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Quality review process and impact assessment plan

D1.4

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LOCALISED

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Table of Contents

List of Figures

List of Tables

List of Abbreviations

AB	Advisory Board
DoA	Description of Action
EC	European Commission
GA	Grant Agreement
MCA	Multi-criteria analysis
MMR	Mixed-methods research

Executive Summary

The Deliverable describes the quality review process on project outputs as well the methodology for the assessment of its expected impacts for the LOCALISED project.

For the quality review process different procedures and levels are explained in detail and responsibilities are clearly mentioned. In general the coordination team will take care about the overall application of the processes for the different outputs (mainly the deliverables), including the time needed for its implementation. In addition, the work package leaders are also invited to use the process to support the management of each WP.

Therefore, the whole deliverable can be used as an overview for project team members, but also for externals (e.g. stakeholders) who are interested in the processes they are part of in order to be aware of needs, expectations, and how to align with quality standards set for the work.

Furthermore, the deliverable also presents the impact assessment methodology that will be used throughout the project. It follows a mixed-method approach, combining qualitative and quantitative data gathering and analysis processes in order to map and describe - in the most appropriate way, all project's achievements. It will consider scientific, social, economic, and policy-related impacts. Each of these areas of impact has been articulated in several sub-dimensions including, but not limited to: scientific knowledge production and visibility, impact on data quality, impact on policies and policy-making processes, impact on community building and empowerment, impact on learning and impact on innovation, including social innovation.

This methodology will be updated, if needed, during the project, following its development and will provide relevant input to the project team to maximise positive impacts and minimise negative ones.

1 Introduction

Successful project management needs successful structures for a quality review process as well as a proper impact assessment plan. Otherwise it remains unclear if and how objectives can be reached and standards are met. Therefore, different project management related processes are set-up on different levels and follow their own procedures in order to accompany the project work over time and reflect about its outcomes.

This Deliverable describes the different processes and their stepwise procedures and tries to specify how the LOCALISED project team will implement them in regard to quality review (chapter 2) and impact assessment (chapter 3).

2 LOCALISED quality review process

2.1 Overall

Quality management is not an independent and separate process that occurs at the end of the project lifecycle. Rather, it is a continuous process that should begin and end with the project or end of dissemination activities related to the project - that can also last longer than the project duration. Thus, these activities must be implemented effectively to ensure the expected quality of project outcomes is realised.

The purpose of the quality management process is to ensure that the project conforms to the mutually agreed requirements, specifications, and expectations. The aim is to measure the overall progress of the project while assessing its performance to determine whether it satisfies the function intended for the project.

This chapter will describe the quality process - first in general and in the following subsections each of the three steps (see Fig 1) will be explained in detail with some examples how it is handled in the LOCALISED project.

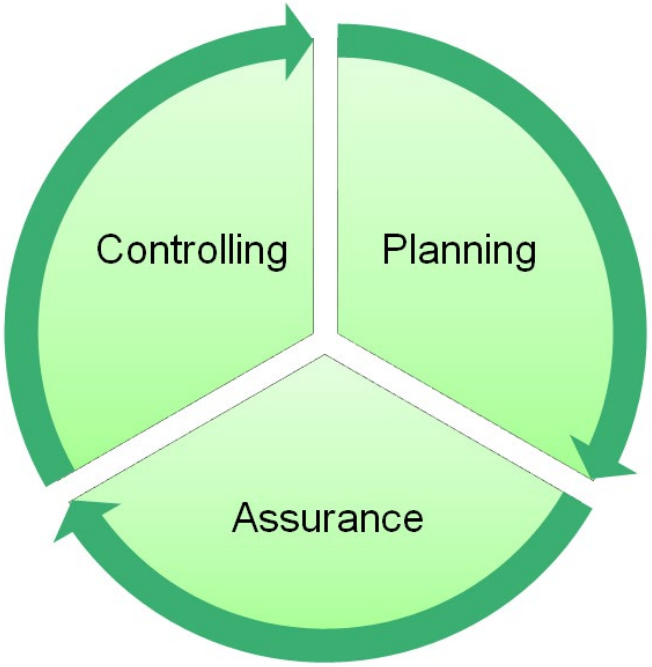

Figure 1 – Quality process and its three steps.

1. Planning
   - Being clear on expected work and its aims, impacts, relevance and interaction with other tasks and partners
   - Time and budget planning fits work load
2. Assurance
   - Having internal review processes and knowledge about standards to meet and fulfil
   - Having internal and external procedures for feedback (stakeholder, external Advisory Board, review process by EU Commission reviewers, as well as internal quality checks through peer-review process of products) established
3. Controlling and adjustment management
   - Coordination team to remind early on tasks, milestones etc.
   - Joint Development of outline for Deliverables followed by internal peer review process
   - Regular budget checks by coordinator
   - Regular progress meetings and joint 6-month-planning

2.2 First step: Planning

The essential project planning was mainly done during the proposal writing phase while forming the project consortium and defining work packages. During the preparation phase a lot of discussions took place on outcomes, needs, expectations, needed input, competences etc.

This process started once again during the preparation of the Grant Agreement (GA) and enclosed Description of Action (DoA) where the project design was adjusted also on the basis of the European Commission (EC) review remarks during the selection process. Also, this procedure helped to design a proper work plan for the LOCALISED project from an early stage including budget and time planning.

