MOBILISE CALL

Financial Support for Third Parties

Hackathon/Datathon/Ideathon Report
Part A (Public)

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Organisation	*NGO "NovoFutura"*
Author(s)	*Aleksandrs Ļubinskis*
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- *Authors are expected to reflect on the KPIs, impacts, methodologies, and other aspects outlined in their original proposal throughout the report.*

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Executive Summary

The project implemented under the PoliRuralPlus Mobilise call focused on organising a two-stage regional hackathon entitled Data to Develop (D2D) in the Vidzeme Planning Region of Latvia. Its objective was to co-create innovative solutions and prototypes for a unified indicator system to support regional development assessment, improve rural-urban collaboration, and promote data-driven governance. The initiative brought together over 80 municipal specialists, data analysts, IT experts, and thematic professionals across both stages, creating one of the most comprehensive collaborative exercises in regional evaluation planning in Latvia.

The first stage (online) engaged more than 50 participants who mapped challenges in data collection and use, identified gaps in indicator availability, and explored AI and digital tools for structured data management. The second stage (in-person in Smiltene) gathered almost 50 participants who developed sector-specific prototypes and proposals, with expert mentoring and practical sessions. The winning idea came from the Living Environment and Housing team with a platform concept for municipal housing management based on a "booking.com" model. Other teams proposed solutions for governance, environment, mobility, economy, and society. A key outcome was the establishment of a methodology for municipalities to co-define sectoral KPIs for ongoing data analytics.

The anticipated impact includes a regional evaluation framework prototype, strengthened municipal capacity for data-driven decision-making, and alignment with EU priorities such as the European Green Deal and the New European Bauhaus. The hackathon demonstrated how community-driven innovation and AI-enabled tools can strengthen rural-urban interactions and regional governance.

1. Objectives and Structure of the Hackathon / Datathon / Ideathon

The primary goal of the D2D hackathon was to create a practical foundation for a unified indicator system to support regional development monitoring in Vidzeme. Specific objectives included:

- *Defining sector-specific indicators as KPIs relevant to municipalities.*
- *Improving data comparability and accessibility across municipalities.*
- *Promoting the use of AI and digital tools for data analytics, visualisation, and structured evaluation.*
- *Strengthening municipal capacity for data-driven governance and decision-making.*
- *Encouraging collaboration between thematic specialists, data experts, and policymakers.*

Thematic Focus Areas
Six thematic focus areas were selected to reflect Vidzeme's development priorities:

1. *Economy and Innovation*
2. *Governance and Civic Participation*
3. *Environment, Nature and Resources*
4. *Mobility and Accessibility*
5. *Living Environment and Housing*
6. *People and Society*

Each thematic group was tasked with defining relevant indicators, discussing methodological approaches, and developing prototypes that could be integrated into a regional monitoring system.

Structure of the Hackathon
The hackathon was organised in two phases:

- ***Phase 1 (Online, Ideation & Framing):*** *Nearly 50 participants joined expert presentations, group discussions, and collaborative mapping of challenges. Teams identified key gaps, shared practices, and proposed initial indicator sets aligned with their themes. AI tools were introduced to assist with mapping and design.*
- ***Phase 2 (In-Person, Development & Presentation):*** *A full-day event in Smiltene gathered almost 50 participants who refined ideas into concrete proposals and prototypes. Teams used real or synthetic datasets where available, tested AI tools for indicator definition and data visualisation, and prepared final presentations. A jury of regional experts assessed outputs based on innovation, feasibility, and practical relevance.*

Stakeholder Engagement
The event was designed to maximise collaboration and inclusivity. Participants included municipal specialists, statisticians, IT professionals, academics, NGO representatives, and policy experts. Mentors from ministries, digital centres, and statistical offices supported the teams. Cloud-based collaborative tools and AI platforms (PoliRuralPlus, ChatGPT, Gemini) enabled real-time teamwork and prototyping. In total, more than 80 unique participants and experts engaged across both stages.

