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From Risk to Intelligence with Data and S/4

Thomas Failer, founder and CEO of Data Migration International, brings new aspects to the discussions surrounding the S/4 conversion with his data platform JiVS IMP. The data economy is enriched by AI and data retention, as well as by the possibility of converting to S/4 without the need for complex pre-projects.

AI Help in the Shadows   **The Shortest Route to S/4**   **Risks Rather than Bonanza**

From Risk to Intelligence with Data and S/4

It all started with MDM, Master Data Management. Many years ago, MDM was the first initiative on the IT scene to shine the spotlight on the topic of data economy, whichgave rise to many constructs and buzzwords. Another milestone was the start of the S/4 conversion, which was when the topic of algorithms and data structures emerged. SAP customers soon realized that even with the Hana database release upgrade, the future focus would be on valuable data. And Thomas Failer from SAP partner Data Migration International always has an answer.

Von Peter M. Färbinger

The topic of data is especially important in the SAP community from a business, organizational, and technical perspective. Data is the foundation and the driving force behind business processes. The organizational and operational structure of the enterprise is flooded with data. As part of the release upgrade to the SAP S/4 Hana database, data has also gained a quantitative dimension: a data economy becomes extremely valuable if it minimizes the amount of data that needs to be transferred into Hana, while ensuring that archived historical data remains directly accessible. Data therefore has a high qualitative and quantitative value for SAP customers. In the event of system decommissioning with a possible cloud exit, data storage is given a further decisive boost. According to the German digital association Bitkom, 12 percent of companies currently say that data-driven business models contribute exclusively or significantly to their business success, compared to just 7 percent last year. And 22 percent expect data to contribute exclusively or very strongly to their business success in two years' time, compared to 14 percent last year. The companies also see significant progress on their way to the data economy. 9 percent consider themselves to be among the pioneers—compared to just 1 percent in 2022.

In the E3 interview, Thomas Failer, founder and CEO of Data Migration International, says that this is only the first step. "It will be more interesting when AI makes suggestions—based on the data and storage locations it identifies—as to how the algorithms for retention management, for example, can be adapted to really capture and manage all personal data in compliance with the regulations. This is no longer possible with traditional approaches, such as fuzzy logic or expert systems alone. Currently, there is also a need for AI beyond machine learning. Then, in the next step, the suggestions can be implemented automatically. This applies not only to rules, but also to business objects that we now need for personal data management."

AI and the Data Economy

Modern AI algorithms will create a new data economy and DMI CEO Failer knows exactly what needs to happen once that occurs. "Personal data management must, in principle, go beyond the boundaries of specific systems and applications. The projects that we've been involved in have shown that around half of the systems and applications relevant for managing personal data come from the non-SAP area. You won't get very far here with purely SAP business objects, whether standard or customized. However, as every system and application landscape is customer-specific, we can't maintain a de-facto standard of business objects, but instead must build them on a project-specific basis. Such business objects then contain, for example, information on the header and sub-tables of different systems where a particular person's data can be found, and how the primary and secondary keys of these tables are linked to each other. Generating these specific business objects can then be handled by a generative AI, which saves a good deal of time and money."

It is clear that the duality of algorithms and data structures is developing in the direction of a data economy, where generating specific data objects includes the processes. The decisive factor is how the algorithms can be adapted for retention management. This challenge exists before, during, and after an S/4 conversion. Generative AI can again take over generating. Generative AI thrives not only off of data, but also Big Data.

Obviously, the accuracy of the results depends on the amount of data. Are the data volumes in the scenarios discussed here even large enough? "This is a fundamental factor," explains Thomas Failer. "Used in companies, generative AI isn't

always synonymous with the public cloud, which is certainly the largest source of Big Data. The relevant data here comes from the company's legacy and live systems. For very large companies, this is indeed Big Data, even though all legacy data can be accessed via our platform. Of course, this is less the case for medium-sized companies. We believe that there'll be a collection of sensible prompts that will achieve excellent results. There are more suitable and less suitable instructions in the case of generative AI that can lead you towards your goal. This is the direction we're pursuing in our development."

CEO Thomas Failer's long-term goal: "With the help of AI, by 2027 we want to be the leading provider of intelligent data management and intelligent, company-wide data fabric. We've defined milestones along the way." The extended functions in the field of retention management, i.e. personal data retrieval and of business object generation with the help of AI, should be available to customers as early as spring 2024 with version 11 of DMI's platform for information management, JiVS IMP.

One Click Transformation

The more advanced options for generating mapping and transformation rules using natural language input will be released in 2025 as part of version 12 of JiVS IMP, which will then include the suffix NG for Next Generation in the product name. "At the same time, we'll gradually add AI algorithms to our One Click Transformation Cockpit, JiVS OCC, in order to refine and accelerate the different possible analyses, such as the data reduction potential analysis, when switching to SAP S/4 Hana," says Thomas Failer, outlining plans for the next few years.

DMI also knows that AI is many things, but of course it's not everything. Another focus of DMI's product development is the integration of JiVS OCC into the solutions of leading providers for application lifecycle management (ALM). The basic idea behind this is that the lifecycles of data and applications are different but must be finely tuned to each other and continuously synchronized.

SAP has designed Cloud ALM as the successor to the legendary, equally successful SolMan. SAP's ALM acts as an open suite and is set to grow continuously over the coming years. "Systems and processes go hand in hand," says SAP CEO Christian Klein. "Together with LeanIX, we want to offer a unique transformati-

Thomas Failer,
Founder and CEO,
Data Migration
International

on suite to provide our customers with holistic support in their business transformations. Based on our decades of expertise, we'll integrate generative AI to offer self-optimizing applications and processes that help companies achieve important goals such as maximizing their cash flow while minimizing their environmental footprint."

