences on their own.

4. Anchoring in management:

Enterprise architecture must be “lived” in management. Managers should be aware of the EA design principles and integrate them into their work. This can be anchored initially through special training and then requires continuous governance.

Tip: Conduct regular leadership training and workshops to teach EA principles.

5. Use of IT tools:

When introducing EA, an IT tool should always be used. Complexity increases exponentially with the number of applications, processes, data, and actors. Powerful AI-supported tools can help here.

Tip: EA tools can be made usable within weeks and can be connected to existing data sources with little effort.

6. Quantify EA success from the start:

KPI frameworks allow EA to be properly steered in the area of tension between “optimization” and “innovation”. As a result, many questions regarding the profitability of EA can be addressed from the very beginning.

Tip: Develop a dashboard with KPIs such as cost reduction, process optimization, and innovation rate.

7. Clearly defined governance:

Collaboration in a virtual, overarching and agile organization can only be successful if dedicated EA governance is introduced and continuously adapted. This includes rules for collaboration and decision-making, defines

communication, and integrates EA into all relevant decision-making and design processes.

Tip: Establish a governance board that regularly reviews compliance with the EA Principles and makes adjustments.

Result

Implemented correctly, enterprise architecture is an indispensable means of successfully managing the increasing complexity of corporate landscapes. Companies that use EA strategically gain agility, innovation and efficiency, as the following examples impressively show.

The Authors



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Enterprise Architecture as a Success Criterion of Digitalization

By Markus Rink

As Germany's largest electricity grid operator, the energy transition poses major challenges for E.ON, but also great growth opportunities. The "connection boom" in the distribution grid in Germany is historically unique. Since 2020, the number of follow-up inquiries at E.ON has increased almost fivefold. Group-wide, more than half a million new connections to the E.ON distribution grid were realized in 2023. This corresponds to an increase of more than 50 percent compared to the previous year. In this article, you will learn about the importance of enterprise architecture and digitization in this context.

In view of these magnitudes, it becomes clear that the complexity of the energy transition cannot be solved by the expansion of grid infrastructure alone, but above all by digitalized and efficient grid control as well as by flexible control of renewable energy plants and electric cars.

In addition, the restructuring of the energy system is changing the fundamental consumer behaviour of customers and producers, who expect new digital products for energy efficiency and their networking.

The transformation to an "all-digital" company is therefore the logical consequence for E.ON and will thus become an essential part of its business strategy. For the E.ON Board of Management, Enterprise Architecture Management has become a tool for successfully shaping the digital transformation.

How E.ON is giving digitalization a new significance in the company

Hardly any other industry in Germany has changed as much in recent years as the energy industry. Europe needs a smart energy infrastructure for sustainable, secure and affordable energy. E.ON has responded to this and realigned the company. With a clear strategy, E.ON is focusing on three clear priorities: digitalization, sustainability and growth. Given the impact on the European energy market, E.ON is in a position to play a key role in shaping the decarbonization of our society like no other European energy company. We are investing massively to meet the rapidly growing demand for energy infrastructure.

The fact that decisions on digitalization are of fundamental importance for the value creation and long-term competitiveness of the E.ON Group is represented by a separate Board of Management department. This has been headed by Dr. Victoria Ossadnik for more than three years. This means that trend-setting architecture and IT issues are now being discussed and decided at board level.

Modernization and rationalization of the application landscape

In the past, the IT organization focused on creating synergies and increasing efficiency. Modernizing the application landscape was a subordinate priority.

This has changed fundamentally as part of the digitization strategy with the introduction of the "Common Technology Platform" (CTP). This defines reference architectures and standards for the Group at all levels of value creation. On the basis of these references, all of the Group's IT units develop target architectures and concrete plans for the modernization of systems and applications. The aim is to align the IT landscape of the respective business units with cost efficiency, agility, innovation and resilience.

E.ON is paying particular attention to the "cloudification" of the application landscape. Within two years, all applications were migrated to the cloud and E.ON's 5 own data centers were closed. Although not all applications were optimized for operation in the cloud, benefits for E.ON's business units in terms of availability, flexibility and cyber resilience have already been achieved after the "lift and shift". In the next step, the applications are successively optimized with the help of the available cloud services.

