

Location interoperability best practices: ISA² ELISE action and Slovakia positioning



30/09/2021 at 10:30 CEST

Effective Management of Spatial Data and Services (ESPUS) to support the implementation of INSPIRE in the Slovak Republic

European Location Interoperability
Solutions for e-Government

*Enabling Digital Government through
Geospatial and Location Intelligence*

Our presenters



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Deloitte

What we will cover today

- 1 ELISE overview
- 2 Location Interoperability Framework: Guidance and monitoring
- 3 Slovakia location interoperability state of play
- 4 Beyond ELISE?
- 5 Questions

1

ELISE overview

A BIT OF HISTORY...

2004

IDABC: Interoperable Delivery of European eGovernment Services

2010

ISA: Interoperability solutions for public administrations

Actions:

EULF
ARE3NA

2016

ISA²: Interoperability Solutions for European Public Administrations, Businesses and Citizens

ELISE

2021

DIGITAL: Digital Europe Programme

ELISE builds upon the outcomes of the former ISA actions EULF and ARE3NA. It is the only action of the ISA² Programme, aiming to improve Digital Government through Location Interoperability.



WHAT?

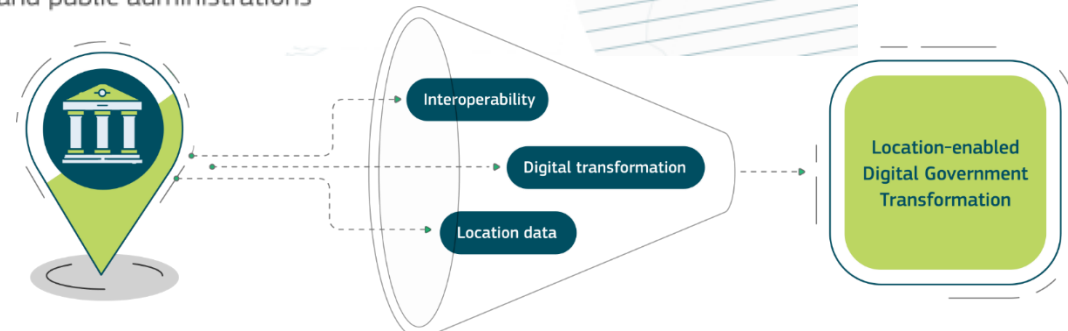
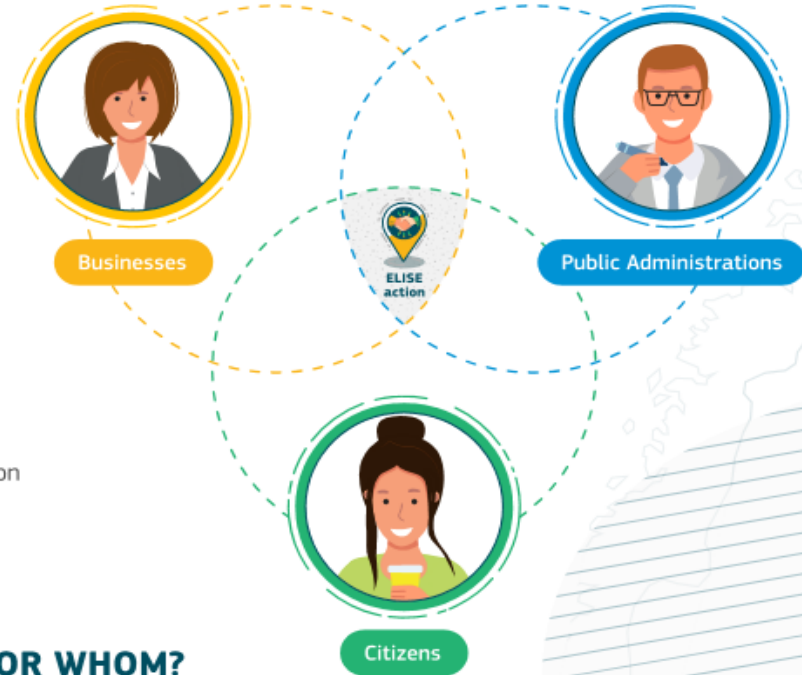
ELISE stands for **E**uropean **L**ocation **I**nteroperability **S**olutions for e-Government. It is one of the more than 50 actions in the European Interoperability Programme ISA².