Thomas Failer gives a concrete example: "During the S/4 transformation, not all data from the legacy systems has to be transferred to the new world, nor should it be. As a rule, companies only need 5 to 10 percent of their legacy data as operational data in the new system, which of course massively reduces the transformation effort. However, legacy data that is not required should not be deleted for legal and business reasons. Instead, it should remain accessible."

SAP's solution suite for business transformation is intended to provide customers with a comprehensive overview of business processes and applications, including process dependency mapping and visualizing the impact of potential transformations in their IT landscape. Platforms such as SAP BTP and JiVS from DMI enable SAP customers to create a culture of continuous adaptability and improvement.

DMI Strategy

There is a key difference between the SAP and DMI strategies that clearly reflects the aforementioned dual principle of algorithms and data structures: ALM solutions focus on systems and processes.

"We focus on the data lifecycle," emphasizes CEO Failer. Just as ALM solutions manage every transformation step at the application and process level, the JiVS IMP platform does this at the data level, providing companies with a 360-degree view. "Both levels and solution areas complement each other perfectly," says Thomas Failer, who is fully convinced of the added value for SAP customers. "From our customers' point of view, it would be very helpful if they could forward the results of the analysis, which show what percentage of legacy data they want to transform and from which systems, directly to an ALM solution during the preparatory phase of their transformation projects. This is something we're working on."

Process and Data Transformation

The LeanIX transformation of IT landscapes in conjunction with the Signavio process transformation, RISE with SAP, and the SAP Business Technology Platform (BTP) enables SAP customers to create a culture of continuous adaptability. "For over ten years, we've stood for seamless ecosystem integration and have become a leader in the enterprise architecture management category," says André Christ, co-founder and CEO of LeanIX. "Our strategy is to enable companies to continuously transform in a rapidly changing business environment."

But there are other integration scenarios: "Of course, we also aim to exchange information with ALM solutions after the preparatory phase, especially during implementation. For example, we could imagine transferring aggregated status messages on the transformation of the various archives and systems to ALM solutions. And anyone who then wants to find out the details can look them up in our transformation cockpit. We want to develop our cockpit into a monitoring center," says Founder and CEO Thomas Failer, describing a future scenario for the SAP community.

According to DMI's vision, live systems should be relieved of legacy data that is no longer required, and this premise make sense not just during an S/4 transformation. "Benefits can be maximized if data that is no longer needed from the Hana database, which still requires expensive main storage, is regularly transferred to our platform and managed there until the end of its lifecycle," says DMI boss Failer, explaining the technical process. With DMI, all order data older than three months can be transferred automatically to JiVS IMP because

the data remains accessible at all times.

According to current estimates, this can reduce the total operating costs of an S/4 Hana landscape by up to 25 percent over its lifecycle. "We're currently working on supporting the central S/4 business objects so that we can access the legacy data directly from the S/4 standard transactions," says Thomas Failer, describing the added value of DMI's platform. The mapping rules that DMI defines for technical structure mapping help tremendously. "We're already using the first of these business objects," reports the DMI boss.

Monitoring has become a central topic again in connection with application lifecycle management. "The idea is that we monitor the development of data volumes in S/4 as well as usage behavior in terms of access to legacy data," says Thomas Failer, outlining the company's own project. "With that as a basis, we want to make suggestions on how SAP customers can keep the S/4 landscape continuously lean and streamlined. From the customer's point of view, the data from our transformation cockpit JiVS OCC and from our platform JiVS IMP isn't just interesting for ALM solutions throughout the lifecycle of their system landscape . Here I'm also thinking of enterprise architecture tools, development and analysis platforms, as well as operational systems such as ERP and CRM. Synchronizing the application lifecycle and in-house developments, etc. with each other holds enormous potential for efficiency."

SAP and Non-SAP

Over the past few years, the SAP community has undergone a sustained transformation process that constantly provides new options and innovations for customers. "Our platform and our cockpit are designed for both SAP and non-SAP systems," emphasizes Failer in the E3 interview. "We currently support around 2,000 business objects from the SAP environment from S/4 to R/3, version 3.0, and a further 1,000 for third-party solutions such as JDEdwards or Oracle EBS etc. Our platform also enables access to this legacy data. This provides huge consolidation and harmonization potential for SAP customers during their transformation to S/4, as they can use our platform to completely decommission their legacy systems from SAP as well as those from third-party providers and continue working with a single modern ERP system."

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Interview With Thomas Failer, Founder and Group CEO of Data Migration International

AI Help in the Shadows

IT pioneer Thomas Failer and his company have broken new ground in data management for the SAP community. With his data management tool, which works with the help of AI, converting to SAP S/4 is possible without pre-projects.

E3: Mr Failer, everyone is talking about artificial intelligence at the moment. However, only larger providers seem to be benefiting from it. Have you been missing out?

Thomas Failer: You're right. Artificial intelligence is currently a dominant topic. However, the discussion here is always about generative AI, which indeed opens up completely new application possibilities. However, AI isn't something completely new. AI has been used for some time now, particularly in the form of machine learning. For image diagnosis options in medicine or predictive maintenance in mechanical and environmental engineering, for example. Incidentally, previous AI and the new generative AI have one fundamental thing in common: they need to train with a good deal of data in order to achieve good results.

E3: You deal a lot with data; that's your core area of expertise. What will change for you with the new generative AI?

