

Interoperability Data for Slovenia, 2012

1. Interoperability as a strategic goal	
1.1. Strategic Priority on Interoperability	Yes (2011)
<p>The strategy of Slovenia is to have an interoperability governance and methodology to guide product developments and propagate the use of horizontal services. Within horizontal projects, data is stored in registers and the exact specifications are defined by the owners of the registers, which publish their own 'standard'. Sectorial projects are the consumers of those horizontal services. The application of this strategic objective is essential to ensure interoperability between all the institutions of public administration. An action plan was ready by the end of January 2010 and has an activity scope until 2015, but will be continued after this period. The European interoperability framework (EIF) is seen as an important input. Interoperability is on the agenda and is included in one of the strategic goals of the SREP. There is enough political support for awareness and enforcement [1].</p> <p style="text-align: right;">(2011) [9]</p>	
1.2. National Interoperability Strategy Status	Not available

2. National Interoperability Frameworks	
2.1. National Interoperability Framework Status	
2.1.1. Title	SIO (Slovenian Interoperability Framework) [10]
2.1.2. Version	Not applicable
2.1.3. Release Date	Not applicable
2.1.4. Focus / Scope	Governance, Conception, Implementation, Operation (2011) [10]
2.1.5. Audience	Government sector (2011) [9]
2.1.6. Status	Under development (2011)
2.1.7. Responsible Agency	Ministry of Public Administration (2011) [10]
2.2. Compatibility of National Interoperability Framework with the European Interoperability Framework	Yes (2011)
<p>(The Slovenian Interoperability Framework is still under development, the European interoperability framework (EIF) is seen though as an important input.)</p> <p style="text-align: right;">(2011) [9, 10]</p>	

3. Interoperability Projects and Activities	
3.1. Number of interoperability-related projects of local or national scope	Moderate
<p>National-Public Administration Portal:</p> <ul style="list-style-type: none"> - The State Portal of the Republic of Slovenia (http://e-uprava.gov.si/e-uprava/) which is the entry point for some sub-portals, such as: <ul style="list-style-type: none"> - e-VEM (Slovenia's one-stop-shop state portal for business) aiming to provide a suitable information support for the future entrepreneur and enable him/her to start with business operations in the shortest time possible [2]. - Employment on the state eGov portal of the Republic of Slovenia which publishes available jobs and student work and enables collecting employment offers and search in the database with the help of different communication channels (internet, wap) [3]. 	

E-Government Backbone: -

Research & Education Network: EU-Funded

Environmental Geoportal: EU-Funded

Marine Data Management Infrastructure: EU-Funded

Legislation & e-Justice System: -

e-Health System: EU-Funded

e-Tax Portal & Infrastructure: -

Other projects:

- The **human resource interface** (<http://evem.gov.si/evem/cms/page/hrs>) on e-VEM portal - the one-stop shop (OSS) for businesses in Slovenia, through which business entities and public bodies can perform online the compulsory registration of the newly hired staff with the social insurance authority, directly through their respective human resource systems [1].
- **Online registration** for certain small and medium-sized companies (SMEs) [1].
- **eNotifications** of birth service, as part of a new pilot system which will be rolled out to more maternity wards in the future [1].
- **Prostor** (Real Estate Market Register), that demonstrates the possibility of connecting the private and the public sector and the benefits of such a connection, as well as the IT supported solution, which enables real estate agencies dealing with real estate transactions to use the state information infrastructure and at the same time enables the state to acquire data it requires for the decision-making procedures in preparing different strategic policies in the areas of information society, spatial planning, agricultural and land policy and tax reform (<http://prostor.gov.si>) [4].
- **eCRP flags** (eCRP flags - Massive data exchange between public institutions), enabling high-volume exchange of personal data from the Central Register of Population to the different institutions of public administration (<http://ecrp.gov.si>) [5].