As an operator of critical infrastructures, system availability is a key indicator by which

Enterprise Architecture Management (EAM) as part of digitalization plays a central role in effectively mastering the challenges of the energy transition. E.ON uses this methodology in a targeted manner to meet the challenges of the energy transition and decarbonization.

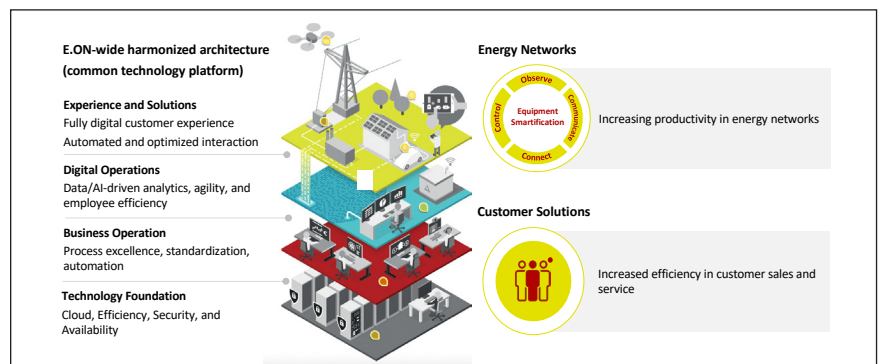
Holistic development planning drives the targeted modernization of technology and application landscape, which enables cost efficiency and process optimization. The use of cloud technology makes the integration of customer systems into the energy system and the use of new products, such as bidirectional charging or flexible electricity tariffs, a reality. The stronger focus on data and its efficient use by AI will drive the digitization and automation of the network infrastructure. By implementing digital twins, essential steps of infrastructure planning can be automated. The comprehensive protection of the digital landscape and the ongoing optimization of cyber security are part of the holistic architectural approach.

IT at E.ON can be measured. Availability and significant disruptions to the IT landscape are explained to the Executive Board in quarterly reports. It quickly became apparent that operating in the cloud significantly increases availability due to the high degree of standardization and automation.

The modern infrastructure of cloud providers not only increases availability, but also improves cyber security by closing critical security gaps more quickly or solving them directly.

Automation through consistent standardization of data and systems

Due to varying degrees of regulation in the various EU markets, E.ON's business is highly regionalized and is operated by independent companies with their own processes and systems. In order to achieve the ambitious EU climate targets in a uniform



Common-Technology-Plattform

Source: E.ON

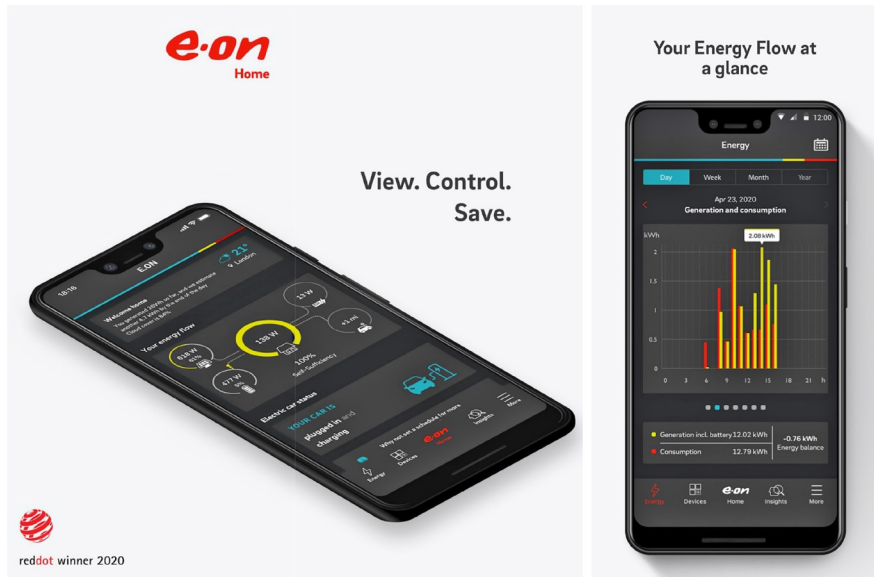
manner, processes must be standardised across the board in order to be able to manage the transformation of energy systems in the given time. However, standardization of processes is only possible through harmonization and consolidation of the applications and data used for this purpose. This is the only way to efficiently implement digitization and automation and achieve the necessary scaling and speed in grid expansion. Ultimately, standardization is also the prerequisite for the use of artificial intelligence (AI), which offers further opportunities for efficient digitalization.

