



Whitepaper

1 Executive Summary

1.1 Why does Adminity® exist?

Despite its leading innovative strength, Switzerland lags behind in one key area: the digitization of government.

Adminity® exists because Switzerland knows what a digital government should look like, but does not yet have the tools to implement it efficiently and interoperably.

We provide the technical basis that turns this vision into reality.

1.2 The structural gap in Swiss e-government

Switzerland has clear digital objectives, strong regulatory frameworks, and highly qualified IT professionals. What is missing is the connecting technical foundation that translates these elements into an operational, interoperable, and scalable digital state.

Adminity® fills precisely this systemic gap.

1.3 Switzerland has standards but no operational developer platform to implement them

DVS goals and eCH define the “what,” but the “how” is missing.

Without an operational developer platform, expensive, inconsistent in-house development is the result.

1.4 Federal complexity leads to fragmented IT landscapes

Heterogeneous systems, data silos, and differing governance make end-to-end processes expensive and unreliable.

1.5 There is no scalable option for building service-oriented architectures

SOA is the goal. However, there is a lack of common business objects from fragmented data, interoperability mechanisms, and a standardized data fabric.

1.6 Existing low-code platforms solve the wrong problem

Existing platforms solve app development, but not government interoperability, federal data sovereignty, or eCH-compliant architecture.

1.7 AI-supported administration requires uniform data, which does not exist today.

AI in administration requires semantically defined, auditable, and interoperable data. Adminity® provides this foundation.

1.8 Without Adminity®, the digital state remains expensive, slow, and fragmented.

Project costs rise, integrations are built multiple times, and time-to-market remains high. Adminity® reduces these structural costs.

2 Why e-government

E-government aims to make administrative services faster, easier, and more accessible through digital technologies. This eliminates a considerable amount of administrative work, and many matters can be dealt with efficiently and without having to visit the authorities in person.

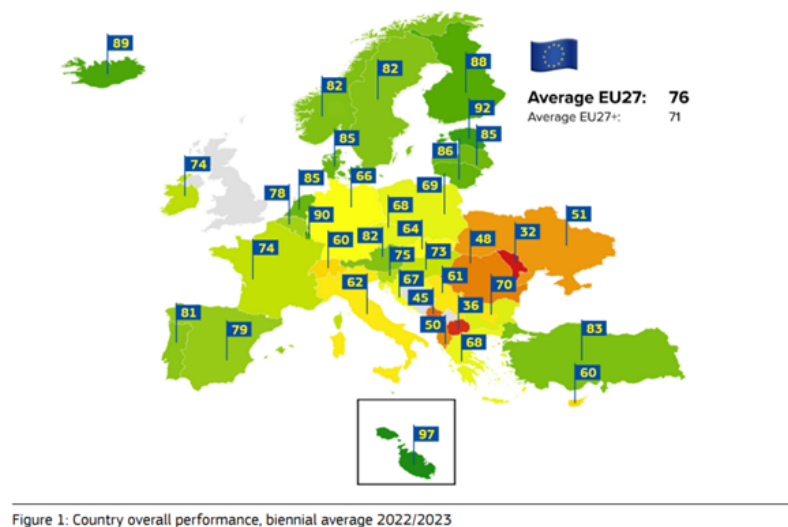
A modern and efficient administrative apparatus is crucial for a country's prosperity, as it enables stable, reliable, and transparent performance of government tasks, especially in times of high demands on international competitiveness.

E-government increases the transparency of government action, as information is more readily available to citizens and decisions become more comprehensible.

The digitization of central administrative processes also achieves significant long-term cost savings, as standardized procedures can be automated, resource consumption is reduced, and tax revenues are used more sustainably.

E-government thus strengthens both citizen services and the economic and institutional performance of the country.

3 State of digitization in Switzerland



The European Commission's eGovernment Benchmark 2024 shows that Switzerland ranks 31st out of 37 countries in Europe. Switzerland's level of digitization is still well below the EU average, even though we have ranked first in the WIPO Innovation Index for 14 years.

Switzerland's security and prosperity depend on a sovereign and efficient administrative apparatus.

However, we are increasingly losing the ability to perform these sovereign tasks in a lean, consistent, and scalable manner.

To exercise executive power, we are still dependent on a small number of large, complex software systems.

Without fundamental changes, we cannot and will not be able to ensure a successful transformation of the state, and technology will never be able to reach its full potential.

