

# Carving the path for your SAP S/4HANA Transformation

From Projects and Consulting Services to Application Management  
Services (AMS)



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## 1. INTRODUCTION

Enterprise IT today is facing a number of challenges while scaling up. Businesses have to be as digital as possible and need to have a global presence, while at the same time keep their processes standardized. Also, enterprise IT has to enable business through innovation, manage projects and business requests with higher flexibility, speed, and efficiency. IT organizations also have to manage a high number of service providers while maintaining security, owing to the heterogeneous system landscape.

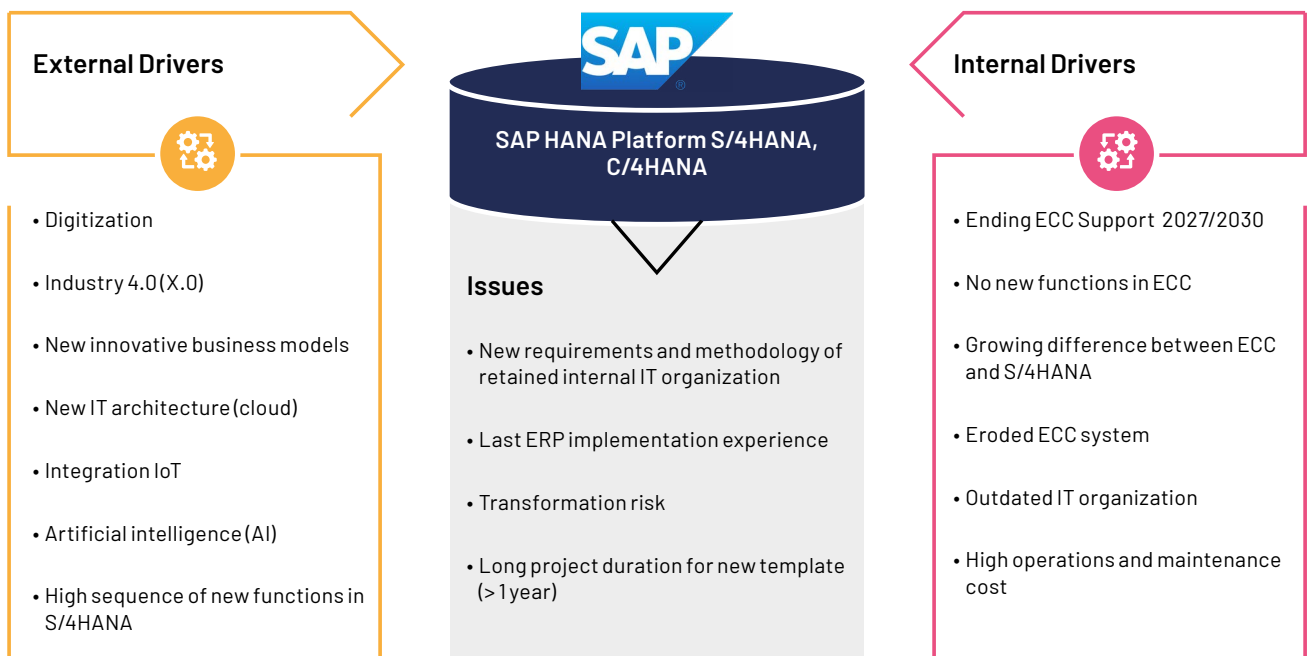
One of the most significant challenges is the rising demand for SAP S/4HANA transformation, that can be quite daunting for many enterprises. Enterprise IT now has to manage an increasing number of applications and services, such as fragmentation and cloud, and also cope up with the complexity of the S/4HANA transformation.

This document outlines the driving factors for S/4HANA transformation, and describes the objectives, possible entry point and the possible path of the outstanding S/4HANA transformation.

## 2. DRIVERS OF THE SAP S/4HANA TRANSFORMATION

IT organizations may have direct requirements to replace the existing SAP ECC system to a new S/4HANA platform. Drawing inference from the general challenges mentioned earlier, multiple

external and/or internal drivers (with different focus and weighting) influence the S/4HANA transformation path and the derived timeline.