To this end, key decisions regarding the business architecture and the common IT target landscapes have already been discussed and decided at board level.

Thanks to these decisions, the first digital and AI-supported solutions have already been implemented. One example of this is the use of a digital twin: With its help, connection requests, for example for photovoltaic systems or charging stations in the low-voltage grid, can be evaluated and processed much faster. This makes it possible to answer customer inquiries in real time. Even when a grid connection is specifically commissioned, the tool shortens the processing time from several days or weeks to just a few days.

“Make or Buy” decisions

For many years, it was sufficient for E.ON to buy software and have the IT infrastructure operated by external providers, as IT hardly served as a competitive advantage in the energy market. But it is now clear that the energy transition will not succeed without consistent digitalization. It is therefore strategically important for E.ON which digital solutions



Source: E.ON

will be developed and operated in-house in the future, as they can open up new business areas and create competitive advantages. E.ON is therefore increasingly focusing on the development of its own software and products – either by its own software team or by acquiring IT companies.

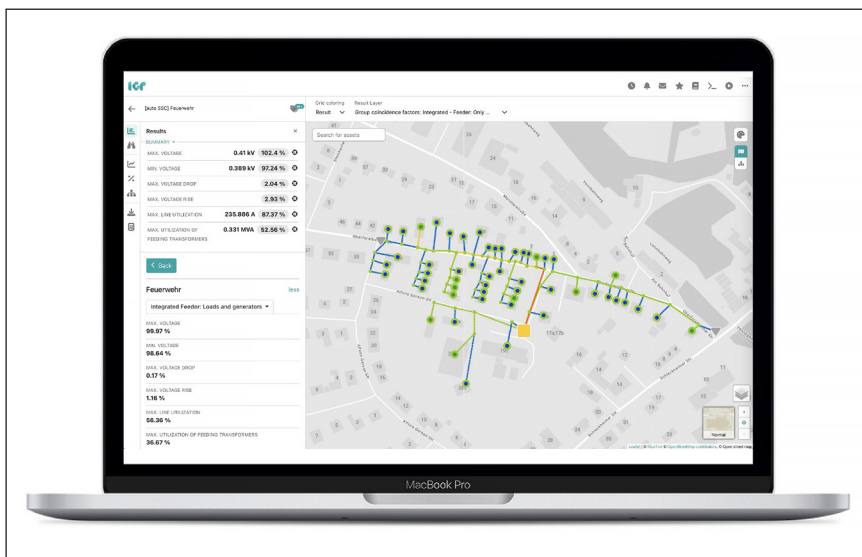
One example of this is E.ON’s XENON platform, which networks and monitors various decentralized energy sources such as wall-boxes, batteries or heat pumps. Specially developed hardware is used to connect the customers’ systems with E.ON’s Home Energy Platform in the cloud to make them individually controllable.

In addition to acquiring successful start-ups, E.ON also relies on a modern operating

model for the operation and development of its own products. E.ON is currently converting its IT operating model to agile product teams and significantly expanding important core competencies such as software engineering. This applies not only to software development, but is also intended to support decision-making in enterprise architecture up to the board level.

IT and architecture expertise on the board

These examples show that enterprise architecture and strategic IT decisions must be understood or even made at the C-level level so that the potential of digitization can be fully realized. This is the only way E.ON can successfully meet increasing customer requirements and global competition. E.ON is pursuing the clear goal of adapting technological innovations such as artificial intelligence at an early stage and strategically integrating them in order to strengthen its own competitiveness.