Capacity Building and Learning Outcomes
Municipalities were expected to provide specialists with data analysis skills, yet only two of the ten municipalities had dedicated data analysts on staff. This limited capacity became evident as teams struggled to identify relevant KPIs, define clear methodologies, and design robust processes for data collection. To address this, the hackathon incorporated capacity-building elements: expert lectures, case studies, and individual mentoring sessions. These provided participants with hands-on exposure to data analysis tools and methodologies. As a result, the hackathon functioned not only as a solution-generation event but also as a critical training exercise that strengthened municipal understanding of data analytics and its policy applications.

2. Implementation and Results

Challenges Addressed
The hackathon directly addressed several pressing challenges:

- Lack of a unified data structure across municipalities, making benchmarking difficult.
- Inconsistent or incomplete datasets, particularly for sectoral monitoring.
- Limited municipal expertise in defining KPIs and data processes.
- Fragmented practices that reduce comparability and hinder evidence-based policymaking.

Methodology Applied in the Hackathon
The methodology was structured around progressive phases of assessment and development, supported by worksheets, assignments, and expert feedback:

- **Phase 1 Assessment:** Teams used worksheets to list existing indicators in their municipalities, colour-coded with a traffic-light system (green = reliable and available, yellow = partial, red = missing or unreliable). Homework required each municipality to supplement these worksheets with real data for at least two indicators, ensuring practical grounding. These materials were stored in shared project folders for review before Phase 2.
- **Phase 2 Assessment:** In Smiltene, teams used extended worksheets for refining KPIs, including methodological notes (formulas, units, and frequency), responsibilities for data collection, and examples of

potential visualisations. Teams also tryed to create process flow diagrams to clarify responsibilities and dependencies within municipal structures. Mentors provided on-site guidance, and AI tools were integrated to validate indicator logic and visualisation approaches.
- **Expert Feedback:** Throughout both phases, mentors and domain experts guided the work by reviewing completed worksheets, providing corrections, and helping align indicator proposals with policy needs.
- **Prototype Consolidation:** Each team's outputs were consolidated into sectoral prototypes, ready for integration into a regional framework. The structured documentation (worksheets, presentations, and homework submissions) created a valuable knowledge base for future refinement.

This layered methodology ensured that participants moved from basic identification of problems and indicators to well-structured, practical prototypes, while simultaneously building skills in data analysis and process design.

Teams and Participants
Six thematic teams worked on targeted solutions:

- **Economy and Innovation** – focused on income, employment, and value-added indicators; identified gaps in detailed occupational and sectoral data.
- **Governance and Civic Participation** – developed indicators for voter turnout, citizen involvement in decision-making, participatory budgeting, and service satisfaction.
- **Environment, Nature and Resources** – proposed sustainability indicators on waste management, emissions, and land use.
- **Mobility and Accessibility** – analysed road quality, transport availability, and accessibility to services.
- **Living Environment and Housing** – proposed solutions for housing stock management, citizen satisfaction, and a housing platform prototype.
- **People and Society** – suggested indicators for civic activity, community participation, and local engagement.

Each team consisted of municipal practitioners, domain experts, and data analysts, ensuring a mix of practical knowledge and methodological expertise.

Winners

- **1st Place:** *Living Environment and Housing* – for the digital housing management platform inspired by the "booking.com" model, enabling real-time visibility of municipal housing stock.
- **2nd Place:** *Governance and Civic Participation* – for a methodologically robust indicator system to evaluate democratic engagement and service quality.
- **3rd Place:** *Environment, Nature and Resources* – for practical sustainability indicators connected to climate change and resource management.

Event Outcomes
The hackathon produced several notable results:

- Draft sector-specific KPIs co-created by municipal specialists and experts.
- A prototype concept for a citizen-oriented housing platform.
- Methodological recommendations for harmonising indicators across municipalities.
- Enhanced participant skills in AI-supported indicator mapping, data visualisation, and analytics.
- Strengthened cooperation between municipalities and regional authorities on data practices.

