



# Assessing Replicability

*Method, Applications and Opportunities*

Loriana Paolucci

Stefano Proietti

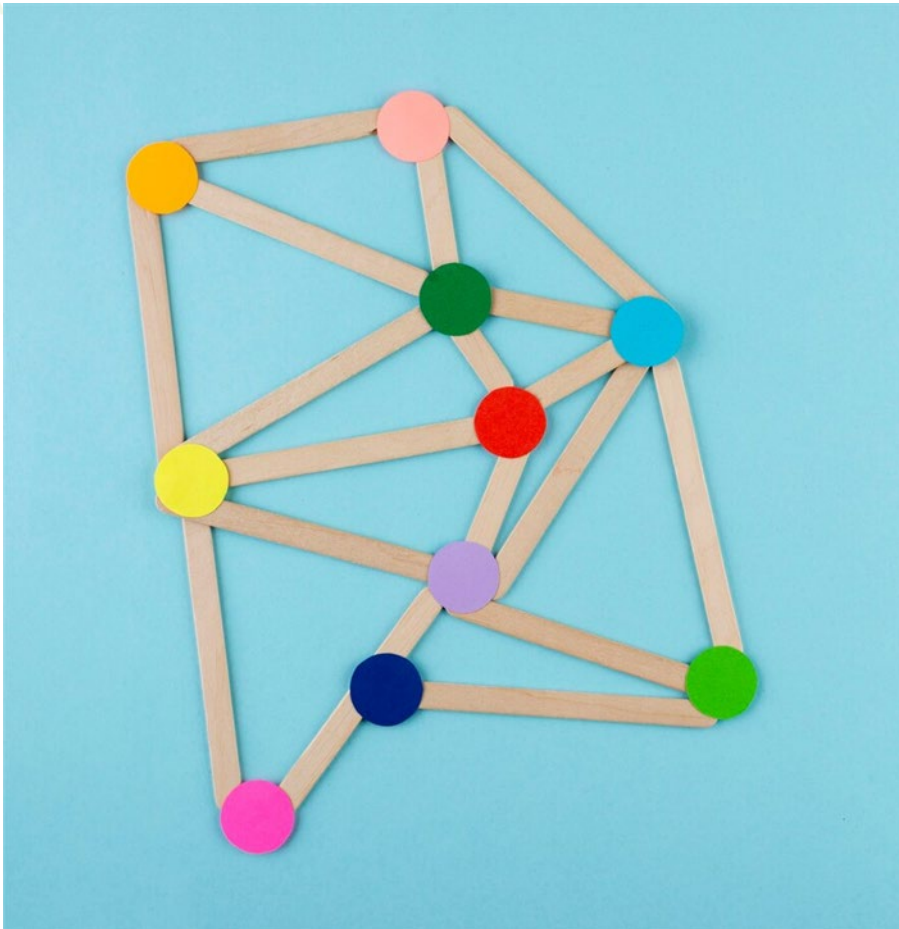
ISINNOVA

# 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™** 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.



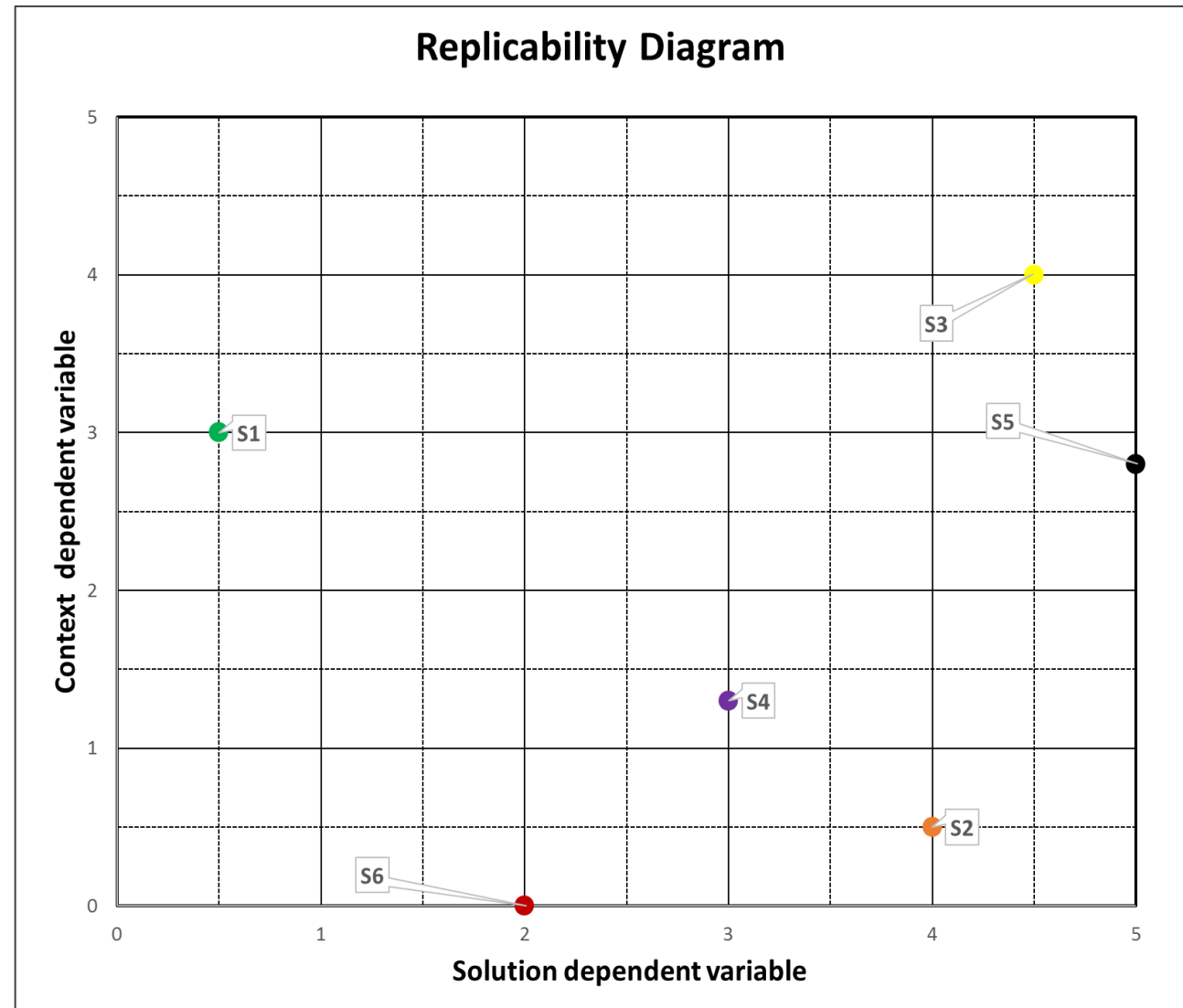
# INSPIRE™: A Multidimensional Approach



- 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

