Assessing Replicability

Method, Applications and Opportunities

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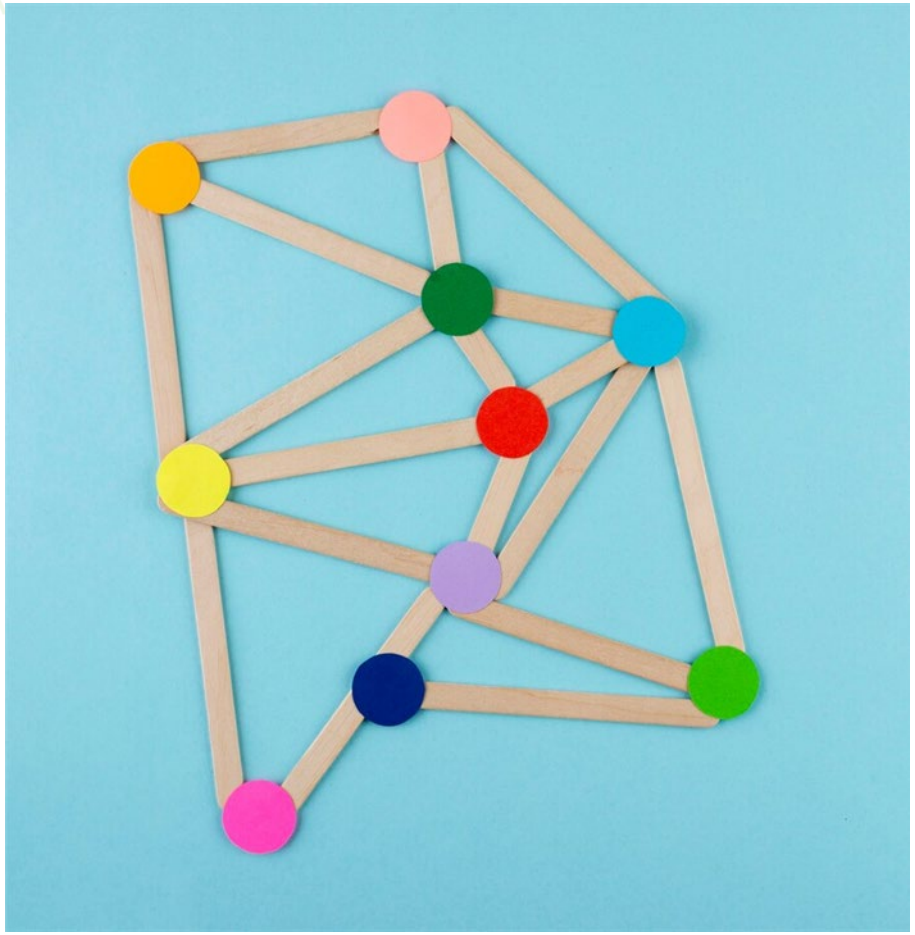
The Replication Process

- 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™** 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