These outcomes form the basis of a **regional evaluation framework prototype** that integrates outputs into a coherent system. This framework will serve as a foundation for piloting new approaches to regional monitoring in Vidzeme.

A detailed presentation of team outputs is provided in Annex I.

3. Media Outputs

1. https://www.poliruralplus.eu/knowledge-transfer/blog/data-to-develop-hackathon-co-creating-the-future-of-regional-development-through-ai-and-collaboration/
2. *https://www.poliruralplus.eu/knowledge-transfer/blog/insights-from-the-d2d-hackathon-final-meeting-in-vidzemelatvia/*
3. *https://www.poliruralplus.eu/news/vidzeme-planning-region-hackathon-phase-2-wraps-up/*
4. *https://www.poliruralplus.eu/news/online-launch-and-first-stage-of-the-vidzeme-d2d-hackathon-successfully-completed/*
5. *https://www.poliruralplus.eu/news/empowering-regional-development-through-data-and-ai-vidzeme-launches-two-phase-hackathon-data-for-development/*

Social media posts

1. *https://www.facebook.com/VidzemesPlanosanasRegions/posts/pfbid0Zt95YyaLDjfWVc61FjTDXnwPEQ5mLuLcwRjd2Uddmr2pFg3ovBxoQrLVMRoafvgdl*
2. *https://www.facebook.com/VidzemesPlanosanasRegions/posts/pfbid02KhMG2rW8T2hT4gUM3AfphxEF3xoinmvkfzQUrexn8fzLP43BbxwVPgwmZ2UZwdwol*
3. *https://www.facebook.com/VidzemesPlanosanasRegions/posts/pfbid0sqtrgzMQ6XUGaYjy31ykCQHNeg5yiLy14QL4Vh2kQgXQqGxC5SHddQfRnNju5YCzl*

4. Comparative Evaluation of PoliRuralPlus Tools in the Context of the D2D Hackathon (Vidzeme Region)

The **Data to Develop (D2D)** hackathon, organized in the Vidzeme Planning Region under the PoliRuralPlus Mobilise call, aimed to co-create and test an effective framework for assessing regional development and monitoring progress through unified indicators. The hackathon focused on solving two main challenges: (1) the absence of a standardized and comparable data structure regarding the assessment of VPR's development across municipalities, and (2) limited analytical capacity to interpret and use regional data effectively. The evaluation below examines how PoliRuralPlus tools can support the **development of a unified indicator framework, metadata management, and comparison of municipality-defined indicators** within a shared regional data structure.

Each PoliRuralPlus tool—**Advisor, Jackdaw, MAATool, Magpie, Vulture,** and the **Reference Database**—was assessed for its suitability to help design, organize, and apply such an indicator system, rather than simply analyze data once it already exists.

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1. Advisor

Description: Advisor provides analytical access to the PoliRuralPlus Knowledge Space and supports indicator-based assessment through AI-driven insights and benchmarking.

Evaluation (Hackathon context): In practical testing, Advisor showed potential for interpreting existing data and visualizing comparisons between municipalities once structured data and metadata become available. However, it offered limited support for defining or structuring new indicators. Its design assumes that data frameworks already exist, meaning it would be most valuable **after** the unified indicator system and metadata catalog are in place.

Relevance for Indicator Framework Development:

6. Useful for testing and benchmarking indicators once standardized.
7. Not suitable for defining new indicators or establishing metadata structures.

Potential Use: Applicable as a **regional monitoring tool** for comparing municipality-level performance within a completed data architecture.

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2. Jackdaw

Description: Jackdaw is an AI-based chat and map analysis tool allowing interactive exploration of spatial and statistical data layers.

Evaluation (Hackathon context): In practical testing, Jackdaw proved valuable for visualizing and comparing data spatially across municipalities. It offered intuitive interaction and quick insights where structured data existed. However, it lacked functionality for **creating or managing indicator definitions or metadata**, meaning it cannot directly support framework design but can help **test, visualize, and communicate** data-based insights once datasets are harmonized.

