

Impact Assessment and Evaluation

**Tools** 

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#### **LIAISON**

Better Rural Innovation: Linking Actors, Instruments and Policies through Networks

GA no. 773418

# Impact Assessment and Evaluation tools

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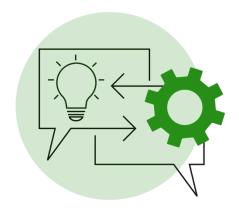
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#### **LIAISON**

Better Rural Innovation: Linking Actors, Instruments and Policies through Networks GA no. 773418

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# **Acronyms**

EU	European Union	SNA	Social Network Analysis
RDP	Rural Developmental Programme	PSC	Positive Social Change
EURIC	European Rural Innovation Contest of the LIAISON Project	PIPA	Participatory Impact Pathway Analysis
OG	Operational Groups	PLA	Participatory Learning and Action
M&E	Monitoring and Evaluation	SIMP	Social Impact Management Planning
FiBI	The Research Institute of Organic Agriculture in Austria	SNA	Social Network Analysis
UPM	Universidad Politécnica de Madrid, Planning and Evaluation Group	DE	Developmental Evaluation
Teagasc	Agriculture and Food Development Authority in Ireland	OIS	Organisational Innovation Systems
GdB	Groupe de Bruges	SCAR- AKIS	Standing Committee on Agricultural Research – Agricultural Knowledge and Innovation Systems
EIP-Agri	European Innovation Partnership Agricultural Productivity and Sustainability Concept	САР	Common Agricultural Policy



# **Definitions**

Term	Definition of the term used in LIAISON	Source
Co-design	Co-design is an on-going process of co-creating or co- adapting tools with end-users.	Blomkamp, 2018
	Co-design is a distinct set of principles and practices for understanding problems and generating solutions. It signifies the active involvement of a diverse range of participants in exploring, developing, and testing responses to shared challenges.	
Developmental Evaluation (DE)	Developmental evaluation is a living, reflexive approach to evaluation and impact assessment, which evolves in response to project dynamics in 'real time'.  Developmental evaluation can be described as a multi-actor laboratory that not only charts, incrementally, how and why (different types of) impacts occur throughout the interactive innovation process; but generates and tests strategies to alter the course of innovation processes with a view to enhancing impacts (in the eyes of the actors involved).	Quinn-Patton, 1994
End-user	These are individuals who ultimately use or are intended to use a product or service.	van Oost, 2018
Evaluation	An evidence-based judgement of the extent to which an existing intervention is useful, effective, efficient, relevant to the current needs, coherent both internally and with other interventions and has achieved added value; it considers why something has occurred and how much has consequently changed. There are several types of evaluation such as exante evaluation performed before the implementation of an intervention, mid-term evaluation performed towards the middle of the period of implementation of the intervention, and ex-post evaluation performed directly after an intervention has been completed, Impact evaluation is typically performed some after an intervention has happened to assess its long-term outcome/s, as well as its sustainability and unforeseen effects. Evaluation can have a variety of objectives; to measure outcomes; to understand causal pathways generating changes; and to stimulate learning processes.	LIAISON Glossary
	and to stimulate learning processes.	



Impact assessment	It is part of the evaluation practices explained above, and it	LIAISON Deliverable 5.1
	is a form of outcome evaluation that assesses the net effect	- Report on the State
	of a programme by comparing initiative outcomes with an	of the Art of innovation
	estimate of what would have happened in the absence of a	impact assessment
	programme. It differs from impact evaluation because impact	
	evaluation is performed several years after an intervention has	
	happened, when the long terms outcome appears, as well as	
	its sustainability and unforeseen effects. Impact assessment,	
	since it addresses outcomes can be done and should be done	
	at any time of the process, including it as a monitoring activity.	
	In this document, it is always included when the general term evaluation is used.	
Project/Initiative	Any form of entity/multi-actor group engaged in interactive	
1 Toject/ Illitiative	innovation, whether funded or non-funded, operating formally	
	or informally.	
Interactive innovation	The interactive innovation model in the EIP-AGRI context is	LIAISON
	the collaboration between various actors to make the best use	Glossary
	of complementary types of knowledge (scientific, practical,	
	organisational, etc.) in view of co-creation and diffusion of	
	solutions/opportunities ready to implement in practice.	
Interactive innovation	A LIAISON project-specific web-based information system for	LIAISON
toolbox	innovation actors and institutions, to access good practices. The	Glossary
	Interactive Innovation toolbox will present in a single integrated	
	web-based platform all outcomes and knowledge gathered in	
	the project.	
Method	Collection of tools and processes that are useful together for a	
	common aim.	
Methodology	The logic that stands behind the selection of one or the other	
<b>N.A.</b>	tool to construct a method.	LIAICON
Monitoring	Ongoing evaluation activities carried out by project and	LIAISON
	project managers that use a systematic collection of data on	Glossary
	specified indicators to provide project management and the main stakeholders of an ongoing development intervention	
	with indications of the extent of progress and achievement of	
	objectives and progress in the use of allocated funds. These	
	ongoing activities of data collection and reflection are intended	
	to assist decision making along the processes of co- creation	
	for innovation, in order to improve them and achieve better	
	impacts.	
		Alverse et al. 2010
PIPA - Participatory	PIPA is a participatory approach allowing actors and change	Alvarez et al., 2010
PIPA - Participatory Impact Pathway	PIPA is a participatory approach allowing actors and change to mobilize and increase interactions within the innovation	Alvarez et al., 2010





