



## Digital Government Strategies: Good Practices

### Slovenia: Interoperable building blocks for electronic data gathering, implementation for e-Social Security

The OECD Council adopted on 15 July 2014 the Recommendation on Digital Government Strategies. The Recommendation provides a set of 12 principles structured around 3 pillars. The OECD Secretariat is developing a Digital Government Policy Toolkit to support OECD member countries and non-member adhering countries with the implementation of the Recommendation. This practice was submitted by the government of Slovenia to be considered as a good practice in the implementation of one or more of the principles contained in the Recommendation.

#### Description of the practice:

**Organisation:**

Ministry of Public Administration, Slovenia

**Name of the practice:**

Interoperable building blocks for electronic data gathering, implementation for e-Social Security

**Principles implemented:**

Principle 3 - Create a data-driven culture in the public sector.

**Description:**

The project has enabled efficient interoperable electronic data collecting from 50+ data sources within the public sector and wider (from banks as well) - for specific purposes of the e-Social Security. The decisions on social support and other social benefits are performed based on the income and property of the applicants and their family members. These data on the income and property are being collected electronically, with great respect to personal data protection. The costs for such an extensive data gathering would be enormous, if that process would be carried out in the classical way (paper questions, paper answers, scanning, postal costs...) but the operating costs for the new IT-supported and automated data gathering were now lowered to the marginal minimum. The reusable components that support these data gathering processes (Tray, IO-module, Asynchronous module and Security platform) and were primarily developed for e-Social Security will also be used in other similar projects, where data are requested from numerous diverse and scattered data sources.

The project was approved by the Ministry of Public Administration and by the Ministry for Social Affairs and also by the government.

Project management: Ministry of Public Administration, Slovenia.



In the development phase, the Ministry of Public Administration and the Ministry of Social Affairs were the supervisory board. The project team, which was led by Ministry of Public Administration, had 64 members from all major institutions with relevant data sources.

The Ministry of Social Affairs was/is responsible for data processing and interpretation, and for the legal aspect; the Ministry of Public Administration is/was responsible for programme coordination and development of powerful reusable building blocks, which can be reused in other systems.

The system is in operation since 26 January 2012. The focus of the Ministry of Public Administration is now on maximizing the reuse of the building blocks and on maximizing their impact. Several organizational and technical improvements have already been implemented based on the practical experience and on feedback provided by users. In the future, the building blocks will also be possible for wider public administration and in some cases also for the private sector.

[http://www.mnz.gov.si/nc/en/media\\_room/news/article//7939/](http://www.mnz.gov.si/nc/en/media_room/news/article//7939/)

<http://www.southsouthnews.com/civil-society/civil-society-videos/player/71/1381>

<https://www.youtube.com/watch?v=7OdxReNOvT4>

### **Results**

The system enables decisions on social rights, benefits, subsidies and payments (Exercise of Rights to Public Funds Act ERPFA or ZUPJS, Articles 5-6): child benefits, cash social assistance, income support, state scholarships, reduced kindergarten fee, snack subsidy for elementary and high school students, lunch subsidy for elementary school students, transport subsidy for high school students and students, exemption of payment of social security services, contribution to the payment of a family assistant, rent subsidy, right to covering the difference to full value of health care services, right to the payment of contribution for compulsory health insurance.

Enquiries for 10.000 - 20.000 persons, automatically processed every day, with 50+ data sources (0,5% -1% of total population).

Enabling fair decisions (more efficient distribution of social support budget)

Reduced costs for data gathering (IT enabled enquiries are vastly cheaper than the Classic paper enquiries)

Broad possibilities for reuse of existing building blocks in other systems, either as the existing solution or as a concept (more re-use, higher savings with development and operations costs)



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There was no specific evaluation regarding this system, but the system was financed by the European social fund and thus it was evaluated in this context using the standard processes and measures.

### Development

#### **Design: 2010**

The overall supervision was conducted by Minister of public administration and Minister of work, labour and social affairs as the process owner for the social support decisions. Through a large project team, we involved all major institutions with relevant data sources. Our Information Commissioner was also participating in all stages of the project, for ensuring the data-protection compliance.

#### **Testing: 2011**

We did not have much time for extensive testing of the very idea and to produce some special pilots, prototypes and implement some parallel operating environment etc.

As the primary basis, we used all the experience that we gained on similar projects, regarding the data exchange and the social support decisions.

We built the system in an agile and flexible way, so we were always able to quickly adapt to new challenges that we were facing with every new data source.

