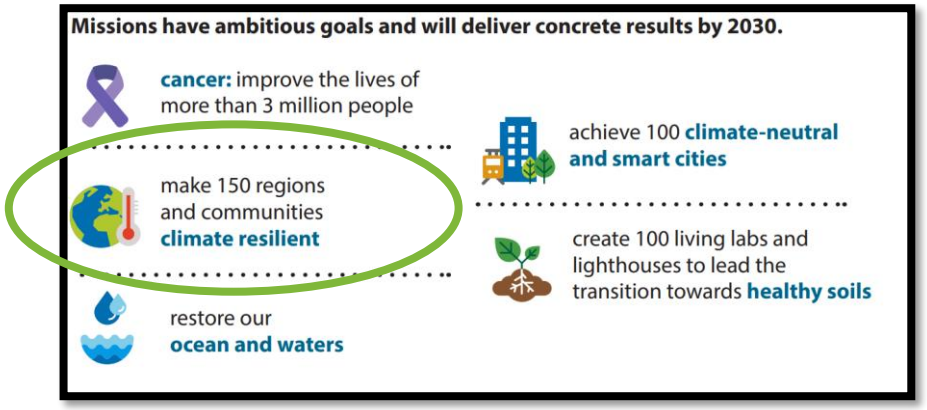
TransformAr
Assessment method for solutions' replication potential