The Digital Twin from E.ON simulates the grid connection of various decentralized energy sources. Source: envelio GmbH

The author



Markus Rink, Head of Technology and Engineering at E.ON Digital Technology, is responsible for digital strategy, enterprise architecture and software engineering at E.ON and has played a key role in shaping the company’s digital transformation in recent years. He has worked at E.ON for more than 20 years, where he has held various management positions in the Group’s IT and digital divisions.

Increased efficiency by simplifying the IT landscape

By Gunnar Weider and Christian Plath

In today's dynamic business world, efficient IT strategies are critical to success. The 6R strategy, Gartner TIME methodology, Development Technology Radar and Clean Core offer valuable tools for optimizing IT landscapes. They promote the standardisation, harmonization and integration of new technologies, drive innovation and reduce costs. Find out here how these methods can help you strengthen your competitiveness and react agilely to market changes.

Simplify IT: Tidying up the IT landscape – introduction, big picture, TIME methodology

In order to reduce IT costs and facilitate the integration of company acquisitions, simplifying the application landscape is essential. This also enables the optimization of business processes (e.g. technical ERP templates) and their costs. The application of methods such as the 6R strategy or the Gartner TIME methodology supports companies in making their IT more efficient.

A tidy IT landscape not only saves IT costs, but also reduces operational (opex) and investment costs (capex) in other areas of the company. For example, standardised ERP solutions can be used to standardise business processes in different locations. This enables the establishment of so-called „shared service centers“

that take over central support functions (such as HR, accounting, controlling, etc.) for several countries. This avoids each country having its own support departments, which reduces costs while reducing operational costs (Opex).

Complicated and expensive IT structures, the so-called „application zoo“, often arise when there is no clear IT strategy or companies are acquired. This complexity not only increases the IT operating costs (Opex), for example through additional software licenses and specialized personnel, but also the investment costs (Capex) for the maintenance and further development of the many different systems. In addition, this complicates transparency and reporting in finance departments, which in turn leads to additional workarounds, e.g. to prepare monthly or annual financial statements.

A central task of the IT strategy is to keep the IT landscape lean and standardised in order to

avoid unnecessary investments (capex) and high ongoing operating costs (opex). This means clearly defining which business processes are supported with which systems. This prevents new systems (shadow IT) from being introduced uncontrollably and unnecessarily complicating the IT landscape. If this control is missing, IT costs and complexity are further increased by redundant projects.

In practice, methods such as the 6R strategy or the Gartner TIME methodology help to analyze the IT landscape and make recommendations on which systems should be removed, retained, modernized or replaced. A tidy IT landscape thus not only reduces opex and capex, but also facilitates the integration of new companies (post-merger integration) or the outsourcing of corporate divisions (carve-outs).

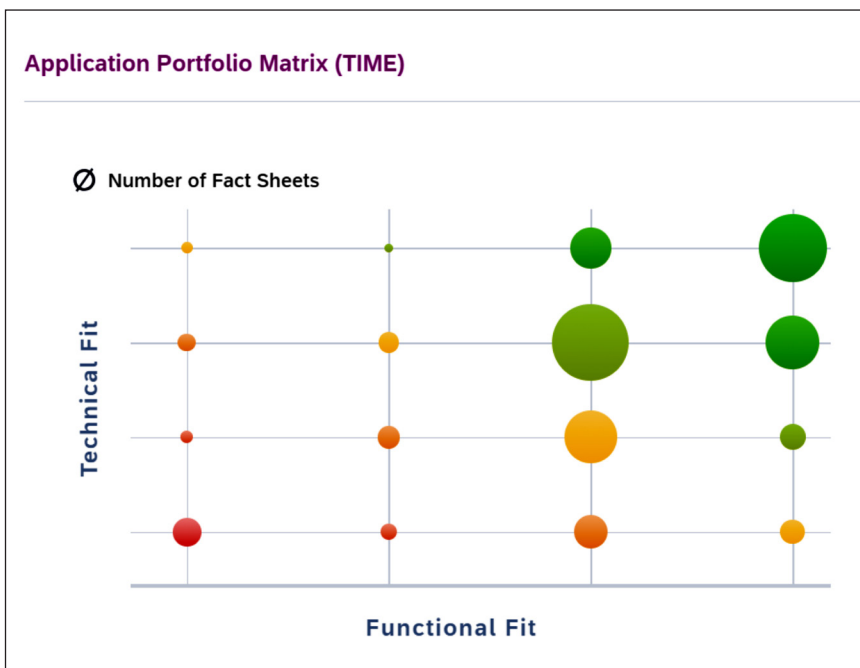
Clean Core: Practical Tip for Business Addressees, SAP Consolidation, Guiding Principles