**Figure 1: Drivers and issues of S/4HANA transformation**

### 3. CHALLENGES OF REQUIRED SAP S/4HANA TRANSFORMATION

The weighting and evaluation of the respective drivers depends on the specific initial situation or the respective strategic cornerstones of your company. Derived from this and from corresponding organizational topics, the following central questions arise within the subject areas of:

#### 1. TIME, RISK, AND COST

- When is the right time to start the S/4HANA transformation?
- Has the new SAP HANA portfolio already reached an appropriate maturity level?
- Are the various transformation paths and tools mature enough to be used?

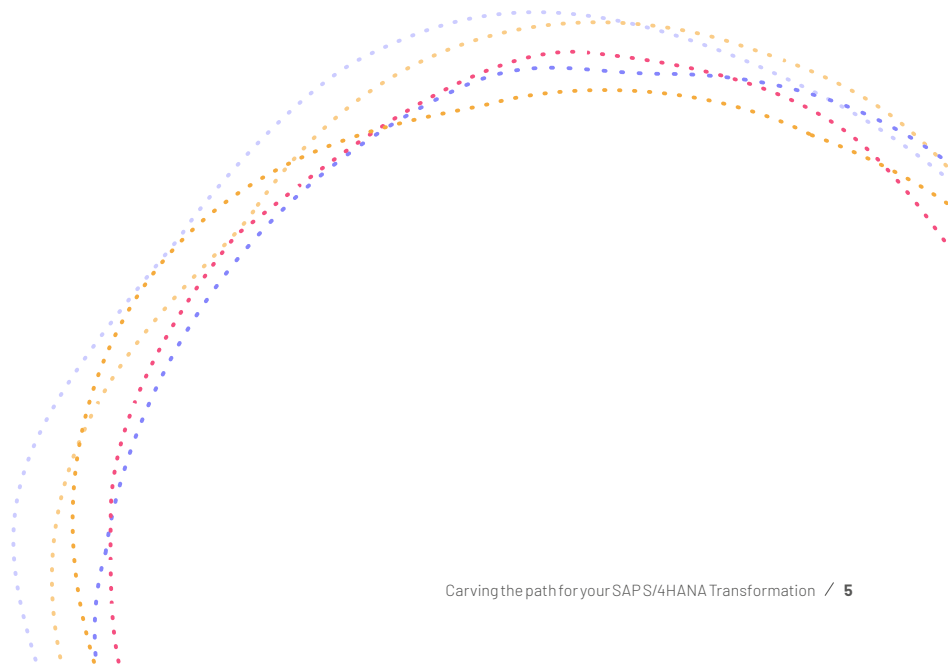
#### 2. AUTOMATION AND INNOVATION

- Which areas (line of business, i.e. LoB) can be identified as innovation potentials for the new S/4HANA solution?
- How can business be supported with innovative topics as part of the digitization strategy?

- How can a reliable target architecture for the S/4HANA "Digital Core" be developed to suit specific company requirements?
- Which roles and functionalities cover the best-of-breed software products and cloud solutions from other software providers?
- How can central security aspects be considered at an early stage?