Replicability Assessment Tool

A frontrunner project on the EU Adaptation Mission

TransformAr 2021 - 2025

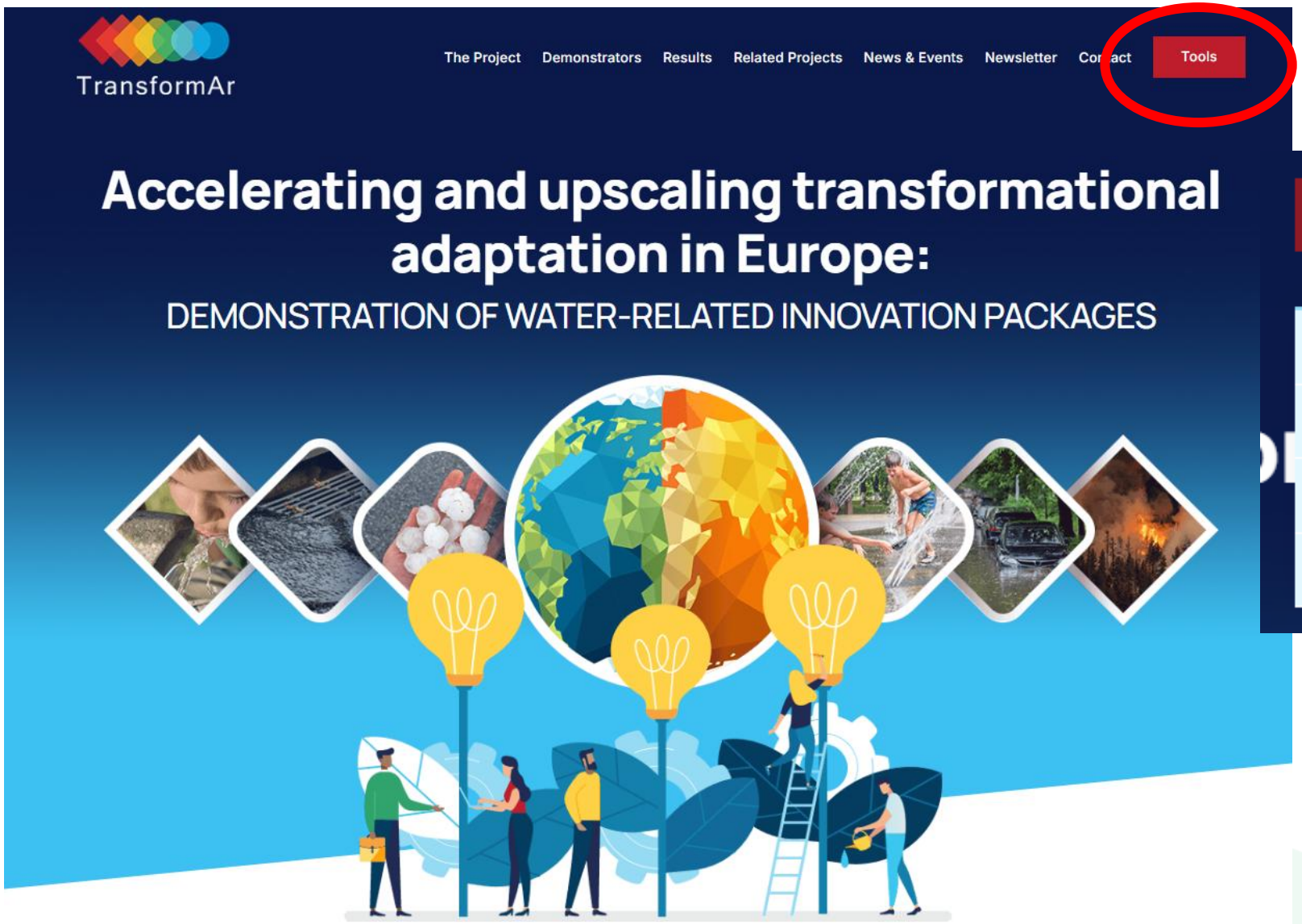


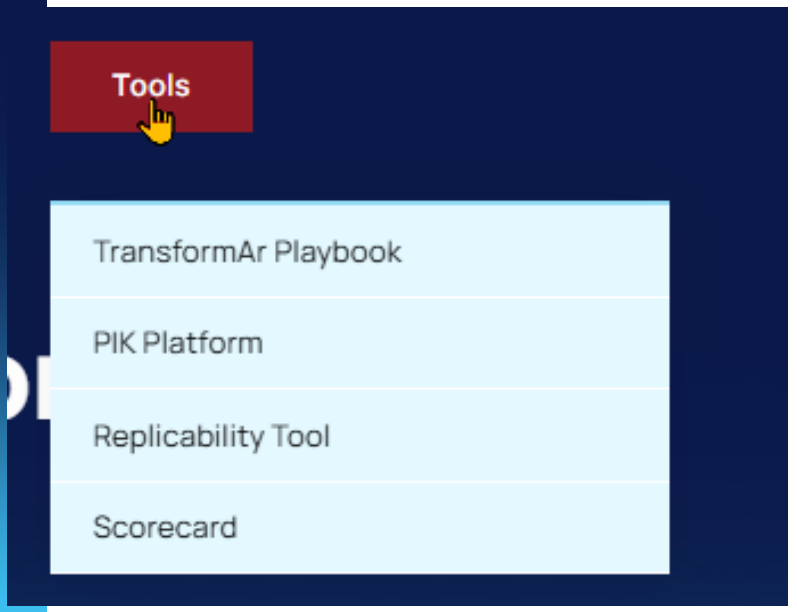
Selection of main results

- Playbook: Tool to co-develop adaptation pathways (40 workshops)
- Climate Impacts Online Visualisation Platform
- Bankability reports & alternative financing mechanism (Guadeloupe Adaptation Fund, Nutrient Credit Schemes, …)
- 20 Solutions tested at pilot scale in demonstrators → learning stories & adaptation stories
- Policy Brief on Transformational Adaptation & Scorecard
- **Replicability Assessment Tool**