Clean Core is an approach to standardise and harmonize SAP systems by means of Guiding Principles in order to promote innovation and maintain a solid technological basis. The Clean Core approach focuses on ERP systems that are as close to the standard as possible, while also incorporating cloud-compliant extensions and integrations. Strong governance is required for every technical dimension of Clean Core SAP.

The clean core approach helps companies to make their SAP systems more efficient and future-proof. The aim is to avoid in-house developments as much as possible and to use the manufacturer's standardised business processes. When moving to SAP S/4HANA, many companies are taking advantage of this opportunity to consolidate their systems and harmonize workflows.

This standardisation often requires an adjustment of the way of working in the departments and leads to intensive discussions about the best solution. In order to maintain an overview and protect the Clean Core, so-called „Guiding Principles“ (GP) are used. These guidelines specify how much standardisation is needed and when adjustments are warranted:

- GP1: Use of the standard solution.
- GP2: Extension of the standard only if necessary.
- GP3: New solutions replace existing adaptations if they are more suitable.
- GP4: Temporary adjustments only in exceptional cases.



The Application Portfolio Matrix (TIME) evaluates applications in terms of Technical Fit and Functional/Business Fit. Source: Evonik

These principles help to avoid too much fragmentation of the IT landscape and ensure that projects can be implemented quickly and efficiently. For example, one company was able to successfully integrate a major acquisition with 1,500 ERP users and ten global production sites into the global SAP system within nine months.

Dev Tech Radar: Practical Tip for Tech Addressees, Lifecycle Management Using Technology Radar Using the Example of Development Technologies

The Development Technology Radar helps companies assess trends in development technologies to make informed strategic investment decisions about which technologies to pursue and which to avoid.

The world is becoming more and more complex, and especially when it comes to technologies and innovations, companies have to distinguish between short-lived trends and long-term stable developments. This is particularly important when it comes to digital business models and the automation of processes. There are many options when

it comes to technology choices, and it's often hard to predict which trends will prevail in the long term.

Enterprise architecture helps to manage this complexity. It provides a model that maps technologies and their use in applications. This allows you to quickly identify outdated or unwanted technologies. A Development Technology Radar, for example, shows which technologies are used in the company and in which phase of their life cycle they are.

Optimize your IT landscape: With suitable strategies and methodologies to more efficiency.

The radar supports the strategic selection of technologies and helps to set clear guidelines for developers. This ensures that the IT strategy is aligned with the corporate strategy and that investments are only made in future-proof technologies.

The figure below shows a typical development technology radar of a large company. On display are over 100 different development technologies that are used in the various phases of the life cycle. The circles present the technology assessment in four levels from

undesirable to fully suitable. On the basis of the radar, internal and external developers are pointed out to desired technologies and necessary measures are planned for existing applications with undesirable technologies. In practice, the Development Technology Radar should be integrated into IT strategy and governance to establish a unified and integrated process that also includes alignment of corporate strategy with IT strategy and requirements management (functional and non-functional requirements) in the selection of technology and innovation decisions.

