Interoperability Data for Slovakia, 2012

1. Interoperability as a strategic goal

1.1. Strategic Priority on Interoperability	Yes *(2011)*

The *eGovernment Strategy of the Slovak Republic* is a crucial document that sets out the strategic objectives of eGovernment implementation and defines political particular steps towards the modernisation of public administration and digitalisation of its services. Interoperability is seen as an important prerequisite for this from a political viewpoint.

(2011) [7]

1.2. National Interoperability Strategy Status	*Not available*

2. National Interoperability Frameworks

2.1. National Interoperability Framework Status

2.1.1. Title	*Not applicable*
2.1.2. Version	*Not applicable*
2.1.3. Release Date	*Not applicable*
2.1.4. Focus / Scope	*Not applicable*
2.1.5. Audience	*Not applicable*
2.1.6. Status	Planned *(2011)*

Alternatives exist.
There is a "National Concept of Public Administration e-Government.

(2011) [8]

2.1.7. Responsible Agency	(Ministry of Finance is responsible for the interoperability initiatives and is assisted by a committee for standardisation (advisory board), which holds representatives of private and public sectors.) *(2011)* [7]

2.2. Compatibility of National Interoperability Framework with the European Interoperability Framework	*Not applicable*

(In January 2007, the Ministry of Transport, Posts and Telecommunications put forward draft Legislation on the setting up of a National framework for the interoperability of the public information system. The proposed legislation set out criteria for the interconnection of national information systems and the link-up of these systems with other EU information systems, in accordance with the European Interoperability Framework for pan-European eGovernment Services.)

[1]

3. Interoperability Projects and Activities

3.1. Number of interoperability-related projects of local or national scope	Low

National-Public Administration Portal:

- **Central Metainformation System of Public Administration – MetaIS** (February 2011). The MetaIS incorporates the concepts of the public administration information system, which are further developed by public administration bodies and submitted to the Ministry of Finance for approval. It also serves and supports designers and developers of e-Services, namely by the data on the content of operating and planning services, technical and functional specifications, performance parameters and publishing services into the Universal Description Discovery and Integration (UDDI) format [1].

E-Government Backbone: -
Research & Education Network: EU-Funded

Environmental Geoportal: EU-Funded
Marine Data Management Infrastructure: -

Legislation & e-Justice System: -
e-Health System: EU-Funded

e-Tax Portal & Infrastructure: -
Other projects:
- **eSluzbyOR** (The e-Services of Slovakia's Business Register), providing e-services for citizens and businessmen through an internet portal accessible for everyone. Services provided electronically are, among others: proposal for registration, change and deletion of companies; request of extracts from BR; copies of electronic documents from collection of deeds (CoD), etc. The main objective of this service is to achieve faster and easier access to the information about companies and facilitate the establishment of new companies in Slovakia by electronic means (http://portal.gov.sk/Portal/sk/Default.aspx) [2].
- **ROPKSK** (Registry of Surplus State-Owned Immovable property offered by special invitation to tender) representing a publicly available registry of state-owned immovable property that has been declared surplus (redundant) and is being offered for sale. The purpose of establishing ROPK is to expand the range of potential candidates interested in purchasing state-owned immovable property and to increase the transparency of the use of state-owned immovable property through notifying the public about the sale results (http://www.ropk.sk/index/index.php) [3].

[1, 2, 3]

3.2. Number of EU-funded interoperability-related projects	Moderate *(2011)*
3.2.1. Indicative projects	

- **NATURE-SDIplus** (Best Practice Network for SDI in Nature, Oct 2008 - July 2011), aiming to improve harmonization of national datasets on nature conservation and make them more interoperable, accessible and exploitable, by developing the NATURE-SDIplus geoportal, to permit recovery of metadata, data and services, and involving stakeholders, data and best practices sharing (http://www.nature-sdi.eu/) [6].
- **OGE** (OneGeology-Europe, Sep 2008 – Aug 2010) on the development and deployment of a nascent international interchange standard for geology, GeoSciML, enabling the sharing of data within and beyond the geological community, and facilitating thus the re-use of geological data by a wide spectrum of public and private sector users, while addressing licensing and multilingual aspects of access, and moving geological knowledge closer to the end user where it has greater societal impact. The project has brought together a web-accessible, interoperable geological spatial dataset for the whole of Europe at 1:1 million scale based on existing data held by the pan-European Geological Surveys (http://onegeology-europe.org/home) [7].