TransformAr tools

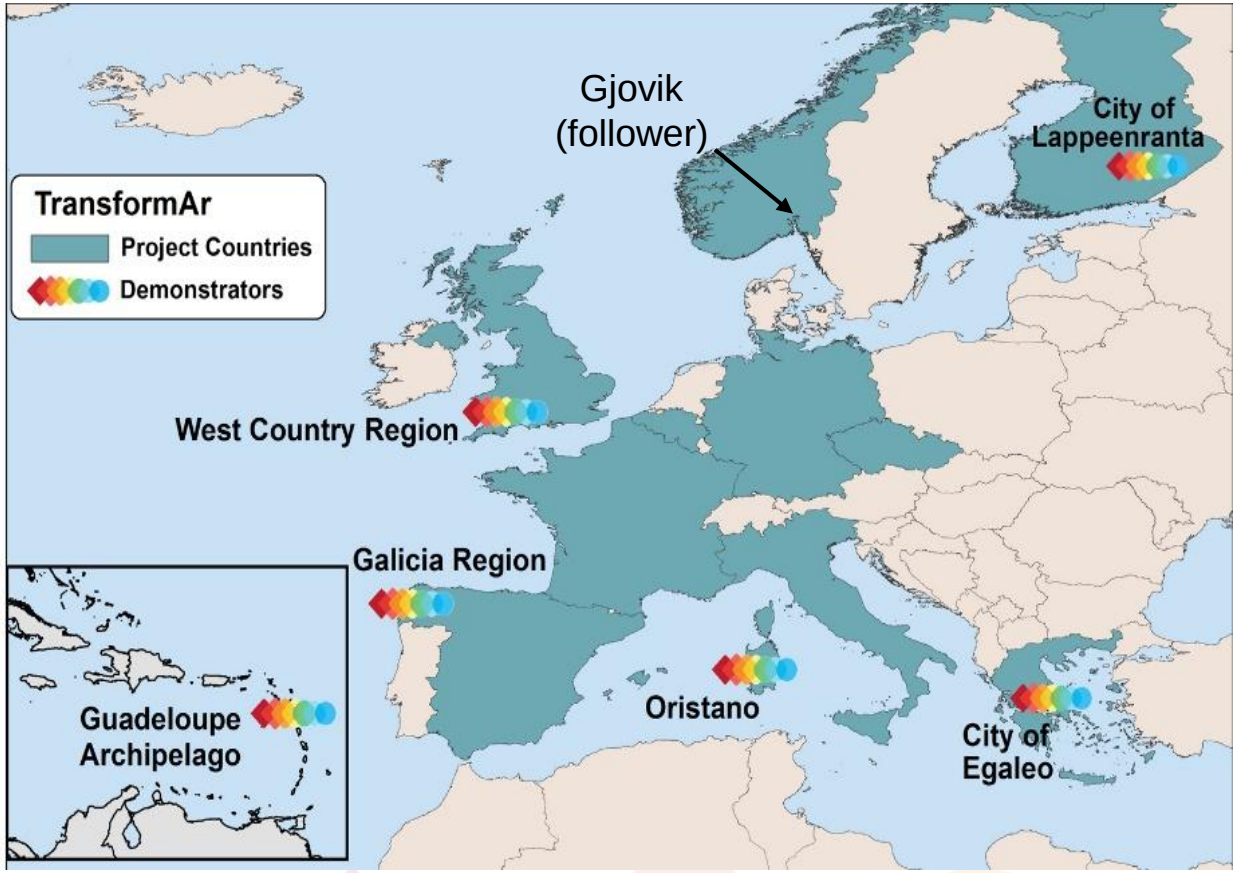
2021 - 2025





← **Download the tool**

Demonstrator regions & adaptation stories



Demonstrator name	Focus for region-specific portfolios of solutions
West Country region, UK	Nutrient credit schemes
Guadeloupe Archipelago, France	Local adaptation fund
Oristano, Sardegna, Italy	Coastal contracts & smart gate
Galicia region, Spain	Digital solutions for mussel and clam aquaculture Resilience Index
City of Lappeenranta, Finland	Urban nature-based stormwater management
City of Egaleo, Greece	Climate-smart solutions for urban microclimate

https://transformar.eu/results/

TransformAr's actionable adaptative solutions

20 solutions implemented in the demonstrators:

TECHNOLOGY ***Low-cost sensors; digital monitoring of flow rates and water quality; smart climate stations; real-time monitoring (intertidal monitoring; mussel raft monitoring) stormwater management systems***

NATURE-BASED SOLUTIONS ***Integrated constructed wetlands; NBS for urban stormwater management (greeneries; green roofs); smart grids for coastal management***

GOVERNANCE ***Resilience index; Coastal contracts for actors involved in coastal wetlands management; Climate innovation hub***

