



National Data Management NaDB

Swiss Data Steward responsible for standardization and harmonization of data for nationwide public administration

Simplification for companies and citizens through the Once-Only Principle

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International changes: Broad-based data ecosystem

- In the modern state, the role of a **national statistical institute (NSI)** is **changing** from a classical statistical office **to an institute for data management** in a broad-based data ecosystem.
- The **federalist structure** in Switzerland with the other national statistics producers and all other administrative units that keep data is a great asset, and it needs to be **taken into account** as these changes occur.
- The key concept is to keep data **storage and ownership decentralised** in the individual administrative and statistical units but to make the data available and re-usable by sharing it with other units.
- **Interoperability of data** is a key pillar for introducing the Once-Only principle for data collection and re-use.
- Another key feature of the new system is the creation of a **center of expertise for data science** at the Federal Statistical Office. This center will focus know-how in this field and benefit the whole of the Federal Administration by offering data innovation services to all.

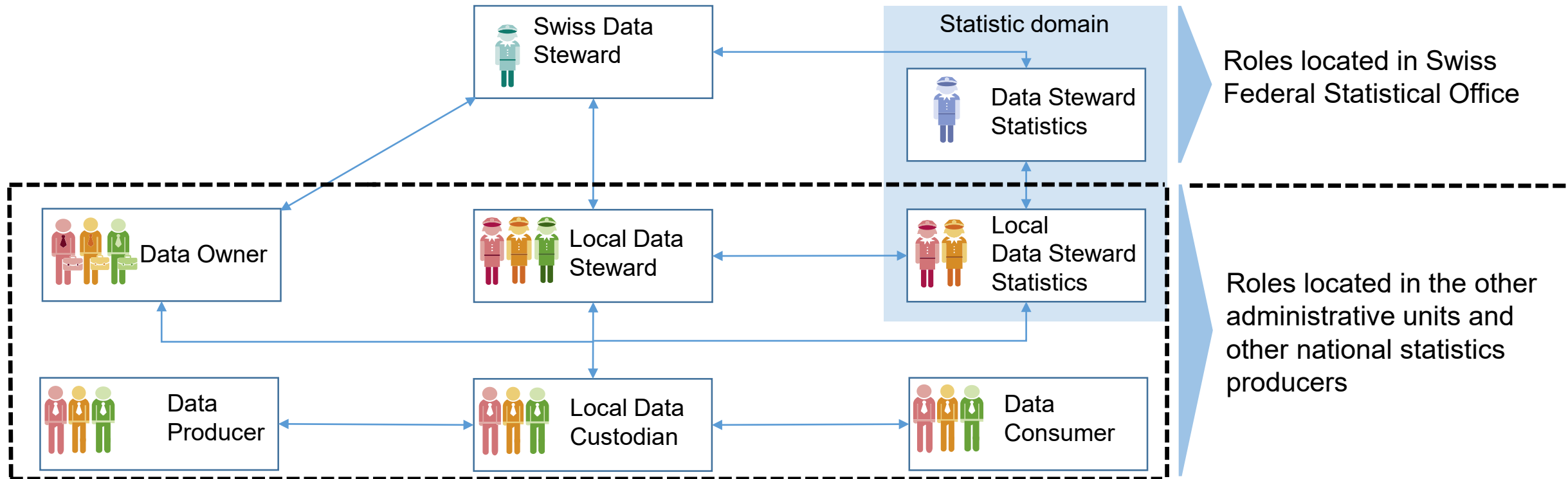


Once Only Principle as target of Interoperability

- Establishing the **Once Only Principle** requires **interoperability** in order to realize data integration, exchange and sharing across units and to enable the multiple use of the data.
- A first step towards implementation of interoperability consists in the development of a **nationwide metadata catalog** containing standardized and harmonized descriptions as well as information about provenance, usage, legal restrictions and quality of shared data.
- A proper **data governance** must be established including a role model and processes for standardization and harmonization, taking into account the federalist structures in Switzerland.



Role Model





Swiss Data Steward

The Swiss Data Steward is centrally located in the Swiss NSI and is responsible for:

- **Coordinating** the standardization and harmonization **process**.
- Identifying and describing the **data requirements** of the various users.
- **Managing** the content of metadata (data catalogue).
- **Validating the quality assurance** of metadata and data in the administrative areas using data analyses.