- **NET-EUCEN** (European Network for Enhanced User Centricity in eGovernment, April 2010 -) to create, animate and manage a working network of stakeholders in the Governance, User Centricity and Policy Modelling domains belonging to all European countries, and covering the whole range of Services for Users (S4U), and with the aim, among others, to identify opportunities for interoperability and standardization in the aforementioned domains, raise awareness, and provide guidelines and recommendations (http://www.net-eucen.org/) [8].

- **SAKE** (Semantic-enabled Agile Knowledge-based eGovernment, April 2006 – March 2009) project to facilitate knowledge management (knowledge personalization, proactivity and transferring as well as integration of structured and unstructured data) in the public sector (http://www.sake-project.org/) [9].

- **Access-eGov** (Access to e-Government Services Employing Semantic Technologies) project to develop and validate a platform for composition of government services into complex process definitions (covering life events/business episodes) enabling semantic interoperability of particular e-Government services (http://www.access-egov.org/acegov/web/uk/index.jsp) [10].

- **EPSOS** (European Patients Smart Open Services) project aiming to build and evaluate a service infrastructure demonstrating cross-border interoperability between Electronic Health Record Systems in Europe (http://www.epsos.eu/) [11].

- **PROTECTRAIL** (The Railway-Industry Partnership for Integrated Security of Rail Transport, Sep 2010 – Feb 2014), aiming to make single asset-specific solutions for railway security interoperable and to conceive and design a modular architectural framework, where each one of the latter can be plugged (http://www.protectrail.eu/About-Protectrail) [12].

- **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/) [13].

- **SECRICOM** (Seamless communication for crisis management, Sep 2008 – April 2012), targeting the development of a reference security platform for EU crisis management operations with the ambition to solve or mitigate problems of contemporary crisis communication infrastructures, such as poor interoperability of specialized communication means, vulnerability against tapping and misuse, lack of possibilities to recover from failures, inability to use alternative data carrier and high deployment and operational costs, and to add new smart functions to existing services which will make the communication more effective and helpful for users, based four technological pillars, namely i. secure encrypted mobile communication on existing infrastructures, ii. Improved interoperability among various existing communicating systems, iii. introduction of distributed systems and the agent paradigm forming a smart negotiating system for parameterization and independent handling of requests suitable for rapid reaction use, and iv. security based on trusted hardware enhancing the confidentiality of data and the privacy of users (http://www.secricom.eu/) [14].

- **MOBI3CON** (Developing mobile 3d data collection, processing and dissemination solution for construction SME-s, Jan 2009 – June 2011), aiming to develop a rugged and robust handheld 3D navigation and 3D data processing system, usable on construction sites, and enabling easy 3D data management, and interconnection and interoperability with generally accepted engineering software tools and existing 3D data processing systems respectively (http://mobi3con.eii.ee/) [15].

- **COMMIUS** ("COMMunity-based Interoperability Utility for SMEs", Feb 2008 – Jan 2011) to deliver an adaptable and customisable software prototype, providing SMEs with 'zero-cost of entry' into interoperability using the ideas behind the Interoperability Service Utility, and supporting thereby new business models (http://www.commius.eu/) [16, 17].

- **MONDILEX** (Conceptual modeling of networking of centers for high-quality research in Slavic Lexicography and their digital resources) 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/) [18].

- **EMI** (European Middleware Initiative, May 2010 – April 2013), to deliver a consolidated set of middleware components for deployment in EGI, PRACE and other DCIs, extend the interoperability between grids and other computing infrastructures, strengthen the reliability of the services, and establish a sustainable model to maintain and evolve the middleware, fulfilling the requirements of the user communities (http://www.eu-emi.eu/) [19].

- **VENIS** (Virtual Enterprises by Networked Interoperability Services, Sep 2011 – Feb 2014), aimed at providing the a new level of interoperability between Large and Small Enterprises, according to Virtual Enterprise paradigm, including a distributed web-based repository which will be implemented in order to connect the existing information systems, a set of lightweight web services which will be developed for a smart exchange of the common data based on legacy email systems and the local business processes which will be modeled and linked by a distributed business engine mechanism, in order to assist the work in joint businesses and create novel synergies in marketing competition (http://www.venis-project.eu/) [20].