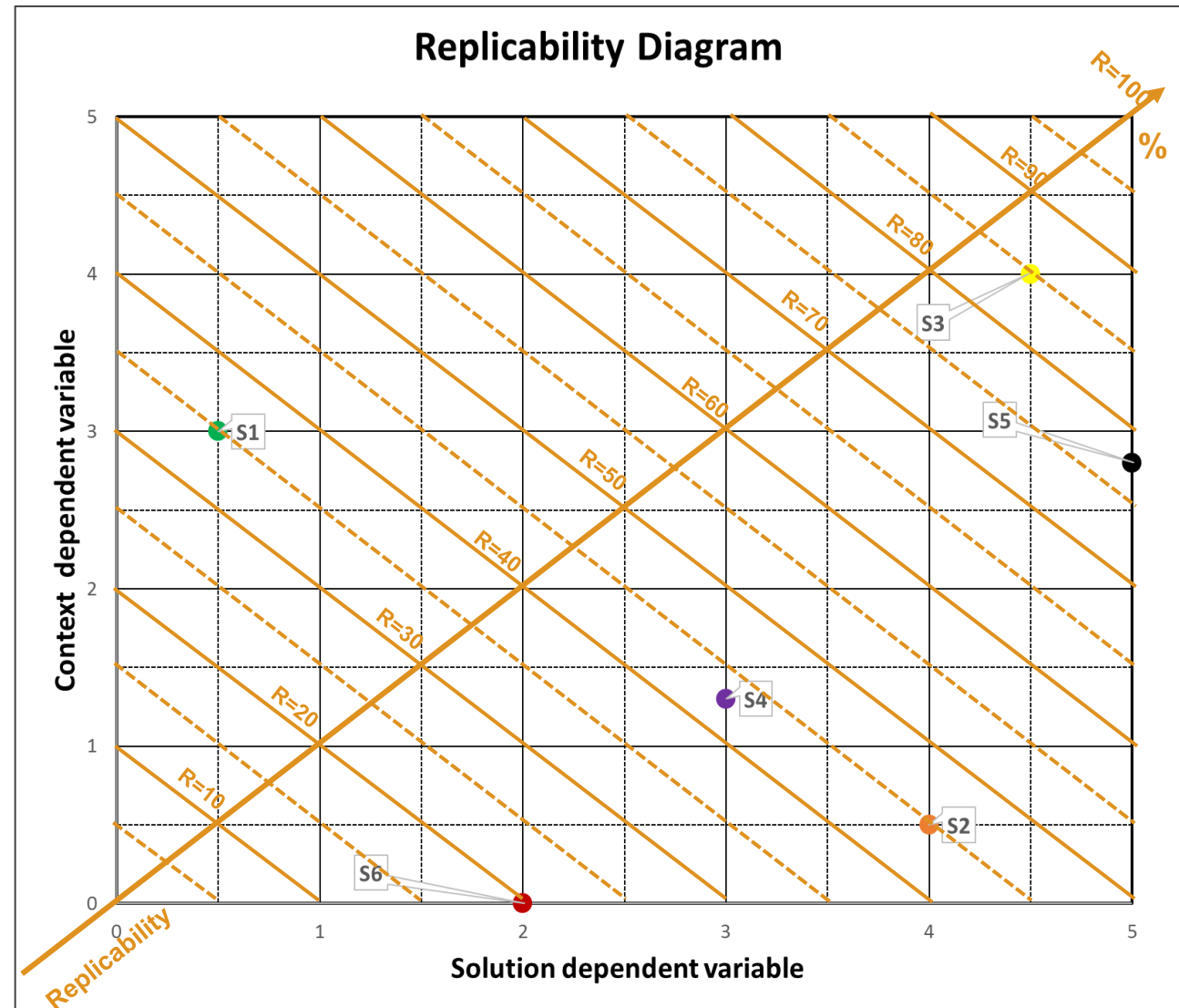
# INSPIRE™: How We Measure Replicability

- Replicability Diagrams are at the core of the INSPIRE method
- Each Cartesian diagram represents one replicability dimension and is built using two variables:
  - X-axis → **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™: 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