WHAT FOR?

To support Digital Government Transformation by making the best use of location data and technologies in an interoperable manner

FOR WHOM?

For all: citizens, businesses and public administrations



ELISE outputs and topics



41 Studies



1 Framework (Guidance/Monitoring)
11 Solutions



6 Applications



52 Webinars / 22 Workshops

ELISE impact in numbers

More than 10,000
interactions with ELISE
over the
past 6 years

Evolution of Spatial Data
Infrastructures

Support of data ecosystems

Technologies for location
-enabled innovation

Collaboration models

Spatial skills for Digital
Government Transformation

Location data privacy

Improving access to spatial
datasets

Supporting cross-border
and cross-sector data sharing

Location intelligence for policy
and digital public services

Supporting innovation, growth
and Return of Investment

Managing data quality

Supporting the creation of
common EU public services

Some ELISE achievements

- ✓ Complemented EIF and NIFO with a location interoperability framework (EULF Blueprint) and state of play assessment (LIFO)
- ✓ EULF Blueprint cross-reference with UN-GGIM Integrated Geospatial Information Framework (IGIF)
- ✓ Helped put the INSPIRE Directive into practice with tools for data providers (e.g. Reference Validator, Re3gistry)
- ✓ Built a large community of European and international stakeholders
- ✓ Raised awareness on new approaches to location-enabled digital government transformation
- ✓ Assessed role of SDIs in future business models, e.g. data ecosystems, digital platforms
- ✓ Assessed new policies (e.g. GDPR, European Data Strategy) and technologies (e.g. APIs, AI, blockchain)
- ✓ Promoted and facilitated better links on location data between public and private actors
- ✓ Helped generate value from public sector location data through assessing barriers and solutions, providing guidance on benefit realisation, and best practice illustrations

2

*Location Interoperability Framework:
Guidance and monitoring*

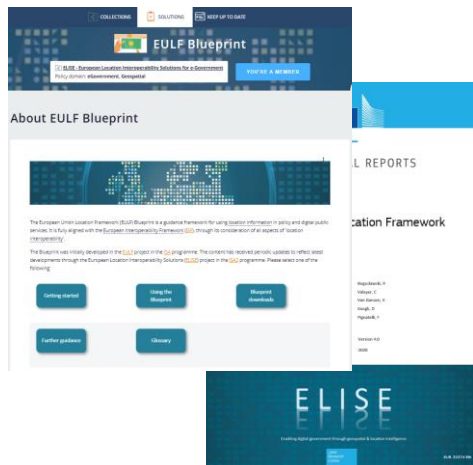
What is location interoperability?

“ *Location interoperability is the ability of organisations, systems and devices to exchange and make use of location data with a coherent and consistent approach* ”



European Union Location Framework (EULF) Blueprint – What is it?

A **European ‘location interoperability framework’** with **recommendations** and **guidance** for the exchange and use of location information in government policy and digital public services, allied closely to the interoperability principles and scope of the **EIF**




