

EU MISSIONS

ADAPTATION TO CLIMATE CHANGE

**Assessing adaptation action outcomes:
From theory to practice**

26 June 2026

ACKNOWLEDGEMENTS

Authors: UNDERPIN project & MIP4Adapt Monitoring & Evaluation Thematic Working Group

Email: info@mip4adapt.eu

Manuscript completed in July 2026.

Suggested citation: MIP4Adapt Monitoring & Evaluation Thematic Working Group (TWG M&E). 2026. *Assessing adaptation action outcomes: From theory to practice*. Workshop report. June 23, 2026.

Registration & participants: 216 registrations and 100 participants, including:

- 10 from Mission Charter Signatories
- 8 Friends of the Mission
- 38 Mission Projects
- 44 Others

For a full list of participants see Annex 1.

Disclaimer

This document reflects only the authors' view and the European Commission is not responsible for any use that may be made of the information it contains. Acknowledgement of previously published material and of the work of others has been made through appropriate citation, quotation or both. Reuse is authorised provided the source is acknowledged and the original meaning or message of the document is not distorted.

The European Commission shall not be liable for any consequence stemming from the reuse. The reuse policy of the European Commission documents is implemented by Commission Decision 2011/833/EU of 12 December 2011 on the reuse of Commission documents (OJ L 330, 14.12.2011, p. 39).

All images © European Union, unless otherwise stated.

Table of Contents

1. Introduction	1
1.1. Background on the Thematic Working Group on Monitoring and Evaluation	1
1.2. Workshop goals and structure	2
2. Developing meaningful indicators for adaptation outcomes and resilience	3
3. Designing useful dashboards and visualisation tools for adaptation monitoring	6
4. Making adaptation monitoring frameworks relevant and usable for regional and local authorities	8
5. Future direction	9
6. Annex 1: participant list	11

1. Introduction

1.1. Background on the Thematic Working Group on Monitoring and Evaluation

The Thematic Working Groups (TWGs) are a cornerstone of collaboration within the EU Mission on Adaptation to Climate Change, bringing together experts from EU-funded projects to exchange knowledge, align efforts, and maximise impact. These groups focus on key adaptation themes and play a vital role in generating practical resources to support regional and local adaptation efforts.

The TWG on Monitoring and Evaluation (TWG-M&E) was constituted in 2023 to “collaborate and develop a common M&E framework by pulling together tools to jointly elaborate the approach” (TWG meeting, Nov. 9, 2023). During the 2023-2025 work programme, the TWG-M&E developed two outputs: (1) *Insights on monitoring climate adaptation activities: Deriving lessons learned from monitoring adaptation activities in projects under the EU Mission on Adaptation* (available [here](#)) and (2) *Roundtable summary document on monitoring, evaluation, and learning (MEL) of climate adaptation projects* (available [here](#))

The **UNDERPIN** project is leading the work of the TWG-M&E during the 2025-2027 work programme. **UNDERPIN**, “Outcome iNDicators to mEasuRe Progress on climate resilience” (September 2025-September 2028), addresses critical gaps in monitoring, evaluation, and learning (MEL) for climate adaptation across Europe. A flagship project of the EU Mission on Adaptation to Climate Change, this project focuses on outcome indicators to measure effectiveness of adaptation solutions. The project results aim to serve as a reference framework to measure adaptation progress in the EU and help assess the advancement of the EU Mission on Adaptation to Climate Change across the engaged regions in a way that is compatible with the efforts of the Global Goal on Adaptation and the EU Adaptation Strategy.

Several activities have taken place and are planned as part of the TWG-M&E 2025-2027 work programme. The **first workshop** *Developing a Framework for Tracking Adaptation Outcomes*, held on 29 January 2026, convened participants from various Mission-funded climate adaptation projects across Europe, to explore conceptual and practical foundations for developing monitoring and evaluating metrics to assess climate adaptation results. Building on the output of previous TWG M&E activities, it aimed to advance shared understanding of how adaptation outcomes can be defined, measured, and interpreted across sectors, with particular attention to frameworks, indicators, and learning processes that support evidence-based decision-making. Through structured discussion, the session aimed to identify methodological improvements that enhance the usability, relevance, and policy value of adaptation outcome metrics, while also drawing lessons from other knowledge domains. The workshop report is available [here](#).

The **second workshop** *Assessing adaptation action outcomes: From theory to practice*, was held on June 26th, 2026. This report is an output of this workshop. Workshop materials can be found [here](#).

