

## Deliverable 1.1

# Quality assurance plan and risk management plan

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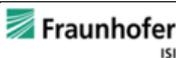


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**MICAT**

Multiple Impacts Calculation Tool

**Project partners**

Participant No. *	Participant organisation name, Country	Logo
1 Fraunhofer (Coord.)	Fraunhofer Institute for Systems and Innovation Research ISI; DE	
2 IEECP	Institute for European Energy and Climate Policy Stichting (IEECP), NL	
3 WI	Wuppertal Institute for Climate, Environment and Energy, DE	
4 WiseEuropa	WiseEuropa – Fundacja Warszawski Instytut Studiów Ekonomicznych i Europejskich, PL	
5 e3m	E3-Modelling, GR	
6 IIASA	IIASA - International Institute for Applied Systems Analysis, AT	
7 ICLEI	ICLEI - Local Governments for Sustainability (ICLEI EURO), DE	

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**Lead Beneficiary:** Fraunhofer ISI

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D1.1 Quality assurance plan and risk management plan

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## 1. SUMMARY

The purpose of this document is to provide a quality and risk management guide for the MICAT project, to ensure that adverse situations are properly managed along the progress of the project. Furthermore it aims to improve appropriate contingency planning to mitigate the impact of these risks if the latter occur.

This plan describes the processes and procedures to manage and control events that could have a negative impact. The factors that have been recognised as potential risks for the project have been categorised and described to estimate the impact of these risks and to outline strategies how to mitigate them.

Moreover, this plan addresses the roles and responsibilities of the consortium, the risk identification, as well as risk assessment and mitigation plans.

## 2. QUALITY MANAGEMENT

Quality management is very important in the MICAT project. There are basically two main principles: The timely completion and provision of the deliverables to the EC and the preparation of high-quality documents as well as the development of an online-tool that meets the requirements of the target groups.

The timely delivery of all documents will be part of regular status updates among the members of the project consortium. The due dates of all deliverables were communicated and agreed on with all partners upfront and can be viewed in a shared document. During each video-call, the Project Coordinator will provide a review of timelines and deliverables with a special focus on deliverables that are due soon. Thus, every work package (WP) Leader is aware of current project deadlines. The WP Leader, in turn, has the responsibility of the timely completion of the deliverables that lie within his or her work package. He or she will make sure that all contributors to a deliverable are aware of the deadlines and s/he will set up preliminary structures for the reports and other deliverables early in the process.

Concerning the overall quality of the deliverables, the quality management process focuses on the following requirements:

- **Clarity of thought and presentation:** Is the document well written and easy-to-read? Is there a suitable balance of text and illustrations? Does the document have a proper layout? Are illustrations and tables properly referenced? Are references provided and are they complete? Is there a clear guidance for the user (especially guidelines, tools)? etc.
- **Internal validity:** Is the text and the data in the document plausible? Do text and data match? Are there contradictions within the document? etc.
- **Contribution and conformity:** Does the deliverable contribute to the aim of the task? Is the deliverable suited to the actual target group? Are there any deviations of the deliverable and its outline in the proposal both in terms of content and form? etc.

To make sure the deliverables fulfil these requirements, the quality management approach involves the passing of three review levels:

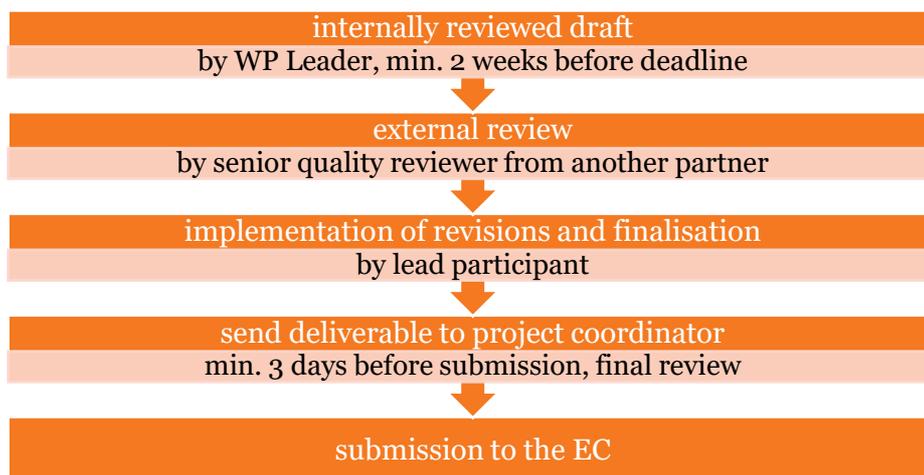
**First level:** The first level is an internal review process by the WP Leader. Each deliverable provided by a work package will be reviewed by its WP Leader or his or her alternate. The WP leader will work with authors of deliverables to ensure that drafts are of sufficient quality to pass on to the second level.