Thomas Failer: The question is rather: what will change for customers and what are the specific benefits for businesses? We always think from the customer's perspective. And that's why we've been working with AI for a long time, even before the topic caused a furor, but until now it has been more in the form of machine learning. Building on this, however, we're currently also working on the use of generative AI. For this very reason, we set up a dedicated agile development team for AI back in 2022, which builds on our previous activities in this area and drives them forward.

E3: So, it wasn't ChatGPT that brought DMI closer to the topic of AI?

Thomas Failer: Yes and no are both the right answer. Yes, because it provides new opportunities for us. No, because we'd already been working on it before; we simply chose not to shout it from the rooftops.

E3: Why were you working on it earlier?

Thomas Failer: AI is not about intelligence as an end in itself. From a corporate perspective, AI is always a means to other ends. It may be interesting for researchers, the press, or science fiction authors, but company leaders are not there to dream, but rather to plan. How can we become more efficient? How can we relieve employees of routine tasks? How can we speed up IT projects? From a business perspective, these are the key questions for every technology, including artificial intelligence. To put it another way, AI is always about its potential for automation in a company. You could even say that automation is a synonym for AI.

E3: Please explain to our readers how DMI has been focusing on AI developments so far and why you're only starting to talk about AI now.

Thomas Failer: We specialize in managing the data lifecycle, especially legacy data from SAP and non-SAP systems. In this context, there are two scenarios for which our offering and AI are essential. Firstly, the SAP transformation, which from the customer's point of view is literally about not losing the race against time but winning it in a brilliant final spurt by 2030, at the latest. With our approach, it's already possible to halve the time required for this. However, our goal is to reduce the effort required by the same amount in the coming years. And that's where AI comes into play, of course.

E3: You mentioned two scenarios. Can you tell me about the second?

Thomas Failer: The topic of retention management is quite prevalent and is an ideal use case for AI. Since September 1, a new data protection law has also been in force in Switzerland, which essentially adopts the provisions of the European General Data Protection Regulation. This has been another wake-up call for many companies as it is an immense challenge to find personal data in all systems, applications, and archives, and to delete specific data if necessary.

E3: How can AI help in this case?

Thomas Failer: We have the impression that most efforts in this field have so far been limited to data, even if this structured information in the form of metadata relates to unstructured information, such as documents or images. A pragmatic approach has looked something like this: personal data is found in such and such tables and fields if everything has been properly maintained and stored. For example, the first name and surname should be in a master data record or in the description of a person's photo. And then the algorithms and rules for retention management were only applied to these tables and fields. But what if this data was also stored in other places or wasn't stored on an image database at all, for instance? Here, AI can help identify and adapt the algorithms.

E3: How exactly?

Thomas Failer: Essentially through machine learning. The AI can be trained using e-mail messages, for example. This enables it to recognize names, even if their spelling in an e-mail address differs from normal spelling rules and only appears in the copy address field, but not in the message text itself. Or it can use the content to recognize that there are first names in column X of this or that sub-table or Z-table, even if the description of the column or table doesn't suggest anything in this regard, simply because the AI knows most of the first names used worldwide. AI can also be used to recognize content such as International Bank Account Numbers (IBANs) or social security numbers, allowing conclusions to be drawn about the people behind these numbers. And let's not forget all the personal data that is available as unstructured information, such as in documents, notes, and logs, and is stored as PDF files or in other file formats. Identifying the relevant data alone is a huge area where people require AI support.

E3: Thank you for talking to us.

One Click Transformation with JiVS from Data Migration International

The Shortest Route to S/4

It is now widely recognized within the SAP community that data and its dependencies considerably prolong the upgrade to the next SAP generation. But there is an ideal remedy: a shortcut via One Click Transformation.

By Thomas Failer, Data Migration International

SAP customers know that the ideal transformation path would be as technically straightforward as the brownfield approach, but as flexible as the greenfield method, where companies can leave behind old habits, implement new business processes and models, and transfer only master data of the highest quality into the new system.

Radically Simple

The prerequisite for this is that the transformation at application level takes place independently of the data level. For this purpose, all legacy information, along with its business context, must be extracted completely, unchanged and, above all, efficiently and quickly.Then it is transferred to a separate platform. The information from the legacy systems that is required in S/4 Hana must then be filtered out according to business criteria, cleansed, enriched with data from third-party systems, and optimized. While companies generally only have to transform and migrate 5 to 10 percent of the transactional data to SAP S/4 after

optimization, the amount of master data is reduced to an estimated 20 percent, which they can then also transfer in optimum quality using standard tools such as SAP's Migration Cockpit. All of this must be largely automated.

At the same time, this platform must be able to display historical data in the S/4 world via SAP GUI or SAP Fiori as if it had been created in S/4. This on-the-fly transformation via technical structure mapping process must also take place automatically, without changing the original structure of the historical data on the platform itself, of course. This extensive automation from data extraction to displaying the data in the new environment is at the core of a One Click Transformation.