3.1 Our goal

Our goal is clear: to significantly increase administrative efficiency without disproportionately increasing personnel or financial resources, and to develop resilient solutions that take into account the current IT infrastructure.

Simply put: an affordable, connectable “digital mass.”

The ability to produce, operate, and maintain a large number of more cost-effective, smarter, and more traceable IT solutions.

The main focus will be on **interoperability** and the creation of a **highly automated, federally standardized IT backbone**.

4 The situation in Europe

Switzerland follows key European guidelines in the area of digital administration and shares fundamental principles with the European Union and the EFTA states.

This was confirmed, among other things, by the signing of the Declaration on eGovernment in Tallinn in 2017. The Government-as-a-Platform (GaaP) principles formulated there form a common basis for the development of modern, user-oriented, and efficiently networked administrative services.

Another important reference point is the European Interoperability Framework (EIF), which defines clear requirements for technical, semantic, organizational, and legal interoperability between authorities and across national borders.

Switzerland has integrated the principles of the EIF into its own specifications; they are now an essential part of the eCH architecture standards.

By strategically aligning itself with European standards, Switzerland is not only strengthening the international connectivity of its administrative processes, but also creating a reliable basis for an interoperable, efficient, and sustainable e-government ecosystem.

5 Reference model: e-Estonia

5.1 Success factors

Estonia is considered a European model for e-government. Its success is based on a clear digital vision and a strategy that has been consistently pursued since the 1990s.

Mandatory electronic identification for all citizens creates a secure basis for digital transactions and legally binding signatures.

With X-Road, Estonia also has a decentralized, highly secure data infrastructure that enables encrypted and logged exchanges between authorities.

The comprehensively implemented once-only principle and high transparency in data access strengthen efficiency and trust in the state.

5.2 Comparison with e-Switzerland

Due to its federal system, Switzerland pursues several strategies rather than a centralized digital vision.

Although there is a central communication platform for the exchange of official data, a fully interoperable data architecture does not yet exist.

A nationwide government eID is currently being developed. The once-only principle has only been partially implemented, and citizens currently have no direct control over official data access.

These differences reflect the complex federal structure and the historically grown IT landscape, which makes modernization in a “brownfield” context difficult.

5.3 Conclusion

Switzerland and Estonia differ significantly in terms of their level of digitization and their political and social frameworks. The Estonian model cannot therefore be directly transferred.

Instead, Switzerland must develop the underlying capabilities in an independent, federally coordinated “Swiss Way” that is tailored to the specific circumstances of the country.

6 The situation in Switzerland

Unlike Estonia, which as a greenfield country was able to implement a central digital vision from the outset, Swiss digitalization is developing within a complex federal system.

Numerous strategic initiatives have been successfully implemented over the past 15 years, with the consolidation and coordination of joint activities by the federal government, cantons, and municipalities over the past five years in particular forming a solid foundation for a federally coordinated transformation.

Important strategic vehicles are:

- the Digital Switzerland strategy,
- the Digital Administration Switzerland (DVS) agenda,
- and the e-government standards of the specialist organization eCH.

These institutions and specialist organizations enable effective top-down management of digitization, promote the introduction of voluntary standards, and create the conditions for implementing the success factors characteristic of Estonia in a federal Swiss context.

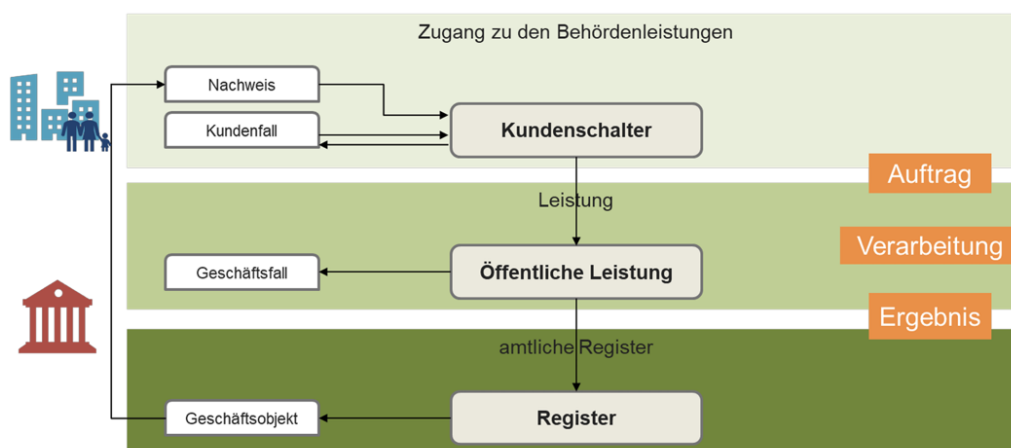
6.1 National goals

The activities of these strategic organizations give rise to clear national objectives that are to be achieved through cooperation.