[1, 2, 3, 4, 5]

3.2. Number of EU-funded interoperability-related projects

Moderate (2011)

3.2.1. Indicative projects

- **STORK** (Secure identity acrOss boRders linKed) whose aim is to ensure the cross-border recognition of national electronic identity (eID) systems in 13 Member States (Slovenia included), so as to enable the cross-border provision of online services. The project will establish a number of trans-border pilot projects based on existing national eID systems and will allow citizens to identify themselves electronically in a secure manner using their national electronic identity (eID via electronic cards or other means), and deal with foreign public administrations either from public offices, from their PC, or ideally, from any other mobile device (<https://www.eid-stork.eu/>) [3].
- **CALLIOPE** (CALL for InterOPERability) project, aiming to promote an effective uptake of and advance eHealth interoperability (<http://www.calliope-network.eu/>) [8].

- **OGE** (OneGeology-Europe) accelerating the development and deployment of a nascent international interchange standard for geology, GeoSciML, enabling the sharing of data within and beyond the geological community. It facilitates the re-use of geological data by a wide spectrum of public and private sector users. It addresses the licensing and multilingual aspects of access and move geological knowledge closer to the end user where it will have greater societal impact. The project provides examples of best practice in the delivery of high resolution digital geological spatial data to users, e.g. in the insurance, property, engineering, mineral resource and environmental sectors (<http://onegeology-europe.org/home>) [9].
- **ECRN** (European Civil Registry Network) offering an innovative solution to run the first secure electronic exchange of acts (birth, marriage, divorce, death) that complies with the Wien Convention 1976 on Multilingual Documents and representing the interoperability layer among the national systems (<http://www.ecrn.eu>) [10].
- **GMOS** (Global Mercury Observation System, Nov 2010 – Oct 2015) aiming to develop a coordinated global observation system for mercury able to provide temporal and spatial distributions of mercury concentrations in ambient air and precipitation over land and over surface waters at different altitudes and latitudes around the world. (<http://www.gmos.eu/>) [11].
- **EGEE-III** (Enabling grids for e-science III, May 2008 – April 2010), to expand, optimize and simplify the use of Europe's largest production Grid by continuous operation of the infrastructure, support for more user communities, and addition of further computational and data resources, and prepare the migration of the existing Grid from a project-based model to a sustainable federated infrastructure based on National Grid Initiatives. By strengthening interoperable, open source middleware, EGEE-III will actively contribute to Grid standards and will ensure that the European Grid does not fragment into incompatible infrastructures of varying maturity, but constitutes a world class, coherent and reliable infrastructure (<http://www.eu-egee.org/>) [12].
- **SeaDataNet** (Pan-European Infrastructure for Ocean and Marine Data Management, April 2006 – March 2011), aiming to develop an efficient distributed Pan-European Marine Data Management Infrastructure for managing large and diverse marine research data sets, and to network the existing professional data centers of 35 countries, active in data collection, and provide integrated databases of standardized quality on-line (<http://www.seadatanet.org/>) [13].
- **SeaDataNet II** (Pan-European infrastructure for ocean and marine data management, Oct 2011- Sept 2015), aiming to upgrade the present SeaDataNet infrastructure into an operationally robust and state-of-the-art Pan-European infrastructure for providing up-to-date and high quality access to ocean and marine metadata, data and data products originating from data acquisition activities by all engaged coastal states, by setting, adopting and promoting common data management standards and by realising technical and semantic interoperability with other relevant data management systems and initiatives on behalf of science, environmental management, policy making, and economy (<http://www.seadatanet.org/>) [14].
- **COIN** (Collaboration and interoperability for networked enterprises, Jan 2008 – Dec 2011), aiming to study, design, develop and prototype an open, self-adaptive, generic ICT integrated solution to support the above 2020 vision of Enterprise collaboration and Interoperability services becoming an invisible, pervasive and self-adaptive knowledge and business utility at disposal of the European networked enterprises from any industrial sector and domain in order to rapidly set-up, efficiently manage and effectively operate different forms of business collaborations, from the most traditional supply chains to the most advanced and dynamic business ecosystems (<http://www.coin-ip.eu/>) [15].