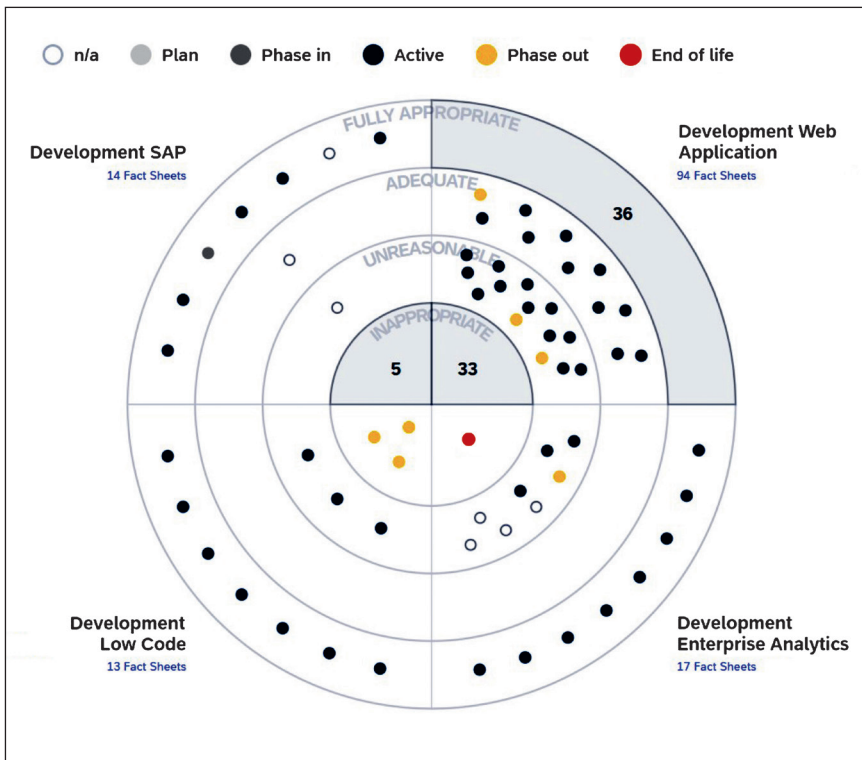
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Gunnar Weider studied industrial engineering at the Technical University of Darmstadt and started in 1995 in the IT department of Evonik's predecessor company Röhm GmbH & Co. KG. After holding various positions in business and IT service, he moved to the Group initiative to build Evonik's global SAP platform in 2013. In 2015, Gunnar Weider established the Process and IT Management of the Nutrition & Care segment of Evonik Industries AG. Since April 2019, he has been in charge of IT Strategy, Processes & Architecture across the Group and since September 2023 of IT Strategy & Governance.



Christian Plath is a Partner at Deloitte and heads M&A Tech Services in Germany and M&A Transaction Services in the Frankfurt office. He has been working in the areas of M&A and Business & IT Transformation for almost 30 years. His current focus areas include operational & tech/IT due diligence, carve-out, post-merger integration, performance optimization, transformation and value creation. Christian Plath completed a double degree in economics and electrical engineering with a minor in software engineering at the Ruhr University Bochum. He holds certifications as a CVA (Certified Valuation Analyst) from NACVA/EACVA and as a Qualified Supervisory Board member (Deutsche Börse AG).



The Development Technology Radar supports the analysis and evaluation of technologies along their lifecycle phases and thus supports strategic selection decisions and investments in technologies. Source: Evonik

Digitalization in the Lufthansa Group

*Insights from Christian Spannbauer,
CTO of the Lufthansa Group's Digital Hangar*

This interview provides a comprehensive insight into the digital transformation in the Lufthansa Group and the crucial role of the Digital Hangar. The focus is on agile collaboration models, enterprise architecture and cloud technologies that create the cultural and technological basis for future innovations. The Digital Hangar is at the heart of this transformation and will make a significant contribution to the long-term competitiveness of the Lufthansa Group.

Christoph Fuchs: *Mr. Spannbauer, can you tell us something about the context of the Digital Hangar and how the Lufthansa Group came to create this unit?*

Christian Spannbauer: The Lufthansa Group has the Digital Hangar to drive digitalization forward holistically and strategically. The pandemic was a disruptive turning point that forced us to act even faster and develop a clear, focused approach to digitalization – one that puts passengers even more at the center. Digitization must be understood comprehensively in such a context: it concerns the core business model as well as the underlying technology and architecture, the „operating model“ (i.e. the way the teams work together) and, of course, the established culture. All these aspects must be considered holistically in order to achieve a sustainable transformation.

