



# Getting it right: A holistic approach to SAP S/4HANA Transformations

Combine Business Process Transformation and Enterprise Architecture Management to accelerate SAP S/4HANA Transformation

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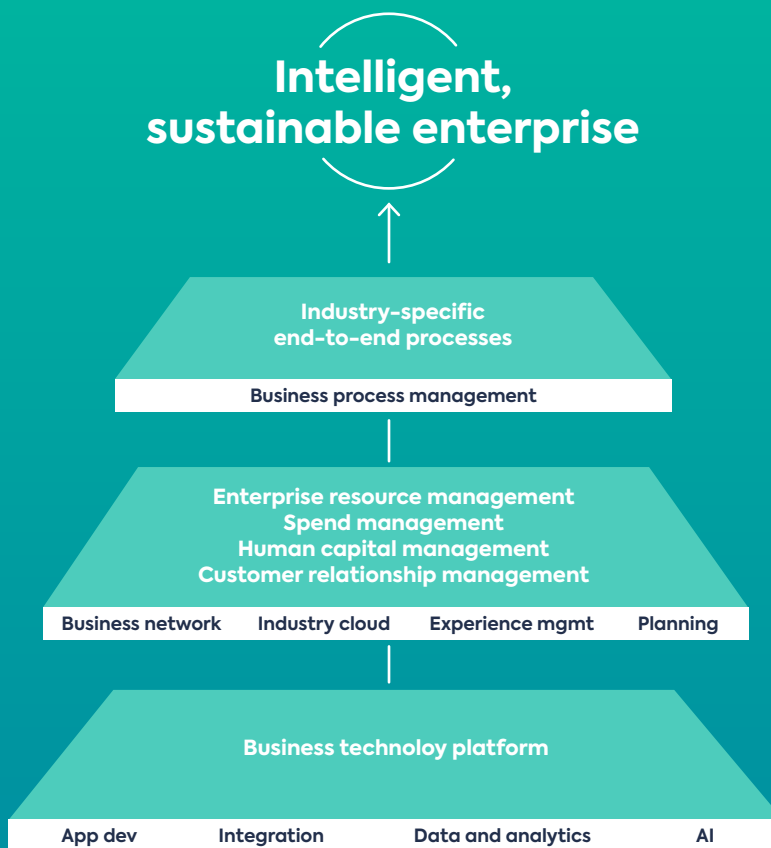
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# Executive Summary

Thousands of current SAP customers need to make the move from SAP ECC to SAP S/4HANA. The complexity of this transformation makes some hesitant, raising concerns that investing in the process won't yield significant business value. This is a mistake. While the complexity is real, so are the business benefits.

Leading companies see the transformation differently, recognizing it as an opportunity to rethink their business model, transform their business processes, and lay the foundation for future success. These companies seek to become more agile, adaptive, and resilient. And they see clearly how, by allowing them to leverage data and advanced technologies in highly integrated and intelligently automated systems, this transformation will produce sustainable competitive advantage.

Achieving such results requires a methodical approach, one supported by a single source of truth focused on maintaining a comprehensive, detailed, and evolving overview of both the organization's enterprise architecture as well as all relevant business processes. This single source of truth serves to streamline the transformation journey with holistic, data-driven insights. By preventing costly delays, supporting decisions at critical junctures, and keeping stakeholders aligned all along the way, enterprise architecture management combined with business process management ensures the success of any SAP S/4HANA transformation.



# Introduction: Complexity, Transformation, and a Single Source of Truth

SAP S/4HANA offers advantages over SAP ECC that can transform any business. The centerpiece of SAP S/4HANA is HANA, SAP's unique in-memory database, which supports everything from application development to analytics on live transactional data, all in one platform at real-time speeds. HANA's design also makes it much easier to integrate SAP S/4HANA with other cloud-based and best-of-breed applications. As a result, organizations using SAP S/4HANA can much more easily build a tech ecosystem around the SAP Business Technology Platform.

Taking full advantage of SAP S/4HANA's capabilities involves rethinking operating models and reengineering business processes. Consider the example of Volkswagen, a LeanIX customer, who seized upon this technology's potential to transform its electric mobility division. The goal of this initiative was to make "e-mobility," in the form of electric vehicles, more affordable to everyone while also reducing the ecological impact of manufacturing.

