DG DIGIT

Unit.B2 (Interoperability Unit)

NIFO Roadshow in Poland,

with the participation of SEMIC

European Commission

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Executive Summary

As part of the different activities carried out under the National Interoperability Framework Observatory (NIFO), the European Commission **proactively engages with EU Member States** to share information about its service offering and seek opportunities for further collaboration in relation to different areas linked to interoperability. With the objective of **fostering capacity-building** but also **knowledge sharing and experience exchange**, in-person roadshows are organised in EU Member States so that public administrations and other relevant organisations can deepen their knowledge and understanding of interoperability-related actions undertaken at the EU level to **promote seamless cross-border interoperability of trans-European digital public service**. Roadshows also aim at creating an opportunity for countries to **share national initiatives as well as provide detailed feedback** and input regarding ongoing and future developments.

The first NIFO roadshow was organised in Warsaw, Poland on 27 and 28 May 2024 at the Polish Ministry of Digital Affairs, with the participation of the Semantic Interoperability Community (SEMIC). Poland was selected as it is very active in the context of the different NIFO activities and has reached a good level of implementation of the European Interoperability Framework (EIF). However, since areas of improvement still remain in the semantic interoperability layer, the NIFO Team reached out to Poland to learn more about the country's initiatives in this field as well as the overall state-of-play of interoperability between digital public services. More concretely, the NIFO Roadshow in Poland aimed at:

- **Providing an overview of the NIFO and SEMIC service offerings;**
- **Learning more about initiatives and lessons learned from Poland, including the national interoperability ecosystem;**
- **Highlighting information on how to implement relevant provisions set forth by the Interoperable Europe Act (IEA);**
- **Fostering knowledge transfer and experience sharing; and**
- **Exploring areas for further development and cooperation**.

This document summarises the main presentations and discussions held during the Roadshow. It also provides further information and learning material that can be easily accessible to further explore the topics tackled during the event.

Overview of the presentations and discussions held during the Roadshow

This chapter offers an overview of the main presentations and discussions held during the Roadshow that took place on 27 and 28 May 2024. During both days, the event was hosted by the Ministry of Digital Affairs and was attended by representatives of the following Polish organisations:

- Central Statistical Office;
- eHealth Centre;
- Geodesy and Cartography Office;
- Ministry of Economic Development;
- Ministry of Environment;
- Ministry of Finance;
- Ministry of Foreign Affairs;
- Ministry of Health;
- Ministry of Justice;
- National Information Processing Institute;
- National Research Institute;
- Office for Foreigners.

1.1. Day 1: Monday, 27 May 2024

The first day of the Roadshow focused both on the support that the European Commission can provide in interoperability-related actions, as well as the state-of-play of interoperability in Poland, the novelties introduced by the IEA, Poland's progress in aligning its National Interoperability Framework (NIF) with the EIF, and the new Interoperability Monitoring Mechanism as foreseen by Article 20 of the IEA. The following sections detail the content of each session that was discussed during the first day of the Roadshow.

1.1.1. NIFO Activities

During this session, the NIFO Team provided an overview of the multiple activities carried out to support EU Member States and other European countries in **improving their knowledge and expertise on cross-border interoperability of public services**. In this context, the EIF monitoring mechanism was introduced, together with other actions conducted under the wider NIFO umbrella, including the monitoring mechanism of the Berlin Declaration (BDM), as well as capacity-building and communication activities, among others. The work on interoperability for smart cities and communities, jointly conducted by DG DIGIT and DG CNECT, was also displayed.

The discussion during this session was further enriched by the following comments/questions coming from both presenters and the audience:

- In the context of the EIF monitoring mechanism, it was noted that it would be important to reduce the burden on Member States, especially linked to the data collection phase. The new monitoring mechanism, later tackled by section 1.1.5, will address this point, among others.

- The importance of the Digital Public Administration factsheets was stressed since they help showcasing the work done by Poland and other 38 European countries at an international level.

1.1.2. Interoperability in Poland and presentation of the State Information Architecture

In this session, Polish colleagues from the Ministry of Digital Affairs introduced the country's main digital administration strategies and regulations, including those tackling interoperability. In particular, Poland highlighted the importance of the following initiatives:

- Integrated State Digitalisation Programme: adopted in January 2014 and amended twice in 2022 and 2023, it is a strategic document that defines government actions aimed at **modernising the public administration with the use of digital technologies**, thus improving the efficiency of the State and the quality of the relations between the administration, citizens, and other stakeholders. Its validity has been extended until 31 December 2024.
- Act on Computerisation: first adopted in 2005 and then amended several times, it contains the definition of interoperability and it is under revision. The amended act is aimed at introducing and further developing mechanisms, strengthening the **digital-by-default principle** in the way the administration operates, which is already present in Polish regulations. It will also update common **rules for public entities**, related to public ICT systems, registers and electronic data exchange, as well as solutions limiting data redundancy and enhancing data exchange of public ICT systems.
- National Interoperability Framework: adopted in 2013, it provides guidance on **how to reach interoperability based on unification, interchangeability, and compliance**. It also describes the minimum requirements for public registers and information exchange in electronic form, and minimum requirements for ICT systems.