 **5 FOCUS AREAS**

 **19 RECOMMENDATIONS**

 **6 ROLES**

 **2 RELATED FRAMEWORKS**

 **49 BEST PRACTICES**

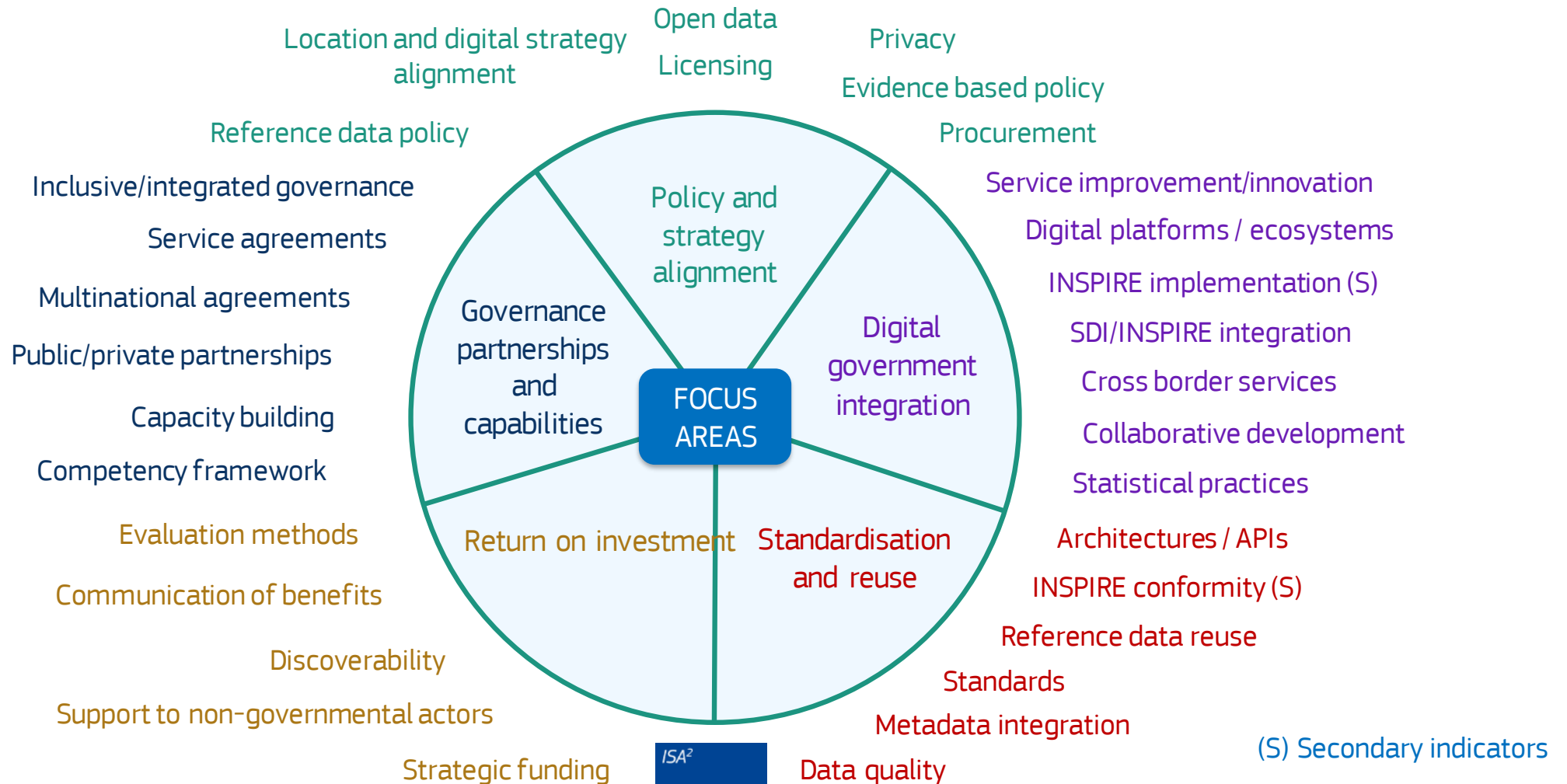


Online and downloadable versions

Adoption monitored through the LIFO



EULF Blueprint and LIFO indicator topics



3

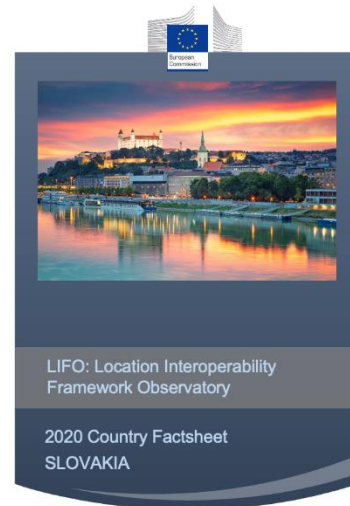
*Slovakia: Location Interoperability
State of Play*