With the help of the EU Portal all project partners are able to follow the plans as Milestones, Deliverables are clearly listed with due dates and partner responsible for. Additionally, the coordinator has established an online platform giving access to all needed documents including the GANTT chart.

According to the defined roles and procedures in the GA the project team has clear structures. However, not all can be planned in the beginning and as a result of the controlling processes (see below) it is always necessary doing adjustments over time and addressing new developments or needs. The coordination team is aware and will integrate and communicate adjustments continuously.

2.3 Second step: Assurance

Next to adequate planning a successful project needs also some internal as well as external quality assurance and related processes.

LOCALISED project has the advantage of including a lot of experienced project partners who worked already successfully in different scientific projects. Against this background the scientific quality of Deliverables has been organised as an internal peer review process (Gannon 2001). This means that Deliverables, before submission to the EU, will be checked and commented within the project consortium by other project partners not involved in the preparation. The coordination team takes care of time management to give also enough time for this process. If needed they also help regarding content related issues. Additionally, Deliverables and the outline were discussed during the regular video calls and meetings to ensure that all necessary partners are involved and a clear Deliverable structure has been developed by the responsible partner who is in charge to run the writing and review process in time.

Quality assurance in case of data is also ensured by having on one hand the data management plan (Costa & Seydewitz 2022, D1.1) as a clear guideline and on the other hand the consortium also defined its Ethical requirements (Walter 2022, D1.2) for quality assurance towards all included persons. Additionally, LOCALISED project has developed Gender and Diversity guidelines (Badieijaryani et al. 2022, D.1.5) to consider and quality assurance is also part of the stakeholder (Hezel et al. 2022, D8.1) and communication processes (Firus 2022, D9.1) which are all developed in order to establish and meet high quality standards in all actions undertaken by the LOCALISED project consortium.

Furthermore, the grant includes a review process by external reviewers twice during the project duration that should help to get a fresh view on the work. Reviewers are

chosen by the EC Project Officer. In addition, the project's Advisory Board (Walter 2022, D.1.3) as an external body will broaden the perspective on the project and its results as well. During the Stakeholder processes it is planned to get external feedback to specific questions in order to understand practitioners needs in a better way. In this regard also, the city partners within the consortium are the first to ask, helping to strengthen this perspective and could advise how to reach other cities and regions successfully.

2.4 Controlling and adjustment management

Controlling has three different levels:

- Tasks, Milestones, Deliverables etc.
- Budget and work load
- Quality

The first one is related to the planning detailed under 2.2 and means controlling mechanisms like regular video calls to exchange and report on progress in all work packages accompanied by minutes to have a continuous overview for all also in a written form. During the calls preparation of Deliverables, outlines, and other work is discussed and the coordination team gives reminders on due dates and deadlines. In the beginning the action points from the last call are checked and fulfilment will be noted.

LOCALISED coordination team has established a lot of such procedures to ensure a good work flow within the team and makes sure that progress made in smaller rounds will be reported back to the whole team.

In this regard the 6-monthly project meetings help a lot to align all partners and give enough space to meet in person for having longer discussions, making linkages, and clarifying open points. Also, for new team members is always a good opportunity of getting an overview and personal introduction. Therefore, we start all our project meetings with a team building session. In the framework of work package 1 the whole project also reflects its own communication and inclusivity by developing communication rules which are introduced in the beginning of each face-to-face meeting again. Furthermore, the project team reflects about the meetings and collects ideas for improvements. The overall objective is to create a respectful, inclusive, and equal working atmosphere as part of the quality review process. In the end we have an outlook on the work planned for next six month and to make sure that all are aware of their duties.

Same counts for the **second level**. The coordination team asks partners every six months to give an overview on spent budgets and used person months. This controlling mechanism helps in comparison to the planned budget to see if workload and budgets are still well distributed and used by partners accordingly.

Third level of controlling refers to quality. It's done by the mentioned mechanisms unter 2.3 including all mentioned Deliverables produced earlier to give support and guidance. However, the coordination team is also in charge of explaining and overseeing the whole project and its products - also in regard to coherent communication - and always does final control.

Finally, the controlling phase leads to either successful fulfilment or, especially in case deviations are recognised, to a revision of plans. The coordination team discusses changes with the responsible partner(s) to find an adjustment (shift dates, budgets etc.). Partners know that they need to report those changes as early as possible in order to avoid delays - also for partners and following work. The coordination team will report as soon as they are aware to the EC Project Officer, agree the adjustments and integrate changes in the overall project planning and the process of quality review starts again from the beginning (see Fig 1) until all objectives are addressed and project ends.

All changes according to the basic planning and actual work plan will be documented and described in the periodic reports (M18, M36, and M48) as well. In case larger changes are needed the EC offers the way of starting an official amendment process together with the Project Officer that will also change the GA and related documents. Finally, this will lead to a new basis of planning, but overall the above described process of quality review will remain more or less the same.

3 LOCALISED impact assessment plan

This chapter describes the impact assessment methodology developed for LOCALISED. This is based, as anticipated in the DoA on previous research projects such as iSCAPE[1], ClimateFit[2] (Lefevre et al, 2022), ACTION[3] (Passani at al., 2020) and IA4SI[4] (Passani at al, 2015) and the long experience of T6 in the field.