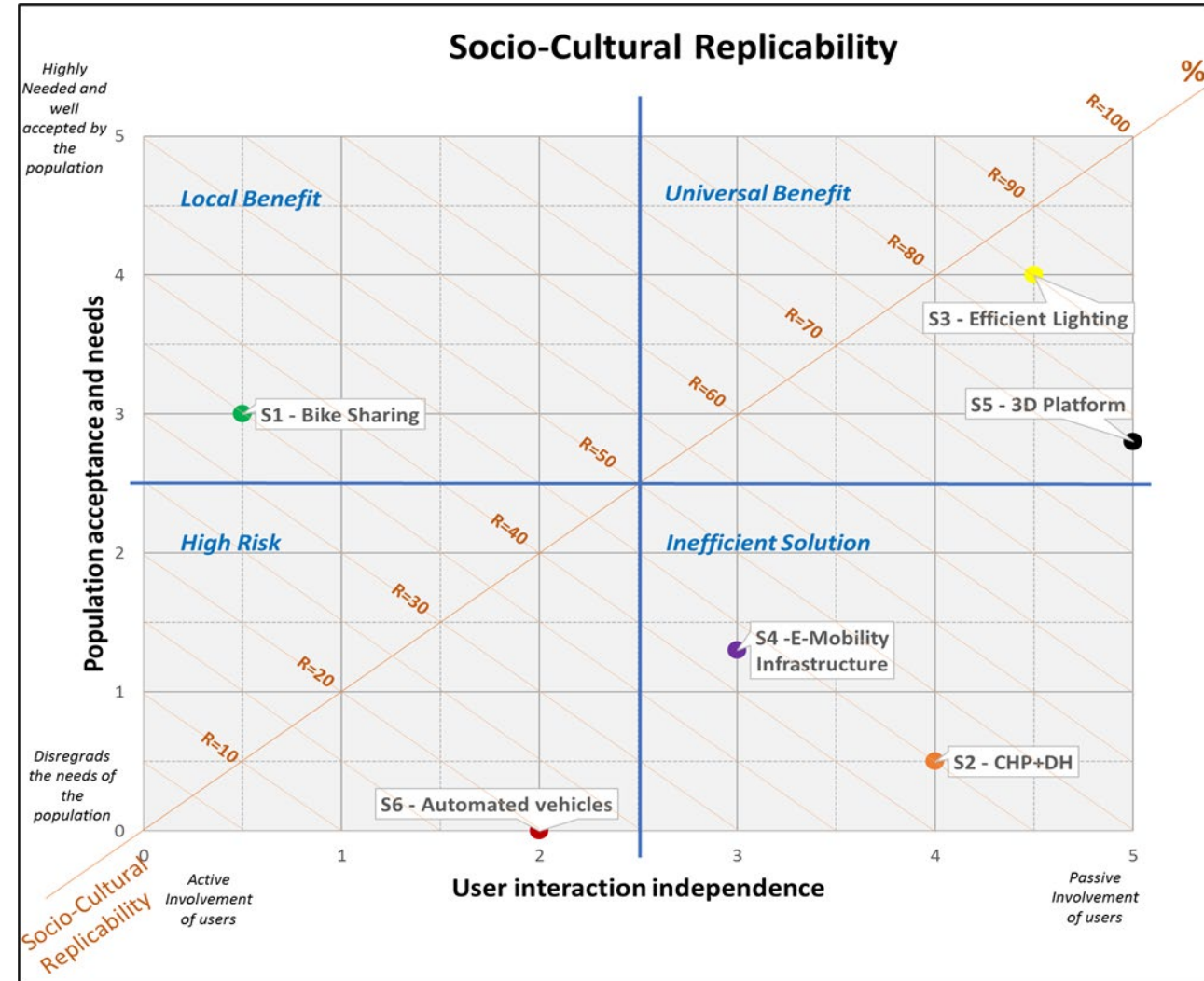


# INSPIRE™ in Smart City projects

- Smart City Project – Replicability of Smart Urban Solutions across 3 Follower Cities
- The assessment considered **five replicability dimensions**:
  - Socio-cultural
  - Institutional
  - Technological
  - Environmental
