



Concept note for the indicator set

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REGILIENCE - D3.2 Concept note for the indicator set

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About

REGILIENCE aims to foster the adoption and wide dissemination of regional climate resilience pathways, following a demand-driven approach and bearing in mind the expertise and knowledge acquired, as well as the solutions available from Innovation Packages and other sources. The project aims to support the Green Deal targets and communication by implementing Innovation Packages that will address key community systems and comprises the adaptation solutions and pathways deemed essential for climate and social resilience in the specific regional contexts and the set timeline. The REGILIENCE project aims to facilitate the replication of Innovation Packages in 10 vulnerable and low-capacity regions, additional to those targeted by the Innovation Package projects, after a selection process and the signature of a workplan agreement. This ambition is aligned with the Horizon Europe's proposed Mission "Prepare Europe for climate disruptions and accelerate the transformation to a climate-resilient and just Europe by 2030". It will implement the LC-GD-1-3-2020 RIA project results on the Innovation Packages.

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Project partners





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1 Introduction

REGILIENCE is a Coordination and Support Action (CSA) that is coordinating the work between three Innovation Actions (IAs) – TransformAr, ARSINOE and IMPETUS – on different topics and supporting the transfer of activities from these projects into other regions. All four projects started in autumn of 2021.

One of the topics that REGILIENCE will be tackling is monitoring and assessing resilience -strengthening activities that the three IAs are implementing in their target regions. This is a core task of REGILIENCE as the Work Programme required the CSA to engage in monitoring and assessment and "develop a set of indicators, in collaboration with the activities carried out under area 1 [the Innovation Actions], which consider regional specificities and enable the monitoring and assessment of Innovation Packages [i.e. innovation actions of the three projects in their target regions]." (Horizon 2020 Work Programme 2018-2020, p. 83). This task does relate to any impact targets or Key Performance Indicators (KPI) of REGILIENCE in a directy way. However, the indicators are an important tool to assess climate resilience pathways.

This short document outlines the first ideas on how REGILIENCE plans to carry out and to support the monitoring and assessment of activities in these target regions and how the four projects could collaborate on this. The concept note serves as a starting point for discussing the fundamental design decisions for the indicators that are to be developed and for their envisioned application.

The following actors are scheduled to take part in these discussions: the REGILIENCE team, representatives from the three Innovation Action projects (IAs) that REGILIENCE is supporting and CINEA as the funding agency. Furthermore, we would like to include perspectives from other Horizon 2020 or Horizon Europe projects who are concerned with the topic of climate or resilience indicators (e.g. CoCliCo, NetZeroCities) as well as the European Environment Agency (EEA).

2 Requirements and proposal for the scope of the indicators

As a starting point for the discussion of the scope of the indicators, we would like to look at

- Lessons learned from development and application of existing indicator sets,
- Requirements from the H2020 Work Programme and
- Activities in the IAs.

2.1 Lessons learned from existing indicator sets

Developing indicators and initiating monitoring activities is a common practice when introducing new political goals: it is a reasonable way to check whether activities that are implemented contribute to the desired goal, whether the activity level is sufficient and also to learn and improve ongoing activities. Indicators can also be introduced for the purposes of agenda-setting both within public administrations but also by observers of political processes, e.g. NGOs or the scientific community.



However, relying on anecdotal evidence here, many of the indicator sets and monitoring approaches in the sustainability/climate sphere that have been proposed on project websites, in reports and papers are not being put to use as intended.

<u>Challenge</u>: Searching, collecting, aggregating and interpreting data for monitoring purposes can be difficult for a variety of reasons, e.g. lack of data, skills or time.¹

<u>Requirement</u>: The users of the indicators as well as their motivation, available time and skills need to be firmly established.

<u>Requirement:</u> Ideally, the indicators tie in well with existing sets of indicators, monitoring activities and requirements (e.g. for the SDGs) and take little time for their application.

2.2 Requirements from the H2020 Work Programme and the EU Mission on Adaptation

The H2020 Work Programme sets out some broad but firm requirements for the indicators that have been confirmed in past exchanges with CINEA since REGILIENCE kicked off:

<u>Requirement</u>: The indicators should be developed "in collaboration with the activities carried out under area 1" (p. 83) which we interpret to mean: with team members of ARSINOE, TransformAr and IMPETUS.

<u>Requirement</u>: The indicators should "enable the monitoring and assessment of Innovation Packages" (ibid.). Innovation packages refers to the innovative actions that the three projects are implementing in their target areas doing the project implementation period.

<u>Requirement</u>: It should "consider regional specificities" (ibid.). This could mean a number of things, e.g., taking into account the differing relevance of climate-related hazards in each region, including regional data sources or policy priorities (e.g. RIS3).

<u>Challenge</u>: The Work Programme does not specify for what purposes the monitoring and assessment should take place – who will be using the results for what?

In the given context, we believe the indicators should have a strong focus on learning which activities can achieve which outcomes or impacts under which circumstances (or why some fail to do so). We think that the outputs of the monitoring and assessment will be most valuable when they can inform regional decision-makers, future Horizon projects and policy-makers on higher levels about what matters for the implementation of certain types of activities, what is suitable for upscaling etc.

This focus of the monitoring approach would tie in well with the EU Mission on adaptation and the associated Mission Implementation Platform (MIP) as...