**Volkswagen made SAP S/4HANA the technical foundation for a more streamlined and automated approach to manufacturing across three production sites. By consolidating data from disparate ERPs in SAP S/4HANA and upgrading manual workflow processes, Volkswagen could significantly speed up product deployments and reduce overhead costs by 30%.**

Successfully navigating an SAP S/4HANA transformation such as Volkswagen's takes time. First, companies must think strategically, using best practices to envision, model, and adopt the business processes they wish to create as well as the technical architecture needed to support these processes. With this vision in place, companies must plan and map out the steps of the transformation based on a comprehensive understanding of their current IT landscape and its dependencies.

Of course, as they execute their plan, companies must also track progress, address challenges that arise along the way, and, ultimately, assess where their efforts have succeeded and where they have fallen short.

The complexity companies face in their SAP S/4HANA transformation can take several forms:

1. The basic complexity of replacing a single enterprise system, one actively used to run the business and connected to multiple systems and processes across the organization.
2. The complexity of replacing multiple instances of an enterprise system used by different business units or subsidiaries while driving standardization across the entire enterprise.
3. The complexity of replacing multiple enterprise systems from one vendor in an enterprise environment that relies on ERP systems from multiple vendors, again while driving standardization and orchestrating connections across the enterprise.
4. The overarching complexity arising from the fact that moving to SAP S/4HANA involves a business transformation. As such, it calls for a shift in mindset involving multiple personas across the enterprise as well as connecting the dots between all systems and technical artefacts.

The fact that key technologies and the business environment itself may change in the course of the SAP S/4HANA transformation adds a final, fluid layer of complexity.

Mastering this complexity begins with consolidating all an organization's technology data and business process data in a single source of truth. This data must include all IT components and applications, how they connect to or depend on one another, how they map to business capabilities, and how they support critical business processes. In the context of an SAP S/4HANA transformation, a single source of truth with this information allows you to:

- **Evaluate your current SAP deployment holistically**
- **Visualize SAP integrations with other enterprise systems**
- **Map the business processes currently implemented with SAP**
- **Execute a data-driven discovery and analysis process to determine where to start the transformation (and why you should start there)**
- **Map business capabilities the target architecture must support**
- **Plan the future deployment of SAP S/4HANA in terms of both business processes and technical elements.**
- **Build and maintain a single source of truth to lead, guide and drive the transformation journey**

As we will discuss below, one can best create this single source of truth by integrating Enterprise Architecture Management (EAM) and Business Process Transformation tools into one extended repository of IT architecture and business processes. The fact that EAM and Business Process Transformation tools already contain catalogs of tech artifacts relevant to an SAP S/4HANA transformation makes them especially fit for this purpose.

**“The fact that EAM and Business Process Transformation tools already contain catalogs of tech artifacts relevant to an SAP S/4HANA transformation makes them especially fit for this purpose.”**

# EAM and Business Process Transformation: The Twin Pillars of SAP S/4HANA Transformation

To understand the critical role played by such an integrated, single source of truth in an SAP S/4HANA transformation, let's first break down how process transformation and EAM tools each support the process separately.

Business transformation tools offer automated methods for defining, mapping and analyzing a business's operations. These tools combine process mining with business process management (BPM) features to generate on-demand insights into how processes currently run and how they can be improved. Business processes involve the execution of multiple workflows. Process transformation tools mine data from event logs and user interactions across these many stages to create a business process system of record. Business transformation users can then use this information on as-is workflows to model or simulate potential to-be processes with live data. This data-driven analysis can combine two angles, either through an Inside-Out approach, focusing on Operational (O) Data, or via an Outside-In approach which relies on eXperience (X) data as the key driver.

For example, once the as-is workflow for a process like Credit Management is defined, BPM users can select the process from within lists of all high-level processes in an organization (in this case, under Order to Cash) to envision a different set of procedures to complete the process. KPIs like Average Cycle Time and Average Cost are available on-hand to show how well it is currently running, and this information can be juxtaposed in diagrams with other ways of executing the same process from sources like SAP process libraries. Crucially, to see the technical foundations of every as-is process and all available IT support for target processes, attributes like IT Systems and Business Capabilities are included from sources like EAM tools.

While Business Process Transformation tools deal with an organization's as-is process landscape, EAM tools offer transformation managers a holistic overview of the as-is IT landscape. These tools can provide, for

example, up-to-date technical details on all SAP and non-SAP applications across the enterprise. These details include all dependencies and interconnected interfaces for applications and IT components, not to mention any linkages between specific technologies and the business capabilities and processes they support. To evaluate SAP S/4HANA migration strategies and implementation approaches, or to identify and prioritize which IT systems to change along the way, EAM tools also allow you to model the architectural impact of decommissioning or introducing specific applications.