The following activities are planned for the fall of 2026 and 2027:

- Workshop 3 (October 2026): In-depth discussion and feedback on the first proposed concept (zero-draft) of the UNDERPIN MEL framework.
- Workshop 4 (Early 2027): Technical evaluation of the dashboard and visualization functionalities to ensure compatibility with local/regional needs.
- Workshop 5 (Spring 2027): A cross-cutting, collaborative session with other EU Missions to foster mutual learning. (pending confirmation)
- Policy Outlook Roundtable (Fall 2027): High-level policy-validation and strategic discussions.

Additional information can be found in the [Monitoring and Evaluation \(M&E\) Thematic Working Group](#) and [UNDERPIN](#) sites.

1.2. Workshop goals and structure

The workshop *Assessing adaptation action outcomes: From theory to practice*, co-organised by the TWG-M&E, UNDERPIN and MIP4Adapt, combined strategic high-level overviews of ongoing European monitoring initiatives with technical presentations on MEL theory, followed by parallel discussion sessions. The session provided a platform for regional and local authorities and scientists to discuss different aspects of the development of the proposed MEL tools.

The workshop was organized around three thematic pillars, each led by different partners of the UNDERPIN project:

1. Developing meaningful indicators for adaptation outcomes and resilience, facilitated by IIASA with support from Fresh Thoughts.
2. Designing useful dashboards and visualisation tools for adaptation monitoring, facilitated by HEC Paris.
3. Making adaptation monitoring frameworks relevant and usable for regional and local authorities, facilitated by Climate KIC and CMCC.

Following an initial presentation of the status of adaptation monitoring, participants proceeded to breakout rooms where regional and local representatives discussed the design and development of the framework, its visualisation and user dashboard, and the pan-European testing approach. The insights gathered will directly contribute to a framework used to measure adaptation progress across the EU, ensuring it remains compatible with the EU Adaptation Strategy and the Mission on Adaptation to Climate Change. This event was primarily aimed at regional and local authorities, M&E TWG participants, experts and practitioners focused on MEL, as well as the wider Mission Community, and anyone working on or interested in adaptation monitoring frameworks.

The session used a facilitated breakout format, with participants selecting thematic sessions in advance, and breakout discussions facilitated by members of the UNDERPIN team.

The insights generated during these exchanges form the basis of this report, which synthesizes key perspectives, identified challenges, and emerging priorities for improving the tracking of climate adaptation outcomes.

2. Developing meaningful indicators for adaptation outcomes and resilience

Led by IIASA, the UNDERPIN project has undertaken a multi-stage review process to identify adaptation outcome indicators that will form the basis of the UNDERPIN adaptation framework. UNDERPIN defines an adaptation outcome as a medium-term change caused by an intervention that reduces vulnerability, strengthens resilience, or improves the ability to adapt. The process consisted of a scoping review of academic and grey literature, 13 in-depth expert interviews, and a systematic review of more than 1,600 existing indicators. The process resulted in a short list of indicators selected for further assessment.

The session engaged participants in an assessment of some of the short-listed climate adaptation indicators in three topic areas: water management, agriculture and health using Mentimeter. The assessment was based on two criteria (a) whether the indicators measure adaptation outcomes and (2) their level of operationalization. Participants were divided into three groups – national, regional and local – and each group was asked to select a sector and assess the indicators from the following perspectives:

- **National level:** participants were asked to consider how the choice of indicators can facilitate regional and local level adaptation while facilitating data aggregation and ensuring coherent assessment at national level.
- **Regional level:** participants were asked to consider how indicators can translate national targets into actionable guidance for regional and local governments.
- **Local/Municipal level:** participants were asked to focus on community-level impacts, vulnerability reduction, how to gather the necessary data to operationalize the indicators, as well as the support needed from regional and national authorities.