  - Economic

Example: *Socio-cultural dimension*

- Solution variable** (x): Independence in User Interaction
- Context Variable** (y): Population acceptance and needs



# INSPIRE™ in Smart City projects

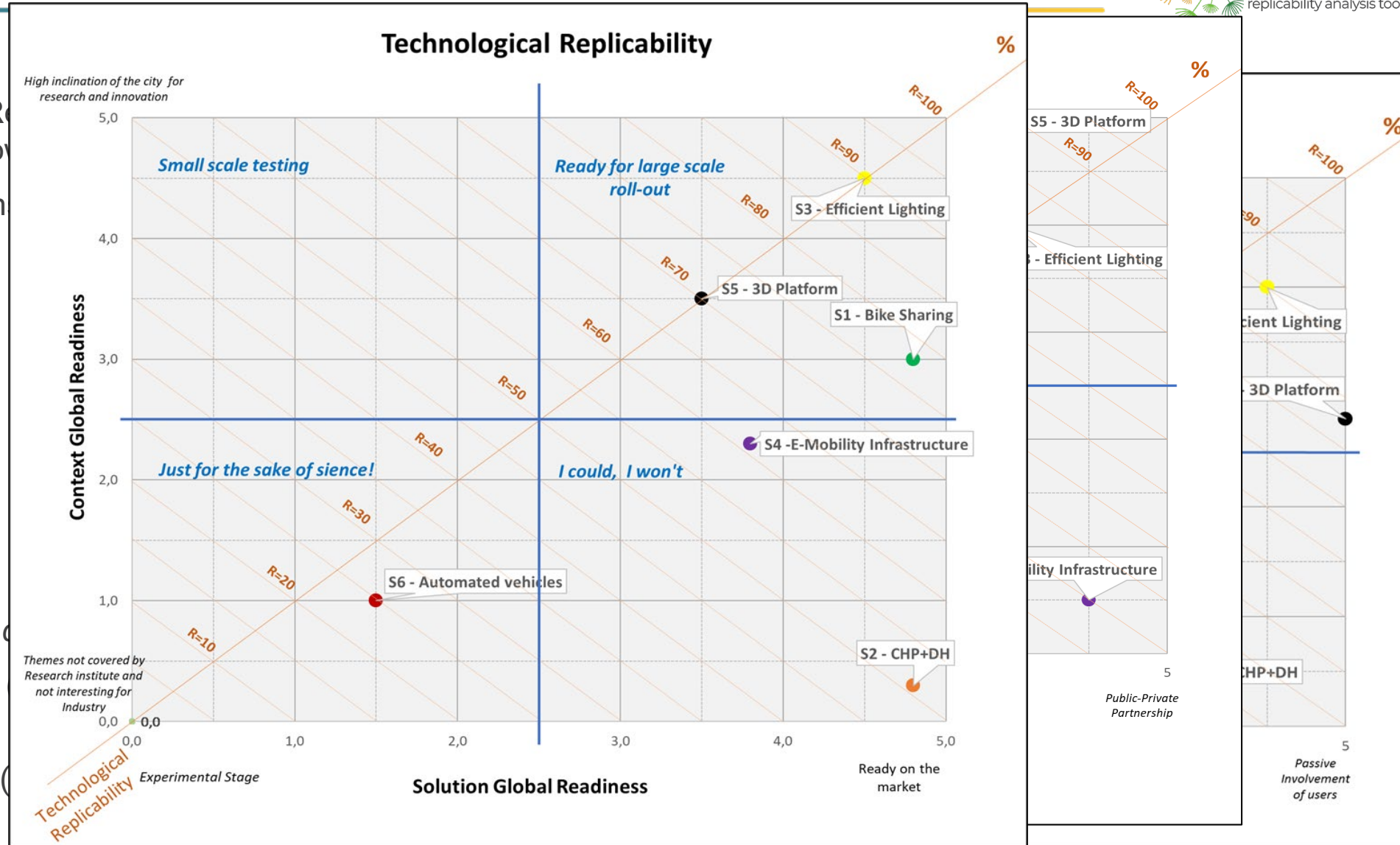
Smart City Project – R Solutions across 3 Follow