A clean and transparent database for competing in the digital economy is just one advantage of this approach. Further benefits include:
- Once the historical information has been transferred to the platform, SAP customers can completely decommission their legacy systems and applications. This usually eliminates 80

percent of their operating costs. The time and costs involved for filtering, transforming, and migrating data are also halved. These are the key findings and experiences from more than 2,000 projects worldwide.
- As the new data added to the SAP S/4 world, such as completed orders that are no longer needed, can be continuously transferred to the platform, the new environment and the SAP Hana in-memory database remain permanently lean, the Hana database particularly so. This also means that they continuously run with stable performance and are easier to manage. The potential savings that can be achieved through this continuous rightsizing is likely to be 25 percent or more over the entire lifecycle of the new environment.
- And another crucial point: the One Click Transformation approach enables brownfield areas to be renatured into clean greenfields, so to speak. This is because the conversion, cleansing, and adaptation of business objects takes place completely without data. Compa-
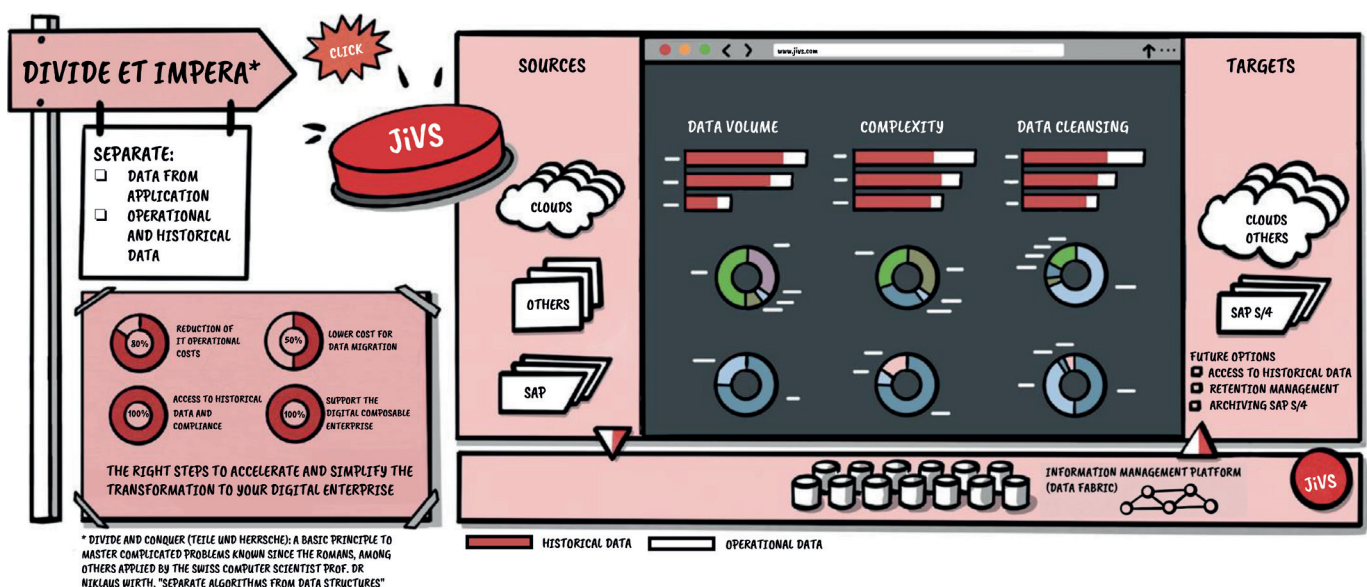
Key benefits of the JiVS IMP platform: 80 percent lower operating costs, 50 percent less effort for data migration, 100 percent decommissioning of legacy systems, 100 percent legal certainty, 25 percent lower TCO for SAP S/4 Hana.

nies usually only need half of the previous business objects to get started with S/4 without any legacy issues.

- Legal security cannot be neglected in all of this. All historical data and documents are stored on the platform in an audit-proof manner. DMI's JiVS Information Management Platform also offers the option of managing the stored information at the individual data record or document level throughout its entire lifecycle until its legally compliant deletion, after the applicable retention periods have expired. This enables the increased legal requirements to be satisfied, such as the specific deletion provisions of the European General Data Protection Regulation (EU GDPR) and the new Swiss Data Protection Act.

Transformation as a Service

The One Click Transformation unfolds a whole new dimension for companies when it comes to digital transformation in general, and the switch to S/4 Hana in particular. This approach is rounded off, completed, and refined by the expansion towards transformation as a service. To this end, Data Migration International has developed a software-as-a-service solution—the One Click Transformation Cockpit. The idea behind this cloud-based service is that companies can simulate and prepare their planned transformation projects with just a few clicks. They do not have to disclose any real data from their systems to do this. Instead, the service works exclusively with metadata. The protection of master and transactional data, as well as the company's intellectual property, is thus ensured at all times.

In the first step, the service determines information about the source systems and legacy data. This includes, for example, information on the software release status (e.g. ECC 6.0 or R/3, Oracle EBS, or Oracle Financials etc.), the size and compression of the database(s), the size of the tables, number of documents, number and size of archives such as ADK, the type and number of business objects, and the age of the data etc. In a second step, based on this information, the service calculates the data reduction potential in order to transform and transfer only the data that is truly needed when switching to SAP S/4 Hana, for example. Or, when selling a subsidiary or business unit, it identifies the exact data and business objects that need to become property of the acquiring company and, at the same time, ensures that no more data than necessary, or even sensitive data containing business secrets, inadvertently leaves the company. In addition to data and business objects, the service also analyzes tables and provides information on which of them the companies need for their planned business scenarios, and whether they are complete and populated and thus suitable for transformation and migration.

The service then suggests suitable filter rules for transforming and transferring the previously determined data. This completes the preparatory work, and the companies can decide whether they want to turn the scenarios that have been simulated and prepared in the Cockpit into concrete projects. At the click of a button, they can transfer the filter rules defined in the Cockpit to JiVS IMP and apply them there, both for the transformation to S/4 Hana and for a carve-out project.