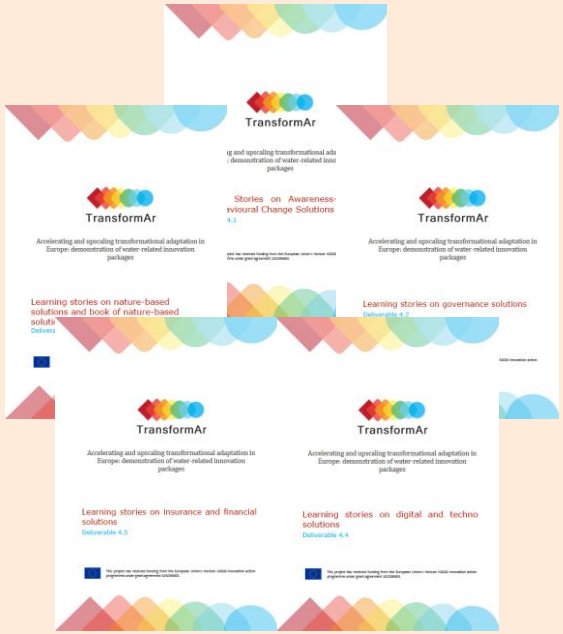
FINANCING & INSURANCE MECHANISMS ***Nutrient Credit schemes; Local Adaptation fund; Insurance mechanisms; Choice experiment for investors***

BEHAVIOURAL CHANGE ***Nudging experiment; Citizens' app for crowd sensing and real time monitoring of extreme flooding events due to climate change events by citizens***

Introduction

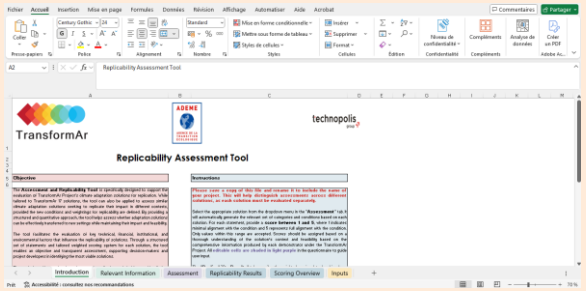
1 Learning stories

September 2024



2 Replicability Assessment Tool

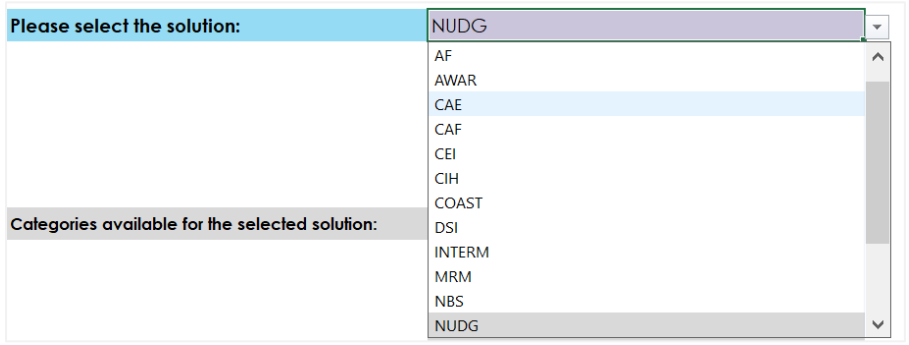
March 2025



- Potential replicators can:
  - Qualitatively **score themselves** against the replicability conditions
  - Help users understand which solutions are viable for replication
  - Gain insight into the conditions where they need to **improve**

Assessment tab (1/3)

1 Select the solution



2 Replicability categories appear

- 12 categories identified with the demos
- Only relevant categories are included in the assessment of each solution

Data & Analytics

Environmental & Climatic

Financial & Economic

Governance & Policy

Monitoring & Evaluation

Operational

Planning & Risk Management

Political & Institutional Support

Scientific & Research Expertise

Social & Behavioural

Stakeholder & Community Engagement

Technical & Infrastructure Readiness

Assessment tab (2/3)

3 Assign your score per replicability condition

- A set of **replicability conditions** for each relevant category has been defined with the demos for each solution
- Solution-specific **weightings** have been defined for each condition to reflect its importance (essential vs. desirable)
  - Weightings reflect each solution's unique context, based on demos' real-world experience
  - Tailored approach avoids one-size-fits-all assumptions and enhances accuracy
  - Co-developed with demonstrators through interviews, site visits and validation meetings
  - Ensures key conditions that truly influence replicability are prioritised

Category: **Scientific & Research Expertise**

This category assesses whether a solution is replicable based on scientific validity, research backing, and the availability of expertise in the field.