#### 3. CHANGE MANAGEMENT

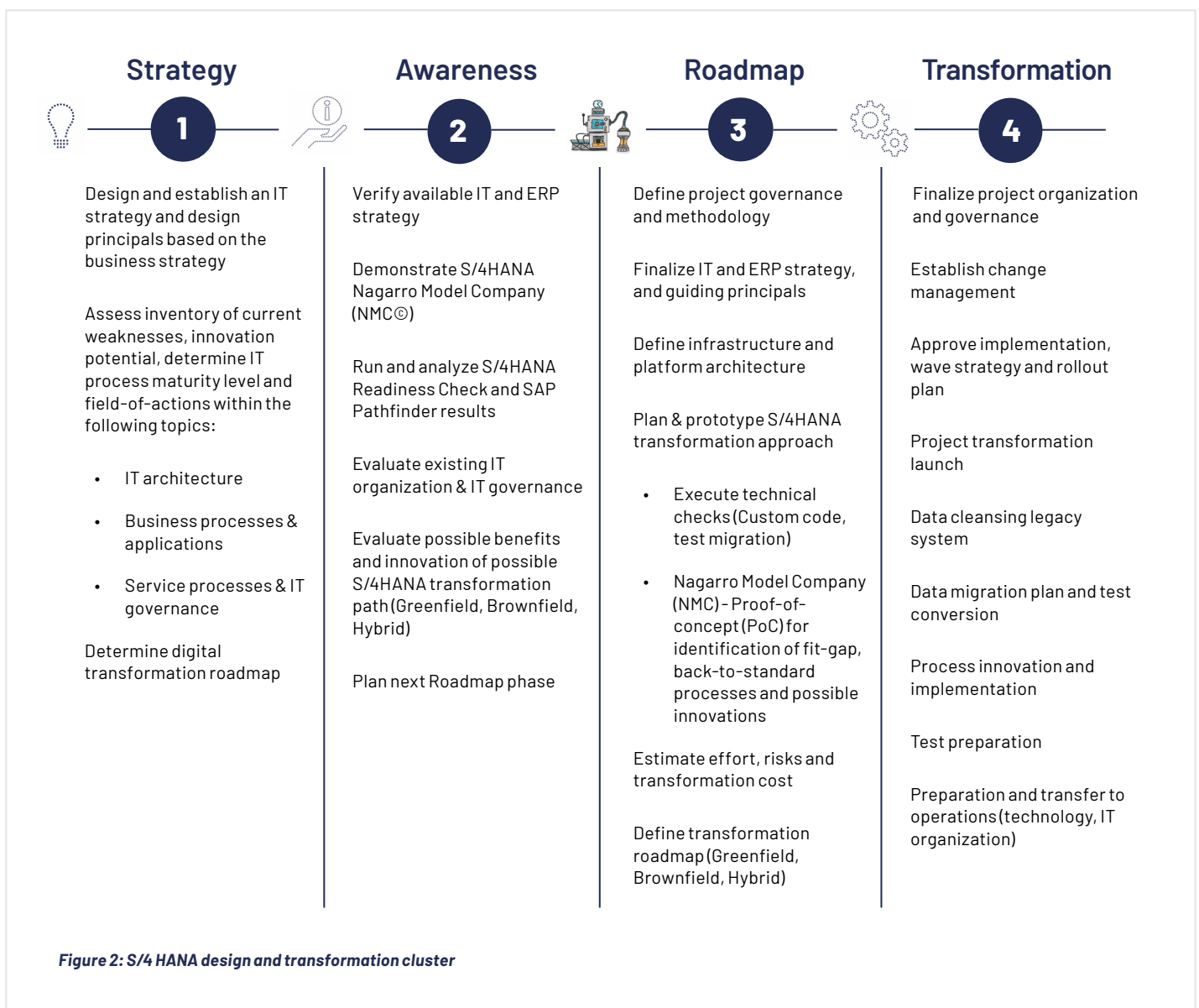
- How can the business be made responsible at an early stage?
- Which measures and ways are necessary to lower the burden of the business as much as possible with the S/4 transformation?
- How is it possible to transfer the existing IT organization into the new S/4 HANA world?
- How to ensure parallel operations while the project is running?



## 4. YOUR SAP S/4HANA PATH – DESIGN AND TRANSFORMATION

Based on the existing challenges of an IT organization, it is important to actively deal with the S/4HANA transformation at an early stage. Depending on the customer-specific initial

situation, it is advisable to define a clustered time schedule with different levels of details and start the process immediately.



Nagarro's advanced activate methodology shown in Figure 2 enables decisions for the best transformation path and an early individual risk assessment of a S/4HANA project.



## 4.1. Strategy

Most organizations already have their enterprise and IT strategies in place. Therefore, this first workshop series is optional and can be updated over already existing and established results.

The results should be used for later phases to determine guiding principles and the S/4HANA architecture of the new S/4HANA landscape.



**Figure 3: An example of guiding principles and the assessment of the principals.**

Figure 3 lists the capability approach - this approach provides a guideline on the target state of the business template and a probable SAP template. The fundamental question of the capability approach is: "What does the business

want to do?" Identification of the capabilities and their evaluation indicates the areas where investments generate additional value. An IT solution like S/4HANA fulfills the requirement of such a capability.



Figure 4: An example of a capability heatmap

Figure 4 gives an overview about all the required capabilities and their relevance for the company in different dimensions, like standardization potential or strategic differentiation. These results indicate deep dive analysis for a potential prototype and the relevance in potentially non-standard solutions.

## 4.2. Awareness

As per the results available from IT and ERP strategy, some workshops have been conducted to define targets and benefits, and to establish transparency in the different transformation options (Greenfield, Brownfield and Hybrid). These include the evaluation of the existing IT organization, implementation and analysis of some technical SAP verification tools (like Readiness Check and optional SAP Pathfinder) and the demonstration and benefit-evaluation of Nagarro Model Company (NMC®).

