With over four million inhabitants, the Free State of Saxony is the seventh largest of Germany’s 16 federal states. The state’s government has put pioneering future projects on its agenda for the years 2023 and 2024. Around 20 percent of the state’s budget is allocated to education. In addition, infrastructure expansions are planned, and a breakthrough in renewables must be advanced. The twin budget dedicates 49.3 billion euros in funding to these areas – a record amount.

At the same time, the proprietary systems currently used for budgeting, bookkeeping, and accounting (BBA) are reaching their limits. Prominent examples include the cash accounting (KABU) and financial management (SaxMBS) processes, which use outdated technology and have reached the end of their life cycle. In light of this, the cabinet resolved in 2020 to fundamentally modernize the BBA systems and build a new, forward-looking, state-wide BBA platform. One of the most pressing challenges was mapping incoming electronic invoices in a suitable workflow that is free of media discontinuities. The EU has ordered the mandatory implementation of such workflows by public administrations in EU member countries.

The Saxony State Ministry of Finance (SMF) assumed management of the BBA 2025 program with the goal of establishing reference and standard processes for the entire state administration and centralizing functional and technical operations to capture synergies. To achieve this, existing structures in the State Office for Taxes and Finances (LSF) are being enhanced to create a BBA competence center. A central platform at Staatsbetrieb Sächsische Informatik Dienste (SID), the state’s internal IT service provider, is building a central platform for the technical operation of the BBA system.

Within the framework of the BBA 2025 project, the ministry launched a competitive dialog with several providers for the development of the BBA architecture – with the goal of developing a target architecture for the future BBA system in an agile process.

“At a glance

Current situation
- Media discontinuities and “paper interfaces” reduce the efficiency of budgetary, bookkeeping, and accounting (BBA) processes
- Existing proprietary standalone systems require high administrative efforts
- Aging technology is not forward-looking
- No support for in-house enhancements

Project framework
- Agile project methodology: Scrum/SAFE adapted to the project subject and the needs of public administration
- Hybrid concept for modernizing the BBA landscape as an alternative to a full SAP solution
- Pega with low-code functionality for front-end flexibility, SAP as a core system
- Standard interfaces for system integration

Goals
- Rapid implementation of binding EU regulations governing the processing of electronic invoice payments by the administration
- Successive replacement of legacy systems
- Efficient administrative processes that are free of media discontinuities
- Data-driven process control through a strategic information system
- Possibilities for in-house enhancement
- Sustainability aspect: Reduction of printed documents

“With a hybrid solution consisting of SAP and Pega, T-Systems found a custom solution that is helping us build a modern, forward-looking BBA landscape.”

Michael Golsch, Head of Section for Digitalization and Automation of the State Budget
The challenge

The existing, heterogeneous BBA landscape and its various aspects – such as the KABU process, the HH portal, and the SaxMBS instances, are currently characterized by media discontinuities. The proprietary, custom-programmed systems do not have enough standardized interfaces, which means administrative processes can only be partially automated at best. In particular, the project owners hope to become largely paper-free through BBA 2025 to contribute to sustainability and simplify the processes through digitalization.

Another side-effect: Consolidation and the use of modern, established standards and central operating models should cut future operating and maintenance costs for the system significantly. The possibility for in-house enhancement of the processes – without the involvement of external partners – is also a relevant factor for the ministry. This will require a targeted knowledge build-up and transfer as early as the project phase.

By the end of 2025, an integrated, modular, forward-looking, end-to-end BBA system should become available, consisting of a BBA portal, BBA platform, and BBA core system. An initial milestone has already been reached: An operational solution for processing electronic invoices received in X format has been available since January 1, 2023.

The solution

Using SAP as the core system and Pega as the main access point (front-end) for the BBA processes, T-Systems designed a hybrid solution for the future architecture of the BBA system. The State of Saxony considers the low-code capabilities of Pega to be an ideal complement to the standard SAP back-end system. The system is run by Staatsbetrieb Sächsische Informatik Dienste (SID), Saxony’s own provider for IT infrastructure. The new system is being implemented in stages in an agile procedure model of the project partners. The first stage involved the Pega system, which was built for invoicing between August 2022 and December 2022.

It was launched at the start of 2023 as an MVP (minimum viable product) in selected government agencies, initially for invoices received in X format, in parallel to the existing systems. It now supports full digital processing of submitted invoices. “The low-code approach meets our demands for internal responsibility in the sense of self-service. It also enables non-IT specialists to enhance processes and procedures autonomously, as needed,” explains Michael Golsch, Head of the Section for Digitalization and Automation of the State Budget.

In the next step, the invoice handling process will be opened up for other input formats (replacement scanning, mail attachments). At the same time, an SAP system is being built to serve as the BBA core. This system is based on the new SAP S/4HANA standard. The FI, CO, and PSM modules will be implemented for the financial management and cash accounting processes. By the end of 2025, the legacy systems will be successively replaced and their data will be migrated to SAP.

Operational analytics, workflows, and support processes will be realized through a combination of Pega and SAP. The two systems can be integrated easily via web services. In this process, the team will utilize standard protocols and interfaces that SAP provides for accessing the relevant objects. Pega delivers the matching connectors for out-of-the-box integration.

Customer benefits

Goodbye media discontinuities; hello efficiency and self-service. The hybrid concept will enable the State of Saxony to implement its modernization strategy for public financial administration. The SAP back-end establishes a powerful standard core, while Pega on the front-end provides wide-ranging flexibility and extensive design options. This has been proven by the new tool for invoicing, which was implemented in detail according to the state’s requirements. The State of Saxony will get a forward-looking BBA system based on an open, integrated landscape – and will be able to utilize the data to build a strategic information system.

The new system landscape will meet all necessary data security and information security requirements and comply with the legal framework. External auditors, such as the state’s Court of Audit, will benefit from the modern IT architecture, which is nearly free of media discontinuities. As an additional benefit, paper consumption is declining substantially – as a small contribution to the state’s sustainability goals.