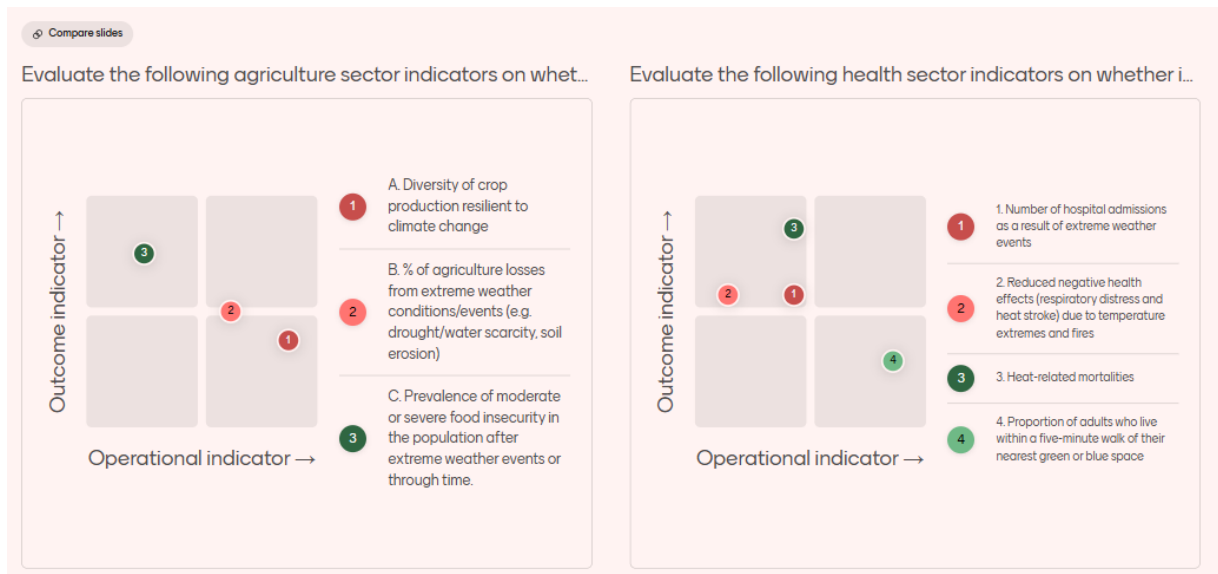
Below is a brief summary of the discussions.

National Group - Agriculture indicators

Participants reviewed the following indicators:

- **Diversity of crop production resilient to climate change** was viewed as operational but not regarded as strongly outcome-oriented, as it mainly describes the current situation.
- **% of agricultural losses from extreme weather conditions/events** was considered more outcome-oriented but less operational, owing to a lack of specificity and difficulty in obtaining the necessary information and data.
- **Prevalence of moderate or severe food insecurity in the population after extreme weather events or through time** was ranked highest in terms of measuring outcomes, but lowest in terms of operationalization. Participants expressed concerns about attributing changes in this indicator to climate adaptation action and noted that it provides limited guidance on which interventions could improve performance.

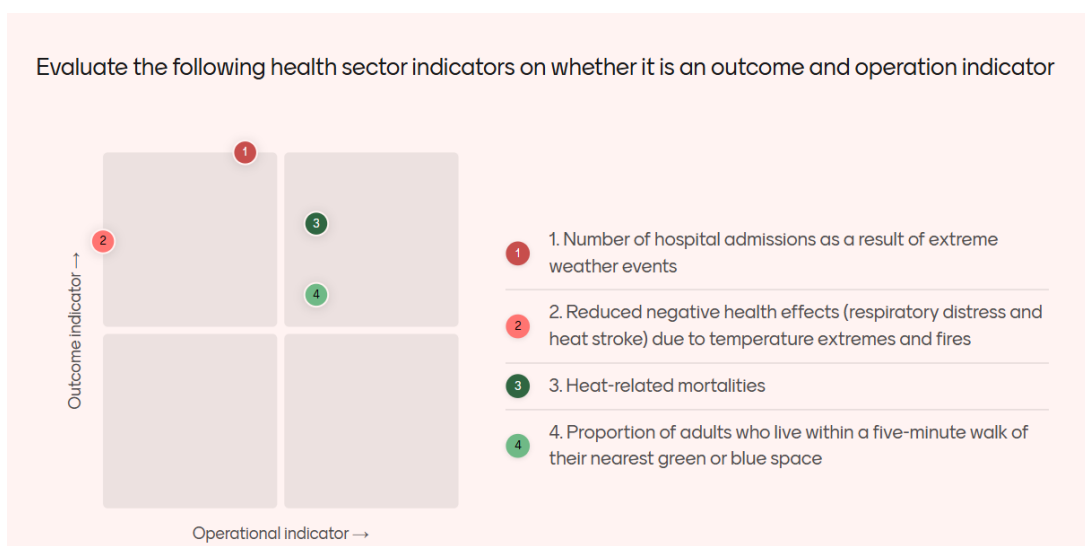
Health sector indicators were evaluated but not discussed during the session. The figure below illustrates the outcome of the Mentimeter assessment.



Participants recommended making the indicators more explicit by incorporating explicit timeframes, quantitative measures, and clearly defined targets and actions. These changes would strengthen both their relevance for measuring adaptation outcomes and their operational usefulness.