Relevance for Indicator Framework Development:

- Very useful for visual testing of developed indicators.
- Limited contribution to metadata or indicator definition phase.

Potential Use: Best suited for **interactive comparison dashboards** and for stakeholder workshops to validate and interpret results after data harmonization.

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3. MAATool (Multi-Actor Approach Tool)

Description: MAATool is a collaborative platform supporting stakeholder co-creation, engagement, and collective data management.

Evaluation (Hackathon context): MAATool aligns well with the hackathon's participatory approach. Although it does not automate indicator creation, it provides a structured environment where municipalities and stakeholders can **jointly define, validate, and manage indicator metadata**. It is promising tool for the collaborative establishment of a unified indicator framework, enabling transparency and version control of definitions. Additionally, MAATool would be helpful for communication and organizing collaboration among multiple stakeholders. To fully support such cooperation, it should include or connect to multiple other features essential for collaborative work, such as messaging, document sharing, discussion threads, and task coordination tools.

Relevance for Indicator Framework Development:

- Strong potential for **co-creating and documenting indicator definitions**.
- Can host the regional metadata catalogue and serve as a shared repository.

Potential Use: Highly suitable for developing and maintaining a **Regional Indicator and Metadata Platform**, ensuring comparability and collaboration across municipalities.

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4. Magpie

Description: Magpie searches the PoliRuralPlus AI catalogue to identify datasets, references, and models relevant to a region.

Evaluation (Hackathon context): While not tested directly, Magpie's strength lies in supporting preparatory research by discovering comparable indicator systems or methodologies from other regions. However, it provides little assistance for creating local indicator metadata or harmonizing data structures. Its role is supplementary—informing indicator framework design rather than constructing it.

Relevance for Indicator Framework Development:

- Supports **reference collection** and comparative research.
- Limited direct functionality for metadata or data hosting.

Potential Use: Best used in the **early design phase** to identify compatible indicators and best practices from other European pilots.

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5. Vulture

Description: Vulture is a utility for automatic processing of data from email and URL sources. It allows users to forward messages to the dedicated PoliRuralPlus mailbox (poliruralplus@bergheim.dk), which automatically processes the data into a private workspace. The system also provides predefined PoliRuralPlus topic prompts for extracting structured information, such as events, contacts, or activities, directly from communication flows.

Evaluation (Hackathon context): In practical testing, Vulture demonstrated interesting automation potential for retrieving and organizing unstructured data from emails and web sources. However, the tool raised **serious data security and reliability concerns**, as it requires users to forward emails to an external address. Without clear guarantees about compliance with data protection standards or transparent rules on data processing, it cannot be considered a trustworthy option for official or institutional use. Compared to built-in tools like **Google Gemini in Gmail** or **Microsoft Copilot in Outlook**, Vulture does not offer a clear advantage in usability or security; both of those mainstream tools already allow safe, local AI-assisted email search and analysis without external data transfer.

Relevance for Indicator Framework Development:

- Minimal. Does not directly contribute to indicator design, data structuring, or metadata management.
- Potentially useful only for automating the collection of public data from trusted, non-sensitive sources.

Potential Use: Due to data handling risks, Vulture is **not recommended** for institutional or collaborative use in developing or managing indicator frameworks.

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6. Reference Database

Description: A comprehensive catalogue of scientific and policy references for rural and regional development.

Evaluation (Hackathon context): The Reference Database supports the conceptual and methodological foundation for indicator selection. It is valuable in identifying definitions, data sources, and methodologies from other regions, but does not directly enable data structuring or hosting.

Relevance for Indicator Framework Development:

- Useful for **validating definitions** and selecting standard methodologies.
- Not designed for metadata management or comparison functions.

Potential Use: Should be used in the **concept validation phase** to ensure theoretical consistency and policy relevance of selected indicators.