**Second level:** Next to the WP Leader, there is a Senior Quality Reviewer for each Deliverable. Each Senior Quality Manager is usually working for a different Project Partner than the WP Leader. Thus, there is a cross-check of deliverables among partners.

**Third level:** The third level of quality management is a review by the Advisory Board. To limit the need for reviewing activities by the Advisory Board, this level of review is limited to the key deliverables that are especially crucial for the practical application of the MICAT approach, like e.g. the drafts of the quantification of Multiple Impacts (D3.1/ D3.2) and how the approach can be embedded into the energy and climate governance (D5.3).

On each review level, the review will be planned with a sufficient time buffer by the WP Leader and agreed on with the reviewers. The reviewer will provide comments in written to the work package leaders respectively the contributors to the deliverable. The WP Leader or the contributors will then incorporate the comments in their document or they will reject the comments with a justification for the rejection.

The WP leader and contributors will take care that the performance indicators for each WP mentioned in the grant agreement are addressed in the respective deliverables. The tracking of due dates, reviews and reviewers is done in an Excel-sheet that can be accessed by all partners.

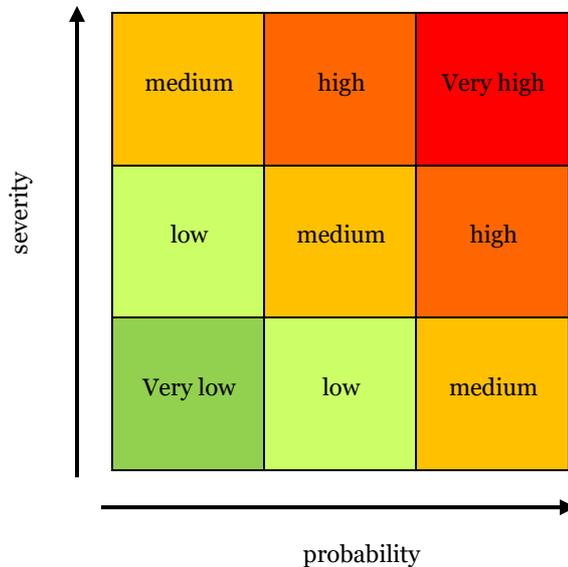


**FIGURE 1: QUALITY CONTROL AND REVIEW STRATEGY OF THE MICAT PROJECT**

### 3. RISK MANAGEMENT

Risk management is an ongoing process throughout the lifetime of a project and involves the process followed for risk mitigation. Like any project, MICAT is subject to various risks that might impede the achievement of the aims of the project. The objective of the Risk Management process is to anticipate these potential risks (assigning to each a probability and an impact/severity) and provide a mechanism to control and mitigate them.

In principle, risks can be assessed using two dimensions: their probability and their severity.



**FIGURE 2: DIMENSIONS OF RISK ASSESSMENT**

The following table provides an overview of various general and specific risks of the MICAT project, their probability and severity, and an overview of measures to mitigate these risks. A comparable table is also in part A) of Annex I. Any additional risks that might be identified during the project will be discussed in regular, or in the case of severe risks, in exceptional project calls. During these calls, the project consortium will discuss possible strategies to mitigate those risks and will then decide how to deal with these risks. In the unlikely

case of severe risks that threaten the overall success of the project and that are not manageable in a satisfying way, the Project Manager will contact immediately the EASME Project Advisor to inform her about the risk and its possible consequences.

The following table lists all identified critical risks during the project work and the corresponding risk-mitigation measures taken by the project team.

**TABLE 1: OVERVIEW OF POSSIBLE RISKS AND PLANNED RISK MITIGATION MEASURES**

Description	Probability	Severity	WP	Risk-mitigation measures
<b>General risks</b>				
Key personnel leaving the team	low	Very high	All	<ul style="list-style-type: none"> <li>At each partner and within the groups of project members, there is a large capacity and a sufficient overlap of competences. Any loss of personnel can thus be compensated.</li> </ul>
Lack of communication between team members or between the different project groups	low	Very high	All	<ul style="list-style-type: none"> <li>Regular web meetings and project meetings in person will assure that there is a continuous exchange of information during the project.</li> </ul>
Insufficient experience to provide the deliverables	low	Very high	All	<ul style="list-style-type: none"> <li>All project members have extensive experience with the topics they handle.</li> <li>Consortium members have been clustered into groups with similar competences.</li> </ul>
Delayed provision of deliverables	low	high	All	<ul style="list-style-type: none"> <li>Timely provision of deliverables will be a re-occurring topic in regular phone calls / web meetings.</li> <li>The quality management approach will require every Task Leader to provide outlines</li> </ul>