The assessment con dimensions:

- Socio-cultural
- Institutional
- Technological
- Environmental
- Economic

Example: Socio-cultural

- Solution variable Interaction
- Context Variable and needs

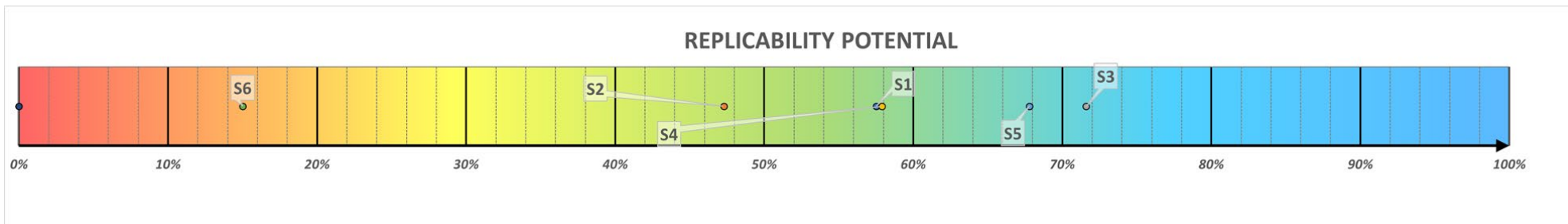


# INSPIRE™ in Smart City projects

- 5 dimensions → 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
Solution 1	?	?	?	?	?
Solution 2	?	?	?	?	?
Solution 3	?	?	?	?	?
Solution 4	?	?	?	?	?
Solution 5	?	?	?	?	?
Solution 6	?	?	?	?	?

Overall Replication Potential
?
?
?
?
?
?

