

How **OMV** Partnered with smartShift and IBM Consulting to Successfully Move to S/4HANA and Become a Digital Leader in the Oil and Gas Sector

10,000+

Custom objects renamed, refactored, and remediated

67%

Reduction in internal workload

25%

Increase in business efficiency



"Our S/4HANA implementation was a big success and people across the business were astonished with the amount we achieved in such a short timeframe."

Pedram Naderi,

SAP S/4HANA Program Manager, OMV



"smartShift helped us achieve our deadlines and expectations. They reduced so much cost and risk for ourselves and OMV."

Adrian Rutley,

Associate Partner, IBM



OMV is a multinational integrated oil, gas, and petrochemical company, headquartered in Vienna, Austria. The business produces and markets oil and gas, and provides chemical solutions, in a responsible way.

Highlights

Challenges

- Leading the industry by moving early to S/4HANA
- Consolidating two existing ECC systems into one S/4HANA system
- Converting 10 countries in a single cutover
- Delivering digital transformation within incredibly tight deadline

Solution

OMV contracted with IBM Consulting, who hired **smartShift** to:

- Provide comprehensive analyses of its ECC systems
- Identify technical conflicts, custom code that required transformation, and objects with hard-coded literals
- Use automation to move custom objects to new S/4HANA environment, resolve conflicts, and optimize legacy code to work in S/4HANA
- Continuously retrofitting ongoing changes made in OMV's live production environment
- Provide guaranteed outcomes that helped IBM meet customer expectations

Challenges

Bringing 10 country-specific ECC solutions together under one global S/4HANA solution

International oil and gas firm OMV used SAP ECC to successfully run its global operations for decades.

The business wanted to position itself more strongly as a digital leader and made the decision to become one of the first companies in its sector to move to S/4HANA.

Consolidating multiple SAP systems into one

Part of OMV's ambitious transformation roadmap was to consolidate two existing ECC systems—one for oil operations and one for retail—into one unified S/4HANA system.

In addition, they set the tough target of converting 10 countries to S/4HANA, all in one 'big-bang' cutover. The scale of the transformation was daunting, even for experienced SAP S/4HANA Program Manager Pedram Naderi.

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“I previously worked with Shell and the biggest transformation we did was with two countries,” says Pedram. “Ten countries is almost the complete portfolio of countries that we act in, so it was going to be a huge effort.”

Results

- Ambitious S/4HANA transformation delivered on time and on budget
- Automation reduces demand on internal resources by 67%
 - Two SAP ECC systems with a combined 48,000+ custom objects consolidated into one S/4HANA system
- 10,000+ custom objects renamed, refactored, and remediated to resolve conflicts, achieve HANA and S/4HANA compatibility, and align hard coded business values
- Business efficiency increases 25%
- smartShift reduces cost and risk for IBM and its customer, OMV

Short timeframe for switchover

OMV made the roadmap even tougher by setting an uncommonly short deadline for the project.

There was a practical reason for this; the business had identified security concerns related to outdated on-premise hardware. Rather than face the high capital cost of investing in new hardware, OMV decided to urgently switch everything they currently hosted on-premise to the cloud. That meant migrating their ERP to the cloud too.

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“We’d started our S/4HANA journey with the luxury of a five-year timeframe,” says Pedram. “Then the business decided to switch our infrastructure to the cloud, which accelerated the project, because we’d need to have our S/4HANA system in place in time for the cloud migration.”

Reconciling legacy systems with S/4HANA

Pedram and OMV recognized that custom code remediation would be one of the key challenges of the system conversion.

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“OMV is a very tailor-made environment,” Pedram explains. “Our ECC environment is packed with enhancements that our engineers have programmed over many years. It was vital that we didn’t lose those enhancements and they were accurately shifted into the new S/4HANA environment.”

Detecting all of that custom code across two distinct systems comprising 10 country-specific solutions—let alone redeveloping it for S/4HANA compatibility—was a formidable task.

Understandably, Pedram was concerned about the manual work involved in reconciling the two systems.

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“The option that we had was manually identifying the required coding from our old system and redesigning that code on our end to be compatible with S/4HANA, which would be a very long and expensive job,” he says.