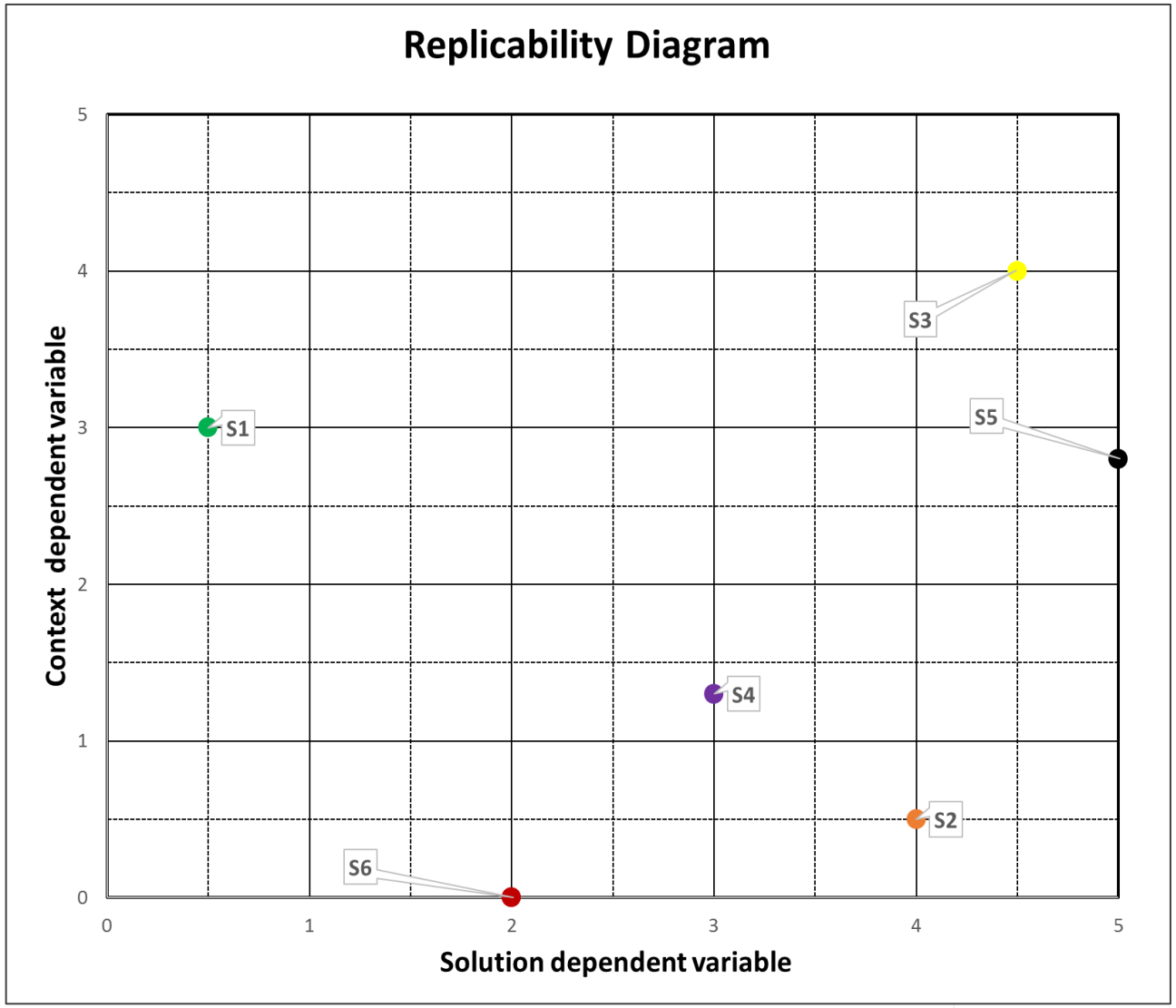
INSPIRE™: How We Measure Replicability

- **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.**