Description	Probability	Severity	WP	Risk-mitigation measures
				and drafts of deliverables early. Internal reviewers will thus be able to check them in time.
Late availability of input from other WPs	medium	high	All	<ul style="list-style-type: none"> <li>• Implementation of intermediate deadlines for delivery of input to other WPs.</li> <li>• Regular communication between WP and Task leaders to react to each other's needs.</li> </ul>
Conflict of interest	low	high	All	<ul style="list-style-type: none"> <li>• No conflicts of interest have been identified within the project. If any conflicts are identified during the project, the Project Advisor of the EASME will be informed immediately.</li> </ul>
Persistence of COVID-19 Pandemic during project period	medium	medium	All	<ul style="list-style-type: none"> <li>• At the start of the project, the pandemic was already present. The kick-off took place virtually and we now have the required tools and experience, so that we can find solutions to hold meetings and workshops online if necessary.</li> </ul>
<b>Specific risks</b>				
Development of methodologies is lacking behind potentially hindering the tool development	low	high	3, 4	<ul style="list-style-type: none"> <li>• The methods to be developed will be replaced by simplified approaches based on previous experience in other projects, thus ensuring that it will initially be possible to calculate results at least in a first approximation until the extended and refined methods are available. The modular development guarantees an easy exchange of method modules.</li> </ul>

Description	Probability	Severity	WP	Risk-mitigation measures
Limited availability of data to quantify indicators	medium	high	3, 4	<ul style="list-style-type: none"> <li>In case of non-availability of data, the respective indicator might be assessed using simplified assumptions or impact factors/impact equations from related projects or literature.</li> <li>Since a very long list of potential indicators has been proposed in the proposal, omission of some indicators is not problematic to the overall success of the project.</li> </ul>
Data is not made available by national partners	low	high	3, 4	<ul style="list-style-type: none"> <li>Specification of data requirements in terms of reference for national subcontractors in Italy and Germany.</li> <li>Fall-back list of suitable countries that have been identified to cover the gap.</li> </ul>
Online-Tool is not user-friendly and not attractive for the target groups	low	Very high	3, 4, 5	<ul style="list-style-type: none"> <li>The project consortium will actively gather feedback on the tool from various stakeholder groups and incorporate this in the tool design.</li> <li>The project consortium will take into account the experiences and feedback from the two existing MI online tools MB:EE and COMBI.</li> </ul>
Small interest of stakeholders to participate in the workshops	medium	high	5	<ul style="list-style-type: none"> <li>The project consortium will actively seek broad support via the stakeholder network</li> <li>One of the first steps of the project is to carry out a background analysis, thus the actual needs of stakeholders will be addressed in the project.</li> </ul>

Description	Probability	Severity	WP	Risk-mitigation measures
				<ul style="list-style-type: none"> <li>The local level stakeholders will be tendered and paid for participation.</li> <li>The stakeholders will receive support and feedback from the project team on relevant input and strategies for their respective governmental level.</li> </ul>
Foreseen partners on national levels do not participate	low	low	3, 4, 5	There is a budget allocated to pay national contributors of data and stakeholders. It is unlikely they reject because they assured their participation in advance. If they should lose interest during the project, we have other contacts to different possible national partners in other EU-countries.
Lack of interest to join Advisory Board and/or stakeholder dialogue	medium	low	all	In case of a persisting lack of interest, other stakeholders or national organisations may also be invited to the Board through contacts of all partners.
Small interest of stakeholders to participate and to adopt the results at the end of the project/ lack of practical relevance	low	high	5 (all)	<p>The project consortium will actively seek broad support via the stakeholder network.</p> <p>One of the first steps of the project is to carry out a background analysis, thus the actual needs of stakeholders will be addressed in the project.</p> <p>An Advisory Board will help to assure that the deliverables of the project are suitable for practical applications.</p>

Finally, the process of monitoring the identified risks is also defined in order to reduce the likelihood of the occurrence of the risks but also their impact if these they arise.

Each WP Leader is responsible for the Risk Management within his or her WP, but also each project partner is highly encouraged to communicate and discuss any (possible) risks with their WP Leader to ensure the quality of work. All partners are responsible to inform the Project Coordinator about the status and effectiveness of each risk and its mitigation and to update the deliverable status. Risk exposure will be continuously re-evaluated and modified accordingly. In addition, the agenda of the regular project meetings will include a report on each WP, where possible challenges can be discussed and risks mitigated.