Condition	Description	Statement	Weighting	User Score (1 to 5)
Participatory Methods Experience	Experience with conducting stakeholder consultations, specifically the Delphi method, is necessary to effectively engage the expert	There is experience with conducting expert or stakeholder consultations (such as the Delphi method) to effectively engage key actors in	14%	5
Mathematical Modelling	The Resilience Index requires expertise in advanced mathematical modelling, and the capacity of 1-2 researchers to lead the methodology for developing the Resilience	I have access to expertise in advanced mathematical modelling, and the capacity of 1-2 researchers to undertake the methodology to develop the Index.	14%	1

Example for the RI scientific & research expertise category

Assessment tab (3/3)

3 Assign your score per replicability condition

→ User **rate** their alignment with the condition on a scale from 1 to 5

Category:	**Planning & Risk Management**			
This category determines if a solution is replicable while managing risks effectively, including contingency planning, risk mitigation, and long-term resilience.				
Condition	**Description**	**Statement**	**Weightin**	**User Score (1 to 5)**
Urban Space Availability	Space constraints in city centers must be addressed to find suitable locations for biofiltration areas.	There is available urban space for the implementation of biofiltration areas.	10%	**5**
Water Quality Concern	Ground water or water bodies need to be at risk nearby the proposed solution	There is a water quality concern due to pollution coming from traffic	7%	**3**
Integration with Urban Planning	The NbS solution must align with broader urban planning efforts and infrastructure developments.	The NbS solution is integrated with broader urban planning and street renovation projects.	7%	**1**

Example for the URB Planning & Risk Management category

Replicability Results tab (1/2)

Solution selected:	AF

Category	Condition	Weighting	User Score	Weighted Score	Level of priority to maximise replication potential*
Stakeholder & Community Engagement	Communication & Outreach	13%	5	0,65	Low priority
Political & Institutional Support	Political Backing	13%	4	0,52	Low priority
Scientific & Research Expertise	Organizational Capacity	12%	3	0,36	High priority
Stakeholder & Community Engagement	Fostering participation of beneficiaries	12%	2	0,24	High priority
Financial & Economic	Financial Availability	12%	1	0,12	High priority
Governance & Policy	Local Institutional Support	11%	4	0,44	Low priority
Planning & Risk Management	Feasibility Study	11%	3	0,33	Low priority
Political & Institutional Support	Political Support	11%	2	0,22	Low priority
Financial & Economic	Openness to public-private partnerships	5%	5	0,25	Low priority

Replicability Score (out of 5):	**3,13**

Replicability score = **Σ (Condition Weighting x Condition Score)**

Each condition is classified as **high** or **low** priority based on its weighting and user score

High priority = High weighting (top 50%) + low score (≤ 3)
IMPORTANT & UNDERPERFORMING