**Combining the power of EAM and Business Process Transformation tools makes it possible to understand, plan, and manage your transformation from all relevant dimensions.**

In other words, EAM tools can reveal the complexity, risk and strategic business value associated with change initiatives. Transformation leaders can use this information to create practical roadmaps covering all relevant steps in the transformation process. In the context of SAP S/4HANA, these roadmaps enable the coordination of rollout and cutover activities for applications spanning global user groups.

You can't undertake a complex and critical transformation of your IT landscape without transparent and accurate information regarding your IT systems and business processes. With an SAP S/4HANA transformation, this information includes application dependencies, custom modules, interfaces and workflows. By combining the power of EAM and Business Process Transformation tools, you make it possible to understand, plan, and manage your transformation from all relevant dimensions.

# Essential EAM Tool Capabilities for SAP S/4HANA Transformation

To best assist in an SAP S/4HANA transformation, an EAM tool must first and foremost offer robust support for all enterprise architecture functions. And it must support these functions for all stakeholders, not just those with explicitly technical roles. Next, your EAM tool should be capable of easy integration with relevant Business Process Transformation tools as well as any other enterprise tools necessary for the management of this transformation.

To be effective at any level, an EAM tool needs data. Accordingly, the EAM tool you choose should make it easy to gather all the data you need. This means offering a range of data collection options, from surveys and other crowdsourcing methods to automated discovery and data collection capabilities. The tool should also feature functionality that ensures data quality, verifying and safeguarding the data users provide manually or data collected through other integrated data sources.

Upstream from data collection, a transformative EAM tool must offer a multi-dimensional data model, ideally out of the box to avoid costly and time-consuming customization. The dimensions covered by the data model should include:

- Strategy and transformation (Objectives, Projects)
- Business architecture (User Groups, Business Capabilities, Processes)
- Applications and data architecture (Data Objects, Applications, Interfaces)
- Technical architecture (Providers, IT Components, Tech Categories)

In addition to these specific dimensions, the EAM tool should also offer pace-layered overviews of business capabilities. Pace-layered views help transformation managers look at the application landscape in terms of the relationship between business capabilities and strategic objectives such as innovation

and differentiation. Based on this information, transformation managers can prioritize and orchestrate steps in the process according to projected business impact. Pace layering can be particularly useful when implementing a two-tier ERP strategy (e.g., having customized ERP systems for global business units and less customized ERP systems for local or smaller business units). It can also provide critical guidance when designing your target architecture and making decisions regarding migration strategies.

Finally, like all large-scale transformation projects, SAP S/4HANA change initiatives depend on a mixture of top-down and bottom-up decisions. When EAM tools rely on an intuitive UI, stakeholders from across the organization can use them to make these decisions more quickly. What's more, when the tool offers cross-disciplinary views of the day, views that let all teams envision SAP S/4HANA future states, it streamlines stakeholder buy-in and ensures alignment.

**Overall, the right EAM tool can help dismantle organizational siloes and make the following transformation activities more efficient:**

- **Prioritizing and coordinating migration plans according to key business processes**
- **Rationalizing current and future applications according to technological risk (both inside and outside of SAP environments)**
- **Standardizing SAP processes and reducing redundancy**
- **Managing integrations with synchronously linked data**

# Essential Business Process Transformation Tool Capabilities for SAP S/4HANA Transformation

SAP S/4HANA transformation managers need a Business Process Transformation tool offering live and up-to-date insights on process landscapes. These insights include information on the stakeholders involved in any given process, the types of data transferred across a process workflow, and the IT systems which keep the process moving. Without timely insights like these, process managers can't efficiently:

- Check process performance and get tailored recommendations.
- Lay the foundation for change with well-defined and documented processes.
- Analyze as-is processes to find out the causes of process deficiencies.
- Collaborate with stakeholders to validate as-is and define to-be states.
- Validate and publish target processes and govern change.
- Govern the change from the Opportunity Management, to the Roll-out and the Enablement
- Monitor process performance, process conformance and ROI of the transformation initiative.

To automate transparency and generate contextualized insights from processes at scale, one should select a Business Process Transformation tool with a sophisticated process mining algorithm that relies on an in-memory query engine. As with the EAM tools we've discussed, ease of use for colleagues across the organization is critical when choosing a Business Process Transformation tool. The more accessible a Business Process Transformation tool, the more support it will provide for collaboration and data-driven reviews of process cycles.