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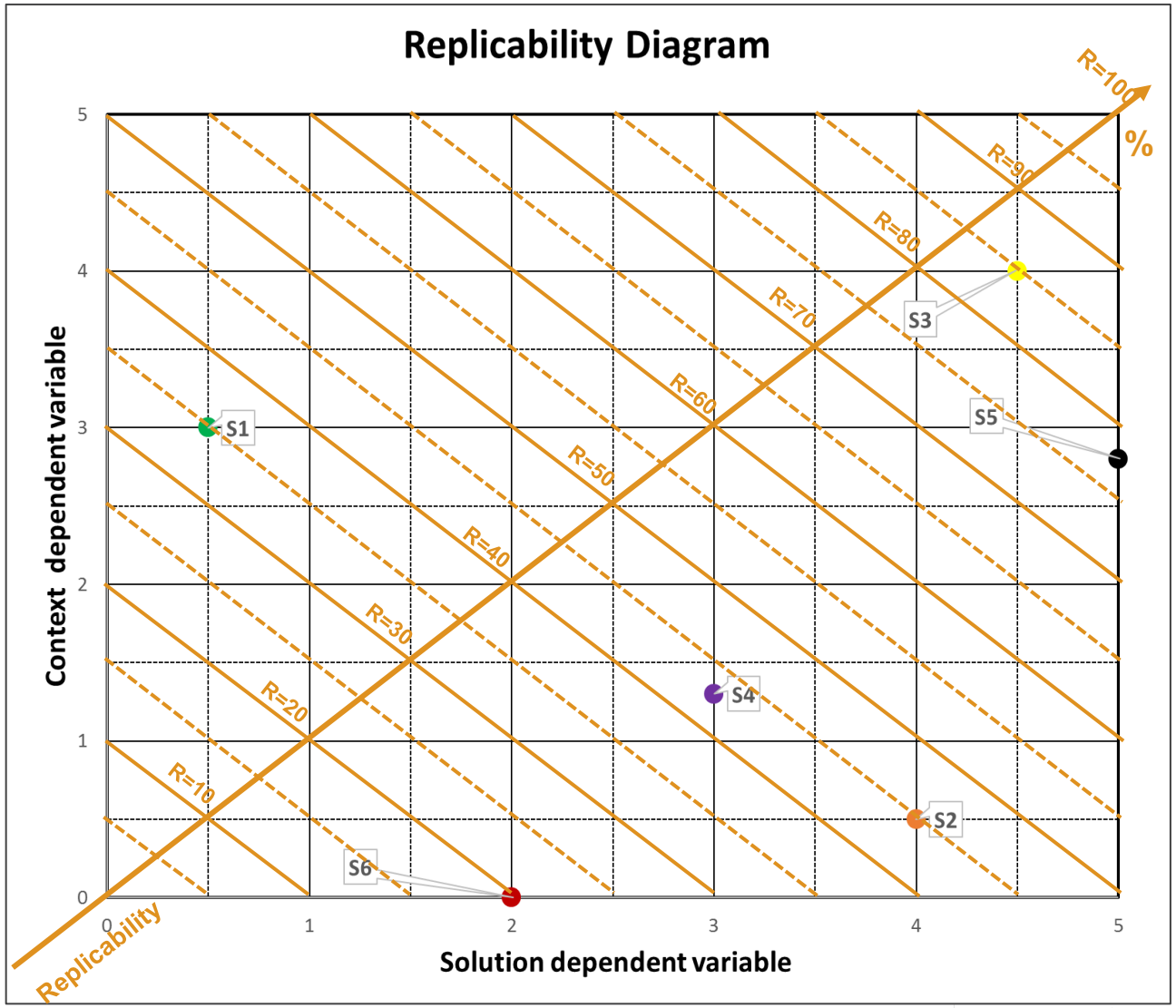
INSPIRE™: How We Measure Replicability