### SAP Readiness Check

The SAP readiness check focuses on identifying the technical implementation prerequisites and requirements for possible S/4HANA conversion.

The customer receives the first results on data usage and used configuration (customized) of existing development and production systems. This check provides detailed results in the following areas:

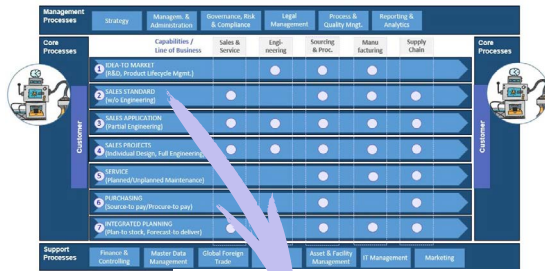
- Functional: Simplification list, business process analysis
- Infrastructure & Data: S/4 HANA database sizing and data volume
- Usability: Recommended Fiori apps
- Operations: Add-on compatibility and indicative custom code impact

### SAP Innovation and Optimization Pathfinder

The (optional) SAP Innovation and Optimization Pathfinder focuses on providing functional business innovation and the corresponding value from the new SAP solution. The customer receives customized guidance and recommendations in its Line of Business (LoB), for example, finance, sales, supply chain, etc.



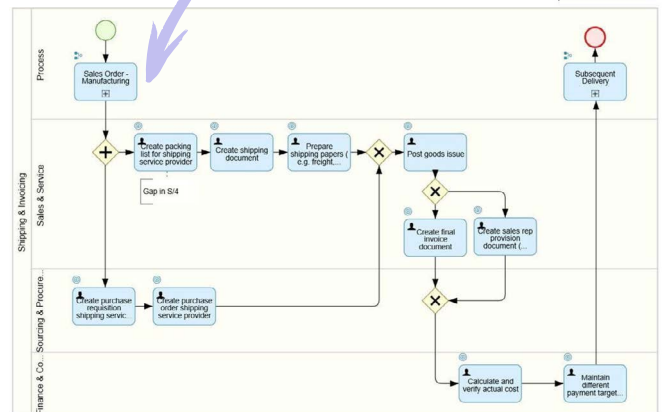
## L1-Scenario



## L2-Process



## L3-Process step



**Figure 5: NMC©**  
process documentation on business level, based on SAP Solution Manager

## Demonstration of Nagarro Model Company (NMC©)

NMC© is a unique end-to-end business- and IT-solution template, based on 25 years of digital ERP core process and technology experience. Its objective is to create a baseline within the manufacturing industry to capture weak points, improvement potentials, automation possibilities, and potential innovations by prefabricated business stories(not directly, but through partial technical IT functions and features).

This process provides the following advantages:

- Immediate business acceptance through the usage of business language and customer master data
- Creates transparency that expedites decision making
- Simple and fast identification of "fit to standard"

- Actual identification of business value (and not IT feature optimization)
- Limited workshop effort with business and IT services
- First reliable effort and cost estimate for optimizations

## Evaluating an existing IT organization

The retained IT organization and the required transformation to the new technology should be evaluated while also ensuring that the operations of the existing landscape remain stable.

Based on the different workshop results, the customer receives the required transparency and transformation options of the next phase, i.e. the Roadmap phase. The external effort of the Awareness phase is approximately 10-15 WD.

## 4.3. Roadmap

The Roadmap phase comprises defining the future S/4HANA IT infrastructure/architecture, the technical evaluation/testing of the existing SAP ECC landscape transformation, and the proof-of-concept (PoC) of the business processes by the Nagarro Model Company (NMC®).

The objective of this phase is to get clarity about the fitting transformation path, the business case, and the related cost of the Transformation phase.