Choosing a Business Process Transformation tool already integrated with SAP also offers key benefits. Thanks to this integration, such tools feature examples of business processes standardized for SAP S/4HANA. These processes often reflect specific geographic or business considerations and help transformation managers better model and audit business processes.

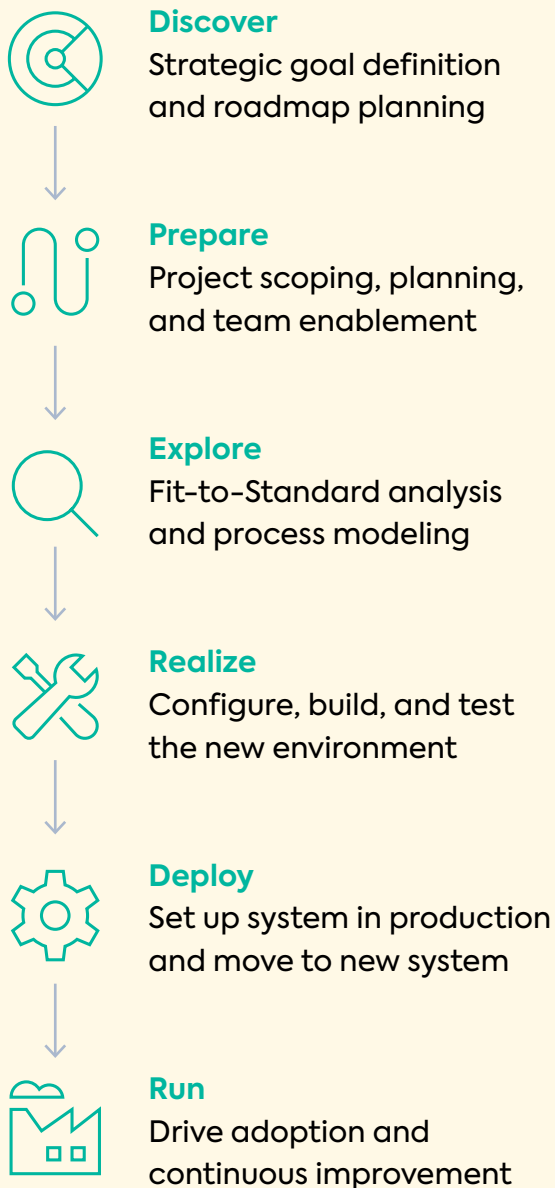
Finally, it's worth seeking out a Business Process Transformation tool from a vendor offering the tool as part of a suite of complementary solutions focused on enterprise process transformation. Such products might include solutions dedicated to process definition, solutions dedicated to managing process variants and solutions dedicated to creating internal documentation. Such products might also include solutions capable of monitoring the health of business processes after the go-live dates of ERP transformations like SAP S/4HANA.

**Overall, the right Business Process Transformation tool can help you create an intelligent enterprise through features such as:**

- **KPI-based industry-peer performance benchmarking.**
- **Alerts, predictions, automation, content and guided recommendations for end-to-end processes improvement.**
- **Harmonized automation and application strategies for lower total cost of ownership and business growth.**
- **Contextualized insights on processes that lead to actionable outcomes.**

# EAM, Business Process Transformation and the Activate Methodology

SAP has created a framework – the so-called “Activate Methodology” – for implementing a range of their solutions and especially for guiding the SAP ECC to SAP S/4HANA transformation. This framework includes a set of best practices SAP has developed over the years, guided configurations for the implementation, and the Activate methodology. This methodology consists of 6 phases:



We will show how the single source of truth we have focused on supports this methodology. Before we do that, let’s take a moment to highlight why LeanIX’s EAM tool and SAP’s own Business Process Transformation tools make such a strong combination.

First of all, easy-to-configure and out-of-the-box integration APIs make it possible for LeanIX EAM and SAP Signavio to seamlessly exchange data. With all relevant data readily available, IT teams can better support the business and business teams can work with a clearer understanding of available technological support.

The combination of these tools does more than simply extend the scope of each tool’s data repository. With a LeanIX EAM and SAP Business Process Transformation combination, transformation managers and their many stakeholders can more closely observe process landscapes, creating opportunities for continuous optimization, which SAP S/4HANA technology is meant to enable in the first place.

