

#### **Assessing Replicability**

Method, Applications and Opportunities

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### **The Replication Process**



Replication is a key mechanism for scaling up successful innovations by **adapting them to new contexts**.

- It is not a simple "copy and paste": each city, organisation or region has its own specific characteristics requiring adjustments in governance, market structure, infrastructure, and social acceptance.
- A well-structured replication process reduces risks, optimises resources, and increases the chances of success.
- INSPIRE<sup>™</sup> is the methodology developed by ISINNOVA to support this process with a data-driven and decision-oriented approach, helping to assess the replication potential of solutions in specific contexts.
- This tool enables decision-makers and stakeholders to identify the most suitable solutions, anticipate challenges, and optimise implementation strategies.







### **INSPIRE<sup>TM</sup>: A Multidimensional Approach**





- INSPIRE assesses the replicability of urban solutions, policies, incentives, governance models, and technologies.
- Multidimensional analysis: replicability is not only technological—it also depends on economic, institutional, regulatory, socio-cultural, and environmental factors
- Analytical approach based on Cartesian diagrams allows to evaluate replicability across different dimensions by considering:
  - Intrinsic characteristics of the solution
  - Specific conditions of the context
- INSPIRE is a structured methodology to identify the optimal conditions for replication





### **INSPIRE<sup>TM</sup>: How We Measure Replicability**



- Replicability Diagrams are at the core of the INSPIRE method
- Each Cartesian diagram represents one replicability dimension and is built using two variables:
  - $\circ \quad \textbf{X-axis} \rightarrow \textbf{Solution Variables:} \ characteristics intrinsic to the solution$
  - Y-axis → Context Variables: conditions of the context where replication is being evaluated
- Each solution is associated with a Solution Variable and a Context Variable. Once the values are assigned, the solution appears as a single point within the graph.
- This visual representation gives an immediate understanding of how well a solution fits within a given replication context.





### **INSPIRE<sup>TM</sup>: How We Measure Replicability**



A third axis – the replicability scale – runs diagonally across the diagram.

- The intersection between the solution's point and the grid determines its replicability value (between 0 and 100%)
- This quantification—based on key selected variables—provides a structured tool to compare and evaluate the replicability of solutions across different contexts.

→ The diagram becomes a strategic tool to:

- Highlight the solutions with the highest potential for replication
- Pinpoint critical aspects that need to be adjusted to improve replicability

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# **INSPIRE<sup>TM</sup> in Smart City projects**





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## **INSPIRE<sup>TM</sup> in Smart City projects**



- $\rightarrow$  5 dimensions  $\rightarrow$  5 Replicability values
- These are then combined—either through a simple or weighted average— to calculate the Overall Replication Potential for each solution.

	Socio-Cultural Replication	Institutional Replication	Technological Replication	Environmental Replication	Economic Replication	Overall Replication Potential
Solution 1	?	?	?	?	?	?
Solution 2	?	?	?	?	?	?
Solution 3	?	?	?	?	?	?
Solution 4	?	?	?	?	?	?
Solution 5	?	?	?	?	?	?
Solution 6	?	?	?	?	?	?





# **INSPIRE™ in Smart City projects**



The results are fully comparable, enabling multiple levels of analysis:

- Ranking of solutions within each city
- Ranking of cities for each specific solution







# **INSPIRETM: A Flexible and Customisable Method**



- INSPIRE<sup>™</sup> is not a one-size-fits-all model! It's a flexible methodology that adapts to the needs of each specific project.
- → Where INSPIRE has been applied:
  - <u>RUGGEDISED</u> Smart solutions for urban areas
  - <u>REGATRACE</u> Policy development for biomethane markets
  - BIOMETHAVERSE New technologies for biomethane production
  - $\circ$  ...other ongoing projects



How we customise INSPIRE for each project:

- Initial consultation understand project goals and replication needs.
- 2. Method adaptation select the most relevant dimensions and tailor the indicators.
- **3. Custom tool development** design tailored questionnaires and data collection tools
- **4. Data analysis** use the INSPIRE tool to process and interpret results
- 5. **Reporting** deliver detailed insights, replicability scores, and solution rankings







**INSPIRE**<sup>TM</sup>: Future Developments & Collaboration Opportunities

- Continuous evolution of the methodology to adapt to new sectors and challenges
- Integration with digital tools (work in progress)
  - o development of a web app to facilitate the use of the INSPIRE<sup>™</sup> tool
  - Increased accessibility of results for external users (decisionmakers and stakeholders)
- Collaborations with public and private entities
  - Support to European and international funding projects
  - Making INSPIRE<sup>™</sup> a reference point for replicability assessment at EU level





# THANK YOU FOR YOUR ATTENTION!

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