Data Steward Statistics

The Data Steward Statistics is centrally located in the Swiss NSI and is responsible for:

- **Cooperation and coordination** with international bodies
- Enabling the use of common **international classification standards**.
- Further **developing guidelines** for implementing of the Once Only Principle in the statistical field.
- **Validating the quality assurance** of the statistics producers.
- **Defining standards and guidelines** for nomenclature and metadata



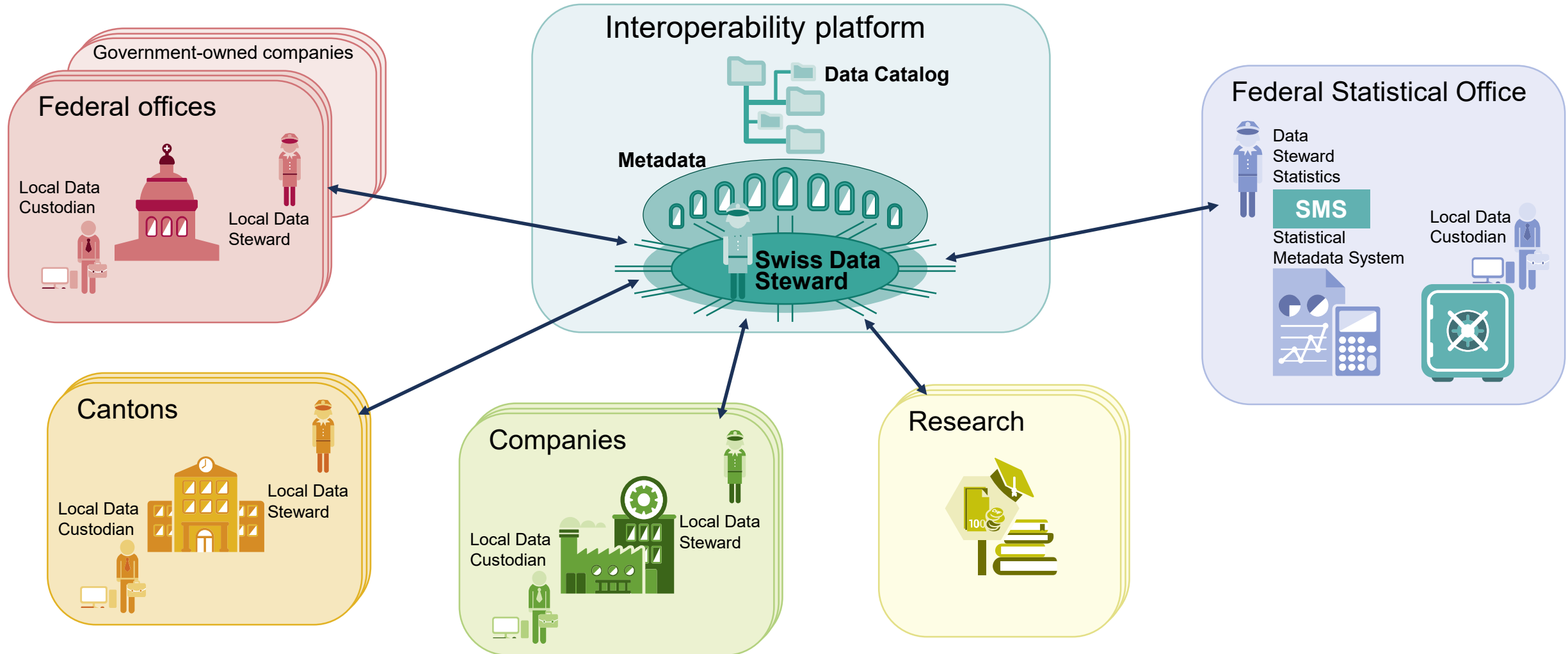
Local Data Steward (public administration offices)

- **Standardization and harmonization** of data within area of responsibility
- **Validation of the quality assurance** of metadata and data in the administrative areas by means of data analyses.
- Further **development of specifications** to ensure interoperability

Local Data Steward Statistics (other national statistics producers)

In addition to the Local Data Steward:

- **Standardization and harmonization** of statistical data within area of responsibility
- **Identify and describe the data needs** of the various users in the statistical field





Realisation

- The program **National Data Management NaDB** was launched in October 2019. Responsible is the Federal Statistical Office.
- In order to promote the re-use of data in the long term, a **metadata catalog** is realized containing descriptions and information about shared data. An **interoperability platform** is developed as a system that is available to all participating offices.
- The current steps anticipate the **implementation of several projects** which will be carried out within specified areas (wage, occupational profiles, taxes, health provision). Drawing on previous experience, it shall be checked whether the procedure is compatible with **the long-term implementation of the once-only principle** and shall be adapted if necessary. Data protection and privacy considerations as well as necessary amendments to legal frameworks will be part of the program.



Competence Center for Data Science (Located at NSI)

- Data science is becoming increasingly important, not least in public administration. It comprises so-called "intelligent" calculations (algorithms) with which certain **complex tasks can be automated**.
- Individual offices will not have to build up their own expertise in this **complex and volatile area**, but instead will be able to buy in the services of the FSO's data science centre.
- With its wealth of **experience in data quality and the various methods of data processing**, a National Statistical Office (NSI) is the natural choice to carry out these tasks.