- **MONDILEX** (Conceptual modeling of networking of centers for high-quality research in Slavic Lexicography and their digital resources, April 2008 – March 2010) aiming to design the conceptual scheme of a research infrastructure supporting the networking of centers for high-quality research in Slavic lexicography, fostering their scientific capacity, integrating their digital resources and opening them up to the European academic community (<http://www.mondilex.org/>) [16].
- **ODYSSEY** (Strategic pan-European ballistics intelligence platform for combating organised crime and terrorism, Nov 2008 – April 2011), aiming to create and develop secure interoperable situation awareness platform for the EU to combat organised crime and terrorism (<http://research.shu.ac.uk/aces/odyssey/>)[17].
- **EURIDICE** (European inter-disciplinary research on intelligent cargo for efficient, safe and environment-friendly logistics, Feb 2008 – Oct 2011), to improve the logistics, business processes and public policy aspects of freight transportation through the establishment of an information services platform that will support “on the fly” combination of services between user, context and cargo utilizing a number of advanced features and technologies, e.g. SOA architectures incorporating mobile technologies, interoperability between heterogeneous environments, advanced security features, semantic web and domain ontologies, advanced context technologies, distributed intelligent agencies etc. (<http://www.euridice-project.eu/>) [18].
- **GS Soil** (Assessment and strategic development of INSPIRE compliant Geodata-Services for European Soil Data) aiming, through state-of-the-art methodologies and best practice examples, to improve harmonization of national datasets and make them more accessible and exploitable within Europe. Therefore, the consortium contributes to the INSPIRE implementation with specific reference to a cluster of data themes on nature conservation (as per the INSPIRE Annexes) (<http://www.gssoil.eu/>) [19].

(2011) [11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23]

4. National Interoperability Practices

4.1. Number of Interoperability Cases with Good Practice Label	Low
<ul style="list-style-type: none"> - e-VEM (Slovenia's one-stop-shop state portal for business), aiming to provide suitable information support for the future entrepreneur and enable him/her to start with business operations in the shortest time possible [2, 6, 7]. (Capgemini Good Practice Label 2009, 2010) - eCRP flags (eCRP flags - Massive data exchange between public institutions), enabling high-volume exchange of personal data from the Central Register of Population to the different institutions of public administration (http://ecrp.gov.si) [5, 6, 7]. (Capgemini Good Practice Label 2009, 2010) 	
[2, 5, 6, 7]	
4.2. Best Interoperability Practice	
4.2.1. Title	e-VEM (Slovenia's one-stop-shop state portal for business) (2011)
4.2.2. Description	

The basic purpose of the e-VEM project is to provide a suitable information support for the future entrepreneur and enable him/her to start with business operations in the shortest time possible. The information support would provide a unified support regardless of the type of entrance into the system. The support will be the same for the submission of electronic application for registration of a future entrepreneur via internet as well as for the submission of application, which has been made for the entrepreneur by an advisor (person) that is offering support and help to the entrepreneur on one of the local entry points. The entry points can be virtual, telephone or physical. The e-VEM Project offers information support to all enumerated entry points. This way the unification of the procedures is achieved and all information is gathered in one spot. In addition, excellent information support is provided for the advisors at all local entry points. Besides that, realization can be carried out in the shortest time possible (<http://e-uprava.gov.si/e-uprava/>).

[2, 6, 7]

4.2.3. Status

Ongoing since January 2005. Operational since July 2005.