LIFO 2020

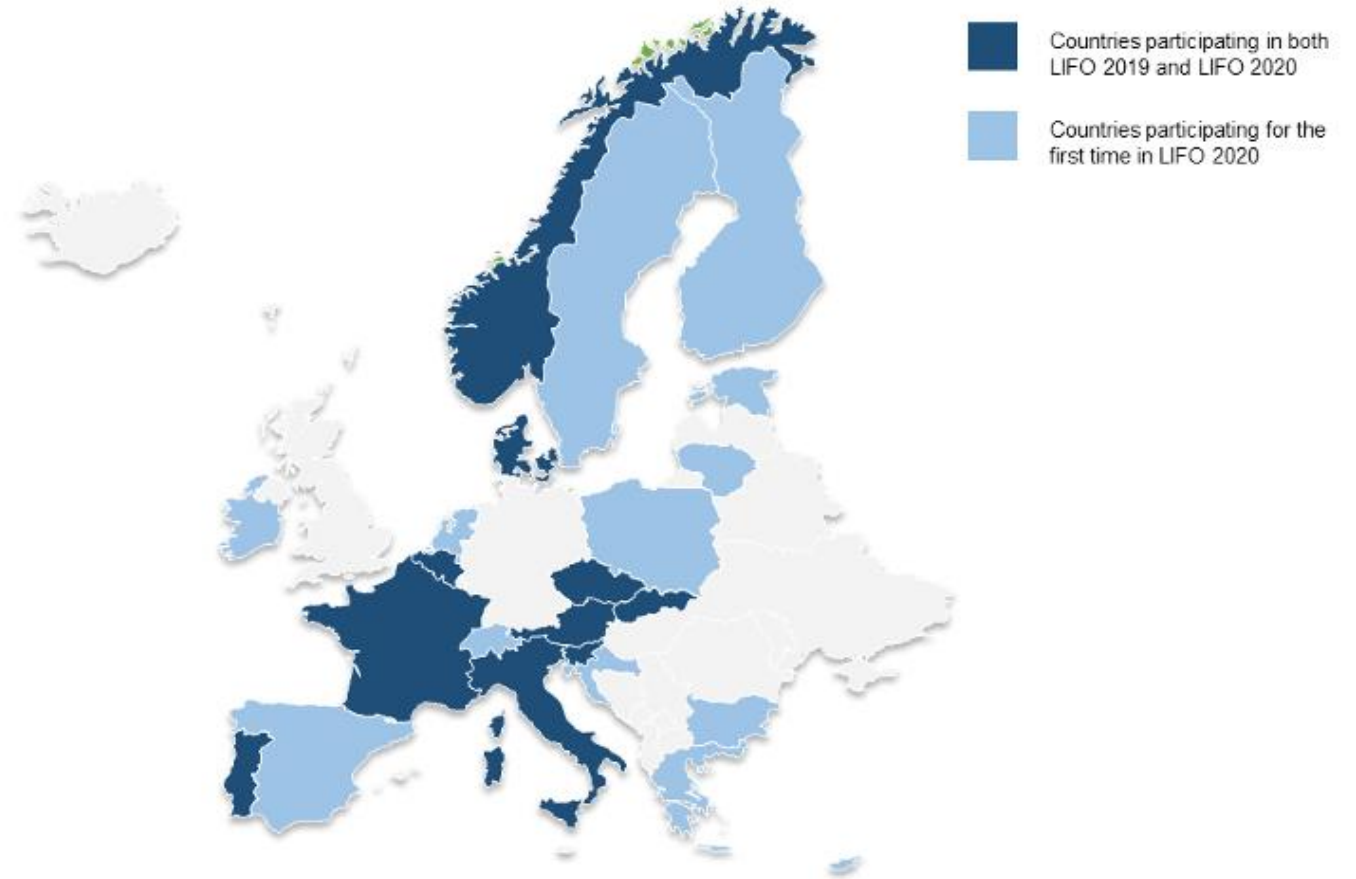
LIFO monitors adoption of good practices from the EULF Blueprint



European
State of Play
Report



23 Country
Factsheets





LIFO: Location Interoperability
Framework Observatory

2020 Country Factsheet
SLOVAKIA



LIFO: Location Interoperability
Framework Observatory

2019 COUNTRY FACTSHEET
SLOVAKIA

A comparative overview for Slovakia between 2019 and 2020

Between the two years, the LIFO index for Slovakia has remained the same, confirming the score of **0.45**.