Pedram felt under a lot of pressure to make the S/4HANA transformation a success.

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“There was a lot of expectation from our company heads,” he says. “But from our team perspective, we always said, failure is no option. We will succeed on this.”

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“OMV is a very tailor-made environment. It was vital that we didn’t lose any of our enhancements (engineered over decades) and they could be accurately shifted into the new S/4HANA environment.”

Pedram Naderi, SAP S/4HANA Program Manager, OMV

Solution

Turning to automation to reduce costs and improve project quality

Faced with such a monumental task laden with operational risk, OMV reached out for support. They hired IBM, led by Associate Partner Adrian Rutley, to act as System Integrator.

IBM was contracted to merge the two systems into one unified S/4HANA system—and to do it by OMV's specified deadline.

Adrian assembled a team of more than 100 IT and business change experts to ensure that the implementation was successful.

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“Consolidating split SAP systems was a technical first for us,” says Adrian. “Prior to S/4HANA, the two systems had to be separate, because the code from SAP couldn't co-exist. So this was an exciting project for us, where we were able to integrate these two systems and merge together the code. We simply had to deliver for OMV.”

After an initial period of discovery, IBM identified a number of risks that would need to be mitigated in order to meet OMV's tight deadline for cutover.

They included:

- Migrating the custom code that critical apps depend on from ECC to S/4HANA at speed, with no compromise on quality
- Identifying technical conflicts, such as where both systems were using the same code, and then remediating them
- Optimizing all code migrated to the new system for better maintainability, stability and performance

As an experienced IT professional, Adrian knew that automation could perform the task of system consolidation and code remediation with higher-quality results than possible with a manual approach. He turned to smartShift to provide the support he needed.

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“I’d used smartShift with another client, so I knew they were professional and capable of doing what was needed,” he says. “With their automations, I felt they’d provide a more consistent approach mining the code and finding problems and inconsistencies that would be hard for a human to find.”

Pedram trusted Adrian with his choice of partner.

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“IBM proposed to utilize smartShift, who are experts in SAP automation,” he says. “We looked at them and quickly realized they would be helpful because they’d save us the time of rewriting everything by utilizing their powerful automation to make that activity happen.”

Automating complex code consolidation and transformation with smartShift

IBM and OMV utilized three solutions powered by smartShift Intelligent Automation®: **SAP Code Consolidation**, **SAP Code Transformation**, and **smartShift Retrofit**.

When SAP systems are consolidated, custom code errors and conflicts can cause huge delays and introduce substantial risk, so it was vital for OMV to have the ability to accurately identify and remediate every issue.

smartShift conducted a series of analyses on OMV’s ECC systems. Quickly and accurately, smartShift’s automation identified the specific number and types of conflicting objects across two systems in 10 countries; all custom code that required conversion to be deployed in the new S/4HANA platform; objects with hard-coded business values; and redundant code that could be safely decommissioned.

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“smartShift quickly identified technical conflicts between the two systems and gave us the detailed analysis to better plan and simulate system consolidation,” says Adrian.

With OMV’s custom code comprehensively analyzed, smartShift used automation to: move all custom objects from the source ECC systems to the target S/4HANA system; automatically resolve conflicts by renaming and refactoring objects; automatically transform and optimize legacy code to work in S/4HANA; and replace hard-coded literals to make future maintenance simpler.

As OMV’s ambitious project progressed, IBM used smartShift Retrofit to ensure that changes made in OMV’s live production environment were seamlessly retrofitted into the S/4HANA project landscape, so that all of the latest custom development would be available at go-live.

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“This wasn’t a one-off process with smartShift,” says Adrian. “It was an ongoing process throughout the whole project. Therefore, our relationship with smartShift went on for 18 months and our trust in them continually grew.”

While much of smartShift’s work happened behind the scenes, Pedram recognized the depth and importance of their support.

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“smartShift automatically and accurately changed all our legacy coding to fulfill S/4HANA requirements,” says Pedram. “They identified the custom code and related objects of the old system and were able to transform it to work with the new HANA database and all of the structural and data model changes of S/4HANA.”