The comprehensive, multi-dimensional overview of the enterprise IT landscape provided by LeanIX lays the foundation for the transparency an SAP S/4HANA transformation requires. In many cases, this overview plays a key role in identifying and sorting data for the process mining performed by SAP Signavio. With SAP Signavio and LeanIX EAM together, organizations benefit from:

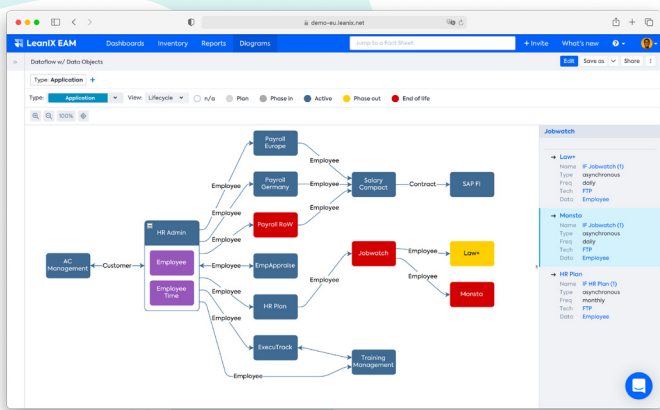
- A single source of truth providing an accessible, shared overview of IT landscapes and the dependencies between all SAP and non-SAP applications.
- A process performance “cockpit” that monitors operational health and uncovers potential improvements.
- A way to align corporate objectives with both SAP and non-SAP IT initiatives as well as to build or refine transformation items based on business capabilities.

Here's what both tools offer within the different phases of the SAP Activate methodology:

**Discover**

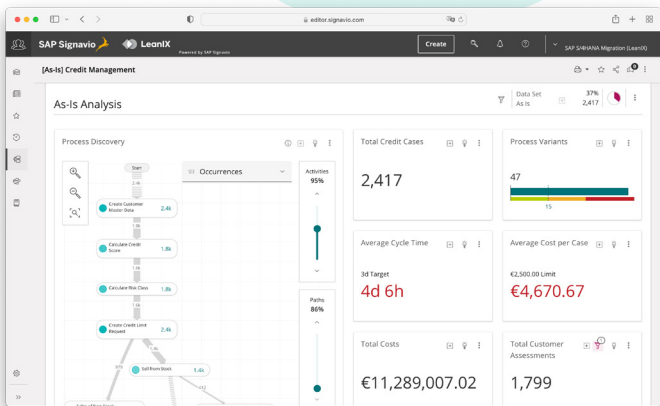
LeanIX's scalable, shared inventory streamlines the process of exploring the as-is enterprise architecture, identifying key stakeholders, dependencies, and risks. Because LeanIX doesn't limit access based on user licenses (LeanIX pricing is based on the number of applications in enterprise, not on the number of users), those inside and outside of company networks can access the platform and participate in architectural reviews.

Figure 1 Data Flow Diagram with Lifecycle View



From the business process side, both the SAP Process Insights solution and the SAP Signavio Process Transformation Suite offer capabilities allowing for the exploration of as-is processes, process variants, and performance KPIs. In this phase, the focus falls on documenting the current process state and identifying opportunities for process improvement.

Figure 2 As-Is Process Analysis

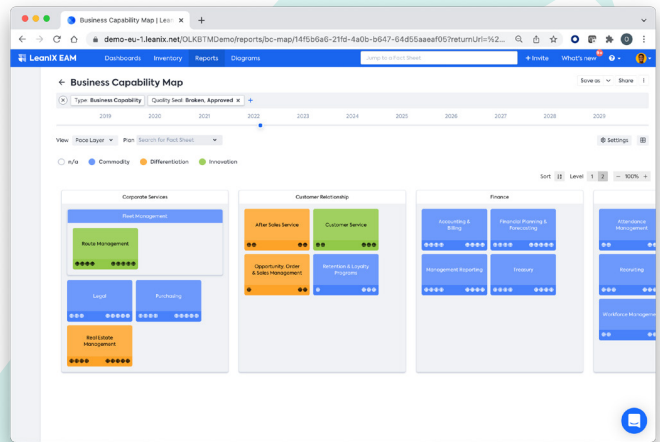


**Prepare**

To facilitate project planning, LeanIX makes on-demand, configurable landscape reports. These reports play a crucial role in mapping business capabilities to value drivers.