Poland highlighted that these initiatives are currently being reviewed in order to set the legal basis for the State Information Architecture, which will include requirements for EU funding, the obligation for public entities to provide access to public registries, mechanisms for the implementation of the IEA, and an updated definition of interoperability, among others.

Furthermore, Poland offered an overview on the **State Information Architecture** (SIA), a methodology that aims at building coherent information systems for the State. The heart of the SIA is the **repository** which is both a knowledge base (stores data models) and a tool for supporting analysis and creating presentations, and which focuses mostly on the **semantic and technical interoperability layers**. Concerning semantic interoperability, the Polish colleagues underlined the different activities carried out under SIA umbrella, namely:

- Identification of legally defined datasets;
- Identification and definition of data flows;
- Classification of registers and data objects based on topic, relevance, and referentiality;
- Identification of issues and their root causes; and
- Conduction of analysis and draft of recommendations.

Some issues currently faced by Poland were also identified, including the need for establishing a unique definition of data object in the law, eliminating data redundancy, further implementing the Once-Only principle, creating reference registers and share data to others effectively, and setting common standard models to model registers. In the future, Poland wishes to establish a wide array of **reference registers and data** (trusted reference data sources in strictly defined scope) for which they should use some reference registers as reference nodes.

The discussion during this session was further enriched by the following comments/questions coming from both presenters and the audience:

- Concerning the development of IT systems, Poland informed that every ministry has a different approach. For instance, the Ministry of Digital Affairs relies on in-house development and external suppliers.
- Poland confirmed that amendments to the Act on Computerisation have already been prepared and are under legislative process. It is expected that they will be approved towards the end of the year. These will take into account the provisions set by the IEA.
- With regard to the National Interoperability Framework, a consultation was made to evaluate the level of "outdatedness" of the framework. Results were then used to draft the current amendment, together with new public administration needs, as well as the present EIF scope.
- Poland stated that it is currently looking at how to transpose the State Information Architecture at the regional and local levels to include all layers of the public administration.

1.1.3. SEMIC Service Offering

The SEMIC Team deep dived in the SEMIC service offering and the different areas for which SEMIC creates solutions, supported by the SEMIC Support Centre. In particular, the SEMIC Team focused on the variety of initiatives it carries out, including **developing specifications and pilots, as well as providing a toolkit, training and supporting material to foster interoperability**. The SEMIC Team also presented its work on **data spaces** by summarising the legal context around them and showcasing a use case tackling the challenges of data sovereignty in the mobility data space, for which a SOLID Proof of Concept (PoC) was developed.

1.1.4. Policy context and the Interoperable Europe Act

The NIFO Team presented the novelties introduced by the IEA both from an overall perspective, as well as focusing on the most relevant sections for the topics tackled throughout the Roadshow. More specifically, an overview of the main elements included in the Act was provided, focusing on the following ones:

- **Mandatory interoperability assessments;**
- **Strengthened interoperability support;**
- **Structured and co-owned EU cooperation; and**
- **Recognised reusable interoperability solutions**.

The role of semantic interoperability in the Act and the **impact on data exchange and public services** were also discussed. Moreover, other relevant pieces of legislation at the EU level were highlighted to provide a wider picture of the policy context linked to interoperability.

The discussion during this session was further enriched by the following comments/questions coming from both presenters and the audience:

- Interoperability assessments will be conducted to ensure that interoperability-by-default is implemented. Regarding the metrics for the assessment, guidance will be provided in the upcoming months based on pilots that are currently undergoing.
- With regard to the role of semantic interoperability in the context of the IEA, it is important to note that the Act promotes the use of common data models and common vocabularies, while stressing the significance of semantic interoperability within multilingual environments.

1.1.5. From the EIF towards a new Interoperability Monitoring Mechanism

During this session, the NIFO Team presented the results of the 2023 EIF Monitoring Mechanism exercise, which were later published in July 2024. Results were discussed for each EIF scoreboard, by also providing good practices in potential areas of improvement coming from other EU Member States, including Finland, Portugal, and Spain. The NIFO Team also put emphasis on **Article 20 of the IEA which tackles monitoring and evaluation** with the objective of discussing how the new Interoperability Monitoring Mechanism is currently being developed by DG DIGIT and the Joint Research Centre (JRC).