The JiVS One Click Transformation Cockpit (JiVS OCC) is a classic software-as-a-service solution in the multi-tenant model. The main aim of the Cockpit is to provide companies with maximum synergy effects for their agile business scenarios. This is because the information determined in the Cockpit about their own system landscape or the defined filter rules can be saved and reused, to harmonize the system landscape and decommission legacy systems, or dissolve data center locations, for example. This allows companies to further simplify and accelerate their transformation projects and business scenarios.

Turboloader to S/4

Companies that have decided to convert to SAP S/4 Hana know that extracting data from legacy systems is a bottleneck in these projects. DMI has developed a special turbo process for extracting data and its business context in order to fundamentally solve the problem of data extraction, even for large and very large volumes. This makes it possible to extract quantities of 10, 100, or more terabytes of information from legacy systems at the push of a button within a very short time frame and in a fully automated manner, and then transfer it to JiVS IMP and store it there in a way that is legally compliant, as certified by auditors, until it is deleted.

Thanks to support for more than 3,000 pre-configured business objects, DMI's platform transfers all data and documents from the source systems of a wide range of manufacturers, from SAP to Baan, Infor and JD Edwards to Navision etc., as well as from ADK archives, thereby enabling complete and legally compliant access to historical information in read mode, directly from SAP S/4.

The Data-driven Enterprise

With DMI's One Click Transformation, decision-makers can turn their companies into data-driven enterprises at the touch of a button. JiVS IMP, the Java-based platform for system- and application-independent information management separates the data level from the application level and thus represents the core element of a company-wide data fabric. This enables companies to manage their data independently of the original systems—whether on-premise or in the cloud—as well as to continuously optimize its quality and to enrich, analyze, and use it for planning, decision-making, and control purposes.

No matter what source application it is, there is one easy way to access data						
SAP	JD Edwards	BaaN	Avaloq	Lawson	Ariba	Conisio
Axapta	Lotus Notes	QAD	Siebel	NetSuite	Maximo	Smart Team
PeopleSoft	Oracle Financials	Infor	AS/400	Concur	Abacus	Sovelia
Dynamics	Oracle EBS	OpenText	Vista	ServiceNow	BPCS	SF.com
Teamcenter	ELO	Axapta	Kronos	Siebel	ExactGlobe	SharePoint
SolideEdge	Workday	Business One	CATIA	SAP CRM	Hylife	Others

■ Plugin or content existing　　■ Already retired with JIVS, no content existing　　■ Base Archive implemented

Data extraction made easy: even the largest data volumes can be extracted at the touch of a button with DMI's Turboloader and more than 3,000 supported business objects from different systems and manufacturers in JiVS IM.

Legacy Data is a Challenge in Every Conversion Project

Risks Rather than Bonanza

All too often, SAP customers migrate far too much data to S/4, and in poor quality, losing its business context in the process. This turns a treasure trove of data into a risk for the data-driven enterprise of the future.

By Thomas Failer, Data Migration International.

When converting to SAP S/4 Hana, it is important to preserve existing legacy data along with its context in order to make it available for meaningful analyses and insights. This is the treasure trove that companies want to unearth and exploit in the course of their digital transformation. However, it is precisely this context that is lost during the transformation, because the S/4 world requires different data structures than the previous generation. Instead of hoping for a bonanza, companies are confronted with a risk of loss.

There is also the issue of data quality. Many different data pools with different structures and countless redundant or incorrect master data records for one and the same customer and supplier reduce the quality of the data, until the very foundation of digital business models and processes breaks down. You can't make money with fool's gold.

And then there are the legislators. Various retention obligations and retention periods prevent companies from changing data and its structures. In addition, the European General Data Protection Regulation (EU GDPR) in particular and, more recently, the new Swiss Data Protection Act require companies to be able to delete information at the level of the individual data record. However, retrofitting this capability into legacy systems is either no longer technically possible or can only be achieved at great expense. In addition to the risks of loss of value and

quality, there is also a lack of legal certainty. Instead of increased profits and bonuses, there is a threat of fines and the personal liability of board members and management.

The seven golden rules of S/4 transformation

It's no wonder that so many SAP customers still hesitate to migrate to SAP S/4 and continue to operate their old systems and archives at great expense until the retention periods for the legacy information stored on them has expired—sometimes decades later. What can SAP customers do to avoid these risks and utilize the move to the new software generation to their advantage? The answer lies in the seven golden rules of S/4 transformation:

1. Separate rather than migrate

Most transformation projects take longer than necessary, not only because of the technical hurdles but also due to the conflicts between IT and specialist departments. After the transformation, specialist departments still want to be able to access all legacy data along with its business context. To prevent this requirement from turning into an excessive and lengthy project, IT insists on transforming only a few years' worth of data.

As the business usually takes precedence over IT, the specialist departments

often assert their interests. As a result, most transformation projects take much longer than necessary. In the case of large and very large companies, this can be five years or more instead of just a few months.

To avoid this problem in the first place, SAP customers should apply the first golden rule: separate rather than migrate. This involves extracting the entire legacy data, including the data stored in ADK archives along with its business context, from the legacy systems and storing it unchanged on a separate, modern platform.

The decisive advantage of this is that all data is available independently of the legacy systems and can therefore be made available to specialist departments as needed. The risk of losing the business context is thus eliminated. At the same time, IT can autonomously identify which legacy data should subsequently be transformed and transferred to SAP S/4 Hana. This way, the S/4 transformation becomes a technical project that simultaneously takes into account the requests of specialist departments.