Regional Group - Health indicators

Participants assessed the following health sector indicators: (1) number of hospital admissions as a result of extreme weather events, (2) reduced negative health effects due to temperature extremes and fires, (3) heat-related mortalities, and (4) proportion of adults who live within a five-minute walk of their nearest green and blue spaces.



The Mentimeter results showed that all indicators were ranked relatively high in terms of measuring adaptation outcomes, with **access to green and blue spaces** receiving the lowest outcome valuation.

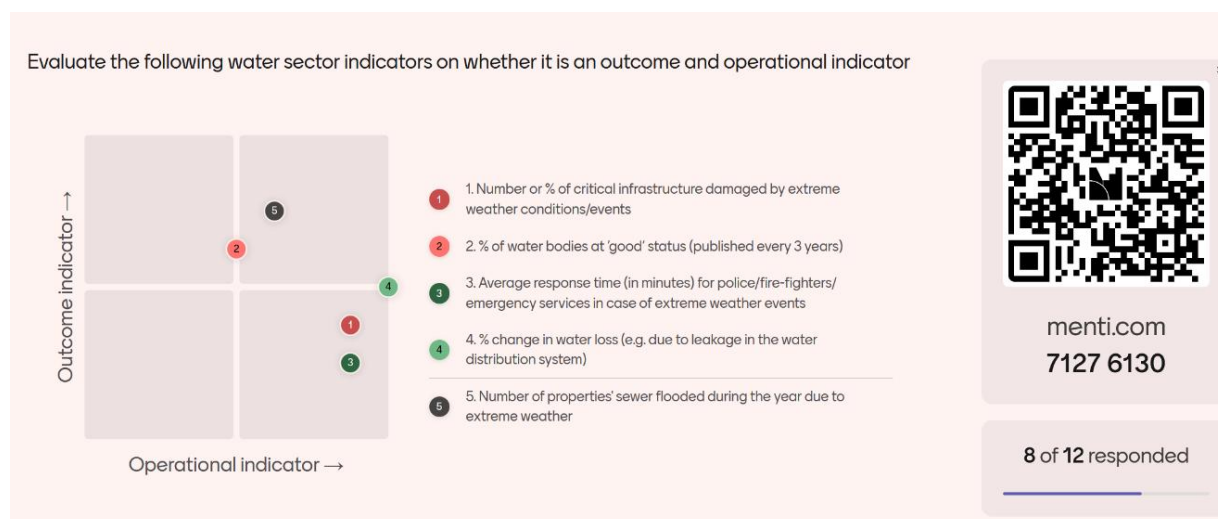
Conversely, the indicator **reduced negative health effects from heat and fire** was considered the least operational. The remaining indicators were generally assessed as moderately operational. However, the discussion revealed different perspectives: several participants considered that **number of hospital admissions** and **heat-related mortalities** are highly operational as they rely on concrete data that is routinely collected.

Some key conclusions from the discussion were:

- Operational criteria: An indicator is considered operational at the regional (subnational) level if the required data are already available and can be used without creating significant additional technical or administrative effort for data collection, downscaling, or translation.
- Clarity enhances usability: Clearly defined indicators—linked to specific points in time or concrete events—are easier to implement, interpret, and categorize than indicators that are broadly or vaguely formulated.
- Conceptual confusion: The discussion revealed ongoing uncertainty among participants about the distinction between output indicators, which measure the direct products of adaptation actions, and outcome indicators, which capture longer-term changes and the contribution of those actions to regional resilience.

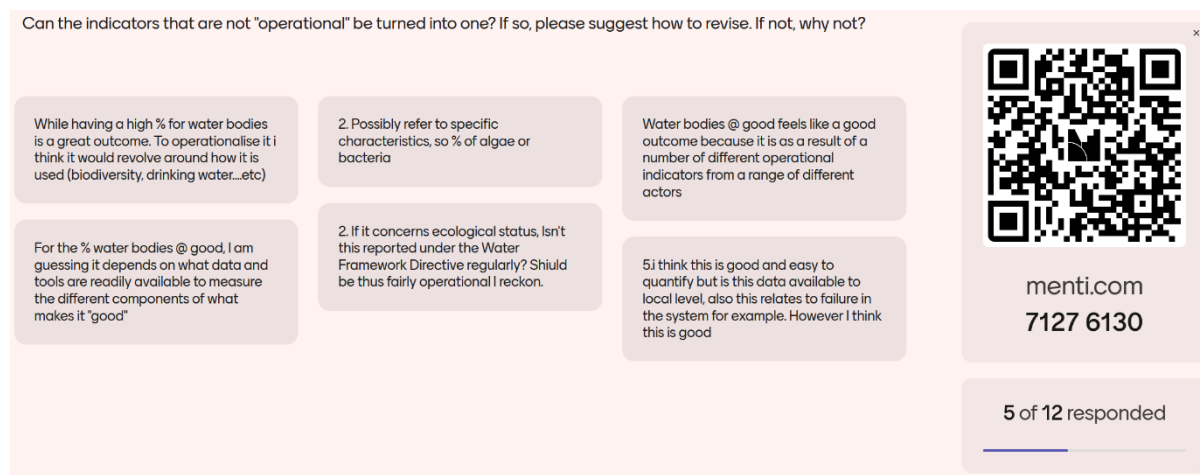
Local/Municipal Group - Water-related indicators