A draft of this methodology has been presented to key partners in dedicated online meetings held in September 2022. Thanks to these meetings the first draft has been improved to assure a better alignment with the ongoing activities. Following a collaborative approach the version of the methodology here described will be presented to the upcoming project meeting (October 2022) so to gather further feedback. Additionally, this methodology will be updated, if needed, during the project so that this document should be considered a living document.

The result of the impact assessment will be presented in the final activity report but feedback will be provided to the consortium also at M24 and M36 to support the management of the project in its aim to maximise positive impact and minimise negative ones.

[1] https://www.iscapeproject.eu/
[2] https://climate-fit.city/
[3] https://climate-fit.city/
[4] https://cordis.europa.eu/project/id/611253

This chapter is organised as follows: the next subsection defines impact assessment and its overall scope within the project. Sub-section 3.2 recalls the project expected outputs and impacts and introduces the main areas of impact that will be considered. Subsection 3.3 describes each area of impact, its sub-dimensions, the main variables that will be used and the data gathering methods to be followed. Subsection 3.4 presents the impact assessment activities that will focus on project partners. Finally, sub-section 3.5 describes the overall data gathering process and timing.

3.1 Defining impact assessment

Impact assessment refers to a suite of methods employed for analysing and understanding the potential range of impacts by a project to selected stakeholders and society overall. In other terms, running an impact assessment activity means answering the questions: "what is the difference the project makes?" and "for whom?".

The guide to impact assessment developed by the EC INFOREGIO Unit (European Commission, 2013: 119) defines impact as,

> "a consequence affecting direct beneficiaries following the end of their participation in an intervention or after the completion of public facilities, or else an indirect consequence affecting other beneficiaries who may be winners or losers. Certain impacts (specific impacts) can be observed among direct beneficiaries after a few months and others only in the longer term (e.g. the monitoring of assisted firms). In the field of development support, these longer-term impacts are usually referred to as sustainable results. Some impacts appear indirectly (e.g. turnover generated for the suppliers of assisted firms). Others can be observed at the macro-economic or macro-social level (e.g. improvement of the image of the assisted region); these are global impacts. Evaluation is frequently used to examine one or more intermediate impacts, between specific and global impacts. Impacts may be positive or negative, expected or unexpected".

From this definition we can anticipate the need to map both the impacts of the project on its stakeholders (see subsection 3.3) and the impacts on project partners/beneficiaries (see subsection 3.4). In the case of LOCALISED we will focus our attention on scientific, social, economic and political impacts.

Scientific, social impact assessment and economic impact assessment are often undertaken separately and employ specific methods, but recent development and application of projects employ these assessments in a complementary, and sometimes overlapping, way. This highlights the necessity for collecting and analysing both qualitative and quantitative data to comprehensively cover all the relevant emerging themes.

According to Berghout and Renkema (2001), socioeconomic impact assessment methods vary according to the level of detail, the considered range of stakeholders, and the specificities of the needed data. Galliers and Land (1987) argued that the selection

of an appropriate assessment method for research projects is based on the suitability of the method and the rigour of its development and application, and it is key for ensuring the process is accurate and successful in its wholeness. In this way, a set of matrices is necessary to match project characteristics and evaluation techniques and to identify a suitable method.

Numerous factors influence the selection of the appropriate method for impact assessment, including social and organisational contexts, the organisational domain, the level of analysis, objective and perspective of the assessment, purpose of the investment, measurability of system impacts, and application (Monacciani et al., 2011). Several metrics are required for the assessment of projects and all their components. In the case of LOCALISED, a mixed-method research (MMR) approach (Tashakkori and Newman, 2010) will be followed and impacts will be reported separately for each of the four areas of impact identified. This choice is coherent with the principles of social impact assessment that are inspired by the fundamentals of Multi-Criteria Analysis (MCA) (Köksalan et al. 2011; Dodgson et al. 2009), according to which each of the various impacts should be expressed in its most suitable metric, by using appropriate indicators.

It is important to highlight that an impact assessment can have different scope and the results could be useful for different audiences. The figure that follows maps the main goals of an impact assessment and the related methodological approaches.