(2011)

4.2.4. Indicative interoperability aspects covered

- Technical
- Semantic
- Organizational
- Legal
- Standardization
- Assessment

(2011)

4.2.5. Impact

Impact:

- Direct access to data without middlemen, higher accuracy at filling in the forms, complete automatization of business.
- Links to e-CRP and other register with a goal of data exchange (Ministry of Labour, Family and Social Affairs, Pension and Disability Insurance Institute, Administrative units, Ministry of Agriculture, Forestry and Food, Clearing and Depositary Company, Health Insurance Institute, Alimony Fund, Ministry of Justice, Supreme Court, Maternity hospitals, etc.). Higher accuracy of decisions, quicker matter solving, elimination of delays, less indirect contacts, bigger transparency of procedures, etc.
- e-VEM (s.e. registration): 400.000 euros (8.000 changes/year x 1 day = 8.000 working days, without considering expenses for collecting confirmations, applications, removal of application of an employee, notaries, etc.) The calculation was made on the assumption that for each confirmation 2 hours are necessary, which was multiplied with the price of an hour. The source for the calculation was average salary in Slovenia, stated by SURS (Statistical Office of the RS).
- All further effects will be measured, mostly satisfaction of the users, which is our number one priority. After that the effects will be measured that occur within the bodies of the public administration, and which must not be neglected. Positive effects from the G2G relationships have an indirect influence on the use of the budget and consequently on the taxation of the citizens and business subjects. This way the well being of the citizens and economic development can be improved, which is the main drive of each state.

Lessons Learnt:

- Problematic is the coordination of various institutions of the public administration, which must be actively included in the project.
- Problematic is also implementation of a public tender for selecting external implementer of information solutions since other implementation deadlines depend on them. Clear division of VEM and e-VEM project is important in order to avoid double carrying out activities and unnecessary clarifications and loss of time. Each project manager and competent ministry must competently do their part of work and be responsible for not carrying out the project.
- Problematic is non-up-to-date reporting of an individual group about the progress in carrying out the activity on the project. Keeping the deadlines represents a high risk level, mostly due to impacts on which the project management has no influence (e.g.: carrying out of the public order) or identification of additional problems regarding connecting subsystems of the institutions of the public administration, which are not possible to discover at the preparation of the VDP (Project Concept Document). Providing financial means for achieving goals represents a lower risk level since the estimations for the implementation of Phase 1 are quite clear.
- The following project phases are confirmed with additional VDPs; the risk level is estimated at that specific point. Specific risk level may represent unknown expenses when discovering additional problem regarding connection of central e-VEM modules with subsystems for the needs of data exchange and consequently bigger expenses imposed by subsystems. Regarding the fact that data exchange procedures are extremely standardized, it is estimated that there should be no bigger problems regarding data exchange. In subsystems where the level of informatization is low, the procedures must be adjusted to their level of development; the procedures are automatized gradually.

(2011)

5. e-Government Interoperability

5.1. Interoperability Level of core e-Government services to citizens / businesses	95.0% (2010) [24]
5.2. Connected Government Status	1.33% (2008) [25]

6. e-Business Interoperability

6.1. Intra-organizational Integration Level	48.0% [8]
6.2. Cross-organization Integration Level	75.0% [8]
6.3. Cross-organization Application-to-Application Integration Level	25.0% [8]
6.4. e-Invoicing Status	10.0% [8]
6.5. B2B Data Standards Usage	
6.5.1. EDI-based standards	<i>Not available</i>
6.5.2. XML-based standards	<i>Not available</i>
6.5.3. Proprietary standards	<i>Not available</i>
6.5.4. other technical standards	<i>Not available</i>
6.6. Interoperability Awareness	
6.6.1. Within their sector	<i>Not available</i>
6.6.2. Between sectors	<i>Not available</i>
6.6.3. For producing or providing products and services	<i>Not available</i>