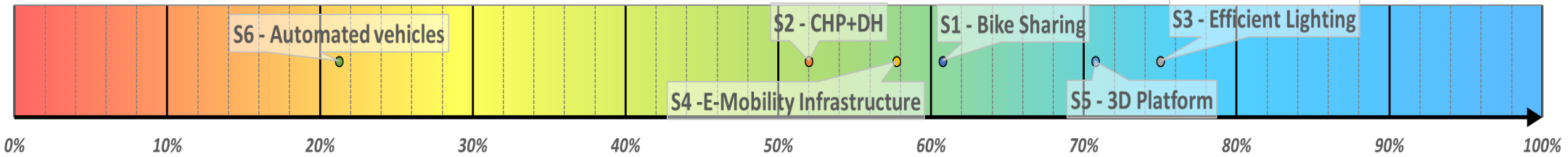


# INSPIRE™ in Smart City projects



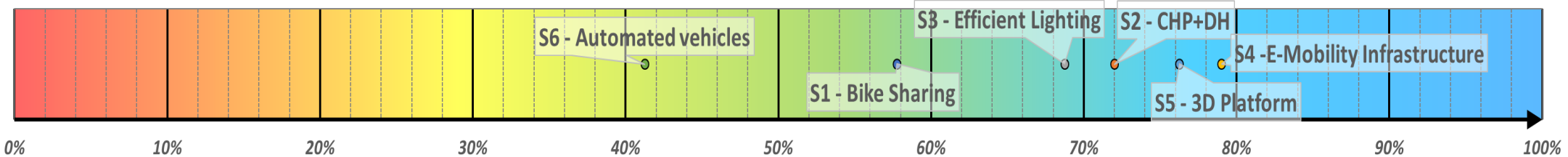
- The results are fully comparable, enabling multiple levels of analysis:
  - Ranking of solutions within each city
  - Ranking of cities for each specific solution

REPLICABILITY POTENTIAL in **CITY A**



	Overall Replicability
S1	61%
S2	52%
S3	75%
S4	58%
S5	71%
S6	21%

REPLICABILITY POTENTIAL in **CITY B**



	Overall Replicability
S1	58%
S2	72%
S3	69%
S4	79%
S5	76%
S6	41%

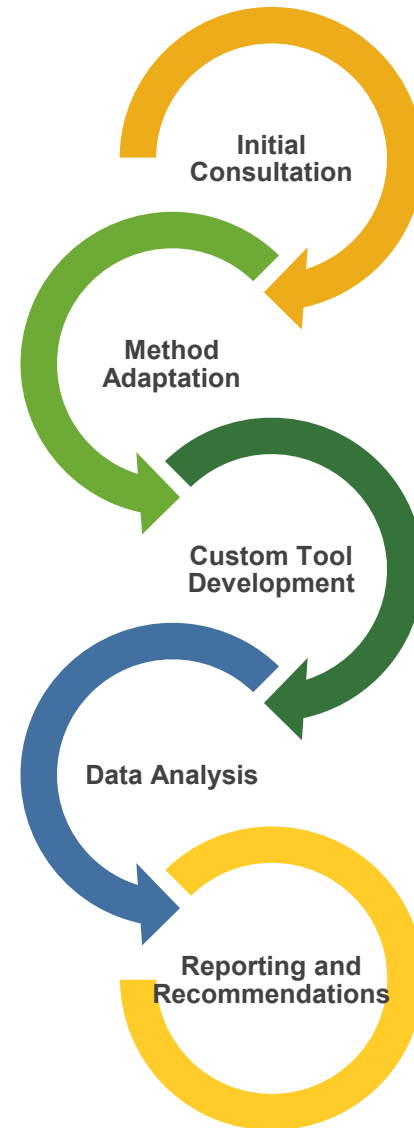
# INSPIRE™ - A Flexible and Customisable Method



INSPIRE™ 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:

- **RUGGEDISED** – Smart solutions for urban areas
- **REGATRACE** – Policy development for biomethane markets
- **BIOMETHAVERSE** – New technologies for biomethane production
- ...other ongoing projects



How we customise INSPIRE for each project:

1. **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

## 🌟 Web App ready for testing

The INSPIRE™ web application is now available and currently being tested within the BIOMETHAVERSE project.

It allows users to run replicability assessments directly online — no more Excel version needed!

## 🌟 New Landing Page

INSPIRE now has its own landing page on ISINNOVA's website, making the methodology and its applications accessible to external stakeholders. <https://www.isinnova.org/inspire/>

## 🌟 Expanding collaborations

INSPIRE™ is currently being applied and further customised in **five ongoing EU-funded projects** where ISINNOVA acts as **coordinator or key partner**, consolidating its role as a reference methodology for replication analysis in Europe



- **A flexible and scalable tool**  
Adaptable to any domain — from smart cities and clean energy to mobility, circular economy, and policy design.
- **A quantitative approach on replication**  
Turns an abstract concept into measurable evidence — providing **numbers, rankings, and visuals** to understand what works, where, and why.
- **A recognized reference for innovation projects**  
Addresses a long-standing gap in EU R&I programmes, where replication is expected but rarely assessed systematically
- **A growing framework**  
Our goal is to make INSPIRE™ a **European reference for replication analysis**, applied across **EU and non-EU projects**, supporting decision-makers in scaling successful solutions with confidence..