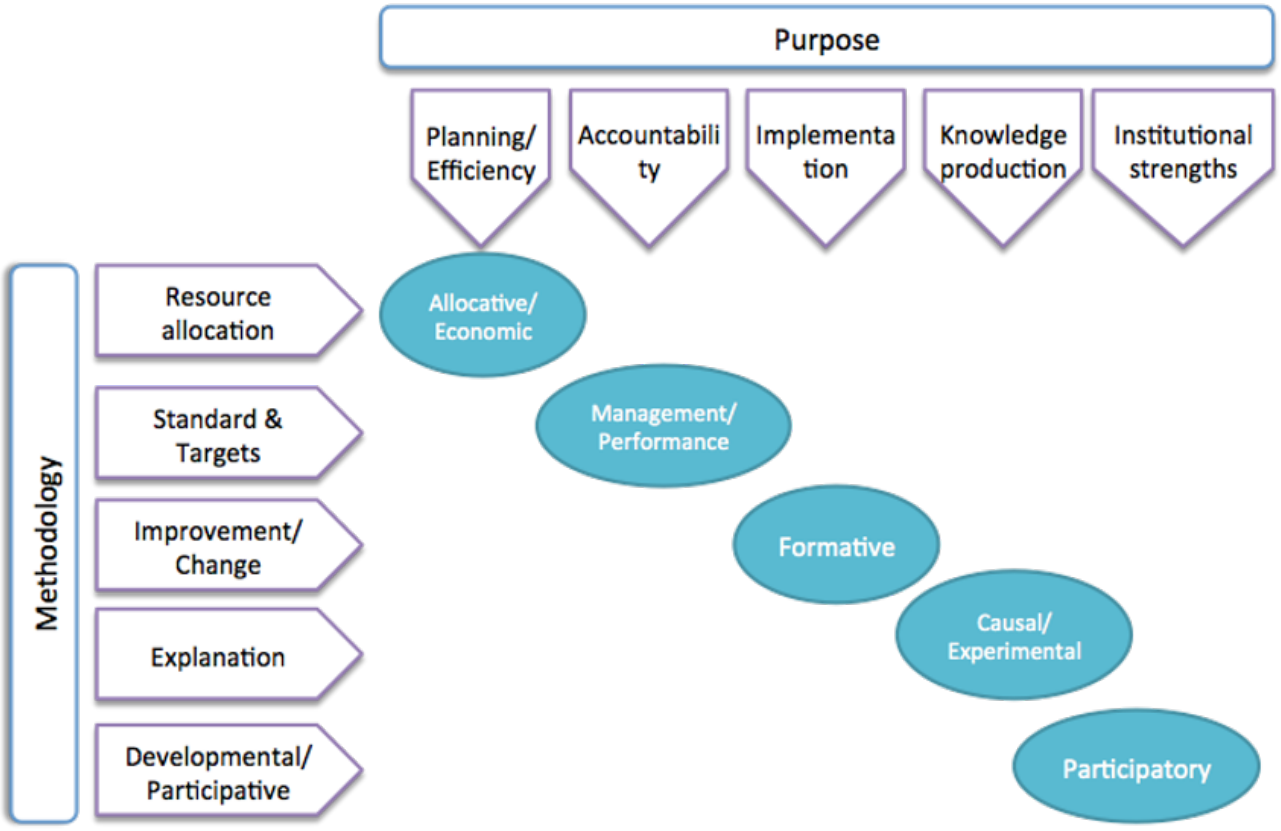

Figure 2 – Purposes and methodologies of impact assessment (Evalsed: the resource for the evaluation of socio-economic development. Regional Policy - Inforegio, 2013)

In the case of the LOCALISED project, the assessment will meet two goals: on one side, it will be a useful internal management tool, facilitating the coordination, aligning the expectations and providing valuable lessons to the partners. On the other side, it will be formative by providing results to policy makers and stakeholders in an accessible form, supporting future actions and policies accordingly.

As anticipated in the DoA, the LOCALISED impact assessment methodology will be based on the impact value chain approach (IMWG, 2014), which is the de facto standard for many international bodies, including the European Commission (EC, 2011).

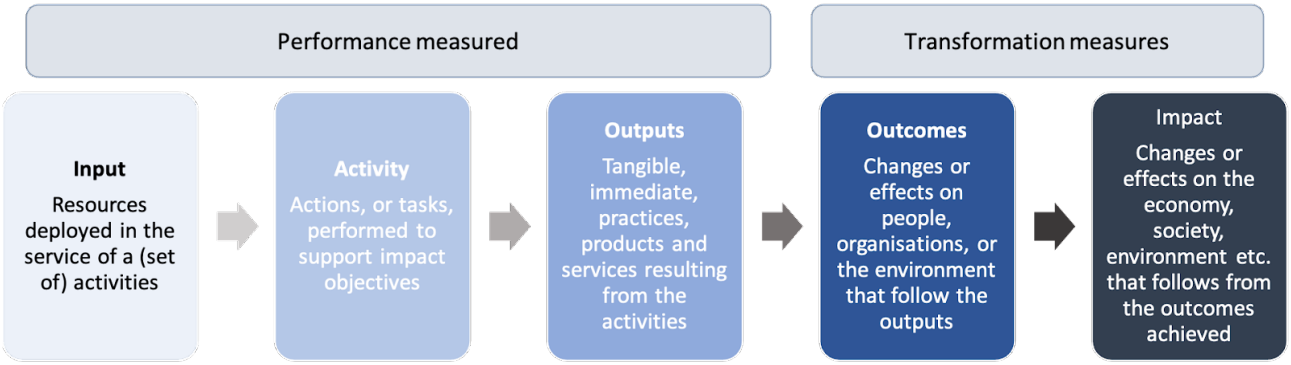

Figure 3 - Impact assessment framework: the value-chain approach (elaboration on IMWG, 2014:6).

As reported in Figure 3, the impact is the result of the input available (i.e. The EC grant for the LOCALISED project together with the competencies of the partners and the experience and results of the previous EUCalc project[5]), of the activities carried out, and the tangible results developed during the project lifetime (outputs, see sub-section 3.2).

As a final remark, it is important to mention that some impacts (especially those that ask for large uptake of project's outputs and policy change) tend to be observable only after the end of a project. For this reason, the impact assessment activities that will take place during the LOCALISED project life time will focus mainly on outcomes and impacts observable during the time-frame of the project (so mainly on engaged stakeholders) but will indicate expected impacts as derivable by what observable by the end of the project.