 **Interoperability Barometer**

References

1. ePractice.eu. (2011). "eGovernment factsheets: eGovernment in Slovenia", Edition 15.0, October 2011. Retrieved from <http://epractice.eu/files/eGovernmentSlovenia.pdf>.
2. ePractice.eu Cases: Slovenia's one-stop-shop state portal for business. Retrieved from <http://www.epractice.eu/en/cases/evem> (Last Edited Date: 18 July 2008).
3. ePractice.eu Cases: Employment on the state eGov portal of the Republic of Slovenia. Retrieved from <http://www.epractice.eu/en/cases/euprava> (Last Edited Date: 12 July 2006).
4. ePractice.eu Cases: Real Estate Market Register. Retrieved from <http://epractice.eu/en/cases/prostor> (Last Edited Date: 24 August 2006).
5. ePractice.eu Cases: eCRP flags - Massive data exchange between public institutions. Retrieved from <http://www.epractice.eu/en/cases/ecrpflags> (Last Edited Date: 16 December 2009).
6. Capgemini. (2009). "Smarter, Faster, Better eGovernment", 8th Benchmark Measurement, November 2009. Retrieved from link.
7. Capgemini. (2010). "Digitizing Public Services in Europe: Putting ambition into action" (9th Measurement, December 2010). Retrieved from link.
8. European Commission – Eurostat: Information society statistics, Policy indicators. Retrieved from <http://epp.eurostat.ec.europa.eu/>
9. ePractice.eu Factsheets: Slovenia Interoperability Factsheet. Retrieved from <http://epractice.eu/files/Slovenia.pdf>.
10. Gartner. (2009). NIFO project – Final report: "A Report for European Commission Directorate General for Informatics", Version 130, May 2009. Retrieved from <http://www.epractice.eu/files/NIFO%20project%20-%20Final%20report.pdf>.
11. ePractice.eu. (2011). "eGovernment factsheets: eGovernment in Slovenia", Edition 14.0, February 2011. Retrieved from <http://epractice.eu/files/eGovernmentSlovenia.pdf>.
12. ePractice.eu Cases: CALL for InterOPERability. Retrieved from <http://www.epractice.eu/en/cases/calliope> (Last Edited Date: 09 November 2009).
13. ePractice.eu. Cases: OneGeology-Europe. Retrieved from <http://www.epractice.eu/en/cases/oge> (Last Edited Date: 24 November 2010).
14. ePractice.eu. Cases: European Civil Registry Network. Retrieved from <http://www.epractice.eu/en/cases/ecrn2009> (Last Edited Date: 25 January 2010).
15. European Commission – CORDIS: Global Mercury Observation System (GMOS). Retrieved from link (Update Date: 2011-09-15).
16. European Commission - CORDIS: Enabling grids for e-science III (EGEE-III). Retrieved from link (Update Date: 2011-07-19).
17. European Commission – CORDIS: SeaDataNet - A Pan-European Infrastructure for Ocean And Marine Data Management. Retrieved from link (Update Date: 2011-03-31).
18. European Commission – CORDIS: SeaDataNet II- A Pan-European Infrastructure for Ocean And Marine Data Management. Retrieved from link (Update Date: 2011-09-13).
19. European Commission - CORDIS: Collaboration and interoperability for networked enterprises (COIN). Retrieved from link (Update Date: 2011-05-26).
20. European Commission - CORDIS: Conceptual modelling of networking of centres for high-quality research in Slavic Lexicography and their digital resources (MONDILEX). Retrieved from link (Update Date: 2011-06-30).

21. European Commission - CORDIS: Strategic pan-European ballistics intelligence platform for combating organised crime and terrorism (ODYSSEY). Retrieved from link (Update Date: 2011-10-21).
22. European Commission - CORDIS: European inter-disciplinary research on intelligent cargo for efficient, safe and environment-friendly logistics (EURIDICE). Retrieved from link (Update Date: 2011-01-17).
23. ePractice.eu. Cases: GS Soil: Assessment and strategic development of INSPIRE compliant Geodata-Services for European Soil Data. Retrieved from <http://epractice.eu/en/cases/gssoil> (Last Edited Date: 18 January 2012).
24. Capgemini. (2010). "Digitizing Public Services in Europe: Putting ambition into action" (9th Measurement, December 2010). Retrieved from link.
25. United Nations. (2008). "eGovernment Survey 2008: From eGovernment to Connected Governance", New York 2008. Retrieved from link.