The subgroup discussed the following water-related indicators: (1) % of water bodies at 'good' status; (2) number of properties' sewer-flooded during the year due to extreme weather; (3) number or % of critical infrastructure damages by extreme weather conditions/ events; and (4) average response time (in minutes) for police/ fire-fighters/ emergency services in case of extreme weather events'.



As illustrated in the figure above, Indicators related to the **status of water bodies** and **number of properties sewer-flooded during extreme weather** were considered relatively outcome-oriented, but only moderately operational. Other indicators, including water loss, critical infrastructure damage, and emergency response time, were considered more operational but less reflective of adaptation outcomes.

When asked to suggest ways to make indicators more operational, the discussion highlighted that operationalization depends on context, governance level, available data, and intended use. Participants suggested making indicators more specific (e.g. instead of saying good status of water bodies, one could refer to the algae or bacteria in the water) and linking them more clearly to climate risks, vulnerability reduction, and exposure changes.



Overall conclusions

Participants highlighted that whether an indicator measures adaptation outcomes and whether it is operational is context dependent. These concepts are interpreted differently across projects, institutions and governance levels. This was illustrated by the different assessments of the health indicators by the national and regional break-out groups.

Regarding the operationalisation of the indicators, participants agreed that it largely depends on the availability of suitable data, and whether it can be measured at the appropriate governance level. Indicators that build on existing datasets were generally considered more operational than those requiring new monitoring approaches or complex attribution.

Across all groups, participants recommended developing indicators that are more precise and better defined, including explicit timeframes and measurable quantities, as well as linking them to specific climate risks, adaptation actions, and changes in vulnerability or resilience.

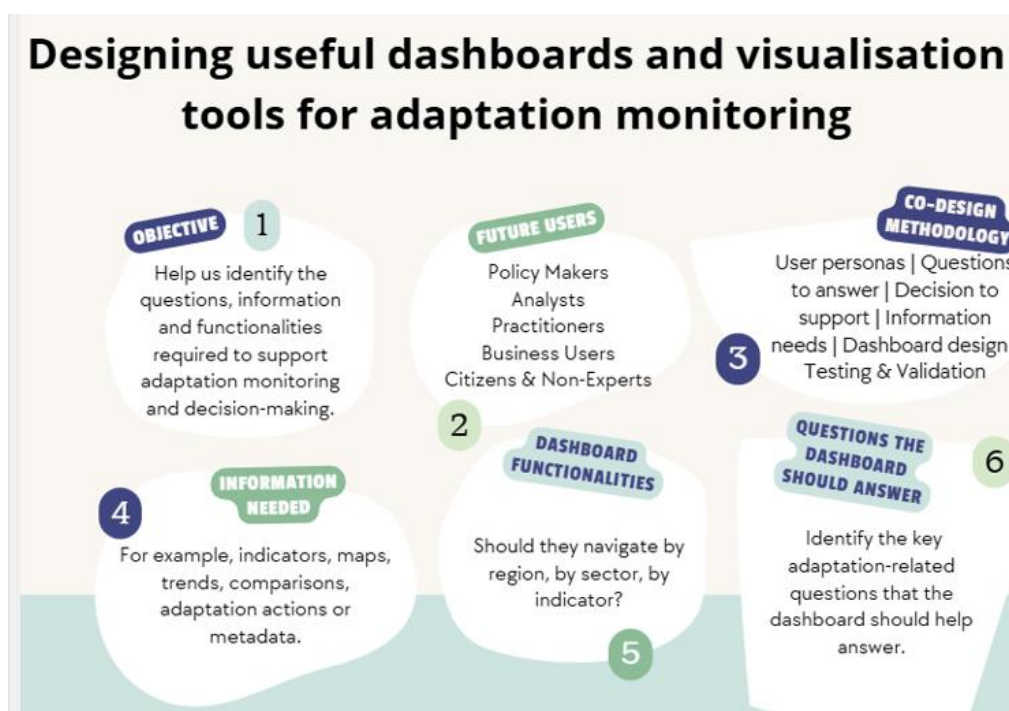
Some participants also found the exercise itself challenging, noting that clearer definitions of "adaptation outcome" and "operational indicators", as well as more time to think about the indicators would have benefited the evaluation.