3.2 Project's expected impacts on relevant stakeholders

As described in the project DoA, "the project's impact is based on a downscaling of the output data of an energy model to EU regions so that the international decarbonisation

[5] https://www.european-calculator.eu/

goals/ targets and related implications are translated onto and made visible at spatial scales that are much closer to the decision of users".

The main direct impact is, therefore, on knowledge availability for different stakeholders, which are: decision-makers (local and regional - NUTS 3 - authorities), researchers, citizens, businesses entities and business organisations.

This direct impact will be achieved not only by producing new and qualitatively improved datasets and scientific publications, but also by developing tools specifically for regions/ cities, citizens and businesses (specifically the LOCALISED Decarbonisation Profiler and the LOCALISED Net-Zero Business Consultant).

The main in-direct expected impact is for project stakeholders to be empowered in co-deciding on, and co-designing and co-creating of adaptation and mitigation plans in their respective field of influence thanks to the support provided by the project. This explicit in the following expected impacts:

- For decision makers: impacts at policy level. Thanks to the information provided by Localised it will be possible to develop new (or improve those already available) adaptation plans and/or relevant regulations and policies.
- For citizens: increase their awareness i.e. gain a better understanding of climate change, and the effects of various behaviors (in terms of mitigation & adaptation). Beside this we envisage that the project could be able to empower them at policy level by providing the knowledge and capability to advocate for change.
- For businesses: knowledge facilitating the development of plans and actions to achieve carbon-neutrality at company level.

The table below summarises the link between project outputs, relevant areas of impacts and affected stakeholder groups.

Table 1 – Expected project outputs on relevant stakeholder groups

Project output	Areas of impact	Relevant stakeholder group
1 comprehensive database on a NUTS-3 level with climate equivalents, climate change data and climate change risks for every region in Europe 10 climate change indicators relevant to energy planning assessed at NUTS3 level 15 climate change indicators relevant to adaptation planning assessed at NUTS3 level 5 climate change indicators relevant to citizen awareness assessed at NUTS3 level	Scientific impact	Researchers

1 comprehensive database of mitigation and adaptation measures for regions, municipalities, individuals and businesses - > 1,000 disaggregated pathways to NUTS3 levels - > 10 datasets published on an open data platform - > 10 datasets from local use cases evaluated and integrated	Scientific impact	Researchers
One data sharing platform	Scientific impact	Researchers
At least 10 scientific papers	Scientific impact	Researchers
2 user-centred and user-friendly tools (for local authorities and businesses)	Policy impact Economic impact	Decision makers Businesses
1 blueprint for climate councils for citizens in regions and cities	Policy impact	Decision makers and citizens
8 policy briefs	Policy impact	Decision makers
5 business models alleviating adverse effects and risks	Economic impact	Businesses
3 lifestyle-change narratives with different sectoral and geographical scope	Social impact	Citizens
3 citizen engagement processes	Social impact	Citizens
6 stakeholders co-creation labs	Social impact, political impact, economic impact	Decision makers, citizens and businesses

3.3 Areas of impact and dimensions

In assessing the impacts of the LOCALISED project we will consider 4 areas of impact: scientific, policy-related, social and economic. We will consider impacts on the four main stakeholder groups (researchers, decision-makers and public bodies, citizens and businesses) and on project partners. It is nevertheless important to mention that the first three stakeholders groups are the main users of project outputs.

Coherently with the gender plan of the project, we will pay dedicated attention to intersectional analysis and will assure that the impacts of the project are analysed also considering potential gender differences.

3.3.1 Scientific impact

In assessing the *scientific impact* of the project we will start by considering the outputs (scientific publications, presentations at relevant events and databases produced). In doing this we will follow the process used in academia, where scientific impact is usually measured by looking at publications, be it by counting citations (Garfield 1999) or by other measures such as analysing social networks and usage log data (Bollen et al, 2009). Analysing citations and usage log data helps in assessing the visibility gained of such outputs which can be considered a way of foreseen its usage by the research community. Besides this we will consider the contribution of the project in improving not only data availability but also *data quality*. More specifically we will explore how the project improves the accessibility, robustness, consistency and predictive quality of the data that are currently used by local authorities.

The table below shows the sub-dimensions and variables that will be used to map these areas of impact and presents the data gathering process that will be followed to collect the needed data for each of them.

Most of the needed data will be available at consortium level as part of the project monitoring, and will not be collected directly by the impact assessment team. In addition to these, we will conduct web analysis of scientific outputs to assess their visibility. The information on impact on data quality will be collected by organising one or more focus group sessions with the main investigators of the project.

There will be the need to operationalize further the concept of impact on data quality and this will be done during the project lifetime in order to assure a full alignment with the actual production of datasets. The first step in this direction will be made at the fist impact assessment focus group in which we will clarify which dataset will be considered in this analysis. The impact team will discuss with the researchers in the team first, their expectation and their point of view on data quality improvement. Then, we will consult stakeholders, first of all those represented within the consortium, to provide their point of view on the topic so to assess the perception they have by comparing data that were available to them before LOCALISED and those provided by the project.