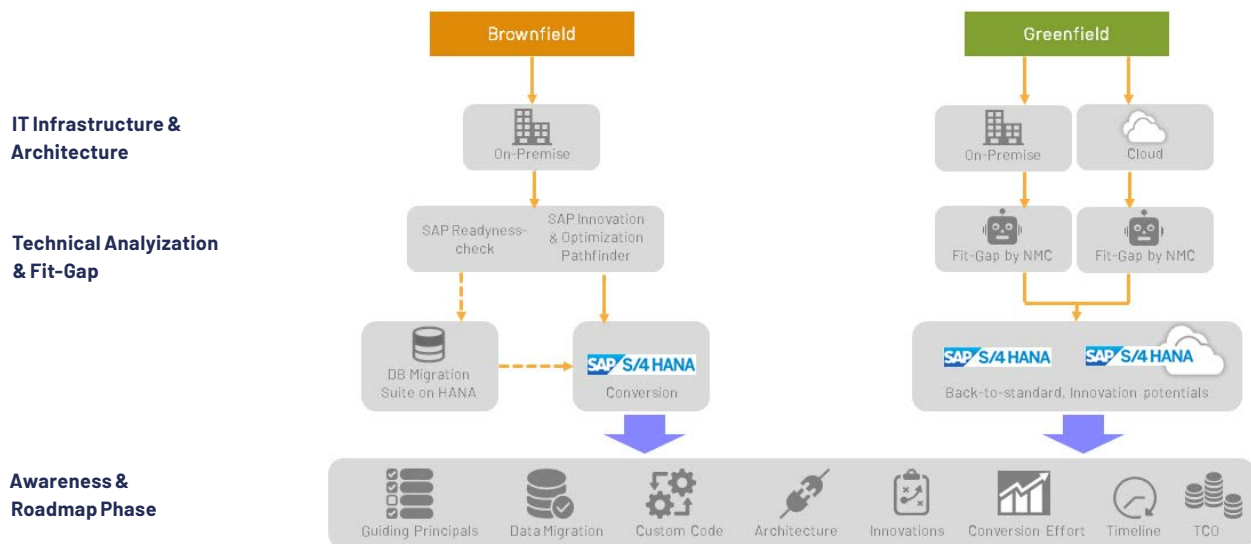


Figure 6: Path and activities of the Awareness and Roadmap Phase

### Infrastructure and platform architecture

Based on the defined and verified guiding principles and strategic guidelines, the customer needs to evaluate how many productive SAP S/4HANA systems are needed or how many are useful in future (On Premise,

Private Cloud, Public cloud). In addition to the geographical and market-specific requirements, the aspects of flexibility (for example, development of new markets), required performance/availability, standardization and IT (initial and operational costs) are considered and evaluated.

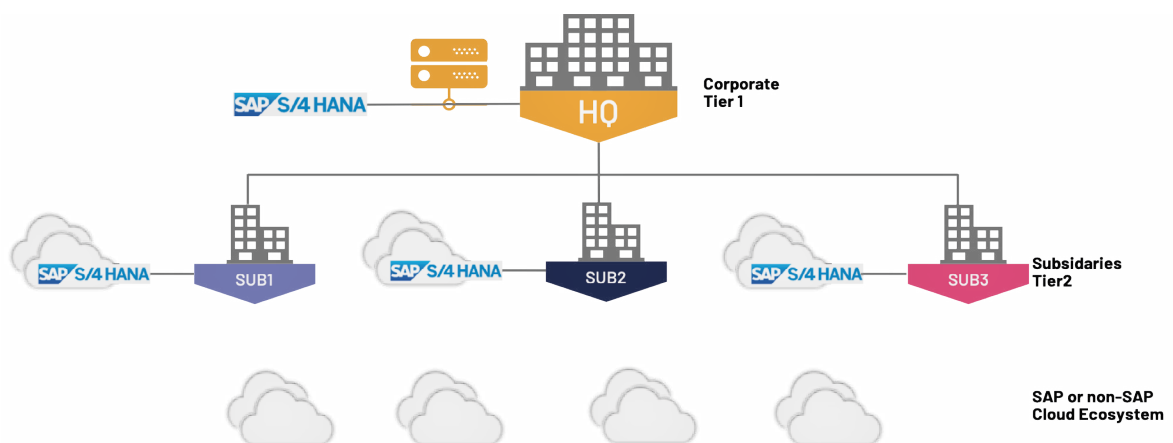


Figure 7: An example of SAP S/4HANA 2-tier architecture (Source: SAP®)

## Custom code check and test data migration

### a) Custom code check

Custom code check provides different out-of-the-box SAP best practices with different objectives and results. This helps in applying the following solutions:

- ABAP Call Monitor (SCMON/SUSG): Applied in order to identify the actual usage of your custom code inclusive automatic aggregation. As a consequence, the code that needs to be converted can be determined.
- SQL Monitor (SQLM): Applied in order to identify the most used business processes and transactions by verifying the database execution time.
- SAP Readiness Check for SAP S/4HANA: Applied in order to check the custom code through the Custom Code Analyser feature. This feature provides technical incompatibilities and functionality that is not recommended for the new S/4HANA platform.
- SAP Solution Manager (CCLM – Custom Code Lifecycle Manager): Applied in order to combine all custom code analysis tools and results to derive the best measurements and actions.