Summary Evaluation Table

Tool	Contribution to Indicator & Metadata Framework	Role in Data Hosting	Support for Comparison (Municipal/Org)	Security / Trust	Key Limitation
Advisor	Low – focuses on analysis and benchmarking after data structure exists	Medium – relies on structured datasets	High once indicators are defined	High	No tools for indicator creation or metadata structuring
Jackdaw	Low – strong for visualization, not design	Medium – visual interface for existing data	Very High – ideal for regional comparison	High	Cannot create or manage indicator metadata
MAATool	Very High – ideal for co-creating and documenting indicator definitions	High – can act as shared metadata repository	High – supports joint framework building	High	Requires facilitation and may need additional collaboration tools (messaging, file sharing, etc.)
Magpie	Moderate – supports preparatory research and reference discovery	Low	Moderate – helps identify best practices	High	Limited to search and discovery; no metadata handling
Vulture	Very Low – unrelated to indicator or metadata creation	Low	Low – can automate extraction from public sources only	**Low (security concerns)**	Relies on external email forwarding, raising trust and privacy risks
Reference Database	Moderate – provides conceptual guidance and validated references	Low	Low	High	No direct support for hosting or structuring data

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Conclusion

None of the PoliRuralPlus tools were directly suitable for the D2D hackathon's objective of collaboratively developing and testing a unified indicator framework and shared metadata structure across municipalities. While they offered conceptual insights and analytical potential, their functions depended on pre-existing, harmonized data and lacked flexibility for participatory framework creation.

To overcome this gap, the organizing team collaborated with **AI experts to develop custom GPT-based tools** tailored specifically to regional indicator system development. These customized models with dedicated instructions based on ChatGPT enabled participants to engage interactively with the indicator logic through natural language — **to generate indicators, create metadata, simulate datasets, and apply statistical methods**. This approach allowed rapid prototyping, testing of methodologies, and creation of understandable indicator definitions within a single, popular and adaptive environment.

The results demonstrated that **region-specific AI solutions**, developed in native languages and aligned with local governance needs, can provide far greater value for participatory framework development than generic platforms. The custom GPTs created during the hackathon can be translated and adapted for use by other PoliRural partners and pilot regions, offering a scalable and multilingual model for indicator management and collaborative data structuring across PoliRural partners.

5. Conclusions

The D2D hackathon was a milestone in advancing regional data practices and innovation. It successfully mobilised stakeholders, strengthened capacity, and generated practical prototypes. The diversity of participants ensured that solutions were grounded in real needs while also demonstrating forward-looking innovation.

Solutions such as the housing management platform, governance indicators, and sustainability measures have clear potential for scaling and replication in other municipalities and regions. By co-defining KPIs, the project laid the groundwork for more comparable and standardised data practices, aligning local efforts with EU strategic priorities.

The event also revealed systemic challenges: limited municipal expertise in data analytics, lack of unified methodologies, and fragmented practices. These were addressed through targeted mentoring, peer learning, and expert input. Importantly, the hackathon functioned as a training ground that built long-term capacity for municipalities.

Policy Implications and Next Steps

- ***Prototype Development:*** *Consolidation of team outputs into a regional evaluation framework prototype.*
- ***Testing and Refinement:*** *Pilot implementation with municipal partners, CSP, and ministries.*
- ***Replication Potential:*** *Use as a model for other Latvian regions and EU pilot areas.*
- ***Policy Alignment:*** *Support for EU strategies such as the European Green Deal and the New European Bauhaus.*

In conclusion, the D2D hackathon demonstrated the value of inclusive, cross-sector collaboration and AI-enabled tools in strengthening evidence-based regional governance. It enhanced municipal understanding of data practices, produced actionable solutions, and set the stage for long-term improvements in rural-urban dynamics, regional innovation, and policy integration.

Annex I

Project presentations of all teams: *Attach or embed slide decks or digital presentations from each participating team. Each should describe:*

- *The problem tackled*
- *The proposed solution and its novelty*
- *The use of PoliRuralPlus tools in solution development*
- *The potential impact on regional development and rural-urban interactions*

Additional Supporting Materials: *GDPR compliant photos, videos, media articles, or other relevant documentation, if available.*