

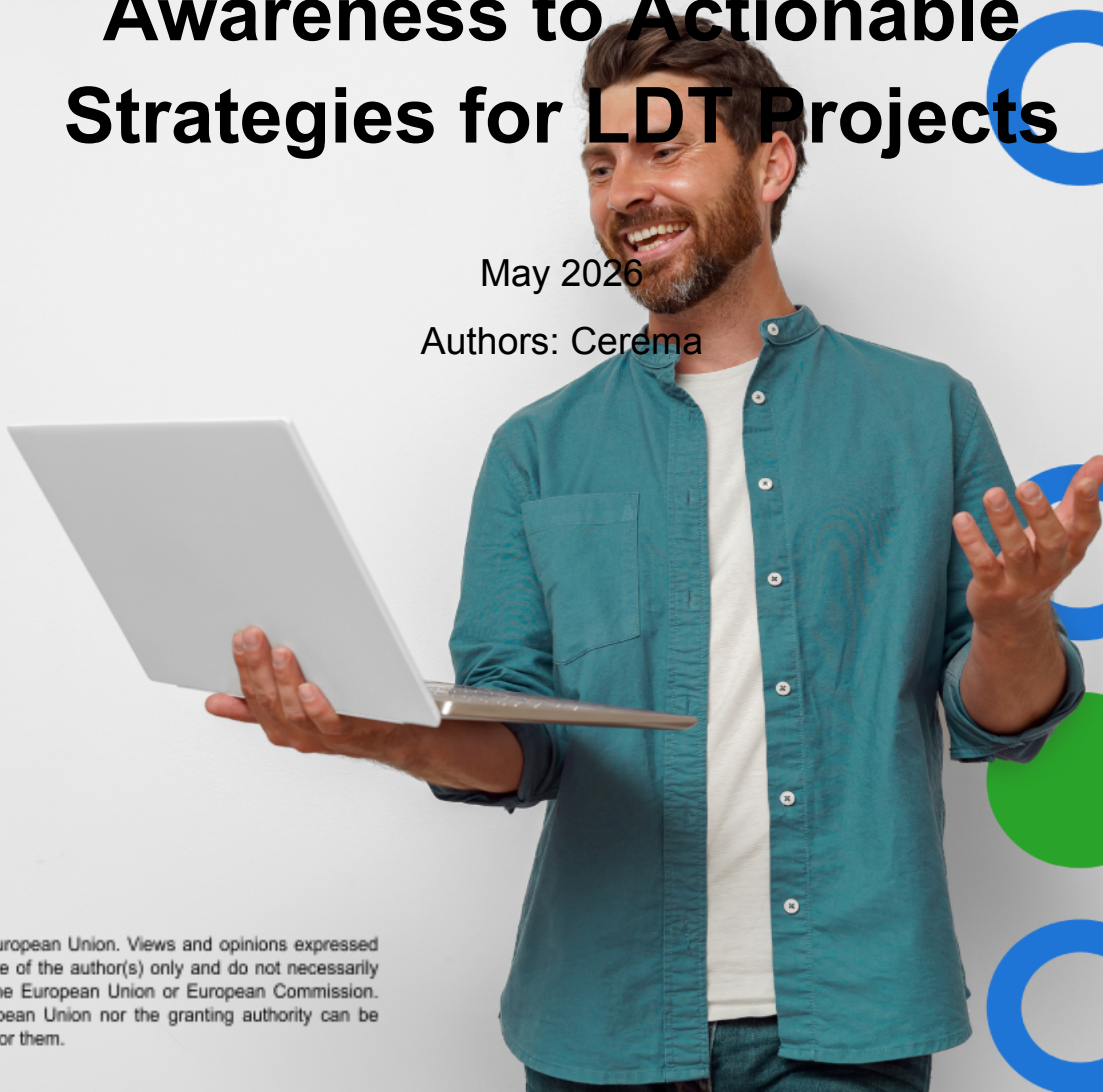
LDT4SSC Project Methodology

Step 2: VALIDATE (Specifications)

Workshop: Identifying Levers, Obstacles and Objectives for Interoperability: From Awareness to Actionable Strategies for LDT Projects

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Document History

Date	Version	Edited by	Description
November 2025	v1	Marine Le Gall, Laura Riou, Sophie Houzet	First version adapted from the CAPACities program.

Workshop Overview

Title	Identifying Levers, Obstacles and Objectives for Interoperability: From Awareness to Actionable Strategies for LDT Projects
Methodological step	Step 2: VALIDATE (Specifications)
Duration	2 hours and 30 mins
Number of Facilitators	1 for each group of 4 to 5 people
Equipment Needed	- One big sheet of paper (1m/2m) or a large (digital) whiteboard - Pens and colorful markers. - Potential digital tools (slides etc.).
Expected outputs	Photo/scan of the produced architecture diagram. - List of concrete solutions to tackle technical interoperability issues. A summary note produced after the workshop, outlining key findings and next steps.