- **EBBITS** (Enabling business-based Internet of Things and Services - An Interoperability platform for a real-world populated Internet of Things domain, Sep 2010 – Aug 2014), aiming to develop architecture, technologies and processes, which allow businesses to semantically integrate the Internet of Things into mainstream enterprise systems and support interoperable real-world, on-line end-to-end business applications (http://www.ebbits-project.eu/news.php) [21].

- **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/) [22].

(2011) [9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25]

4. National Interoperability Practices

4.1. Number of Interoperability Cases with Good Practice Label	Low

- **eSluzbyOR** (The eServices of Slovakia's Business Register), providing e-services for citizens and businessmen through an internet portal accessible for everyone. Services provided electronically are, among others: proposal for registration, change and deletion of companies; request of extracts from BR; copies of electronic documents from collection of deeds (CoD), etc. The main objective of this service is to achieve faster and easier access to the information about companies and facilitate the establishment of new companies in Slovakia by electronic means (http://portal.gov.sk/Portal/sk/Default.aspx) [2, 4, 5].
(Capgemini Good Practice Label 2009, 2010)

- **ROPKSK** (Registry of Surplus State-Owned Immovable property offered by special invitation to tender) representing a publicly available registry of state-owned immovable property that has been declared surplus (redundant) and is being offered for sale. The purpose of establishing ROPK is to expand the range of potential candidates interested in purchasing state-owned immovable property and to increase the transparency of the use of state-owned immovable property through notifying the public about the sale results. (http://www.ropk.sk/index/index.php) [3, 4].
(Capgemini Good Practice Label 2009)

[2, 3, 4, 5]

4.2. Best Interoperability Practice	
4.2.1. Title	eSluzbyOR (The eServices of Slovakia's Business Register) *(2011)*

4.2.2. Description

eSluzbyOR (The eServices of Slovakia's Business Register), providing e-services for citizens and businessmen through an internet portal accessible for everyone. Services provided electronically are, among others: proposal for registration, change and deletion of companies; request of extracts from BR; copies of electronic documents from collection of deeds (CoD), etc. The main objective of this service is to achieve faster and easier access to the information about companies and facilitate the establishment of new companies in Slovakia by electronic means (http://portal.gov.sk/Portal/sk/Default.aspx) [2, 4, 5].
(Capgemini Good Practice Label 2009, 2010)

[2, 4, 5]

4.2.3. Status

Operational since August 2007. Ongoing since March 2006.

(2011)

4.2.4. Indicative interoperability aspects covered

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

(2011)

4.2.5. Impact

Impact:
After the first 10 months of operation, courts accepted 623 eProposals and denied 176 eProposals for formal errors. In these 10 months more than 30.000 eDocuments (electronic extracts and deeds) were processed and sent to requesters.

Impacts and benefits of the eServices of the Business Register:
- Clear cut-down of fees for citizens and businessmen
- Documents from Business register (extracts, documents from collection of deeds, confirmations) are available in electronic form
- Creation, change or deletion of company is possible from any internet point without need to visit court.
- Paper documents are delivered by post office without need to visit court.

Lessons Learnt:

- The main condition of such projects is to have unchallenged, univocal and understandable legal regulation.
- People who work in the project have to be experts. All members of the team have to cooperate properly. It is important that all people understand well that this is the right way to follow.
- Qualified electronic signature which is used in the electronic documents has to be maintainable, verifiable and archivable.

(2011)

5. e-Government Interoperability

5.1. Interoperability Level of core e-Government services to citizens / businesses	63.0% *(2010)* [26]
5.2. Connected Government Status	0.7% *(2008)* [27]

6. e-Business Interoperability

6.1. Intra-organizational Integration Level	56.0% [6]
6.2. Cross-organization Integration Level	56.0% [6]
6.3. Cross-organization Application-to-Application Integration Level	40.0% [6]
6.4. e-Invoicing Status	35.0% [6]
6.5. B2B Data Standards Usage	
6.5.1. EDI-based standards	*Not available*
6.5.2. XML-based standards	*Not available*
6.5.3. Proprietary standards	*Not available*
6.5.4. other technical standards	*Not available*
6.6. Interoperability Awareness	
6.6.1. Within their sector	*Not available*
6.6.2. Between sectors	*Not available*
6.6.3. For producing or providing products and services	*Not available*

References

1. ePractice.eu. (2011). "eGovernment factsheets: eGovernment in Slovakia", Edition 15.0, October 2011. Retrieved from http://epractice.eu/files/eGovernmentSlovakia.pdf.

