

ANNEX A – THEORY OF CHANGE

Under Horizon Europe, the EU Members-States and Associated Countries aim to create significant societal and environmental impacts. In this context, proposals are expected to reflect on their expected impact, and how they contribute to the overall impacts defined for the call:

- *the potential for impact beyond the academic world, such as in societal, technical, environmental, economic, policy-making, or behavioural realms.*
- *how relevant stakeholders can be involved in, and/or benefit from, the design and achievement of the R&I project.*
- *to what extent the project contributes to the enhancement of human capacity building development.*
- *how approaches for achieving impact are integrated into the R&I design and conducted by the consortium.*

To better consider these different aspects, it is recommended to rely on a Theory of Change with a related Impact Pathway (IP) methodology to describe the research process, mentioning well-specified outputs and outcomes. See below a summary with further information on the Theory of Change, as well as freely accessible online workshop proposed by the Dutch Research Council (NWO): <https://impact.nwo.nl/en/working-with-an-impact-plan>.

Using a theory of change:

A Theory of Change is a logical framework that can be used as a tool to write an effective R&I proposal that is aimed at societal impact (see Box 1 for a schematic overview). It describes how the R&I process can contribute to societal/economic/environmental change, taking into account the context, and all actors involved and describing the sequence of logically linked consequential relations.

There are two parts: the Problem Analysis where a joint effort with research partners as well as stakeholders allows for making explicit which (and whose) problem is being tackled and how the desired change is perceived to happen through research efforts. You start by clearly defining the societal problem and the desired impact. Next, the causes are discussed, and the knowledge gaps

are identified. This part should form a logical chain to the project, hypotheses, methodology and work plan.

The Impact Pathway is the visualisation of the change process following research execution as described in the Theory of Change. It makes explicit how the research activities will lead to results (output) and how the exchange of knowledge and the uptake of research output will contribute to desired changes in behaviour, relationships, actions and activities of partners and stakeholders (outcome) that are considered essential to achieving the desired impact.

Any projections on expected change will of course be based on a myriad of *assumptions*, which can differ from person to person, between organisations or groups and even over time. Making assumptions explicit helps to create a shared vision and documenting these assumptions allows for reflection on whether and how expected pathways to impact remain adequate.

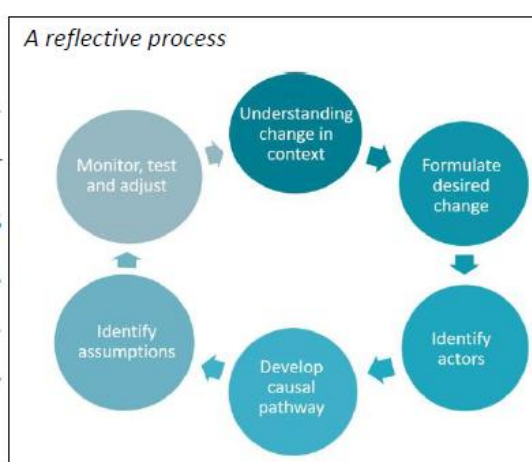
Given its construction based on logical-linked outputs and outcomes, a Theory of Change is also used as part of the monitoring, evaluation and learning trajectory.

An important element are productive interactions:

exchanges between researchers and stakeholders in which knowledge is produced and valued that is both scientifically robust and socially relevant. No change can be made without exchanging information AND people acting on that information. Interactions can be direct/personal, indirect, or financial. The quantity as well as quality of the productive interactions forms an indicator for the potential for societal impact. Examples of productive interactions are:

- *Co-design: formulation of research questions and approaches jointly with potential end-users;*
- *Co-creation: joint execution of research projects with stakeholders and interactive dialogue on research results.*

A Strategic Activity Planning spells out how the proposed productive interactions contribute to achieving outcomes. Outputs do not automatically lead to outcomes; thus, strategies are needed of the research consortium to plan and monitor how their efforts will enhance the potential for outcomes. This planning should include specific activities for:



- *Stakeholder engagement: Who are the relevant stakeholders to engage with according to context analysis, how are the productive interactions organised and when?*
- *Communication strategy: How are engagement dialogues organised, and results exchanged and translated, and whose responsibility is it?*
- *Monitoring, Evaluation and Learning: How are results of activities monitored and evaluated, such that assumptions can be tested, and activities adjusted accordingly and whose responsibility is it?*
- *Capacity strengthening: How are required capacities (of consortium partners and stakeholders) strengthened to achieve the outcomes, how is this organised and whose responsibility is it?*
- *A Risk assessment entails a description of potential risks for the successful execution of your project and options for handling or mitigating these risks.*

Box 1: Defining output, outcome and impact

Research and innovation **outputs** relate to the direct and immediate insights obtained by a research project or programme.

Research and innovation **outcomes** relate to the changes in behaviour, relationships, actions, or activities of stakeholders because of sharing and uptake of research. This starts during the project but continues after the end of the project.

Research and innovation **impacts** are defined as changes in economic, environmental, and social conditions that a project or programme is aiming at. The actual impact is often long after the project ends.