Poland also had the chance to present **IT project monitoring assessments** in place in the country, which foresee the involvement of the Committee from the Council of Ministers for Digitalisation, supported by the Enterprise Architecture Board, at different phases of the process. Every large ICT system is evaluated against the Polish framework by assessing the following aspects: **identification of relevant stakeholders and project scope/objectives, as well as its IT landscape and legal environment** (i.e., existing regulations, as well as future changes). Other aspects that are taken into account by these assessments are IT systems cooperation models and key components of the architecture. The SIA repository supports the conduction of the analysis and represents a fundamental tool for the reuse of existing solutions within the public sector.

1.1.6. Workshop: Core Vocabularies & Application Profiles (& Style Guide) for Base Registries with a focus on ABR

During this session, the SEMIC Team provided an overview of **Core Vocabularies and Application Profiles**, with particular focus on DCAT-AP, CPSV-AP, as well as the SEMIC Style Guide for Semantic Engineers, which offers guidelines on how a semantic specification should be structured. At the same time, the session focused on access to **base registries**. In this context, the SEMIC Team presented the BRegDCAT-AP specification, an extension of DCAT-AP for base registries, aiming to provide a standard data model for base registries access and interconnection, along with its **validator,** which verifies compliance with the specification.

The Guidelines on Base Registries Interconnection and the Base Registries Access and Interconnection Framework were introduced as well. Moreover, since SEMIC collaborates with different European countries to **collect use cases and implement PoCs**, pilots from Malta and Norway were showcased, along with a success story on cross-border data exchange across public administrations between Estonia and Finland (i.e., X-Road).

The discussion during this session was further enriched by the following comments/questions coming from both presenters and the audience:

- Similarities between the SEMIC specification and the SIA were outlined. For this reason, a comparison between the two models may be performed, for instance, through the validator.
- The need for greater interoperability to exchange the data of EU citizens across different Member States to allow them to verify voting compliance more easily was discussed.
- Access to trusted data was highlighted as the top priority when dealing with base registries.

1.2. Day 2: Tuesday, 28 May 2024

The second day of the Roadshow tackled public sector innovation solutions with particular emphasis on Artificial Intelligence (AI), knowledge sharing and capacity-building activities, and upcoming events under the Polish Presidency of the Council of the EU. The following sections will detail the content of each session that was discussed during the second day of the Roadshow.

1.2.1. Public sector innovation solutions: focus on AI

In this session, the **link between interoperability and innovation in the public sector** with a focus on AI was explored. To do so, three fire-chat presentations were offered:

- **Policy context and EU initiatives**: the NIFO Team presented the AI Act in a nutshell, which addresses the risks of AI and positions Europe to play a leading role globally. As part of the AI innovation package, the GovTech ecosystem was discussed by taking a look at the previsions linked to this topic in the IEA, as well as several EU initiatives, such as the Public Sector Tech Watch, GovTech Connect, and the GovTech4All incubator. AI-related content collected and published under NIFO was also discussed.
- **AI4interoperability4AI**: the SEMIC Team highlighted multiple activities under this topic, namely linked to automated knowledge extraction (of topics, dates, and results), domain adaptation of Large Language Models, development of a semantic model for the machine learning field (i.e., MLDCAT-AP), a data modelling chatbot, and a prototype of automatic tagging of dataset using semantic search. The course on "Introduction to Artificial Intelligence for Public Service Interoperability" available on the Interoperable Europe Academy was also mentioned.
- **Polish AI Strategy – AI in the public sector**: Poland is currently in the process of changing its AI Strategy since many of the goals set in 2020 have now become obsolete. For this reason, the new Strategy will undergo **frequent updates** and focus on a **short-term perspective**, while putting emphasis on **AI safety, cybersecurity, and cyber well-being**. It will also adopt an **agile approach**, involving non-governmental organisations (NGOs), academia, and businesses to define and better understand their needs. Moreover, Key Performance Indicators (KPIs) will be included to measure impacts more concretely, and the Strategy will look at how local authorities can be involved more closely. In this context, a training course on AI provided by external experts from the Polish private sector is currently being offered to public servants.

The discussion during this session was further enriched by the following comments/questions coming from both presenters and the audience:

- Regarding the risk of hallucinations linked to the chatbot developed by SEMIC, it was explained that the chatbot was created based on a RAG approach to overcome this challenge. Nevertheless, intensive testing is still needed to improve the functioning of the chatbot itself.
- Poland confirmed that certifications for the public administration linked to AI are not offered at the moment. However, as mentioned above, a training course is available.
- Regarding the involvement of local authorities in AI-related initiatives, Poland is investigating whether to dedicate a special part of the country's Strategy to local institutions, or to develop smaller strategies designed to meet their specific needs.