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1. Context and objectives

The **Identifying Levers, Obstacles and Objectives for Interoperability** is part of the VALIDATE step (specification) which bridges the gap between the project's initial idea and its practical implementation. It translates the use cases into technical and functional requirements, while accounting for real-world constraints such as interoperability, data, architecture, security, and putting the user's needs at the center.

More information on the objectives, prerequisites and stakeholders to involve in the EXPLORE step can be found on the LDT4SSC Knowledge Hub¹.

The workshop is designed to achieve the following objectives:

- **Build a shared understanding of the information system's technical architecture**, ensuring all stakeholders have a clear view of its components and interactions.
- **Identify the key improvements required to streamline data flows** between systems, applications, and platforms, enabling more reliable and efficient information exchange.
- **Lay the foundations for successful use-case implementation within the local government**, by ensuring the architecture can effectively support operational and business needs.

This workshop is particularly valuable in organizations where collaboration across departments (eg., GIS, IT, and Open Data) can be strengthened. It is especially relevant when business units face challenges in implementing their use cases because data, expertise, and responsibilities are distributed across multiple teams and systems.

2. Workshop

2.1. Workshop phases overview

<i>Time spent</i>	<i>Phase</i>	<i>Description</i>
15 mins	0. Framing and Icebreaker	Participants revisit the selected use case and project objectives to keep discussions grounded.
1 hour	1. Sketching the technical architecture	Participants sketch out the current information system architecture focusing on applications, software and data flow.
1 hour	2. Solving interoperability issues	Participants address issues identified in the previous phase of the workshop and come up with solutions.
15 mins	3. Synthesising and Defining Next Steps	The facilitator and participants review the findings of the workshop, summarise them and draft follow-up actions.

¹ https://knowledgehub.ldt4ssc.eu/resources_content/methodology/

2.2. Workshop step by step guide

Phase 0: Framing and Icebreaker (recommended allocated time: 15 mins)

The facilitator orients the participants **towards the selected use case** and the overarching project objectives. They list all **relevant project factors** such as: goals, stakeholders, budget. This initial phase ensures that the subsequent discussions remain grounded in a **clear and concrete context**. It also serves to **align all stakeholders** on the purpose, scope, and expected outcomes of the workshop, fostering a shared understanding before diving into deeper phases.

The facilitator also **organises an icebreaker** designed to foster mental and creative engagement by encouraging participants to adopt a playful, and open mindset. This initial interactive, game-like activity, stimulates imaginative thinking, reduces initial social tension, and prepares participants to engage fully in subsequent workshop phases.

Phase 1: Sketching out the information system architecture (recommended allocated time: 1 hour)

The first task for participants is to sketch the current Information Systems' (IS) functional architecture (components, software and data flows) within the local authority or consortium.

If there are many participants, the facilitator can split them into smaller groups of up to eight people to work on different sections of the IS in parallel. This division should reflect a logical breakdown of the IS that supports clear and effective visual mapping.

The following colours and shapes should be used in the exercise:

- Connectors - **Green lines**
- Applications and Software - **Blue Squares**
- Database – **Blue Circles**
- Issues, gaps and flaws - **Red triangles and lines**

Dotted lines can be used for components that are planned.

The facilitator guides the discussions and ensures the following elements appear on the sketched representation:

- the (shared) authentication solution
- the existing links between software, applications and databases
- the hosting solutions (where, by whom?)
- the existing connectors between software
- the user interfaces, including those that consolidate access to multiple software and applications
- Software that is discontinued or new software that is coming.

In the fifteen last minutes of this phase, the facilitators stalls the participants and asks them to check that all the elements are present, pressing them to conclude before moving on to the next phase of the workshop.

If the participants are divided in sub-groups, the groups will have to come together to consolidate their drawings into a unified representation of the IS.

If there is an already existing architecture diagram (See [2.3. Recommendations for Workshop facilitation](#)). Participants are asked to make sure that all its components appear in their sketch.

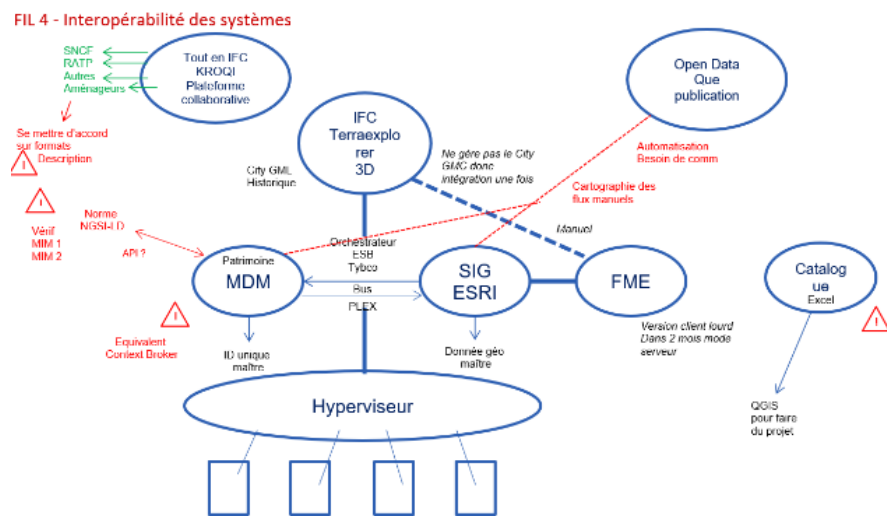


Fig1: Example of an architecture sketch (the cleaned-out after a workshop version).