Low priority = Low weighting or high score (> 3)
LESS CRITICAL OR WELL-ALIGNED

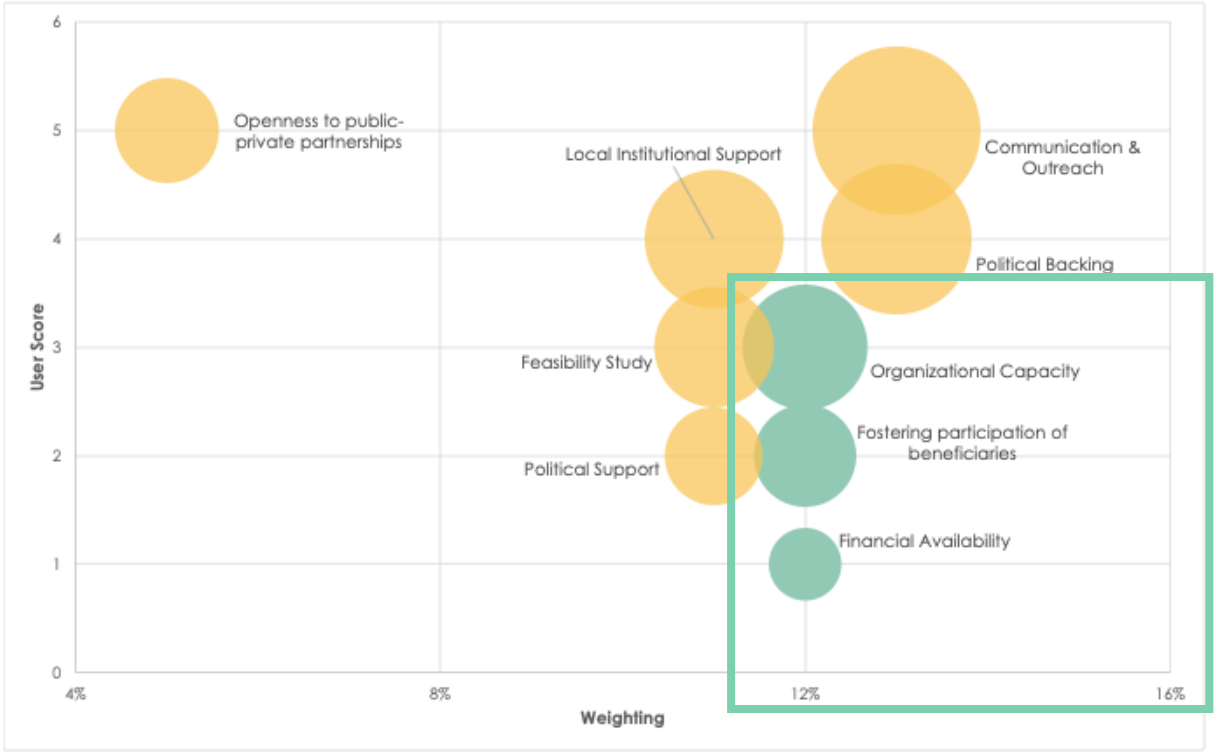
5	**Highly replicable**
4	**Easily replicable**
3	**Moderately replicable**
2	**Difficult to replicate**
1	**Not replicable**

Replicability Results tab (2/2)