Table 2 – Scientific impact

Sub-dimension	Variables	Data gathering process	Timing and/or reference to the related tasks
Scientific knowledge production	Quantity of new data created (N. of data points and N. of datasets)	Project reporting	Task 3.2 and 3.3
	N. of published articles/books/book chapters	Project reporting	info collected by the dissemination team at the end of each reporting period
	N. of PhD theses	Project reporting	
	N. of presentations at scientific events	Project reporting	
Scientific knowledge visibility	Impact factors of published articles	Web analysis	End of each reporting period
	N. of downloads/citations of articles, books, book chapters	Web analysis	End of each reporting period
	N. of attendees in scientific events	Project reporting	info collected by the dissemination team at the end of each reporting period
	N. of access to data points (through the project data sharing platform)	Project reporting and platform analytics	End of each reporting period
Impact on data quality	Accessibility	Focus group with main investigators with and interviews to local/regional partners	
	Robustness	Focus group with main investigators with and interviews	

		to local/regional partners	First focus Group M13, second M24 and third M36
	Consistency	Focus group with main investigators with and interviews to local/regional partners	
	Predictive quality	Focus group with main investigators with and interviews to local/regional partners	

3.3.2 Policy impact

If the previous areas of impact considers the new knowledge created and improved by LOCALISED, this area of impact analyses how it will be used by decision makers. Indeed, it is expected that the downscaling of data and pathways at a more local level, will make its uptaking by local and regional authorities more easy and will translate in new and better mitigation and adaptation measures. Also the policy briefs developed by the project could have an impact in this sense. Consequently, these areas of impact will map changes at policy level.

Besides this, we will also analyse if the collaboration with the LOCALISED team and its outputs will change the way policies are designed, put into practice and monitored.

The table below shows the sub-dimensions and variables that will be used to map this area of impact and presents the data gathering process that will be followed to collect the needed data.

Table 3 – Policy impact

Sub-dimension	Variables	Data gathering process	Timing and/or reference to the related tasks
Impact on policies	N. of new adaptation plans	Analysis of implemented policies or interviews with local/regional partners in case	

	(SECAP) planned or developed	of policies still under development	Last six months of the project
	N. of new policies developed (other than adaptation plans)	Analysis of implemented policies or interviews with local/regional partners in case of policies still under development	
	N. of improved adaptation plans (SECAP)	Analysis of implemented policies or interviews with local/regional partners in case of policies still under development	
	N. of improved policies (other than adaptation plans)	Analysis of implemented policies or interviews with local/regional partners in case of policies still under development	
	N. of decision makers aware of project's policy briefs	Project reporting	
Impact on policy making process	Changes in policy making processes	Interviews with local/regional partners	

3.3.3 Social impact

While the previous areas of impact considered, mainly, impact on decision makers, this area of impact focuses mainy (but not exclusively) on impact on citizens (micro level) and on local communities (meso level). Local communities could be considered the overall population of the cities involved in the project as key studies, but also, and more probably, smaller ones such as communities at neighbourhood level that could be particularly affected by an adaptation plan and therefore more prone to participate and take action.

The main outputs that will be considered as linked to this area of impact are related to the establishment of citizens engagement process (such as, for example, citizen councils, co-creation labs etc.) in the case studies regions.

We will consider if these activities/outputs will be able to support participants' and communities empowerment, increase participants' awareness on adaptation and mitigation measures, increase their understanding on climate change and adaptation measures, increase their social capital, enable changes in their way of thinking, attitude and in their capability to advocate for for mitigation and adaptation measures. Indeed, these are the main expected impacts defined in the DoA for this area of impact; here below a more granular definition of the key concepts that will be investigated.

The term "community empowerment" emerged during the '80 and is used in the community psychology, health promotion and liberation education sectors (Laverack, and Wallerstein, 2001). It needs to be defined from an operational point of view as it tends to be vague and difficult to measure. The concept of community empowerment is very close and, in some sense, overlapping with terms and concepts such as community capacity, community competences, social capital and community cohesiveness. However, those may lack to point out the procedural aspects of community empowerment and the dimension of power relationships and their changes (Laverack and Wallerstein, 2001).

Within this dimension we will map the communities "created" or engaged, the number of members, the level of interaction among them and their inclusiveness (the capability to engage different social groups, including vulnerable ones and to create a group diversified in terms of age, gender and educational level). We will also analyse if their participation in LOCALISED activities increases their perceived self-efficacy i.e. the perception of being able to learn a specific content, to perform a specific behaviour and to act towards a defined goal (Bandura, 1982). In this sense being able to increase citizens' self-perceived efficacy can have an important impact on community empowerment and it can influence their capability to act at local level in a proactive way, for example advocating for mitigation and adaptation measures.

We prefer to consider social capital as a separated category event if it is also an element crucial for empowering communities. In these terms we will consider the improvement in social capital by considering different aspects of this dimension. As a first approximation we could consider bonding, bridging and linking social capital for citizens participating in project engagement activities. Bonding social capital, as described by Robert Putman in his book Bowling Alone (2000), refers to the relationship within a group, or better, is the social capital owned by a person when she links with persons similar to her, people that belong to the same social group, location, or which share common values and attitudes. Bridging social capital, instead, refers to the capability to get in touch with people from different social groups, communities or with different values and attitudes. Finally, scholars at the World Bank (Healy et Cote, 2001) added the concept of linking social capital to describe relationships among people or institutions at different levels of societal power hierarchy and this can be of interest when considering the relationship of citizens with researchers and decision makers. Another element of social capital that will be considered is the level of trust among community members (Putnam, 2000), which is shown to have an important role in

community agency and also in individual commitment in pro-environmental actions (Meyer and Liebe, 2010).