- 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



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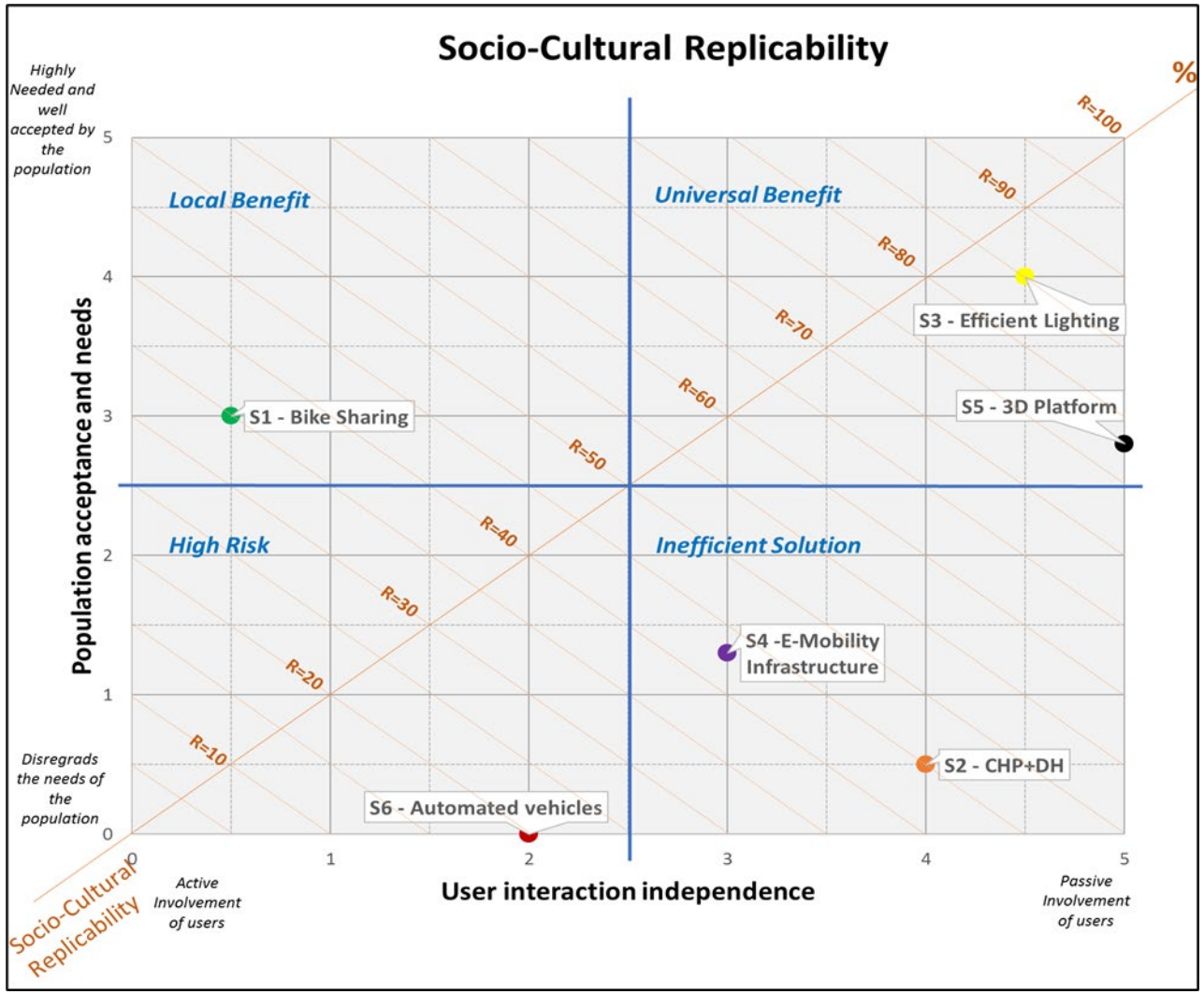
INSPIRE™ in Smart City projects

- 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



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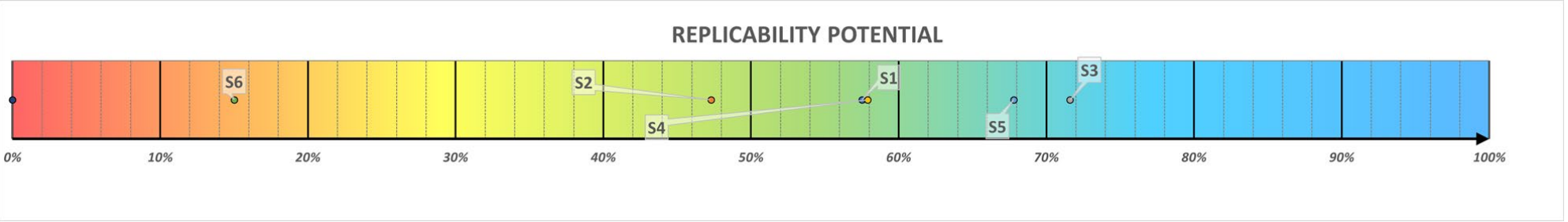
INSPIRE™ in Smart City projects

- 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.

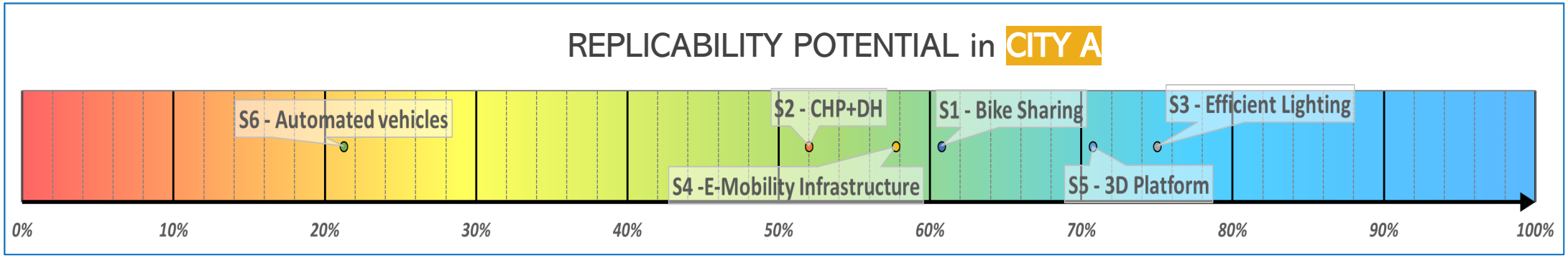
	Socio-Cultural Replication	Institutional Replication	Technological Replication	Environmental Replication	Economic Replication
Solution 1	?	?	?	?	?
Solution 2	?	?	?	?	?
Solution 3	?	?	?	?	?
Solution 4	?	?	?	?	?
Solution 5	?	?	?	?	?
Solution 6	?	?	?	?	?