Central to this is the implementation of the GaaP principles regarding interoperability, once-only, and one-stop-shop. These objectives are to be achieved with a uniform e-government architecture for Switzerland, as well as reusable infrastructures and basic components.

These goals are promoted by the National Infrastructure and Basic Services Agenda (Agenda DVS), and the specialist organization eCH defines the framework conditions for a national e-government target architecture through corresponding standards.

According to eCH-0287, the target architecture consists of three abstract layers:



Common e-government projects such as EasyGov, iGov, Fit4Digital, Amtomat, etc. are primarily located at the top level and empower those below.

The shift in e-government from a **function-oriented architecture** with rigid data silos to a flexible **service-oriented architecture** is changing the focus on how end-to-end service delivery should be achieved digitally.

Portal solutions primarily represent digital customer service desks, while execution takes place across multiple services in the background.

The use of decentralized, reusable, internal services that perform these processing tasks in an overall system and make their orchestration scalable will increase exponentially.

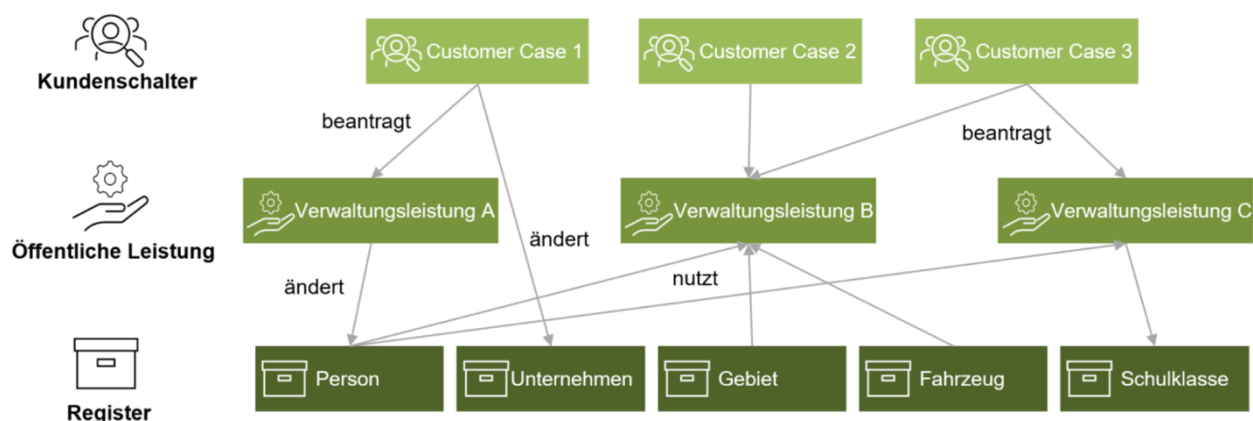
6.2 Conclusion

The target visions and initiatives described show that Swiss e-government must increasingly be geared towards a complex, networked service-oriented architecture (SOA).

Such an architecture consists of layered services, with portal solutions acting as digital customer interfaces, while reusable and scalable basic services handle processing in the background.

These services are designed to be used multiple times by different business processes, creating synergies, avoiding redundancies, and making end-to-end service delivery efficient and flexible.

Overall, it is clear that the transition from rigid, function-oriented data silos to a modular, service-oriented infrastructure is imminent in Switzerland and Europe.



6.3 Challenge

However, implementing service-oriented architectures is complex: developers must connect heterogeneous systems, manage distributed processes, comply with security and governance requirements, and take standards such as the eCH standards into account. This significantly increases effort, costs, and time-to-market.

Existing low-code platforms support app development, integration, and process automation, but none of them support the complete development of service-oriented IT architectures that map interoperability according to industry standards.

Requirement: There is a need for a new type of developer platform that simplifies the development and operation of service-oriented architectures, makes them efficient, and automatically takes into account the necessary framework conditions.

7 Starting point for Adminity®

7.1 Purpose

We consider the e-government architecture defined by DVS & eCH to be our mission and contribute to providing service providers with the tools they need to consistently implement it.

We see ourselves as part of a larger whole and use our technology to create a foundation that makes Switzerland sovereign, efficient, and future-proof.