Phase 2: Solving interoperability issues (recommended allocated time: 1 hour)

Participants are invited to project themselves five years into the future and imagine their ideal IS architecture and data flows. The goal is to identify concrete improvements to the interconnection between existing systems (technical interoperability) and to define actionable next steps for strengthening cross-functional collaboration.

Depending on the current organisation of the IS, two configurations are possible:

- **Unified group:** If the IS is relatively integrated and can't be broken-down into sub-systems, all participants work together in a single group.
- **Subgroups by subsystem:** If the IS can easily be broken down into sub-systems or is organized around 2–3 distinct data repositories (e.g., a GIS platform, a BI-enabled data warehouse, and an open data platform), participants are divided into subgroups, each focusing on one major subsystem.

Composition of each group: At least **1 IT representative**, to provide technical grounding ; At least **1 service provider representative** (if any) to bring an external perspective and **1 dedicated facilitator**, to guide the discussion and ensure productive output.

Subgroups work in the same room so that they can observe and build upon the outputs of the previous workshop session.

Each subgroup is tasked with envisioning how to improve the interconnection and interoperability between the different components of the previously sketched-out architecture. Participants are encouraged to focus particularly on the problems flagged with red triangles during the previous session, treating them as the primary challenges to address.

Facilitators help to stimulate creative thinking by offering concise, targeted prompts which are all potential solutions. They should present these prompts briefly and allow participants to explore them freely. Suggested prompts include:

- A shared data hub — what would it look like?
- Data cataloguing and metadata management ?
- Integration between the GIS platform and other systems ?
- Data contextualization and enrichment ?
- Interoperability standards and APIs ?
- Governance of shared data assets ?
- A data space ?

By the end of this activity, the group should collectively have identified **priority areas for improvement** in the interoperability between data systems and should have proposed **concrete solutions or directions** — which may be convergent, divergent, or complementary across subgroups

It is acknowledged that the full scope of this task may not be completed within the allotted time. The pace will depend on participants' level of engagement and their existing familiarity with the IT systems involved. **The primary objective is not exhaustive coverage**, but rather the identification of key interoperability and interconnection issues. It is not necessary to address every individual application; the same structural problems tend to recur across systems.

Phase 3: Synthesising and Defining Next Steps (recommended allocated time: 15 mins)

Finally, the facilitator **synthesises the workshop's key findings**, addressing any outstanding questions from participants to ensure clarity and alignment on phases / next steps. Finally, the session concludes by **summarising responsibilities, timelines, and follow-up actions**, ensuring accountability and momentum as the project progresses.

2.3. Recommendations for Workshop facilitation

To ensure the workshop's effectiveness, facilitators are advised to adopt the following approaches:

Set up the workshop

Prepare a large collaborative workspace by covering tables with oversized white paper sheets or using a large wall surface. Ensure there is sufficient space for participants to move around and contribute simultaneously, enabling smooth collaboration and minimizing crowding or interference.

Identify Functional issues prior to this workshop

This workshop is to be conducted after identifying functional issues. In the LDT4SSC Methodology, these issues are identified during the definition of use cases: *1.1. Mapping your Use Case: Visualising Processes, Pinpointing Challenges, and Co-Designing Data-Driven Solutions*.

Have a technical facilitator

To guide the participants of this workshop, it is highly recommended to have a technical profile.

Prepare the architecture diagram

If there is already a technical architecture diagram, it is best to have it available. It should be reproduced or printed on a large sheet (at least A3) of paper before the workshop begins, so that everyone can clearly see the entire information system.

Gather the right participants

Participants must have technical backgrounds and be familiar with at least part of the local government's IT system. Especially, there should be people that have the knowledge about how databases are managed by each department (e.g., Open Data, GIS, etc.).

Subcontractors and service providers that provide key building blocks and components of the IS such as GIS or Electronic Document Management (EDM) are welcome to participate. The advantage is that they are usually accustomed to establishing interconnections.

Have the right posture

Facilitators should remain supportive and neutral, encouraging participants to contribute visually and verbally while ensuring all voices are heard. Their role is to listen attentively, ask clarifying questions, and maintain the flow of conversation. In phase 1 They should avoid debating or influencing participants' representations of the organization, as the purpose is to capture the current reality.

3. Next steps

The following workshops for the VALIDATE step are:

- *Bonus: Lego® Serious Play: A Transversal Tool to Address and Overcome Data Governance Challenges*

NB: The *Bonus: Lego® Serious Play* workshop is a workshop aimed at unwrapping bottlenecks via the usage of Legos, so it can be paired with any and all workshops in the VALIDATE step.

Next Methodology steps:

- *Done: Complete the EXPLORE workshops*
- *Ongoing: Complete the VALIDATE workshops*
- *Complete the DEFINE workshops*
- *Complete the IMPLEMENT workshops*

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