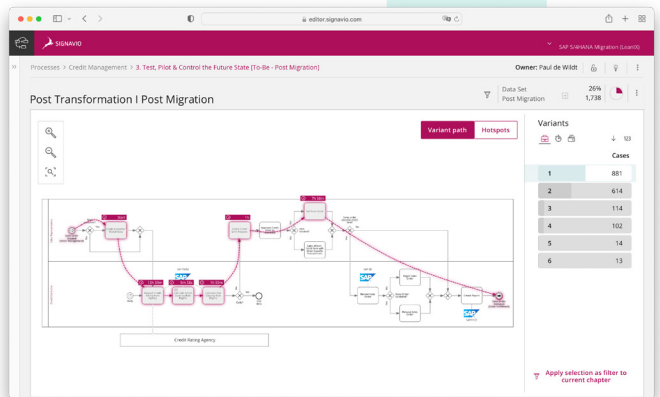
Landscape reports depict IT landscapes at specific points in time or within a given timeframe. They can be grouped according to Business Capabilities, Processes, Consumed/Provided Interfaces, IT Components and wide range of technical and functional requirements.

Figure 3 Business Capability Map with Pace Layer View



SAP Signavio Process Transformation's process mining algorithms and direct connectors to SAP make it easy to analyze current processes and identify opportunities for improvement or modification. Among other features, the tool provides tailored insights based on data from your SAP ECC deployment allowing you to better structure SAP S/4HANA-based processes, identify key KPIs and benchmarks, and perform process analytics.

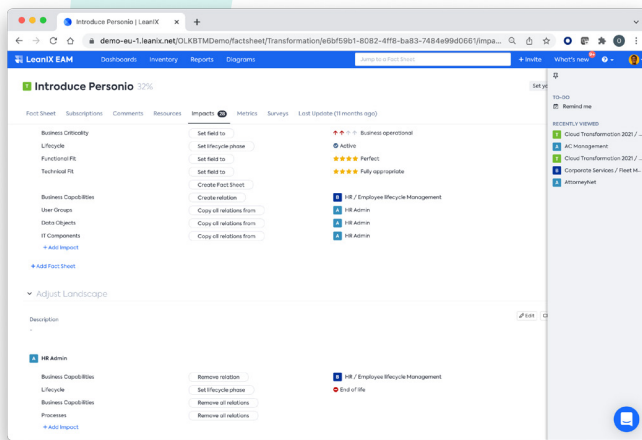
Figure 4 Variant Path



## Explore

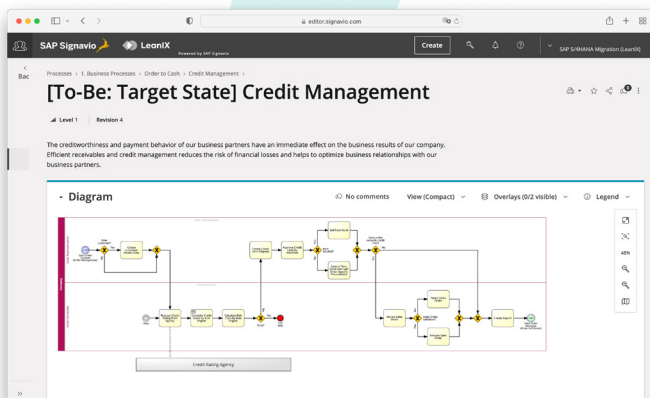
LeanIX interface maps and data flow diagrams offer the insight needed to identify gaps and changes to be made as well as design new workflow processes for the target architecture. These maps and diagrams support collaboration between business and IT users as they dissect their ecosystem of applications, interfaces and data exchange protocols. Thanks to the modern diagrams editor and integrated connection between LeanIX and Lucidchart, users can map out business architectures, IT processes and data flows without leaving their primary EA tool.

Figure 5 Transformation Impact Planning



SAP Signavio Process Manager connects users with SAP Best Practices and can simulate the performance of to-be processes, either step-by-step at individual process stages or by running entire numerous process simulations at once. These simulations help users analyze as-is processes and faster uncover process deficiencies, thereby speeding up the modeling of the future state.