2. Access data instead of transforming it

By separating the application level from the data level, companies can determine—purely based on business considerations—which master data they actually need in S/4, and whether they really want to transform operational data that is more than three months old, for example. This minimizes the migration and transformation effort significantly, usually by 50 percent or more.

In addition, this approach keeps the Hana database permanently lean. This is because the process of generally storing outdated transactional data on a separate platform can be repeated indefinitely. It is a realistic estimate that this can reduce the total operating costs of the new S/4 environment by 25 percent.

Massive cost reduction

Bühler Group, an international, leading machinery and plant manufacturer for the food industry and vehicle construction, consolidated data from its country-specific ERP systems, most of them SAP, onto a central JiVS Information Management Platform. It then completely decommissioned its le-

gacy systems. Since then, the Bühler Group has reduced costs by 80 percent compared to continuing to operate these legacy systems.

Thanks to the JiVS-AIS integration, the Bühler Group can also access, display, and use its legacy data directly from SAP S/4.

What's more, as it is independent of SAP systems, legacy data from non-SAP systems can also be stored on a separate platform. This not only enables the consolidation of heterogeneous systems into a harmonized IT landscape, but also paves the way for further agile business scenarios. These include, in particular, the takeover and integration of inherited databases and system landscapes in the course of mergers and acquisitions. However, in the case of the sale of a business unit or subsidiary, also known as a carve-out, this approach and the separate platform required for it are also extremely beneficial to companies.
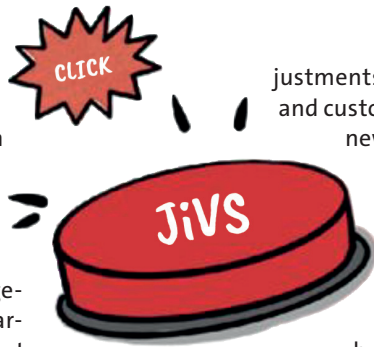
But perhaps the decisive advantage is that a separate platform offers the possibility of transforming and migrating the selected master and transactional data via the application layer without loss or risk. This allows SAP customers to use the tools provided by SAP for this purpose, namely the SAP Migration Cockpit.

Ultimately, this platform approach turns every brownfield project into a greenfield project for starting afresh with an S/4 system that is optimally adapted to future challenges . In a first step, companies convert all settings and custom developments of their previous SAP system to the new S/4 system, but without master and transactional data.

This allows them to flexibly design their business objects, as well as all adjustments to the configurations and custom developments in the new system, independently of the data, according to their requests and requirements for the future. Only during the second step do they fill this "empty" but customized shell, although only with the master and transactional data that they have pre-selected on the platform. As a result, the number of business objects can usually be halved and the amount of master data required can be reduced by 80 percent, while transactional data can be reduced by 90 percent or more.

3. Provide for data quality instead of improving It

There are major dependencies between the legacy data, its structures, and the systems and applications in which it was created, which are practically impenetrable, like the walls of a silo. Breaking through these walls during the transformation has only a minimal chance of success. If, on the other hand, SAP customers transfer their entire legacy data along with its business context to a separate platform before the transformation, the problem of dependencies no longer arises.

At the same time, IT has the opportunity to cleanse the legacy data that it wants to transfer to S/4 separately from the source systems on the separate platform before the transformation. It can also eliminate duplicates and errors, and enrich these data records with data from third-party sources. This is particularly important in analytics scenarios and applies not only to transactional data, but also to all master data, including the customer, supplier, article, and material master data that are so important for digital transformation.

4. Switch off and save

Once the legacy data from SAP and non-SAP systems, including the business context, has been transferred to the separate platform, the legacy systems—whether from SAP or third-party providers—including the ADK archives, can not only be dismantled but also completely decommissioned and disposed of. Compared to keeping these legacy systems running, SAP customers generally save 80 percent or more on operating costs.

5. Ensure legal certainty

To make sure that the statutory retention obligations and deadlines do not stand in the way of system decommissioning, the platform must transfer the legacy information in its original state and store it in a way that allows it to later be audited. This audit-proof information storage must also be certified by auditors. In addition, however, the platform must be able to fully comply with the deletion obligations of the EU GDPR and the Swiss Data Protection Act, as well as various national data protection regulations. This
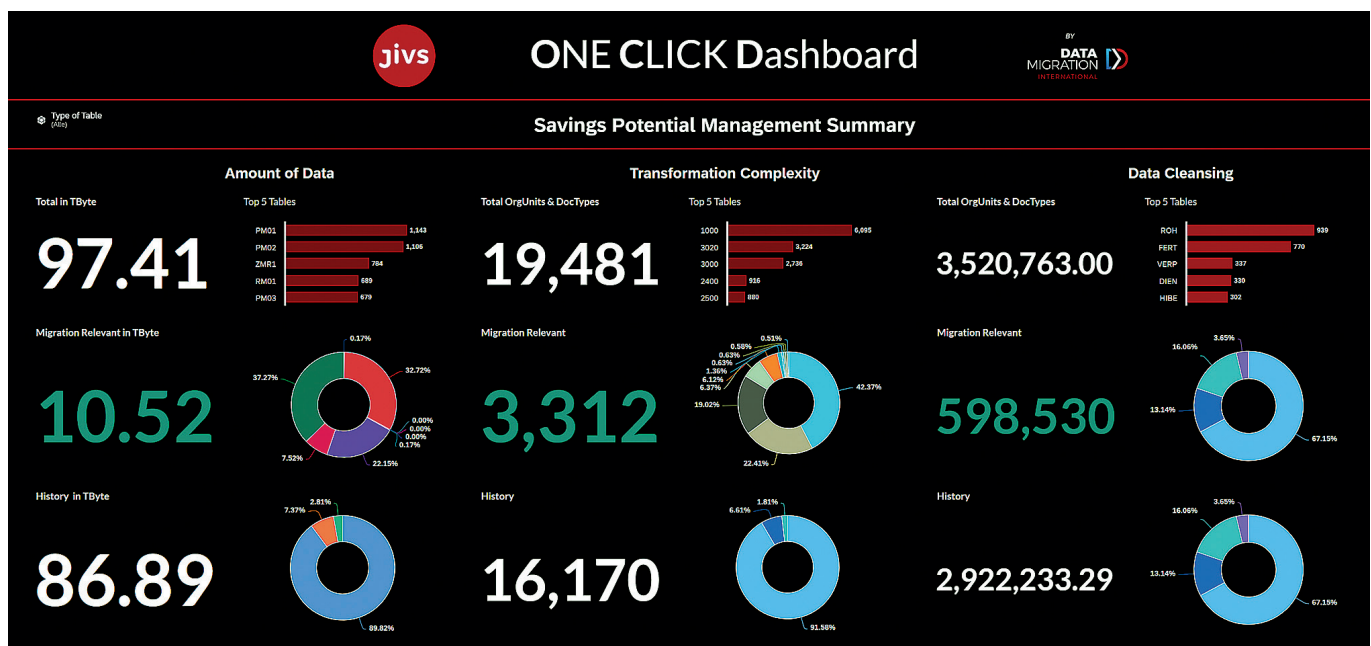
With just one click, the new JiVS OCC dashboard shows how much the One Click Transformation reduces data volume, complexity, and costs.