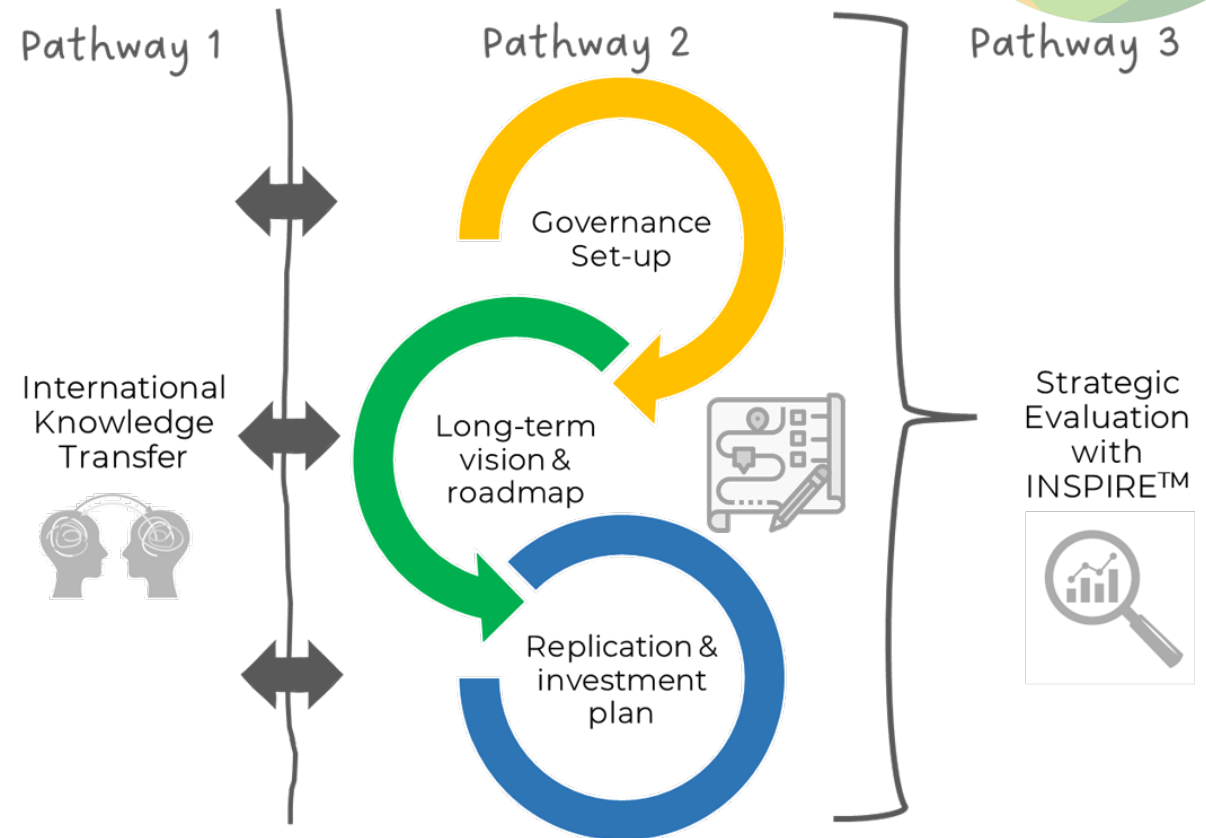


# ISINNOVA's Structured Approach to Replication



- ISINNOVA's replication strategy is built on **three key pillars**, ensuring a structured, effective, and scalable process:
  1. **International Knowledge Exchange** – Sharing best practices and real-world insights through study visits, peer-learning, and training activities.
  2. **Local Strategy for Replication** – Supporting Replicators in developing governance, planning frameworks, and investment strategies to successfully adapt innovations.
  3. **Strategic Evaluation** – Assessing feasibility, barriers, and enablers to ensure solutions are effectively adapted to local contexts.
- These three elements work together to **maximise impact, reduce risks, and transform Followers into future Leaders.**

**INSPIRE**



***THANK YOU  
FOR YOUR  
ATTENTION!***

Loriana Paolucci  
[lpaulucci@isinnova.org](mailto:lpaulucci@isinnova.org)

Stefano Proietti  
[sproietti@isinnova.org](mailto:sproietti@isinnova.org)

*Doing the Math to Replicate Success Stories*



Powered by

**ISINNOVA**  
research innovation sustainability