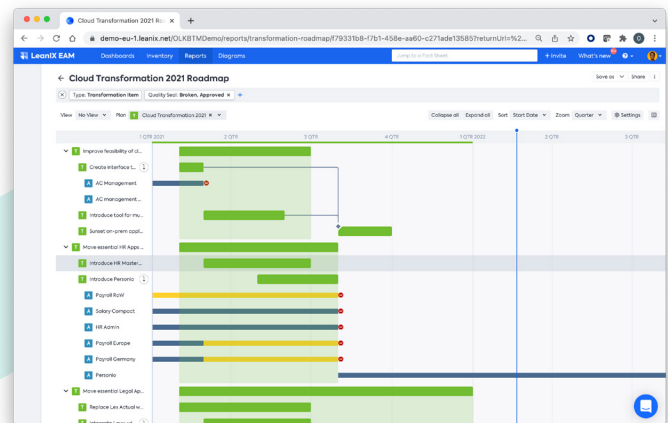
Figure 6 To-Be Process Simulation



## Realize

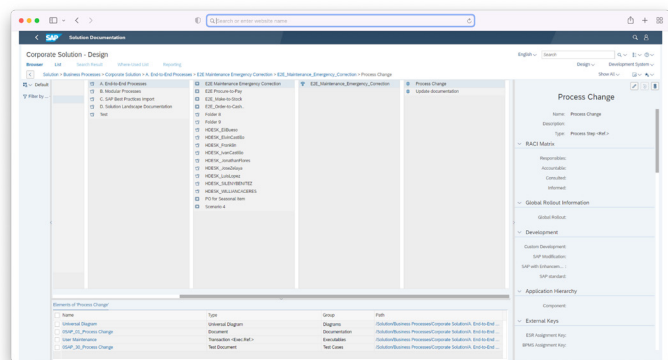
During the building and testing phase, you need to continuously update your maps of the IT landscape. You also need to visualize the impact of the changes you are making over time. LeanIX provides in-depth functionality, including timeline sequencing and scenario planning, allowing you to dissect fast-changing IT landscapes.

Figure 7 Transformation Roadmap



As soon as the business requirements for a new process have been assessed, this information can be pushed directly to SAP Solution Manager. Here it becomes available to the IT teams who will build, test, and run the new implementation. This process itself is supported by a bi-directional exchange between SAP Signavio Process Manager and SAP Solution Manager.

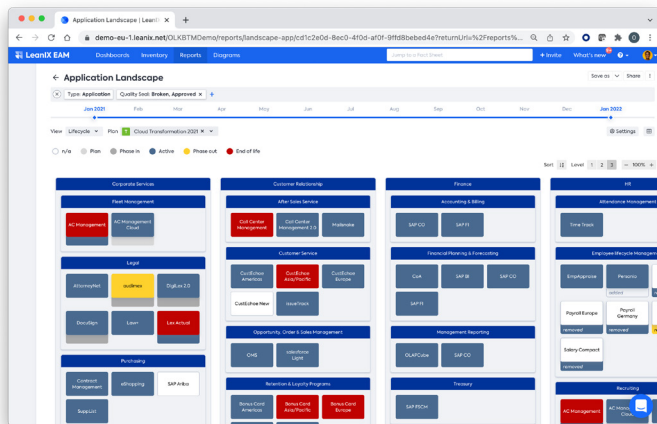
Figure 8 New Process Information



## Deploy

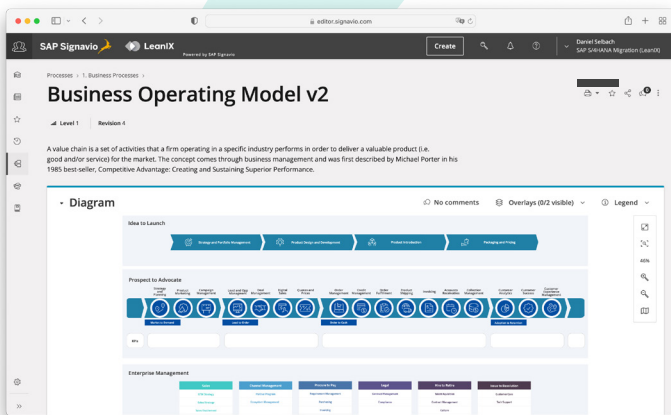
After comparing migration scenarios and visualizing changes to architectures at user-defined points in time, it's time to deploy. Completed architectural changes can be confirmed by teammates in LeanIX and instantly added to architectural documentation.

Figure 9 Application Landscape Report



To drive SAP S/4HANA user adoption, SAP Enable Now, a tool for creating, managing and delivering user onboarding materials is integrated into SAP Signavio Process Collaboration Hub. Onboarding materials utilize multimedia formats such as e-books and self-assessments. They also include a mixture of IT and non-IT focused training.