### b) Test data migration

In congruence with the guiding principles, we must also define the meaning of relevant data migration objects, especially the business criticality of some of the required historical transaction data (for example, Production/Service BoM). During this phase, it is recommended that we migrate some master data objects and some selective open transaction data. This will contain some relevant initial master data objects (e.g. material master, BoM etc.) and selective open transactional data like open purchase order or open items by using migration tools such as SAP S/4HANA Migration Cockpit.

## Proof-of-concept (PoC) and Nagarro Model Company (NMC®)

Thanks to the Nagarro Model Company (NMC®) template, the customer can redesign business processes with a useful combination of business stories across the different Lines of Business (LoB) and S/4HANA standard functionalities with specific customer data. Through this combination, the customer will achieve a smart proof-of-concept (PoC) approach with maximum possible business acceptance.

## The hybrid path to your new SAP S/4HANA landscape

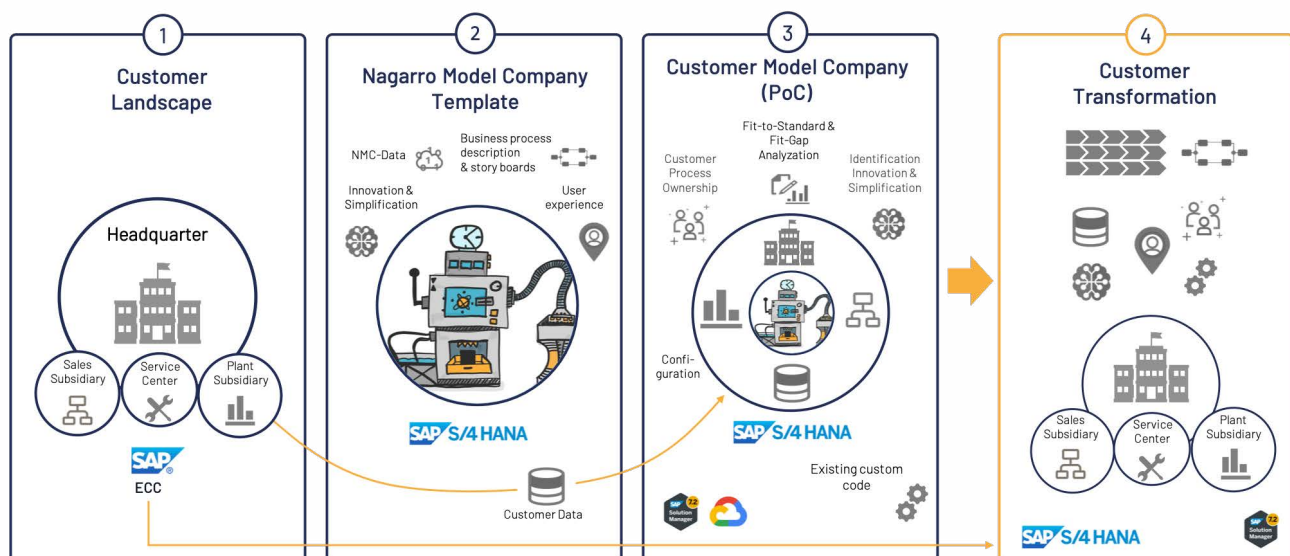


Figure 8: Customer transformation via the Nagarro Model Company (NMC®)

Based on the PoC template, different and limited fit-gap workshops analyze the functionality of standard processes within your company. The goal is to identify new requirements, visible innovations and functional back-to-standard elements. As a consequence, the possible effort and risks for identified gaps, innovations and back-to-standard processes can be evaluated and determined.

The optimal transformation path is determined as per the combination of exclusive technical S/4HANA transformations options and the business process related PoC results. For example, the combination of technical migration from SAP ECC to S/4HANA and the redesign of the identified processes of lacks or optimization/innovation aspects.