3. Designing useful dashboards and visualisation tools for adaptation monitoring

This session adopted a co-design approach to explore future users' expectations for the adaptation MEL dashboard being developed by UNDERPIN and that meets the needs of policymakers, analysts, and citizens. Discussions focused on:

- What adaptation-related questions the dashboard should answer.

- What information should be provided beyond indicators.
- How users would like to interact with the information.



Participants confirmed that users would like to see a dashboard that goes beyond serving as a simple indicator repository. It should function as a decision-support tool that combines clear visualizations, contextual information, and intuitive navigation. Participants stressed the importance of helping users interpret indicators through summaries, recommendations, and links between adaptation measures and outcomes, therefore reinforcing the dashboard's role in supporting MEL across different governance levels.

1. Questions the dashboard should answer

Participants emphasized that the dashboard should not simply display indicator values but should also help users answer practical adaptation-related questions. They highlighted the importance of understanding baseline conditions and long-term trends, as well as being able to identify where public investments are being made and what value they generate.

These responses suggest that users are interested not only in monitoring adaptation progress over time but also in understanding the relationship between adaptation actions, their outcome and the investments that support them.

2. Information beyond indicators

Participants emphasized that the dashboard should provide more than raw indicators. They expressed interest in;

- narrative summaries and storytelling to help interpret the data;
- recommendations or explanations accompanying the indicators; and

- information linking adaptation measures or solutions with their observed results, allowing users to better understand the effectiveness of adaptation actions.

These responses indicate that users expect the dashboard to support interpretation and learning, rather than simply displaying data.

3. Dashboard functionalities and visualization

Participants highlighted the need for an intuitive and user-friendly interface. Interactive maps are one of the preferred visualization methods because they immediately provide geographical context. However, participants also noted that maps should be complemented by charts and graphs rather than attempting to present all information in a single visualization.

Information should be organized logically and progressively to avoid overwhelming users, particularly when using maps, which can quickly become cluttered if too much information is displayed. Visualization should include recommended adaptation measures and explanations of how indicators should be interpreted.

4. Making adaptation monitoring frameworks relevant and usable for regional and local authorities

This break out session brought together regional practitioners, including representatives from the Lombardy Region (Italy) and the Banská Bystrica Self-Governing Region (Slovakia), to identify practical opportunities and barriers to implement MEL frameworks.

The discussion confirmed that adaptation monitoring frameworks are becoming increasingly relevant for policy and decision making. However, many frameworks remain at an early stage of development and continue to rely primarily on output-based rather than outcome-based indicators. Presentations from regional and project representatives illustrated how the design and implementation of MEL frameworks can support adaptation at different stages of institutional maturity, from regions just beginning to structure their approach to those with established strategies and cross-regional risk assessment infrastructure.

Across all presentations and discussions, participants emphasized that MEL frameworks should be viewed as flexible decision-support tools rather than a one-size-fits-all reporting mechanisms. Frameworks need to be adaptable to regional institutional maturity, available data, and policy context, while consistently aiming to translate evidence into trust, accountability and effective adaptation action.

Speaker 1: Martin Tuchyňa - Banská Bystrica Self-Governing (BBSG) Region: Designing MEL for territorial climate resilience

Martin Tuchyňa emphasized that the principal value of MEL lies in linking evidence with governance and decision making, connecting diagnosis, evaluation and operational implementation across the full adaptation cycle.

For regions that are still developing their adaptation governance structures, the priority is to strengthen stakeholder access to information and build trust, ensuring that climate risk knowledge feeds directly into decision-making.

A recurring theme was that MEL frameworks must recognize the different roles and responsibilities of stakeholders operating at the municipal, regional and national levels. Long-term sustainability depends on developing an agile governance approach that keeps stakeholders actively engaged and provides clarity regarding their respective responsibilities.