“Return on Investment”

0.55



“Policy and Strategy Alignment”

0.54



“Standardisation and Reuse”

0.53



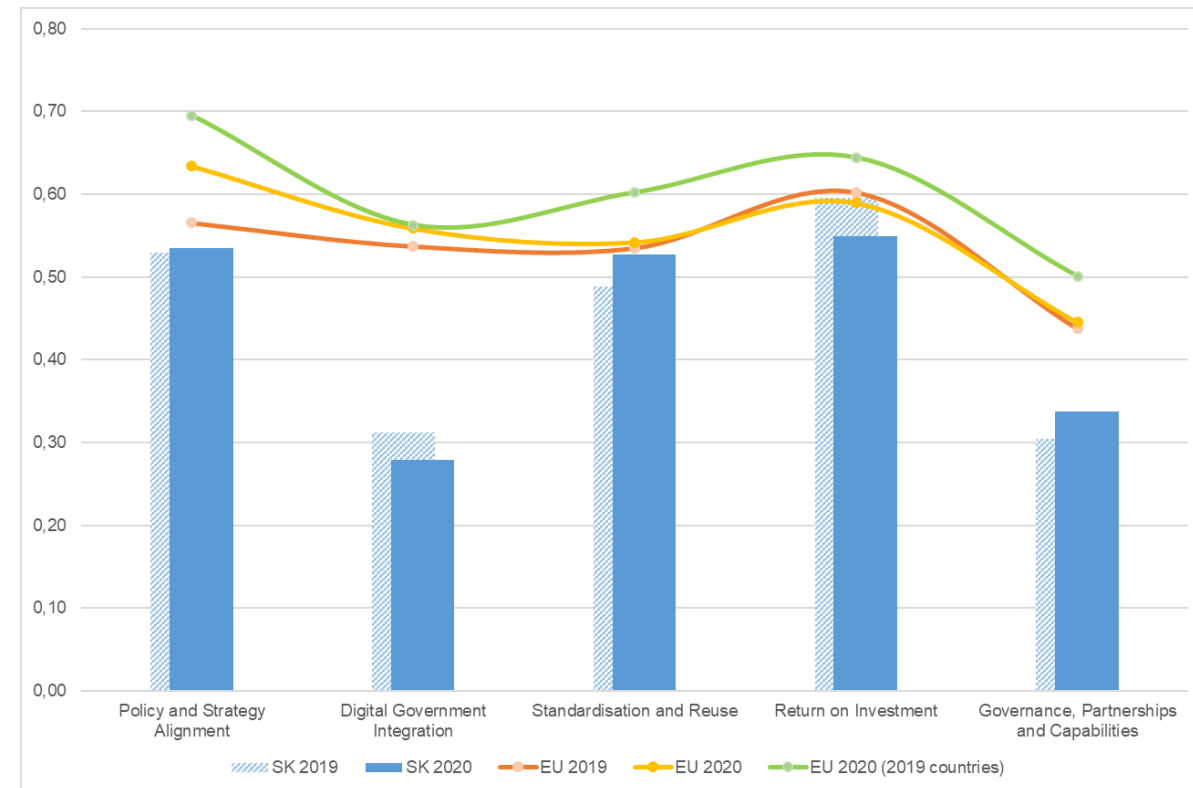
“Governance, Partnerships and Capabilities”

0.34



“Digital Government Integration”

0.28



The chart displays both comparisons within the country and with EU averages.

Slovakia – LIFO results



- Efforts to strengthen INSPIRE & eGov synergies
- Location policy + standards - based procurement



- Raising awareness of location support in digital services
- Open and collaborative development of location-based services



- Many location information registries implemented
- Comprehensive use of geospatial standards



- Funds for improvement of location reference data
- Evaluation of the value for the money



- Stakeholders involvement in decision-making on SDI
 - Intra-national agreements on joint operation of location services
- Considerable gaps in GDPR preparedness
 - Gaps in systematic support for location driven government services
 - Limited integration of location data in statistics
 - Less than full INSPIRE conformity of spatial datasets and services
 - Limited identification of location driven digital services benefits
 - Cross-border agreements on joint operation of location services are not known at this stage
 - Limited involvement of private, non governmental. R&D players