Overall Replication Potential
?
?
?
?
?
?

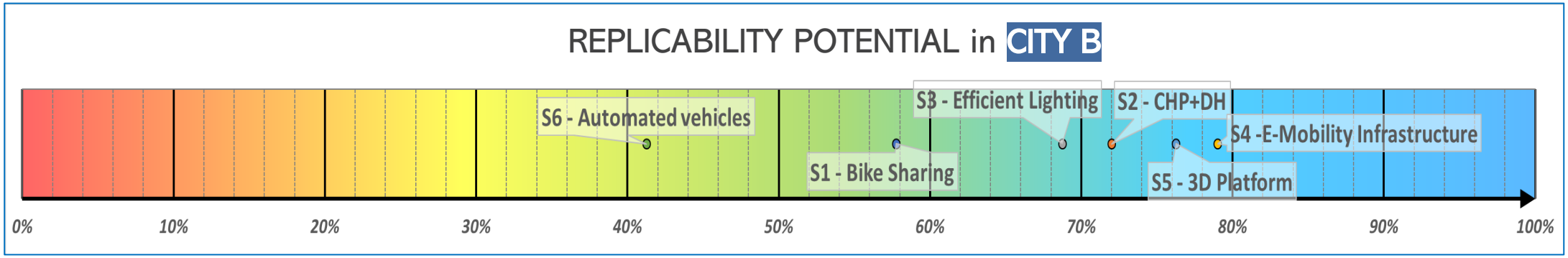


INSPIRE™ in Smart City projects

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



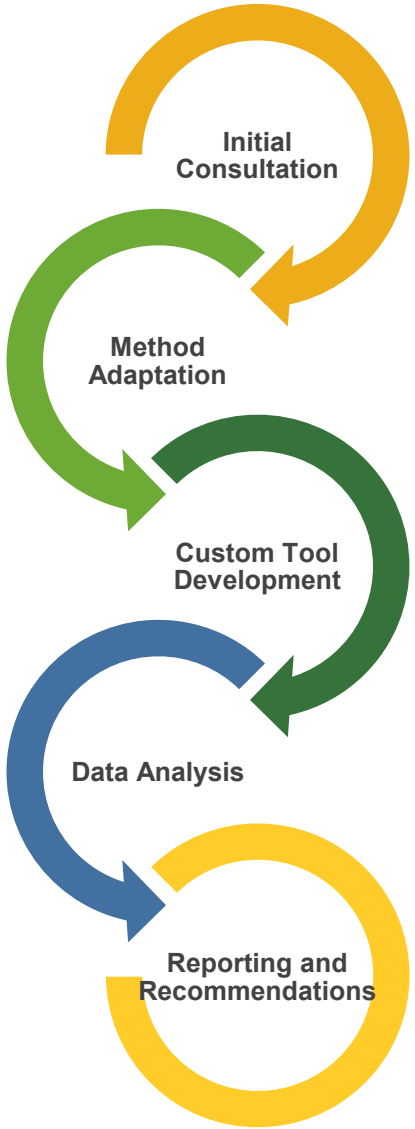
	Overall Replicability
S1	61%
S2	52%
S3	75%
S4	58%
S5	71%
S6	21%



	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

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INSPIRE™: Future Developments & Collaboration Opportunities

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

THANK YOU FOR YOUR ATTENTION!

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Doing the Math to Replicate Success Stories

INSPIRE
replicability analysis tool

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