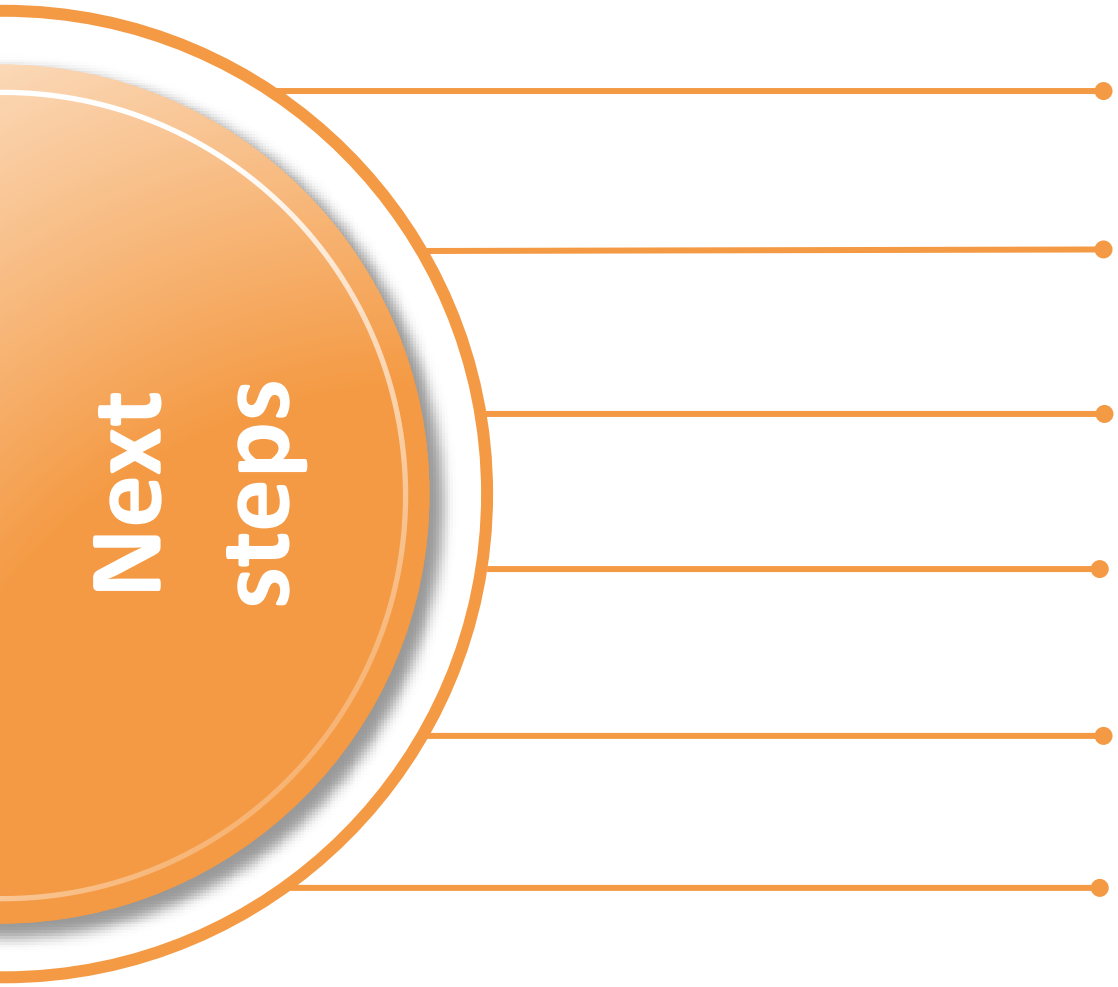
Highlights **high-priority** conditions that can improve replicability score (high weighting and low user scores)

Bubble size reflects **influence** on the replicability score

Bottom-right quadrant signal most critical gaps for replication: important conditions that are not yet met

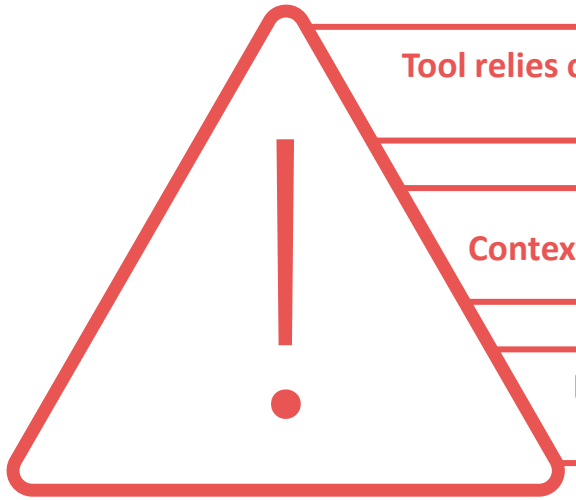


Next steps for replicators



- Map current strengths and gaps and identify high-priority conditions to address
- Engage stakeholders to confirm interest and gather input
- Peer learning with TransformAr Demonstrators
- Conduct a feasibility study
- Plan a phased replication strategy
- Use results in funding applications and internal planning

Limitations and way forward



Tool relies on self-assessment: accuracy depends on stakeholder input

Context-specific: Results are not comparable across all solutions

Best used as a structured **reflection tool**, not a predictive model

Possible future steps

Pilot with real replicators
Expand use to other climate adaptation solutions

Sli.do Question

Pauline GUERECHEAU-DESVIGNES
ADEME Guadeloupe
Climate Adaptation Project Manager
pauline.guerecheau-desvignes@ademe.fr

Felipe QUINTANA
Technopolis France
Senior Consultant
felipe.quintana@technopolis-group.com

Jan Cools
University of Antwerp, Belgium
TransformAr coordinator
Jan.cools@uantwerpen.be

Find out more :

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