Key findings for location data providers: Open Data, APIs & INSPIRE



- **Various portals giving access to (location) open data**
- Promoting access to open data through formal (policy, funding) and informal channels (NGOs, hackathons)
- Plan to integrate the spatial data registry with national open data portal via standardized metadata exchange



- **A good number of high-value location datasets** currently **accessible via APIs**:
- User communities consulted for development / enhancement
- Location data APIs mainly via INSPIRE view and download services
- Initial tests with new APIs standards (OGC Open API –features)



- **Location strategy** focused on the **implementation of INSPIRE** directive, but:
- Implementation status of the INSPIRE Directive **below the EU average**
- **Limited use of INSPIRE conformant datasets and services** in digital public services, in line with EU practices
- Low level of semantic interoperability with non spatial digital content



ekosystém.slovensko.digital

Slovakia Best Practices

ESPUS (Effective management of spatial data and services)

Policy domain: Geospatial

Process owners: Ministry of Environment of the Slovak Republic

Short description: ESPUS (Effective management of spatial data and services) - is a project launched in 2020 which focuses on "softskills" support of INSPIRE implementation in synergy with eGovernment. The project aims to improve the functioning of public administration through efficient access to and use of spatial data and services. There are four main areas addressed: the legal and methodology framework; support for INSPIRE harmonisation; use of spatial data and services; and awareness raising and capacity / skills improvement.

[ESPUS-Link](#)



INSPIRE
Národná infraštruktúra priestorových informácií

Hlavná stránka Články O INSPIRE Termíny Transpozícia Implementácia Koordinácia Projekty Hľadaj RSS Kontakty

Projekty
ESPUS
JPPÚS
RPI

INSPIRE Implementačné pravidlá

INSPIRE Vykonávacie predpisy

Povinné osoby
Zoznam povinných osôb (Zákon 3/2010 Z.z.)

inspire.gov.cz

INSPIRE Website

INSPIRE GeoPortal

INTERACTIVE Data Specifications

INSPIRE Registry

INSPIRE EC GitHub Helpdesk

Projekty
[inspire.gov.sk / Projekt / ESPUS](http://inspire.gov.sk/Projekt/ESPUS)

ESPUS

Operatívny program Efektívna verejná správa

Európska únia Európsky sociálny fond

MINISTERSTVO VNÚTRA SLOVENSKEJ REPUBLIKY

Informácie k projektu Efektívna správa priestorových údajov a služieb (ESPUS).

Základné informácie k projektu:
Názov projektu: Efektívna správa priestorových údajov a služieb (ESPUS)
Hlavný cieľ projektu: Zlepšenie fungovania verejnej správy vďaka efektívnemu sprístupňovaniu a využívaniu priestorových údajov a služieb.
Sumárne info projektu:
Žiadateľ: Ministerstvo životného prostredia SR Rozpočet projektu: 3 650 311,35 EUR
Rozpočet projektu: 3 650 311,35 EUR Zdroj financovania: Operačný program Integrovaná verejná správa (EVS) Žiadateľ: Ministerstvo životného prostredia SR
Zdroj financovania: Operačný program Efektívna verejná správa (EVS)
Začiatok implementácie: 01.01.2020
Ukončenie projektu: 31.07.2022

#espus

Parciálne ciele projektu:

- o Zvýšenie dostupnosti a harmonizovaného zdieľania priestorových údajov a služieb
- o Podpora rozhodovania a posilnenie kapacít vo verejnej správe efektívnym manažmentom priestorových údajov a služieb
- o Zlepšenie využívania priestorových údajov a služieb

Projekt ESPUS má úzky súvis a prepojenie s projektom **Jednotný prístup k priestorovým údajom a službám (JPPÚS)**, pripravovaný v rámci Operačný program Integrovaná infraštruktúra. Projekt ESPUS zabezpečí kapacitnú podporu a posilnenie vzdelávania, vrátane zvyšovania povedomia v oblasti zlepšenia manažmentu, výmeny a využitia priestorových údajov a služieb nevyhnutnej infraštruktúry, zatiaľ čo projekt JPPÚS zabezpečí nevyhnutnú infraštruktúru.