¹ see for example https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2472073



- the implementation plan² emphasises that the Mission wants to support local structures that foster learning (p. 15);
- the expected outcome of Step 2 "Mobilising support and engagement" is "a culture of civic engagement and social learning, and mechanisms ensuring a just transition" (p. 16);
- the MIP will facilitate exchanges between regions and communities with a focus on learning from each other (p. 24);
- the MIP wants to motivate funded projects to exchange lessons learnt which could, among other things, lead to recommendations for addressing possible regulatory barriers on different administrative levels (p. 24);
- the "ultimate goal of MRE [monitoring, reporting and evaluation] [in the Mission] is to foster learning and use lessons learned to drive continuous improvement of the Mission." (p. 37)

The focus on learning would also align well with the work of REGILIENCE on maladaptation and on success factors of adaptation activities.

An alternative would be to focus stronger on controlling whether the activities achieved their intended outcome(s) and trying to establish solid evidence for their contribution to increasing regional climate resilience. However, from our experience we recognise three important barriers on that path:

- Compiling evidence on the impact of such measures can get very time intense but, in most cases, it will still only lead to rather weak hypotheses on the actual impacts. To unequivocally attribute certain changes on the impact level to one intervention in a dynamic and broad setting such as a whole region on NUTS 2 or NUTS 3 level usually requires a certain setup that will not be given in the context of these projects, e.g., control groups that were established in the context of randomized controlled trials.
- Also, focusing too much on assessing whether certain goals or outcomes have been achieved will reduce the openness of the actors involved to speak about failures and possibly very important learnings that arose in that context.
- To make a deeper and meaningful analysis of the impacts of activities on regional climate resilience, it would be most desirable to have a common definition of "climate resilience" that is specific enough so that it can be operationalised into indicators. While the general understanding of climate resilience in the IAs, at CINEA, in the Mission etc. is very similar, an operationalisation of the concept into concrete indicators would require a detailed discussion of the understanding of climate resilience.

However, the Mission and the above-mentioned implementation plan do also mention that they want to conduct MRE activities for "tracing progress made, assessing what has been accomplished" (p. 37). And is also stated that "[a]n operational framework for measuring just resilience and a set of (proxy) indicators measuring outcomes, outputs and impacts will be developed." (p. 38)

In that light, another alternative would be to focus less on the individual activities of the IAs and more on general progress made towards climate resilience. This would provide less opportunities for

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https://ec.europa.eu/info/sites/default/files/research_and_innovation/funding/documents/climat_mission_implementation_plan_final_for_publication.pdf, p. 15



learning about the impact of individual activities but might be beneficial as a starting point for a longterm monitoring of developments with respect to climate resilience on a regional level.

2.3 Activities in the IAs

The planned activities in the three IAs are essential for developing the envisioned indicators: both the innovative actions they are implementing in their target areas but also the monitoring activities that the three projects might have planned themselves.

As to be expected, the range of innovative actions across the three project is very large: from installing an alarm system that warns mussel fishermen in Galicia of risky water conditions to developing apps and conducting vulnerability assessments to introducing innovative bacteria that filter water in the Danube Delta.

<u>Challenge</u>: The circa 70 activities of the three projects in their more than 20 target regions are so broad with respect to type of activity, goal, type of output, climate-related hazard addressed, target groups and geographical locations and scope (from individual infrastructure to NUTS1 regions) that monitoring and assessing all of them with one *common* indicator set will prove very difficult to almost impossible. The activities are detailed in Deliverable D3.1 Overview on IA activities.

<u>Challenge</u>: Some of the activities that the IAs will implement in their target regions have not yet been determined but will be co-designed in processes with actors in the regions.

<u>Challenge</u>: Given the nature of such projects, quite a number of activities by the IAs will probably only be fully implemented late into the term of the IAs, i.e. after 36 to 48 months. This means that both the IAs and REGILIENCE will have limited time to monitor intended outcomes and impact unfold from the activities.

<u>Requirement</u>: The three projects all have their traditional KPIs which in some cases are related to the innovation activities in the target areas and all of them have planned for dedicated monitoring and evaluation activities in their Grant Agreements. It is important that these efforts are complemented or supported (but not duplicated) by the REGILIENCE work on indicators.

We would like to focus the monitoring efforts of REGILIENCE on carving out learnings from the implementation of innovative actions of the three projects in their target regions. However, given the challenges and requirements outlined above, this might prove difficult. Hence, also based on discussions in a workshop with representatives of the IAs (end of January 2022), we can see the following scope for activities of REGILIENCE with respect to monitoring (WP3):

- Defining indicators based on existing indicator sets, e.g. SDG indicators, that can be used for monitoring developments related to climate resilience in European cities and regions (=> "regional climate resilience indicators"); The starting point should be an indicator set that is well established in order to avoid duplicating previous work and have a strong reference point. From this set, indicators with a strong link to regional climate resilience should be selected and adopted or adapted, i.e. made more explicit or split up into several sub-indicators to increase their explanatory power or fit with locally available data.
- Supporting regional actors in collecting and preparing data for the above-mentioned regional climate resilience indicators in order to establish meaningful time-series;



- Supporting the IAs in linking their efforts for monitoring their activities in the target regions with the regional indicators in order to showcase the impacts that their activities are having or are likely to have on climate resilience.
- Where needed and possible: ad-hoc support for monitoring and assessments of activities of the three IAs and associated other projects;
- If useful and possible: analysing past adaptation activities (outside of the realm of the three IAs) in cities or regions and assessing their impacts on regional climate resilience indicators;