Christoph Fuchs: *That sounds like an ambitious project. How did you go about initiating this transformation?*

Christian Spannbauer: We deliberately decided against a „greenfield“ approach. This would have given us the freedom to start from scratch – at least in theory. But in such a large and established group as the Lufthansa Group, this is simply not realistic. Instead, we have opted for an integrated transformation that runs in two strands:

The first strand is the medium to long-term renewal and streamlining of our existing IT architecture. This includes, for example, the consolidation of various data warehouses into a central data platform. Enterprise architecture plays a central role here in reducing complexity and gradually modernizing existing systems.

The second strand concerns more short-term measures: We have created a technical abstraction layer that allows us to develop business logic, for example, without having to intervene in the old legacy world. While this has created additional complexity, it

has also given us the flexibility we need to decouple the teams from each other and enable parallel work.

At a glance: The cornerstones of the Digital Hangar in the Lufthansa Group

- › The Digital Hangar, the digital business unit of the Lufthansa Group, sets new standards for the digital product experience of customers.
- › Digital products are deployed and scaled much faster – for noticeably positive effects across all platforms.
- › Catalyst for the development and scaling of agile working methods in the Lufthansa Group, in particular promoting the autonomy and personal responsibility of the teams.
- › Advanced technical platforms with modular architecture concepts, highly scalable cloud technology and modern AI applications.
- › The Digital Hangar will make the Lufthansa Group more future-oriented, customer-oriented and efficient.

Christoph Fuchs: *This is somewhat reminiscent of a classic 2-speed approach, in which old and new systems are operated in parallel and you end up with two separate IT departments. Was this a conscious decision?*

Christian Spannbauer: In fact, we deliberately decided against a classic 2-speed model, as we are convinced that only a holistic approach that adapts the approach (agile/non-agile) to the respective task will lead to success in the end. In the case of plannable tasks or if time-to-market is secondary, we equally choose a classic project approach. It is important that the chosen approaches do not imply any evaluation of the teams. Another important goal was to create a clearly defined target image together so that all teams know what they are working towards. To promote cross-disciplinary exchange, we have established „Communities of Practice“

in which an exchange takes place regardless of team membership. In this way, we have managed to combine both worlds and establish a common understanding of the goals of digitalization.

Christoph Fuchs: *That sounds like a demanding task for management. How did you overcome this challenge?*

Christian Spannbauer: Management plays a decisive role in such transformation processes. The understanding of management as a mere ability to manage teams is no longer adequate in this area. Especially in the past, managers were often seen as generalists who took care of „people issues“. But that is far from sufficient in such a context. For a successful digital transformation, it is essential that managers also bring a strong content perspective („thought leadership“) and actively shape the technological and strategic direction. They must be able to understand the challenges of digitalization and develop solutions together with the teams. Without the necessary expertise and understanding of the interrelationships, it is almost impossible to initiate real change and transformation.

Christoph Fuchs: *What exactly do you mean by a „real transformation“? How can you tell that an organization has actually made this change?*

Christian Spannbauer: A real transformation cannot be measured by implementing agile methods or frameworks alone. From the outside, two organizations that work according to agile principles can look very similar: both work with Scrum, have appointed product owners, and conduct sprints. But that doesn't necessarily mean that both organizations are truly agile. The difference often lies in the subtleties of the way they work. Do the product teams really work with equal members on an equal footing? Or is there one person who de facto dominates the team and enforces a classic waterfall model? Often, the agile approach is reduced to the iteration of software delivery (i.e. the actual implementation in code) instead of starting with exploration and solving the overarching challenge. In these cases, the result is often that numerous features – i.e. new functions – are integrated into the software, but their relevance for the customer or the challenge to be solved is not guaranteed. An organization that works in a truly agile way empowers teams to act autonomously, but not uncoordinated, and to take responsibility themselves. This is illustrated by the principle „you built it, you run it, you own it“.

Christoph Fuchs: *What is the decisive difference in the way the Digital Hangar works?*

Christian Spannbauer: The main difference is that we give our teams clear goals („outcomes“), but we don't tell them how they should achieve these goals. We focus on empowerment. This means that the teams have the freedom to develop and implement their own solutions. Management creates the framework conditions and ensures that teams have the necessary resources and tools to do their jobs successfully. We've found that this approach leads to more innovation because teams aren't constrained by bureaucratic processes or rigid constraints. It's about delivering results – the ways to get there can be designed flexibly. Nevertheless, it is important that the teams proceed methodically, e.g. choose appropriate metrics to track and ultimately ensure the achievement of goals. This is the real performance and innovation booster.