Another important impact is on citizens' awareness and knowledge. Indeed the participation in citizen engagement processes is expected to increase their awareness and understanding on adaptation and mitigation measures. Similarly to what is said for political impact, we consider relevant investigating how the new knowledge is put into practice so, in other terms, how it can influence opinions and way of thinking. It is important to notice that this dimension is relevant not only for citizens but also for decision makers and for business units and other organisations that will interact with project outputs.

The table below shows the sub-dimensions and variables that will be used to map this area of impact and presents the data gathering process that will be followed to collect the needed data.

Table 4 – Social impact

Sub-dimension	Variables	Data gathering process	Timing and/or reference to the related tasks
Community building and empowerment	N. of citizens participating in engagement processes	Project reporting	Task 6.3
	Level of interaction and models of participation	Project reporting	
	Changes in perceptions of social capital	Survey to citizens participating at citizens engagement process	
	Increase in perceptions of trust among participants and in institutions	Survey to citizens participating to citizens engagement processes	

	Percentage of participants belonging to underrepresented social groups	Project reporting or survey to citizens participating to citizens engagement processes	
	Ration among age groups of participants	Project reporting or survey to citizens participating to citizens engagement processes	
	Male/female share among participants	Project reporting or survey to citizens participating to citizens engagement processes	
	Diversity of participants in terms of education level	Project reporting or survey to citizens participating to citizens engagement processes	
	Increase in self-perceived efficacy	survey to citizens participating to citizens engagement processes	
Impact on awareness and learning	Increase in awareness on mitigation and adaptation measures	Survey to citizens participating to citizens engagement processes; online surveys to Decarbonisation profiler's users (for decision makers) and online survey to business unit and organisations using the Net-Zero Business Consultant	Task 6.3 with reference to citizen engagement process. In relation to the Net-Zero Business Consultant the data gathering will start with the first release of the
	Increase in the understanding of adaptation measures	Survey to citizens participating to citizens engagement processes; online surveys to Decarbonisation profiler's users (for decision makers) and online survey to business unit and organisations using the Net-Zero Business Consultant	
	Other learnings	Survey to citizens participating to citizens engagement processes; online surveys to Decarbonisation profiler's users	

		(decision makers) and online survey to business unit and organisations using the Net-Zero Business Consultant	tool in M36 (Milestone 9)
Impact on way of thinking, attitudes and behaviours	Change in opinions with relation to climate change and adaptation measures	Survey to citizens participating to citizens engagement processes and online survey to Decarbonisation profiler's and Net-zero Business Consultant users[6]	
	Expected (i.e. self-reported) behavioural change	Survey to citizens participating to citizens engagement processes and online survey for to Decarbonisation profiler's and Net-zero consultant users	
	Changes in the time spent by individuals in getting informed about political issues related to climate change and adaptation and mitigation measures	Survey to citizens participating to citizens engagement processes and online survey for to Decarbonisation profiler's and Net-zero Business Consultant 's users	

3.3.3 Economic impact

This area of impact will analyse mainly the impact of the project outputs targeting businesses as their main users. However, it will also consider the economic impact of other project outputs especially on public administrations. It is indeed relevant to consider the cost saving produced by the project on local public bodies that - thanks to the project - will have access to information that would have been otherwise costy for them to obtain.

More precisely, this area of impact will consider:

[6] If possible, we will analyse opinions and behaviours before and after the engagement process, so we will run two surveys.

- How the Net-Zero Business Consultant for local and regional business and business organisations will introduce process, product and/or organisational innovation in single business units.
- The cost saving at business unit level, as well at business organisations level, in terms of free available knowledge for their associates.
- How the interaction with Localised and the Net-Zero Business Consultant could lead to economic benefit derived by new collaborations and knowledge transfer enabled by the project and its outputs. Indeed, the Net-zero business consultant will also showcase innovations that could be acquired by the toll's users through independent (from the Localised project) business agreement and also the co-design process could lead to the creation of economically relevant new collaborations among stakeholders.
- The cost saving for public entities that will be able to access knowledge otherwise costly to obtain

With reference to innovation a useful distinction is that between process innovation and product/service innovation (Afuah, 2003; Godin, 2017). Product or service innovation is aimed at the development of something new (disruptive innovation) or at the progressive improvement of an already given outcome (incremental innovation). Process innovation involves improvement in the process of producing a product/service. It includes changes across all the value chain activities including logistics, media planning, or improved manufacturing process.

We are also interested in organisational innovation because the new knowledge offered by the Net-Zero Business Consultant could lead to restructuring of business units, the creation of new managerial figures/teams related to transition and a different approach to employment processes and employees training on the job in order to respond to the new needs emerging by the need to start a decarbonisation future.