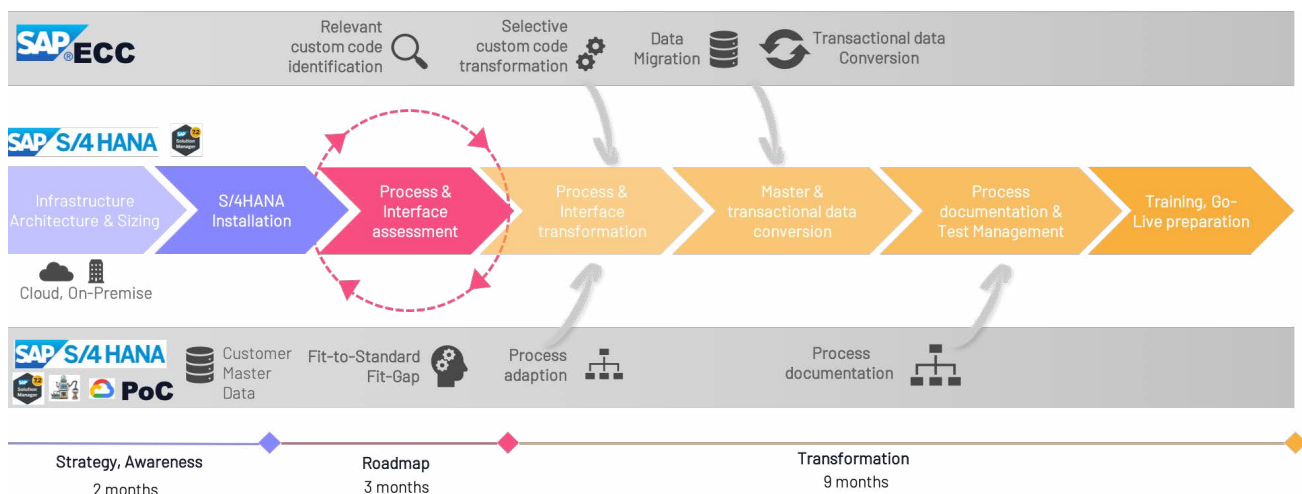
#### Effort, risks, and transformation cost estimate

As a result of the infrastructure and platform design, some technical analysis and the PoC results (through the Nagarro Model Company), the customer is able to define the relevant activities and the transformation scenario for the next transformation phase. Concurrently, technical and business process-relevant aspects are also analysed in detail. This determines the effort, relevant risk and the actual definition of expected transformation cost in relation to the TCO and business case.

## 4.4. Transformation

Through the output of the Roadmap phase, it is possible to determine the fitting transformation methodology and sequence with their corresponding agile project management methodologies. The transformation includes general project management aspects such as:

- Project organization and governance
- Change management
- Project scheduling based on results of the Roadmap phase
- and, typical operative activities like:
- System landscape sizing
- Master data migration
- Transactional data migration
- Historical data migration
- Development transformation and new development
- Interface adoption
- Test management (functional, user acceptance, data migration and integration test)



**Figure 9: Example of "Hybrid" S/4HANA transformation approach**





## 5. CONCLUSION

With growing challenges of existing IT organizations and requirements for the S/4HANA transformation, building an SAP S/4HANA strategy is crucial. Nagarro's SAP S/4HANA transformation approach is designed to facilitate digital transformation for sustainable growth in a smart and efficient manner.

You can surely accelerate the transformation of your existing SAP ERP platform to SAP S/4HANA. Begin with a few workshops to define targets, benefits, and transparency of transformation options (Greenfield, Brownfield, Hybrid), define the guiding principles, technical transformation prototyping and verify any possible back-to-standard and innovation potentials driven by the Nagarro Model Company (NMC®). Based on the combination of technical S/4HANA transformation options and the identified business process improvements, the transformation roadmap is created, eventually leading to its successful implementation.

## ABOUT THE AUTHOR



**Nils Krämer** has more than 15 years of experience in SAP projects. He has executed multiple template, roll-out and SAP strategy projects. Nils is focused on manufacturing industry and has been involved in S/4HANA transformation projects since a couple of years.

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## ABOUT NAGARRO

Nagarro drives technology-led business breakthroughs for industry leaders and challengers. When our clients want to move fast and make things, they turn to us. Working with some of our SAP clients, we continuously push the boundaries of what is possible related to innovations through process optimization and technology progress. Today, we are more than 6000 experts across 21 countries. Together, we form Nagarro, the global services division of Munich-based Allgeier SE.

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