1.2.2. Supporting knowledge sharing and capacity-building in the framework of the Interoperable Europe Act

The NIFO Team discussed the main provisions on knowledge sharing and capacity-building in the framework of the IEA. In particular, the role of the **Interoperable Europe Portal foreseen by Article 8** was tackled in order to highlight its role in **fostering knowledge exchange, listing good practices, and providing access to Interoperable Europe solutions in a user-friendly manner**. Relevant interoperability-related content on the NIFO collection on Joinup, which is currently transitioning towards becoming the Interoperable Europe Portal, was presented, focusing mostly on the EIF Toolbox and additional training and supporting material on the EIF implementation.

Moreover, **Article 13 on training** and the different learning modules offered by the Interoperable Europe Academy were displayed. **Article 14 on peer-review** and **Article 16 on the Interoperable Europe Community** were also discussed since they represent complementary initiatives to capacity-building activities implemented at the EU level.

Good practices on this topic put in place by Poland were outlined as well. More specifically, the **SIA portal** was introduced since it contains relevant information about strategies, programmes, and legislations, together with the **SIA Academy**, which enhances practical knowledge for public administrations across the country. Further training on interoperability will be established with the adoption of the renewed Act on Computerisation. Moreover, the Ministry of Digital Affairs, in cooperation with an NGO, offers monthly presentations on interoperability and digital transformation with the objective of helping public servants expand their digital skills.

1.2.3. Upcoming events under the Polish Presidency of the Council of the EU

From January to June 2025, Poland will hold the Presidency of the Council of the EU. Having already started preparing their Presidency, **priorities and upcoming events linked to digital affairs** were presented by the Polish colleagues. Key digital priorities include:

- **Cybersecurity;**
- **AI and other digital technologies;**
- **Coherence and implementation of digital law; and**
- **Digital diplomacy and internet governance**.

Additional digital priorities encompass the future of the telecommunications market, personal data facing new digital challenges, and ePrivacy. Furthermore, the **Digital Networks Act** will represent the most important legislative initiative under the Presidency, whose scope will be decided by the new European Commission. The publication of the proposal is foreseen for early 2025.

Some of key events that will take place during the Presidency include:

- 3-4 March 2025, Warsaw: informal meeting of EU Digital Ministers to tackle cybersecurity;
- 31 March – 1 April 2025, Brussels: Virtual Worlds Conference;
- 7-8 May 2025, Gdansk: Digital Diplomacy Conference;
- 6 June 2025, Luxembourg: meeting of the Transport, Telecommunications and Energy Council to address coherence and implementation of EU digital law, comprehensive revision of the Cybersecurity Act, and other initiatives linked to AI;
- 16-18 June 2025, Gdansk: Digital Summit dedicated to SMEs and their exposure to digital technologies.

The Commission applauded Poland's efforts linked to the upcoming Presidency and suggested to explore the possibility of involving DG DIGIT and DG CNECT in the organisation of the Digital Summit.

Annex I: Agenda

Day 1: Monday, 27 May 2024

09:30 – 09:45	**Opening of the event**	Ministry of Digital Affairs
09:45 – 10:00	**Intro of the day, agenda and objectives**	European Commission
10:00 – 10:45	**NIFO Activities**	NIFO Team
10:45 – 10:55	**Coffee Break**	
10:55 – 11:55	**Interoperability in Poland and presentation of the State Information Architecture**	Ministry of Digital Affairs
11:55 – 12:40	**SEMIC Service Offering**	SEMIC Team
12:40 – 13:40	**Lunch**	
13:40 – 14:30	**Policy context and the Interoperable Europe Act**	NIFO Team
14:30 – 15:30	**From the EIF towards a new Interoperability Monitoring Mechanism**	Ministry of Digital Affairs NIFO Team
15:30 – 15:45	**Coffee Break**	
15:45 – 17:15	**Workshop: Core Vocabularies & Application Profiles (& Style Guide) for Base Registries with a focus on ABR**	Ministry of Digital Affairs SEMIC Team
17:15 – 17:30	**Closing of the day**	European Commission

Day 2: Tuesday, 28 May 2024

09:00 – 09:15	**Summary of the previous day**	Ministry of Digital Affairs
09:15 – 09:30	**Intro of the day, agenda and objectives**	European Commission
09:30 – 10:30	**Public sector innovation solutions: focus on AI** • Policy context and EU initiatives • AI4interoperability4AI • Polish AI Strategy – AI in the public sector	Ministry of Digital Affairs NIFO Team SEMIC Team
10:30 – 10:45	**Coffee Break**	
10:45 – 11:55	**Supporting knowledge sharing and capacity-building in the framework of the Interoperable Europe Act**	Ministry of Digital Affairs NIFO Team
11:55 – 12:15	**Upcoming events under the Polish Presidency of the Council of the EU**	Ministry of Digital Affairs
12:15 – 13:00	**Conclusion, next steps and wrap-up of the event**	European Commission
13:00 – 14:00	**Lunch**	

Annex II: Group picture