ensures legal certainty even without the continued operation of the legacy systems.

In addition, transferring data to a separate and modern platform contributes to greater IT security and thus data security because, unlike some legacy systems, a modern platform can also be patched in the future.

6. Automate what can be automated

In view of the enormous amounts of data that SAP customers from the enterprise segment in particular need to deal with, it is important to achieve the highest possible degree of automation. This applies especially to the first step—the extraction of data and its business context via the application layer. It must be possible to extract quantities of 10, 100, or more terabytes of information from legacy systems and ADK archives and transfer them to the platform fully automatically, in a matter of hours and days rather than months or even years—all at the push of a button.

Automation also plays an important role when it comes to displaying legacy information in the SAP S/4 world via SAP GUI or SAP Fiori. This requires the process of technical structure mapping, which involves transforming legacy data on the fly without changing the original structure of the historical data on the platform

itself. For example, data for the SAP ECC business objects "Customer" or "Vendor" can be displayed in S/4 via the "Partner" business object as if it had been created within this structure. The automated processes, from data extraction through to displaying data in the new environment, make up the One Click Transformation which represents the core of a separate platform approach for selective data transformation via the application layer.

7. Use the One Click Transformation as a service

All transformation scenarios involve similar and recurring tasks. These include, for example, taking stock of the existing system and application landscape including release statuses or analyzing the potential for reducing the legacy data volume (known as the Data Potential Reduction Analysis or DPRA), and exactly which data needs to be transferred during a carve-out, as well as defining the filter and transformation rules.

In order to be able to simulate these scenarios and the associated benefits, synergies, and preparations without any risk, companies need a service solution that makes this possible independently of the platform itself. The service works with metadata such as information on systems, applications, and databases that are relevant for the S/4 transforma-

tion or for the business unit that is being sold. The insights provided by this SaaS solution for transformation projects provide SAP customers with a realistic and reliable basis to make decisions about their transformation projects.

Both the platform and the transformation service already exist. JiVS IMP, the system-independent information management platform from Swiss provider Data Migration International, has already proven its worth in over 2,000 projects worldwide. The platform ensures a clean separation between the data and application levels, thereby radically accelerating the extraction, transformation, and migration of legacy data via the application layer and SAP's standard tools. The platform makes this possible by supporting more than 3,000 business objects from SAP and non-SAP systems of various releases as well as a process for turbo-extracting legacy data.