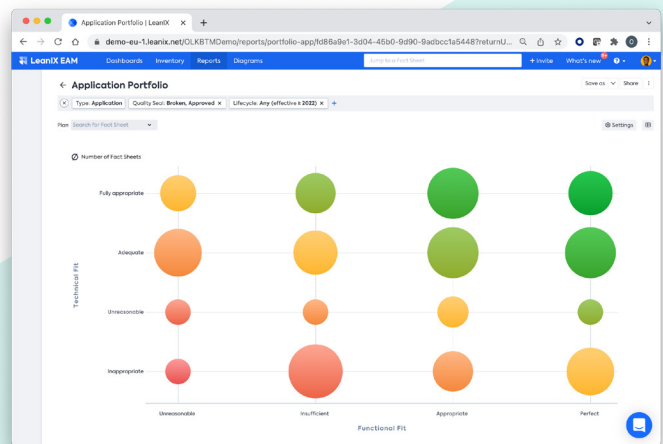
Figure 10 Operating Model



## Run

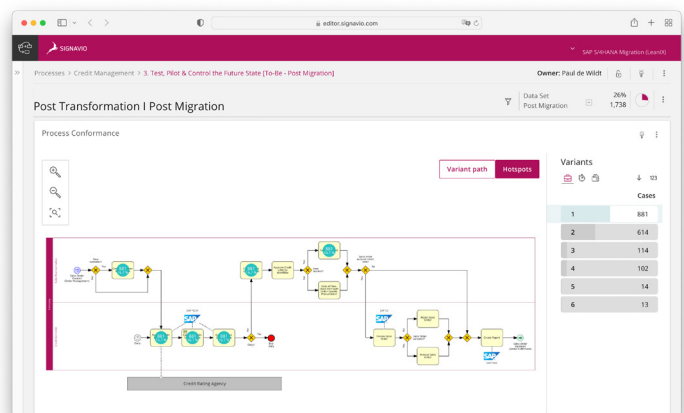
Once your transformed landscape is up and running, the focus shifts to continuous improvement. LeanIX EAM provides everything you need to monitor the technical and functional fit of all architectural elements. As business demands and technical needs evolve over time, the insights captured by LeanIX guide ongoing improvement efforts.

Figure 11 Application Portfolio Report



Transformation managers can monitor the performance of freshly implemented processes within SAP Signavio Process Collaboration Hub. Process performance can also be evaluated in the context of specific customer journeys, letting users leverage experience data and process mining for even more transformative views.

Figure 12 Monitoring Process Performance



# Conclusion

Much more than an ERP upgrade or a cloud migration, the SAP S/4HANA transformation gives companies a once in a lifetime opportunity to redesign the way they operate – just one of the many transformation projects in progress or on the agenda for companies today. Used by itself or when integrated with SAP Signavio, LeanIX EAM tames the uncertainty and complexity inherent to IT and business process landscapes, adding clarity to pre-transformation planning and post-transformation optimization. Furthermore, as the only “Endorsed App” for Enterprise Architecture in the SAP Store, LeanIX EAM features seamless connections with the SAP Signavio suite for business process transformation.

From adoption and migration to augmentation and transformation, LeanIX EAM and SAP Signavio allow companies to execute on SAP S/4HANA transformations and activate other continuous transformation initiatives. Specifically, LeanIX EAM lets users faster: (1) Explore as-is architecture and classify business capabilities; (2) model and compare migration scenarios; (3) identify dependencies between applications in IT landscape; and (4) optimize process mapping with clear links to available technical support.

To provide just one example of LeanIX EAM in action, one customer in the manufacturing industry relied heavily on LeanIX during its SAP S/4HANA transformation. With 19,000+ employees worldwide working across 60+ sites, the transformation involved replacing legacy ERP systems, updating customized code and reengineering scores of business processes. Adding to the complexity, this transformation involved a system conversion (Brownfield) project in one business unit, an ERP system consolidation using a new implementation (Greenfield) approach in a second business unit, and a mixture of Greenfield and Brownfield in a third business.

To tame this complexity and holistically assess their as-is IT environments business unit by business unit, the company built a single source of truth in LeanIX. This single source of truth supported both visualizations of the current landscape as well as of the target landscape. It also automatically generated reports surfacing all application dependencies and defining data management governance.

Although this transformation project will last through 2025, depending on the business unit, LeanIX is there to support it every step of the way.

FREE DEMO

**Would you like to learn how you can identify your organization's opportunities for SAP S/4HANA transformation? Or how to assess your IT systems and business process landscapes by integrating EAM and Business Process Transformation?**

**Schedule a demo!**

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