The real production testing was in fact performed when we started with the real production and after we saw the real performance and bottlenecks. Because we were agile and flexible, we were able to stabilize the system relatively quickly and efficiently.

The method has proved to be successful, because the system is still functioning in a heavy-duty mode without any major disturbances.

#### **Implementation: January 2012**

Due to the enormous complexity of the planned interconnected system, some special approaches had to be invented, reducing the complexity and ensuring the necessary loose-coupling. Time frames were short, human resources were low and risks were high. The project management was agile and flexible, risk management was crucial on the project.

The project team developed a set of reusable building blocks for electronic data gathering, now forming an important part of central interoperability infrastructure of Slovenia:

- Tray (intelligent system for standardized execution of data enquiries, operating as a reliable and extremely flexible transport channel, neutralizing the technological specifics and complexity of data sources, based on the modern state-of-the-art open-source Java SOA technology)



- IO-Module (standardized platform for data distribution, enabling institutions to be able offer heavy-duty synchronous access to distribution copy of data, preserving a reliable electronic trail and all the required control mechanisms to the data owner)
- Asynchronous Module (an application component enabling asynchronous electronic data enquiries to those data sources where the synchronous access is not possible due to security, technical or other reasons)
- Security Platform (standardized system for managing users and their rights in applications, supporting all the qualified digital certificates in Slovenia)

Resources: The investment into those interoperability components was relatively small - in total about 2 million EUR. All daily operating costs, including all the participating human resources, are below 3000 EUR.

The core coordination staff on the Ministry of Public Administration consisted from 3 people, together with the project team of 64 members and the supervisory board.

**Diffusion and scaling:** 2012 and after.

Information about the solution, its reusability, capabilities and practical experiences was shared on various national and international conferences and meetings.

We are actively encouraging the use of reusable building blocks on the national level, e.g.. by the IT strategic board and its recommendations/decisions.

We are constantly improving visibility, so the potential users can learn about the existence of the reusable building blocks and evaluate possible use.

We have primarily developed the solution for the purpose of e-Social Security, but we have ensured their broad reusability.

So now we have several other information systems already using building blocks in their own information systems.

We sign a special organizational agreement with each new client institution, so the responsibilities and expectations are very clear.

A major challenge was how to offer the functionalities of the building blocks to those institutions which needed very specific adaptations that were not of use for any other client institutions. We have solved this by delivering the source code to the client institution, which they can adapt and implement it on their own, independently from the central interoperable solution.

**Partnerships:** Ministry of Labour, Family and Social Affairs.



Nature of the partnership: They are the owner of the business processes regarding the decisions on social support.

The Ministry of Social Affairs was/is responsible for the aspects of data processing and interpretation and for legal aspect; the Ministry of Public Administration is/was responsible for programme coordination and for developing powerful reusable building blocks which can be reused in other systems.

The partnership was very fruitful and essential, because they were the driver and provided the practical purpose for the development of this reusable system that can now also be used by other institutions.

### **Lessons learned**

1. For such a cross-cutting project, practically covering the whole government scope, and being of a very sensitive nature, you need strong and stable political support.
2. With so many stakeholders, you cannot and should not make extensive plans in advance, because there are many important facts that you cannot know and incorporate in the initial planning. You have to prepare to be agile and flexible, with the project management team and with the development teams.
3. In such a project, you will spend a lot of time and energy for risk management, for handling the planned and new risks that materialize very frequently.
4. In such systems, where personal data are processed and used for very delicate decisions, it is very useful to actively include the Information Commissioner or similar Data Protection authority, so data is sufficiently protected and security compliant “by design”.
5. The actual reuse of the reusable building blocks depends on the trust between institutions. You have to encourage trust and to act as a reliable partner if you want other institutions to rely their processes on your building blocks.
6. You have to provide stable and sustainable governance for the building blocks, including the reliable staffing and constant flexibility of the solution.

### **Conditions required:**

- political support
- flexible project management
- close cooperation of the institutions involved
- strong risk management
- data protection and security by design
- sustainability of the solution, trust



## Digital government toolkit



### Additional information:

The concept of the common application building blocks can bring huge savings for the development and for the operations of the IT systems.

This concept stretches beyond just one institution, so actual effects of that approach depend on the power and efficiency of cross-sectorial coordination.

Our common building blocks for electronic data gathering are highly reusable, flexible and scalable and now that we have business processes of many institutions depending on these building blocks it is necessary that we also ensure their sustainability.