Speaker 2: Mita Lapi - Lombardy Foundation for the Environment (FLA): Regional Integrated Climate Change Adaptation Strategy of Lombardi Region

Lombardy's experience showed how a MEL framework can be built on top of an already-established Regional Climate Change Adaptation Strategy. Their approach links macro-sectoral policy areas – including welfare, civil protection, environment, spatial planning and tourism – to specific climate hazards and impact chains, using the EUCRA conceptual framework to trace impacts from exposure through to policy response.

This example illustrates a rather advanced stage of MEL development, where indicator design is closely integrated with existing sectoral policy instruments and planning processes.

Speaker 3: Fulvio Biddau & Melissa Herlitz (CMCC): MEL supported by cross-regional risk infrastructure

The CLIMAAX project's contribution highlighted the role of shared methodologies for enabling MEL at scale. By supporting 67 European regions with a common climate risk assessment framework, it generates risk indicators tied to hazard severity, urgency and adaptive capacity.

Repeated assessments using this shared methodology allows regions to track their evolving capacity to adapt. This approach also provides regions with more limited technical or financial resources an opportunity to participate in MEL without having to develop monitoring tools from scratch.

5. Future direction

Workshop discussions highlighted the progress being made towards developing a more robust and practical approach to monitoring adaptation outcomes. Although each session focused on a different aspect of a MEL framework, such as indicators, dashboards, and implementation by regional and local authorities, a number of common themes emerged.

First, participants agreed that monitoring frameworks should move beyond measuring the implementation of adaptation actions and towards assessing whether these actions lead to meaningful improvements in resilience and reductions in climate vulnerability. This requires indicators that are both scientifically robust and sufficiently operational to be applied across different governance levels. Throughout the discussions, participants emphasised the importance of developing indicators that are clearly defined, linked to specific climate risks and adaptation objectives, and supported by data that is already available or can be collected consistently over time.

Second, the workshop reinforced the importance of designing monitoring systems with end users in mind. Participants highlighted that dashboards should function not only as repositories of indicator data but also as decision-support tools that help users interpret results and make decisions accordingly. Providing contextual information, clear visualisations, and links between adaptation actions, investments, and outcomes was seen as key for supporting evidence-based decision-making and encouraging the practical use of monitoring results.

Third, the discussions confirmed that effective monitoring, evaluation and learning (MEL) frameworks must remain sufficiently flexible to accommodate the diverse institutional contexts of European regions and municipalities. Rather than promoting a single standardised approach, participants supported the development of a common framework based on shared principles and methodologies that can be adapted to different governance arrangements, policy priorities, and levels of technical capacity and financial resources. Such flexibility will be essential to ensure both local relevance and broader comparability across regions.

Participants also emphasised the importance of building on existing monitoring systems wherever possible, thereby reducing reporting burdens while strengthening the consistency and usability of adaptation data.

The next workshops of the TWG-M&E, planned for late October 2026, will provide an opportunity to discuss the draft UNDERPIN framework more in depth. Continued collaboration between Mission projects, regional and local authorities, and the broader adaptation community will be essential to refine these tools, share practical experience, and strengthen the evidence base for assessing adaptation outcomes across Europe.

6. Annex 1: Participant list

First name	Last name	Affiliation
Ana	Andreu	University of Cordoba
Michaela	Bachmann	IIASA
Raffaella	Balzarini	Unimont-Università degli Studi di Milano
Dursun	Baş	Istanbul Policy Center
Eulàlia	Baulenas	Barcelona Supercomputing Center
Eleni	Bekri	Region of Western Greece, Department of Climate Resilience
Eya	Ben Chaaben	HEC paris
Marcia	Berger	HEC Paris
Fulvio	Biddau	CMCC
Róbert	Blaško	Slovak Environment Agency
Melania	Blidar	Cluj Metropolitan Area IDA
Dragana	Bojovic	Barcelona Supercomputing Center
Oscar	Bolaños	ICATALIST
Domenico	Bovienzo	CMCC
Arianna	Braccioni	Climate KIC
Sabrina	Bresciani	Politecnico Di Milano
Anda	Briede	Vidzeme Planning Region
Selene	Brunetti	Eoliann
Tom	Bucx	Deltares
João	Carneiro	IPCB
Ana	Catarino	SERN
Jonathan	Cauchi	WSP
Camilla	Chlebna	ZSI GmbH
Anastasia	Dagla	Climate KIC
Aline	Dahm	Climate KIC
Ludivine	Dallet	Région Nouvelle-Aquitaine
William	Davies	Climate KIC
Romain	Degove	Maastricht University
Joseph	Delgove	ACTEE
Xiran	Dong	IIASA
Thomas	Dworak	Fresh Thoughts Consulting
Carmen	Fernandez	Univrsity of Vigo
Stefania	Fontana	FLA - Fondazione Lombardia per l'Ambiente
Dani	Gaillard-Picher	AGWA
Tommaso	Gimelli	TU Wien
Sean	Goodwin	Basque Centre for Climate Change (BC3)
Clémence	Gracia	Euroquality
Verena	Hackmann	University of Vechta
Anna	Hausser	GIB
Melissa	Herlitz	Euro-Mediterranean Center for Climate Change
Nuria	Hernandez Mora	Fresh Thoughts Consulting
Jung-Hee	Hyun	IIASA
Fernando	J. Diaz	HEC Paris
Nor	Jihane Touati	UIC BARCELONA
Noah	Jost	alpS GmbH