Massive time saving

With the help of JiVS IMP, Hawle Armaturen AG, a leading Swiss production and trading company in the water, gas, and wastewater sectors, successfully completed its data transformation and migration project as part of the conversion to SAP S/4 in just three months.
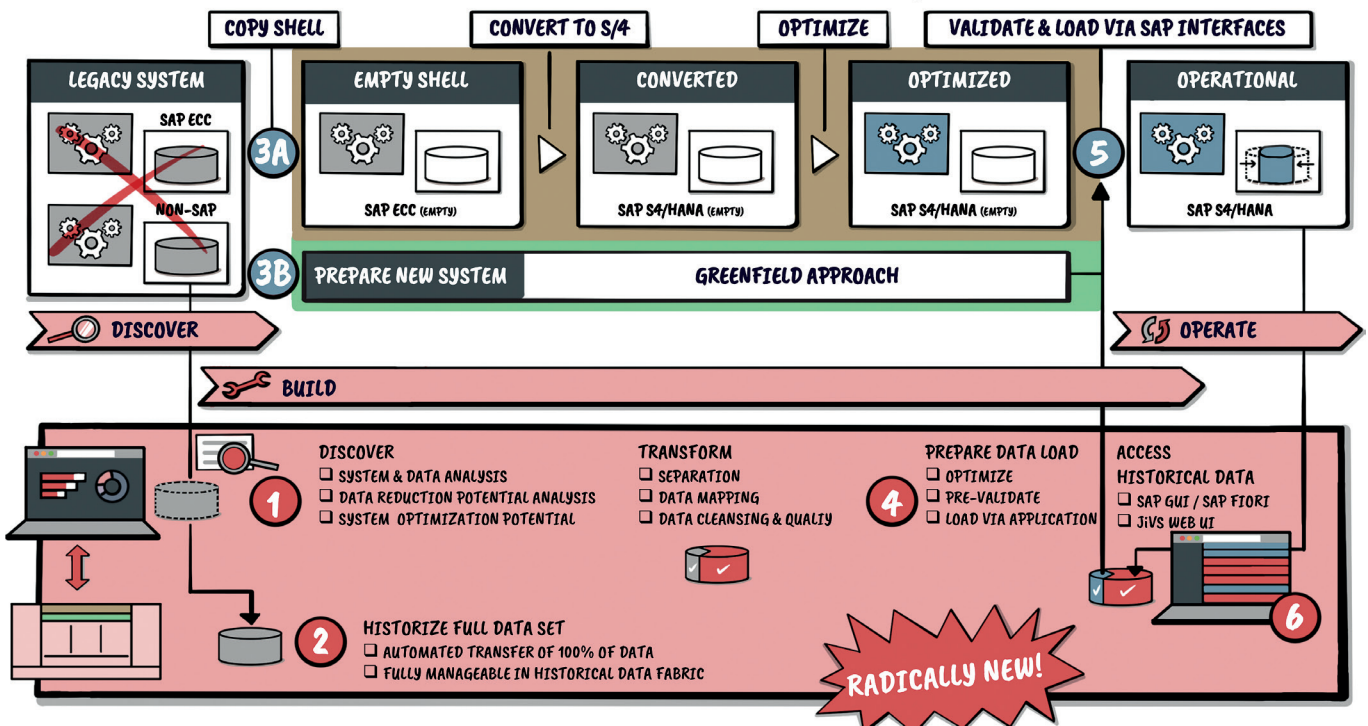
S/4 transformation without pre-projects: managing the lifecycle of legacy data, applications, and systems at the touch of a button. Image source: DMI.

Direct Journey Into SAP S/4 Hana Without X-Field Projects

Into S/4 Without Pre-Projects

The transformation to S/4 is possible without pre-projects. What is needed is an approach that decouples data management and application lifecycles management from each other, but which optimally aligns them at the same time.

Many SAP customers still have the transformation to SAP S/4 Hana ahead of them. In the meantime, they are investing a lot of time and money into pre-projects to facilitate the transition. These include, in particular, projects for archiving and data cleansing, as well as the introduction of the Hana database and the new SAP general ledger, but also the adaptation of previous customer and supplier data to the structure of the new Business Partner (BP) business object.

The Blind Spot

As justified as the pre-projects may be on their own, they all ignore a fundamental problem: what should companies do with the legacy data and systems once the transformation is complete? This is the blind spot that essentially questions the benefits of these projects. It almost seems as if many SAP customers have resigned themselves to continuing to operate their legacy systems after moving to the S/4 world and storing their legacy data in archives. Notably, the structure of some of their data cannot be changed for decades due to legal reasons. However, the latter means that the legacy systems must also continue running for that long, as they are needed to access and display the archived data.

This means considerable additional operating costs in the medium and long term. In addition, legacy systems eventually reach a point where they can no longer be maintained or patched—much to the delight of cyber criminals and spies. Finally, many legacy systems are already

unable to fulfil the requirements of current data protection regulations, which can lead to an incalculable legal risk in the long term. Furthermore, in this scenario, SAP users are largely or completely denied direct access to legacy data. This poses a non-negligible risk to productivity and quality assurance in the company.

Transformation Without Legacy

SAP customers should thus choose a radically new approach that not only eliminates this blind spot, but also renders the supposedly necessary pre-projects redundant. This approach consists of managing the entire lifecycle of legacy data, until its final and legally compliant deletion, separately—i.e. detached from the legacy systems and applications—and synchronizing it with the lifecycle management of the target applications and systems of an SAP S/4 Hana landscape. This requires a platform:

- on which all legacy data from SAP and non-SAP systems can be stored and deleted in a legally compliant manner, but which also offers options for further data processing , such as reduction, selection, optimization, and transformation via the SAP Migration Cockpit and the application layer.
- that is integrated with S/4 and automatically adapts legacy data on the fly to the new data structures, such as those of the BP business object, and displays them in SAP Fiori and SAP GUI as if they had been created in S/4. This process, known as technical structure mapping, also allows current transactional data to be synchro-

nized with historical data and, for example, completed and open orders to be displayed in full in SAP S/4 Hana.
- that records and stores all the metadata that will be replaced, on the SAP and non-SAP landscape, in a transformation cockpit at the push of a button, documents each project step, and knows which legacy system the companies can decommission and dispose of.
- that can share this knowledge in an aggregated form with enterprise architecture tools and application lifecycle management (ALM) solutions and provides the necessary integration capability.
- that extracts all legacy data from ERP systems, ADK archives, and document management systems (DMS) via the application layer at the push of a button and in turbo mode.

This kind of platform offers three main advantages to SAP customers:
- Firstly, it analyzes and manages the complete lifecycle of all legacy data.
- Secondly, it offers all the necessary functionalities for legally compliant storage and analysis, quality optimization, and selective transformation and migration of this data to S/4.
- Thirdly, it solves the problem of legacy applications and systems once and for all and turns every brownfield project into a greenfield project. The platform that makes this possible and—in conjunction with the One Click Transformation Cockpit JiVS OCC—reveals the potential for data optimization, even in the earliest project phases, is called JiVS IMP.