Diagram: Efektívna správa priestorových údajov a služieb (ESPUS)

Diagram showing the structure of the ESPUS project, centered around 'ľudia' (people) and 'údaje' (data). The diagram is divided into four quadrants:

- Top-Left (Organizácia):**
 - koordinácia
 - politiky & licencie
 - financovanie & prínosy
 - partnerstvo
 - monitoring & hodnotenie
- Top-Right (Údaje):**
 - metaúdaje
 - zdrojové evidencie
 - služby & APIs
- Bottom-Left (Ľudia):**
 - komunikácia
 - užívateľia
 - kultúra
- Bottom-Right (EVS):**
 - expertiza
 - fúdké zdroje
 - čistá forma & služby

Other elements in the diagram include 'Web' and 'organizácia'.

Dokumenty
Smernica INSPIRE
Vykonávacie predpisy
Zákon a vyhláška NIPÍ

Komponenty
Metaúdaje
Interoperabilita
Sieťové služby
Zdieľanie údajov
Monitoring a reporting

Súvisiace iniciatívy
SEIS
Copernicus
Facebook
GitLab
INSPIRE INFO Newsletter

Slovakia Best Practices

Slovak Semantic Interoperability Framework

Policy domain: Digital government / Geospatial

Process owners: Ministry of Investments, Regional Development and Informatization of the Slovak Republic

Short description: The Slovak Semantic Interoperability Framework (SSIF) was initially created in 2013. The objective is to establish semantic interoperability in all Slovak public administration systems and also ensure data interoperability toward all European countries. From 2016 a linked open government data focused community started to publish linked open data (LOD) in Slovakia in order to show how interoperability can be established using semantic web technologies.

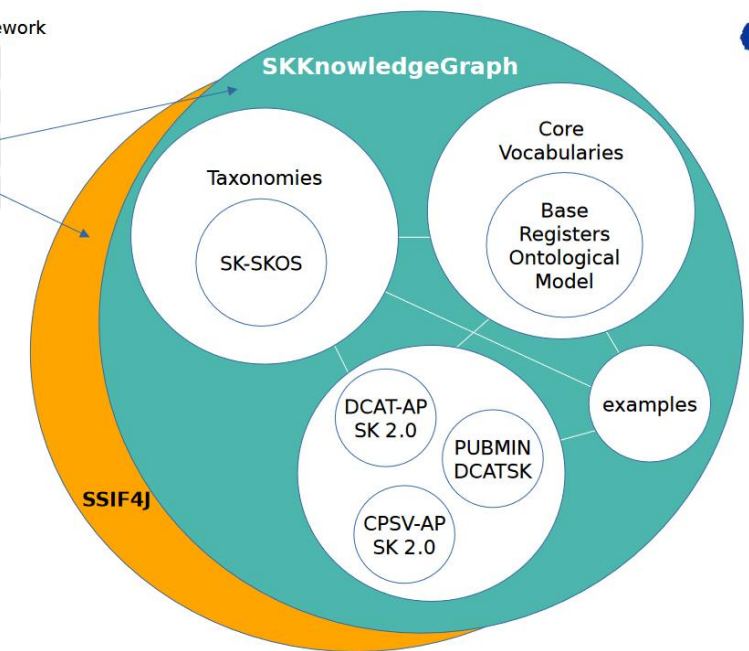
The agreed strategy is to provide support from the Central Data Office to all involved stakeholders as much as possible to adopt and create new semantic representations of data structures in public services, information systems or in publishing open data. Even if these activities are not so easy and trivial, they are the most crucial for improving quality of all public data, and consequently quality of life. If semantic interoperability in data is achieved, then the consuming open data, providing data analysis or developing digital public services is substantially easier, faster and more precise.

European Interoperability Framework



SK GOV KnowledgeGraph

ENDORSE.