“The most valuable thing that we achieved with this was time savings. Reworking all our custom objects manually would have taken so much longer without smartShift.”

As well as delivering benefits for OMV, smartShift's automation supported IBM's broader project goals. smartShift provided guaranteed delivery outcomes, reduced project risk, and provided IBM's customer with a great experience.

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“The involvement with smartShift was very important to us because **we had a guarantee that they would convert the code by a certain time, at a certain quality, and that underpinned everything we were doing,**” says Adrian.

“We had regular communication with smartShift's management. If I had any questions, they were handled responsively and professionally. I felt they paid special attention to OMV. Maybe they do this for all their clients, but I felt we were treated very well.”

With smartShift taking care of the custom code workstream, IBM was able to focus on offering strategic support to OMV throughout the project, leveraging more opportunities for innovation, identifying process improvements, and improving data and analytics.

Pedram appreciates how everyone pulled together to make ambitious S/4HANA change happen.

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He says: “Between our implementation partner, smartShift, and internally with our own business and IT guys, it felt like an Avengers movie! Everybody came up together, we all fought together. And at the end of the day, we won.”

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“The involvement with smartShift was very important to us because we had a guarantee that they would convert the code by a certain time, at a certain quality, and that underpinned everything we were doing.”

Adrian Rutley, Associate Partner, IBM

Results

Internal resource requirements cut by 67%, and a business that operates 25% more efficiently

With smartShift and IBM's support, OMV successfully delivered a hugely ambitious SAP S/4HANA consolidation and transformation on-time, and on-budget.

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“Our S/4HANA implementation was a big success and people across the business were astonished with the amount we achieved in such a short timeframe,” says Pedram. “We were ready to go from day one of the cutover and we continued to operate perfectly with no delay in operations.”

Specifically, smartShift:

- Consolidated two existing SAP ECC systems with a combined **48,000+** custom objects into one S/4HANA system.
- Renamed, refactored, and remediated **10,000+** custom objects to resolve conflicts, achieve HANA and S/4HANA compatibility, and align hard coded business values.

Pedram believes that smartShift's contribution accelerated the project timeline and reduced the impact on OMV's internal resources.

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“I would say that smartShift's automation reduced the internal hours required to deliver the project by two-thirds—if not more,” he says.

As a busy Program Manager, Pedram appreciated how easy and frictionless it was to work with smartShift and IBM.

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“The consultants and teams we worked with were really professional and their skill sets were very high,” he says.

“The collaboration with our implementation partner and smartShift was a very good one and everything worked according to plan, even faced with significant time pressures.”

Implementing S/4HANA at such a fast pace has benefited OMV's operations and business efficiency.

With data consolidated and harmonized, the business can run real-time analysis for improved decision-making. Additionally, essential business processes are conducted with improved speed, quality, and cost.

With all those improvements factored in, **Pedram estimates that the business is now 25% more efficient than before S/4HANA.**

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“Having a modern and less complex system landscape saves time on our daily operations across so many units and processes. With the help of smartShift and IBM, we’ve future-proofed our business,” he says.

For Adrian and his IBM team, the big win was the quality of smartShift’s code remediation.

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“Hundreds and hundreds of programs were converted by smartShift and we didn’t have problems,” he says. “That was key to me. If I had tried to manually convert the code myself, I would’ve needed a huge team of people to do that conversion as well as more time spent trawling through code to investigate the inevitable errors. **smartShift reduced so much cost and risk for both ourselves and OMV.**”

Adrian recommends smartShift to any firm looking to de-risk their S/4HANA transformation.

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“smartShift is an ideal partner because you can have confidence in their delivery,” says Adrian. “They’re a very professional company, who help you achieve your deadlines and expectations.”

“I have already recommended smartShift to several colleagues who are converting customers’ custom code from ECC to S/4HANA and I’d recommend them to other oil and gas businesses, too. **I’ll use smartShift again without hesitation.**”

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“Having a more modern and less complex system landscape saves time on our daily operations across so many units and processes. With the help of smartShift and IBM, we’ve future-proofed our business.”

Pedram Naderi, SAP S/4HANA Program Manager, OMV

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