Assessing adaptation action outcomes: From theory to practice
Thematic Working Group on Monitoring and Evaluation (TWG M&E)

First name	Last name	Affiliation
Kaisa	Juhanko	Finnish Meteorological Institute
Maciej	Jurzyk	COOLCITY
Niina	Kautto	Natural Resources Institute Finland
Alexandrina	Kiss	City of Cluj, Romania
Nina	Knittel	Wegener Center for Climate and Global Change, University of Graz
Angeliki	Konsta	ICLEI Europe
Lola	Kotova	Climate Service Center Germany (GERICS)
Martin	Kuban	KAJO
Mita	Lapi	Fondazione Lombardia per l'Ambiente
Sarah	Lappöhn	Federal Institute of Agricultural Economics, Rural and Mountain Research
Lisa	Leitner	JOANNEUM RESEARCH Gmbh
Saizu	Madalina	
Amy	Maduro	Provincie Gelderland
Christina	Majdalani	
Anna	Mandorli	CMCC
Maëlle	Marchand	Climate KIC
Christine	Matauschek	Fresh Thoughts Consulting
Guido	Mattei	independent expert
Robert	Migas	COOLCITY.eu by MGGP Aero
Tanya	Milkova	fresh-thoughts.
Vincent	Möller	Free Hanseatic City of Bremen - Climate Adaptation
Letizia	Monteleone	Ricardo Plc
John	Murray	WSP
Jaroslav	Mysiak	CMCC
Silke	Nauta	Deltares
Claire	Nauwelaers	Nauwelaers independent expert
Maria	Nikolaidou	Municipality of Larissa
Michelle	Oddy	Manchester City Council
Stefanos	Papazisimou	Region Western Greece
Kajsa	Parpis	The County Administrative Board of Stockholm
Nuria	Pérez	Fundacion Asturiana de la Energia (FAEN)
Ann-Kathrin	Petersen	International Institute for Applied Systems Analysis (IIASA)
Dario	Pezzotti	Alessandro Morino 8
Christina	Plega	Region of Western Greece
Rado	Považan	CMCC
Marco	Pregnotato	Lombardy Foundation for the Environment
Halina	Rachelson	ICLEI Europe
Robert	Sakic	IIASA
Florencia	Sanchez Acosta	EEB
Rosa	Sanchis	Balearic Island Government
Alexis	Sancho-Reinoso	Office of the Lower Austrian Federal Government
Margherita	Sarcinella	CMCC
Guido	Schmidt	Hütteldorfer Straße 215/29
Nadège	Seguel	FEDARENE
Yara	Shennan-Farpón	ICATALIST
Hans	Smets	Provincie West-Vlaanderen
Urszula	Stefanowicz	Ministry of Climate and Environment

First name	Last name	Affiliation
Therese	Stickler	Umweltbundesamt
Ilevina	Sturite	NIBIO
Alexandra	Tsatsou	National Technical University of Athens
Liliana	Velea	National Meteorological Administration
Jacob	von	Länsstyrelsen i Stockholms län
Agata	Winiarska	City of Warsaw
Erich	Wolff	Utrecht University
Corinna	Zeitfogel	IIASA
Saioa	Zorita	Tecnalia
Konstantina	Zoumpoulaki	Freelancer



Disclaimer

This document reflects only the authors' view and the European Commission is not responsible for any use that may be made of the information it contains. Acknowledgement of previously published material and of the work of others has been made through appropriate citation, quotation or both. Reuse is authorised provided the source is acknowledged and the original meaning or message of the document is not distorted.

The European Commission shall not be liable for any consequence stemming from the reuse. The reuse policy of the European Commission documents is implemented by Commission Decision 2011/833/EU of 12 December 2011 on the reuse of Commission documents (OJ L 330, 14.12.2011, p. 39).

All images © European Union, unless otherwise stated.