7.2 Mission

adminity® empowers developers to build, test, and operate software in regulated environments.

We provide the tools developers need to make the DVS goals of an interoperable Swiss e-government, based on the eCH standard, a reality.

To this end, we design and develop new types of sovereign low-code solutions and work with administrations and system integrators to integrate existing data and software into a new, AI-supported, service-oriented architecture.

7.3 Methodological/political impact

Adminity® harmonizes all existing national target images into an operationally applicable developer platform for system integrators and IT agencies. This reduces the complexity of the federal system.

It strengthens political control, enables the nationwide expansion of digital administrative services, and contributes measurably to improving the eGovernment ranking.

7.4 Technical impact

Federalism in e-government results in IT landscapes with different IT systems at all administrative levels.

This leads to inconsistent data structures and data silos, which limits the possibility of digitally integrated service processes.

There is therefore a lack of interoperability within the Swiss e-government architecture; the ability of individual, separate IT systems to work together in a common process.

With our low-code platform, specialist applications and basic services can be merged into a uniform data layer, and government processes can be automated and controlled without media discontinuity. In this way, we overcome data silos and create a smooth, service-oriented e-government architecture in accordance with the eCH standard.

8 Adminity® - The solution in detail

8.1 Interoperability in an SOA through a unified data fabric

Develop and manage networked SOAs with a comprehensive developer platform

Adminity® Hive is a secure integration and automation platform that makes industry standards operationally usable for low-code development.

Data from different systems can be integrated into a data layer according to these standards, standardized in terms of content, and related according to the organizational structure.

This transforms data across systems into usable information and complete business objects that can be used directly for AI use cases, automation, or analytics.

8.2 Automated end-to-end processes for e-government

Thanks to standardized business objects in the data layer, separate services in a service-oriented architecture can work together as end-to-end business processes according to defined standards.

Business logic can be mapped, layered, and automated in end-to-end processes.

Required building blocks such as internal or external forms, document templates, and the like can be easily created and used via low-code.

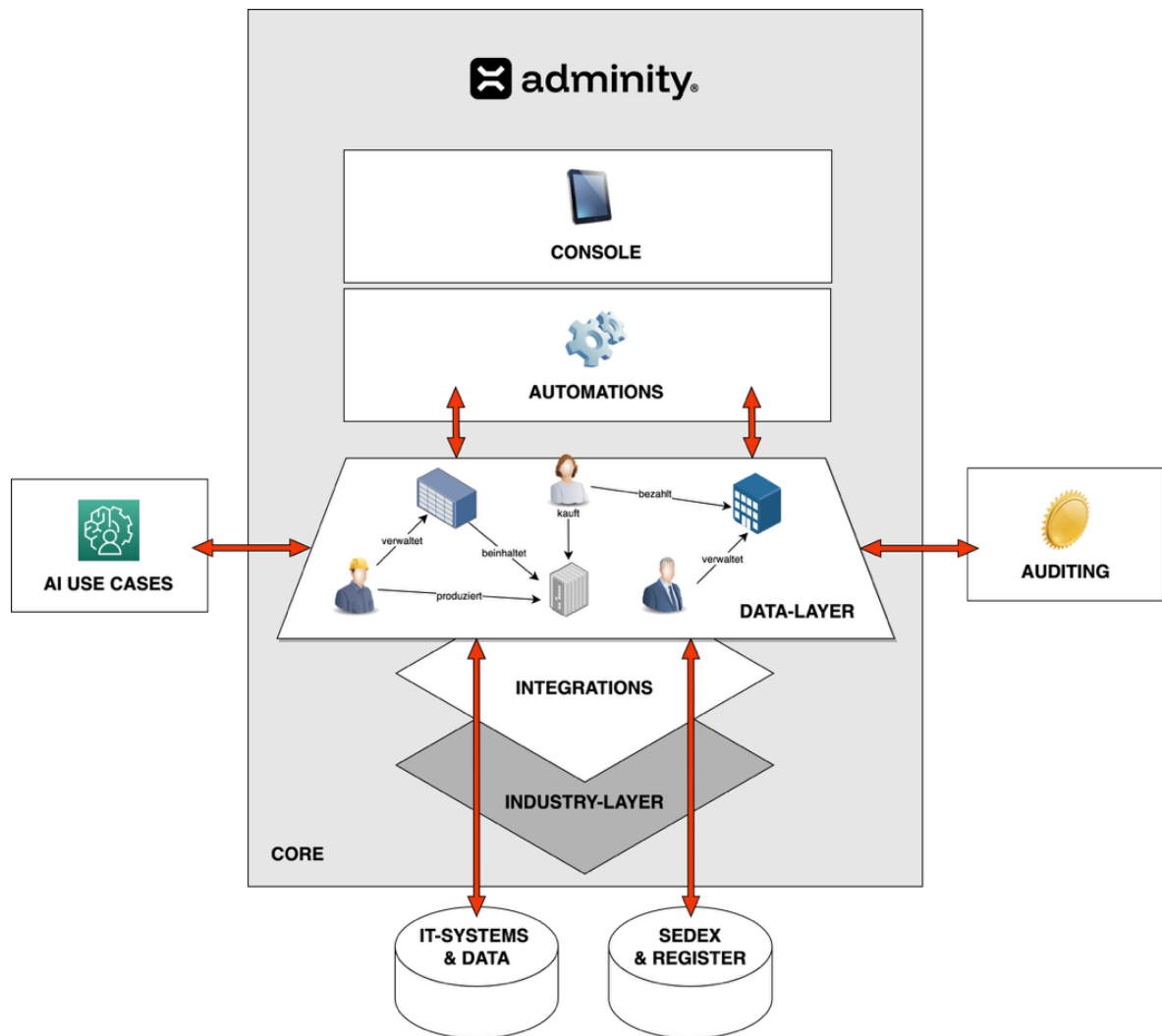
All activities on the Adminity® Hive platform are centrally monitored and controlled via a console.