Table 5 – Economic impact

Sub-dimension	Variables	Data gathering process	Timing and/or reference to the related tasks
Impact on innovation	N. of business units that produces new or improved product and services	Online survey to engaged business units and organisations	
	N. of process innovation introduced	Online survey to engaged business units and organisations	

	N. of organisational innovation introduces	Online survey to engaged business units and organisations	From M36 (first release of the Net-Zero Business Consultant) to the end of the project.
Cost saving	Cost saving for the public administrations	Interviews with local/regional partners and online survey to Decarbonisation profilers' users	
	Cost saving for business units	Online survey to engaged business units and organisations	
	Cost saving for business organisations	Online survey to engaged business units and organisations	
New partnership and collaborations	N. of new collaborations with other companies	Online survey to engaged business units and organisations	
	N. of new collaborations with start-ups and innovators	Online survey to engaged business units and organisations	
	N. of new collaboration with research organisations	Online survey to engaged business units and organisations	
	Outputs of new established collaborations (qualitative analysis of benefits related to the new collaborations)	Online survey to engaged business units and organisations	

3.4 Project's expected impacts on project partners

Besides the impact on project stakeholders, it is of interest for our consortium to consider the impacts of LOCALISED on project partners. Expected impact are mainly related to:

- Impact on learning
- Impact on social capital
- Impact on symbolic capital
- Economic impact

The first two impacts have been defined in the previous subsection. With the term symbolic capital (Bourdieu, 1989; Fuller & Tian, 2006) we refer to the opportunity offered by the project to improve visibility and recognition. These can be achieved by dissemination activities (e.g. organisation of events), social media interactions, but also by the fact of being funded by EU programmes. In some contexts, indeed, being part of a EU fund programme can give a sort of badge of trustworthiness that can facilitate connections with additional potential stakeholders and institutions. In this sense, visibility and branding recognition will be considered even in this perspective as having indirect economic impacts. This dimension will be assessed by indicators such as the perception of a change in visibility and branding recognition; increase in social media followers and interactions; and the number of events (organised or attended) and the amount of participants.

Economic impact will be analysed considering the capability of partners to exploit project results and will be linked to the exploitation activities of the project. These dimensions will be assessed by indicators related to the capability to attract new funds, write follow-up project proposals and increase turn-over as a result of project outputs' exploitation at market level.

3.5 Data gathering process and timing

The impact assessment activities will constantly follow the development of the project, monitoring progresses and changes to the planned activities that might ask for adaptations of the present methodology. Tables 2, 3, 4, and 5 indicate the tasks or timeline in which the different data gathering activities will take place.

In M13, M24 and in M36 an impact assessment workshop will be organised at consortium level, possibly during face-to-face project meetings. The workshops, which will use facilitation methodologies, will support the consortium in evaluating the progress done towards the expected impacts listed in the DoA and the eventual changes to be introduced at management or activity level in order to assure the maximisation of positive impact and the minimization of negatives ones. This will allow the impact assessment team to draft a set of recommendations for the upcoming year of the project as an input to the management team.

In order to collect the data needed for assessing impact on project partners a semi-structured questionnaire will be developed and submitted to project partners close to the end of the project. However, the need to record potential impacts on a regular basis (especially with reference to social and symbolic capital) will be made explicit to project parents in the next months. A spreadsheet will be provided and it will be requested to fill it in on a regular basis. A reminder to keep the spreadsheet updated will be sent every six months.

The main data gathering activities that will lead to the writing of the final impact assessment report, however, will be done in the last six months of the project when most of the outputs will be delivered in their final shape. Indeed, it is crucial for the impact assessment team to be able to interact with project partners and with engaged stakeholders ones the results of the project have been fully deployed (or are close to their final shape) so that all the involved stakeholders have had the opportunity to interact with them and reflect on their current and potential impacts on their job, their communities and their lives. The results of the impact assessment activities will be included in the final activity report of the project.

Even if the main data gathering activity will be done in the last phase of the project, the impact assessment team will follow and participate (as much as possible considering the available resources) to the project activities that directly involve stakeholders. Therefore, the direct participation of the impact assessment team to co-design sessions, stakeholder workshops and citizen engagement activities will be evaluated on a one to one basis but follow ups with responsable partners will be organised after each of the above-mentioned activities.

4 Conclusions

This deliverable, with the presented methodologies on quality assurance and impact assessment, shall ensure the delivery of high quality outputs and information about the impacts of the LOCALISED project. Both are supporting the activities of the project coordination team as well as the work package leaders. The deliverable is also an information for e.g. stakeholders, in regard to quality reviews.

The first part of the deliverable describes the different quality review processes and controlling levels which are set-up and introduced by the project coordination team, but need the contribution of all partners to unfold its strength and impact. Focus lies on the scientific output - mainly deliverables - and work progress as it has been planned during the project starting phase.

The second part of this deliverable presents the impact assessment methodology that will be used for mapping the value generated by the LOCALISED project. The methodology considers scientific, social, economic and political impacts and will map the benefit produced by the project on its stakeholders such as decision makers, researchers, citizens, enterprises, and business associations. A constant monitoring of the progress of the project in terms of achieved impacts will help the management team by providing useful information able to inform activities' adaptation (if needed). It will also accompany the consortium through a reflexivity process that has the final aim of maximising positive impacts and minimising negative ones.

In the next months the methodology will be updated, if needed, in order to assure full alignment with project activities and outputs. At month 24 and 36 internal reports will be developed providing preliminary results about impact. The final report, delivered at

the end of the project, will show the impact of the project on its stakeholders and on the consortium partners.

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