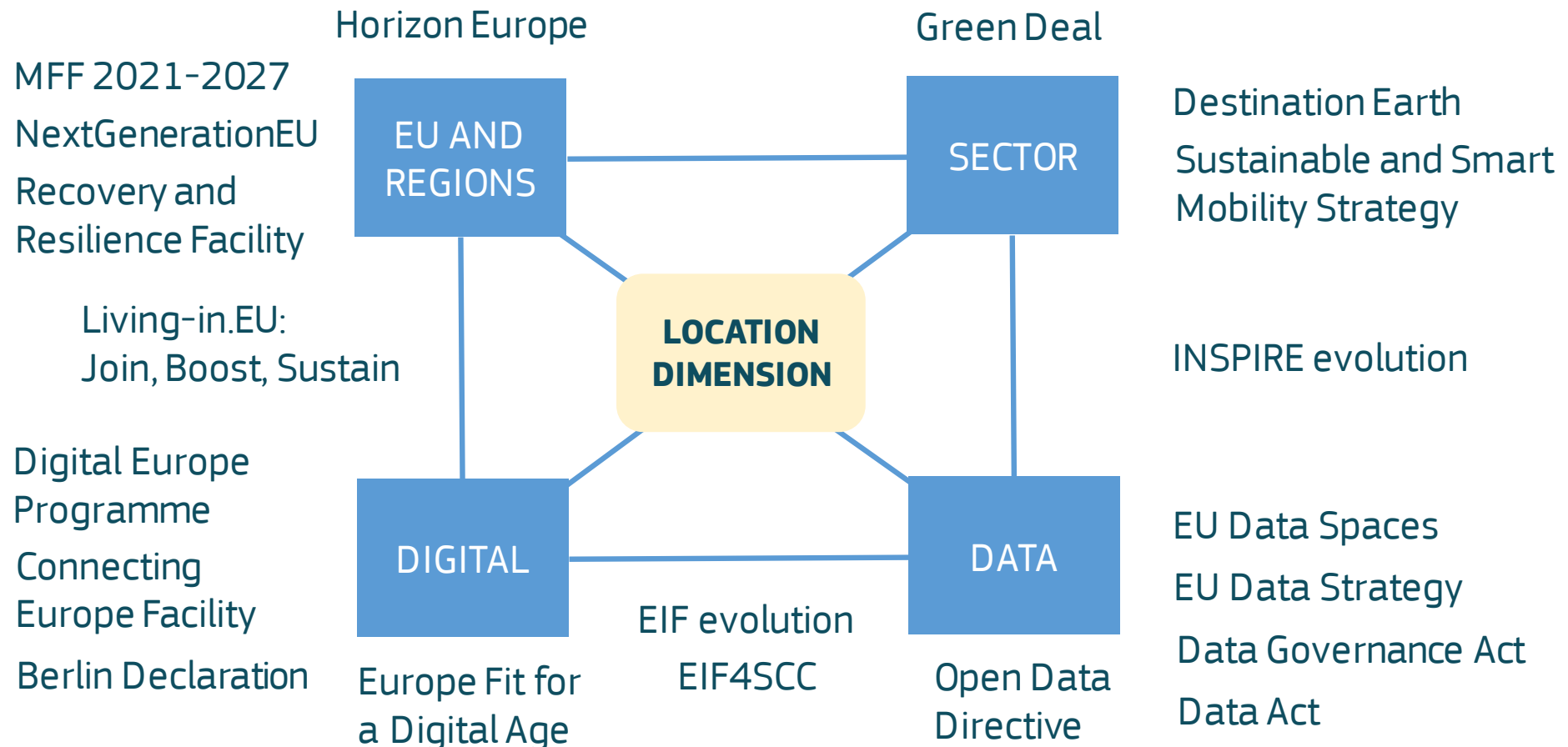


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Beyond ELISE?



Location interoperability in the future EU policy context



Building on ELISE for the Digital Europe Programme

Digital Europe Programme Themes



High performance computing



Cloud, data and AI



Cybersecurity



Advanced digital skills

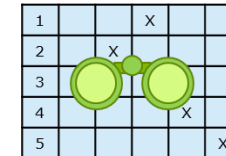


Accelerating best use of technologies

European Location Intelligence and Technological Enablers (ELITE)



EULF Blueprint



LIFO



Interoperability Academy



Data Spaces Cookbook



Sandboxing

Common Services Platform



ETF Validator



Re3gistry

5

Questions



Questions

- Have you heard of ELISE and used any of its outputs?
- Do Slovakia's LIFO results correspond or differ to your understanding?
- What do you see as priorities for improvement? APIs, skills, delivering benefits, something else?
- How can future EU programmes help?



Thank you



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