8.3 Expansion

Adminity® Hive is thus the central data hub behind one or more process solutions, which can also be expanded at a later stage with appropriate compliance and auditing solutions in order to evaluate the collected information, audit trails, and data logs of an SOA and to further utilize automated data protection management or eDiscovery.

As a central data hub, the data layer also enables the implementation of in-depth AI use cases as a data source.

9 Structure



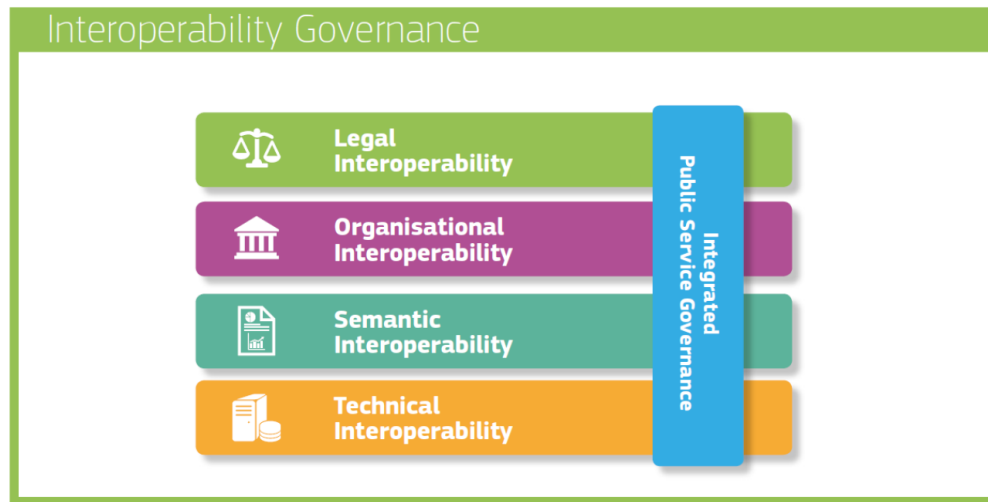
The product consists of the following parts:

- Core → the technical basis
- Industry layer → an exchangeable layer that maps industry-specific standards
- Integration & data layer → for connecting and standardizing data
- Automation → for process control and end-to-end automation
- Console → for monitoring and controlling all activities

9.1 Agnostic Industry Layer

Interoperability is defined within the architectural vision of Swiss e-government on the basis of the European Interoperability Framework (EIF).

The paradigm of the framework can also be used for interoperability in other sectors.



Our product combines the four interoperability levels of the framework into an interchangeable “industry layer” above the software “core,” which affects the ‘integrations’ and “data layer” modules.

An “industry layer” includes:

- Data formats & protocols
- Semantics & organizational architecture
- Collaboration patterns

The “industry layer” is adapted in dedicated versions based on the relevant industry standards. This means that Adminity® Hive can be made compatible with any regulated industry.