The Lufthansa Group's Digital Hangar is a driver for a holistic digital transformation – with agile methods, innovative solutions and an effective enterprise architecture to optimize the customer journey and create a future-proof IT landscape.

Christoph Fuchs: *Can you give an example of an innovation that has emerged from this type of cooperation?*

Christian Spannbauer: A good example of this is the development of our new Lufthansa app. Our teams, which include experts in user experience (UX), development, and product management, have worked closely together to consider how they can optimize the customer experience. The result is an app with a server-driven user interface (UI) that allows us to dynamically adjust the user interface with low loading times and provide a seamless and personalized experience for our passengers. This innovation would not have emerged so quickly and so effectively in a rigid, hierarchical working model. The opportunity for all team members to contribute their ideas and knowledge at an equal stage has accelerated the development process, significantly improved the quality of the final product and also made our customers happier. Just recently, our app was named the world's best airline app at the World Aviation Festival.

Christoph Fuchs: *Server-driven UI is an exciting concept. What is the technological basis on which the Digital Hangar operates, and what advantages does this architecture offer the Lufthansa Group?*

Christian Spannbauer: The Digital Hangar follows a multi-cloud approach as part of the Lufthansa Group strategy and relies on cloud services from Microsoft and Google, which offer us the flexibility and scalability we need in such a dynamic environment as the avia-

Empowerment and flexible solutions promote innovation, as the award-winning Lufthansa app shows.

tion industry. Cloud technologies play a central role in our infrastructure, as they allow us to react quickly to new requirements while optimizing the costs of operating our IT systems. By using cloud-based platforms, we can integrate and process data very flexibly. This opens up completely new possibilities for us in areas such as data analysis, automation of processes and personalization of our services for our customers.

Christoph Fuchs: *What role does enterprise architecture play in the connection of old and new systems?*

Christian Spannbauer: Enterprise architecture is a strategic key to our digital transformation. It creates the structural foundation through common vision to connect both old and new systems and ensure that they work together seamlessly. This applies not only to technology, but also to processes and collaboration between teams. Through clear principles and standards, we ensure that the systems can be scaled efficiently and at the same time are flexible enough to respond to new requirements. What's special about us is that we not only break down technological silos, but also break down cultural barriers to create a unified architecture community that works both ways—from the legacy world to the most advanced cloud-based systems.

Christoph Fuchs: *Where do you see the future of the digital hangar and digital transformation in the Lufthansa Group?*

Christian Spannbauer: In the coming years, the Digital Hangar will play a central role in further advancing digitalization in the Lufthansa Group. We will continue to develop the insights we have gained in recent years for our customers, but of course also for our employees and the entire operations department. Artificial intelligence and automation

will be crucial technologies from which we expect a lot. In addition to the customer experience, the focus is on increasing efficiency and achieving sustainability goals through digital solutions. The Digital Hangar will continue to be the innovation platform for the Lufthansa Group, where new ideas can be developed and scaled quickly in order to secure our competitiveness in the long term.

Result

Christoph Fuchs: So we see that the Digital Hangar represents a decisive step in the digital transformation of the Lufthansa Group. At a time when the aviation industry has faced immense challenges due to the Corona pandemic, the Lufthansa Group has taken a clear and strategic approach to digitalization, which enables the company to both modernize its IT architecture and establish agile ways of working that promote rapid response to customer needs and market changes.

Mr. Spannbauer, thank you very much for the interview and the interesting insights into the digital transformation of the Lufthansa Group!

The authors



Christian Spannbauer, CTO of the Lufthansa Group's Digital Hangar - together with more than 1000 colleagues, he is working on the digitalization of the Lufthansa Group.



Dr. Christoph Fuchs, Partner in the Technology Strategy & Transformation practice at Deloitte Consulting, supports companies in making targeted use of the potential of IT and digitalization in the context of comprehensive transformations.