2. ePractice.eu Cases: The eServices of Slovakia's Business Register. Retrieved from http://epractice.eu/en/cases/skesluzbyor (Last Edited Date: 16 October 2008).

3. ePractice.eu Cases: Registry of Surplus State-Owned Immovable property offered by special invitation to tender. Retrieved from http://epractice.eu/en/cases/ropksk (Last Edited Date: 10 May 2009).

4. Capgemini. (2009). "Smarter, Faster, Better eGovernment", 8th Benchmark Measurement, November 2009. Retrieved from link.

5. Capgemini. (2010). "Digitizing Public Services in Europe: Putting ambition into action" (9th Measurement, December 2010). Retrieved from link.

6. European Commission – Eurostat: Information society statistics, Policy indicators. Retrieved from http://epp.eurostat.ec.europa.eu/.

7. ePractice.eu Factsheets: Slovakia Interoperability Factsheet. Retrieved from http://epractice.eu/files/Slovakia.pdf.

8. 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.

9. ePractice.eu Cases: NATURE-SDIplus: Best Practice Network for SDI in Nature. Retrieved from http://www.epractice.eu/en/cases/naturesdi (Last Edited Date: 21 December 2010).

10. ePractice.eu. Cases: OneGeology-Europe. Retrieved from http://www.epractice.eu/en/cases/oge (Last Edited Date: 24 November 2010).

11. ePractice.eu. Cases: European Network for Enhanced User Centricity in eGovernment. Retrieved from http://www.epractice.eu/en/cases/neteucen (Last Edited Date: 02 November 2010).

12. ePractice.eu Cases: SAKE: Semantic-enabled Agile Knowledge-based e-Government. Retrieved from http://www.epractice.eu/en/cases/sake (Last Edited Date: 01 February 2010).

13. ePractice.eu Cases: Access to eGovernment Services Employing Semantic Technologies. Retrieved from http://www.epractice.eu/en/cases/accessegov (Last Edited Date: 02 November 2009).

14. ePractice.eu Cases: Large Scale Pilot of Patient Summary and electronic Prescription. Retrieved from http://www.epractice.eu/en/cases/epsos (Last Edited Date: 20 October 2009).

15. European Commission - CORDIS: The Railway-Industry Partnership for Integrated Security of Rail Transport (PROTECTRAIL). Retrieved from link (Update Date: 2011-11-29).

16. European Commission - CORDIS: Enabling grids for e-science III (EGEE-III). Retrieved from link (Update Date: 2011-07-19).

17. European Commission - CORDIS: Seamless communication for crisis management (SECRICOM). Retrieved from link (Update Date: 2011-11-22).

18. European Commission - CORDIS: Developing mobile 3d data collection, processing and dissemination solution for construction SME-s (MOBI3CON). Retrieved from link (Update Date: 2011-07-11).

19. ePractice.eu Cases: Community-based Interoperability Utility for SMEs. Retrieved from http://www.epractice.eu/en/cases/commius (Last Edited Date: 10 May 2009).

20. European Commission - CORDIS: Community-based Interoperability utility for SMEs (COMMIUS). Retrieved from link (Update Date: 2011-07-22).

21. 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).

22. European Commission - CORDIS: European Middleware Initiative (EMI). Retrieved from link (Update Date: 2011-08-23).

23. European Commission - CORDIS: Virtual Enterprises by Networked Interoperability Services (VENIS). Retrieved from link (Update Date: 2011-09-23).

24. European Commission - CORDIS: Enabling business-based Internet of Things and Services - An Interoperability platform for a real-world populated Internet of Things domain (EBBITS). Retrieved from link (Update Date: 2010-11-23).

25. 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).

26. Capgemini. (2010). "Digitizing Public Services in Europe: Putting ambition into action" (9th Measurement, December 2010). Retrieved from link.

27. United Nations. (2008). "eGovernment Survey 2008: From eGovernment to Connected Governance", New York 2008. Retrieved from http://unpan1.un.org/intradoc/groups/public/documents/UN/UNPAN028607.pdf.