The Positive Social Change (PSC) framework (Stephan et al., 2016) is an integrative framework that describes the transformational processes to advance societal well-being. The conceptual framework is built on sociological definitions of social change and positive organizational scholarship that intends to transform the thoughts and actions of individuals, organizations and institutions to generate beneficial outcomes for individuals, organizations and institutions.	Stephan et al., 2016
A social network is a social structure made up of a set of social actors (such as individuals or organizations), sets of dyadic ties, and other social interactions between actors. The social network perspective provides a set of methods for analyzing the structure of whole social entities as well as a variety of theories explaining the patterns observed in these structures.	Wasserman et al., 1994
The internal and ongoing evaluation activities carried out by projects; project managers; participants. These activities constitute the monitoring system of the project and are normally assisted by tools for data collection and reflection, in order to help decision-making.	
SIMP is a management tool for addressing social impacts during the implementation of planned interventions (projects, plans, policies and programs)	Franks and Vanclay, 2013
A specific instrument that is applied in the field in order to support evaluation and impact assessment.	
	al., 2016) is an integrative framework that describes the transformational processes to advance societal well-being. The conceptual framework is built on sociological definitions of social change and positive organizational scholarship that intends to transform the thoughts and actions of individuals, organizations and institutions to generate beneficial outcomes for individuals, organizations and institutions.  A social network is a social structure made up of a set of social actors (such as individuals or organizations), sets of dyadic ties, and other social interactions between actors. The social network perspective provides a set of methods for analyzing the structure of whole social entities as well as a variety of theories explaining the patterns observed in these structures.  The internal and ongoing evaluation activities carried out by projects; project managers; participants. These activities constitute the monitoring system of the project and are normally assisted by tools for data collection and reflection, in order to help decision-making.  SIMP is a management tool for addressing social impacts during the implementation of planned interventions (projects, plans, policies and programs)  A specific instrument that is applied in the field in order to



#### 1. Introduction to Practitioner Handbook

#### 1.1. Context of LIAISON Project

LIAISON is a multi-actor project bringing together various researchers, actors from innovation initiatives and networks, decision-makers, and administrators from the high-level interactive related programme. The project aims to optimise the interactivity and co-creation among different actors in innovation initiatives and deliver policy recommendations to the EU level to speed up innovation in agriculture, forestry, and rural areas. This will be achieved through participatory methods combined with empirical data from an in-depth analysis of 32 interactive innovation approaches in the agricultural and forestry sub-sectors across Europe (DoA).

LIAISON has eight work packages (WPs), each addressing a different aim of the project:

- WP1 Co-designing a conceptual framework, ensuring a common understanding
- WP2 Optimising interactive processes during the lifetime of the project and beyond WP3 – 'Lighttouch' review of interactive innovation project approaches
- WP4 In-depth case studies of interactive innovation project approaches WP5 - Impact assessment and optimising policies and practices
- WP5 Impact Assessment and Optimising Policies and Practices
- WP6 Integrating findings, deliberation, and consolidation
- WP7 Outreach: involving and informing practice, policy and administration WP8 - Project management and communication
- WP8 Project management and communication
- WP9 Ethics requirements

#### 1.2. What is This Handbook For?

This handbook provides tools for evaluation / impact assessment of any project/initiative involving interactive innovation. First, we'll explain some key terms. As noted in the list of definitions at the beginning of this handbook,

Handbook	Practitioner manual.
Tool	A specific instrument that is applied in the field in order to support evaluation and impact assessment.
Evaluation	An evidence-based judgement of the extent to which an existing intervention is useful, effective, efficient, relevant to the current needs, coherent both internally and with other interventions and has achieved added value; it considers why something has occurred and how much has consequently changed. There are several types of evaluation such as ex-ante evaluation performed before the implementation of an intervention, mid-term evaluation performed towards the middle of the period of implementation of the intervention, and ex-post evaluation performed directly after an intervention has been completed, Impact evaluation is typically performed some after an intervention has happened to assess its long-term outcome/s, as well as its sustainability and unforeseen effects. Evaluation can have a variety of objectives; to measure outcomes; to understand causal pathways generating changes; and to stimulate learning processes.





## Impact assessment

It is part of the evaluation practices explained above, and it is a form of outcome evaluation that assesses the net effect of a programme by comparing initiative outcomes with an estimate of what would have happened in the absence of a programme. It differs from impact evaluation because impact evaluation is performed several years after an intervention has happened, when the long terms outcome appears, as well as its sustainability and unforeseen effects. Impact assessment, since it addresses outcomes can be done and should be done at any time of the process, including it as a monitoring activity. In this document, it is always included when the general term evaluation is used.

#### Project/ Initiative

Any form of entity/multi-actor group engaged in interactive innovation, whether funded or non-funded, operating formally or informally.

## Interactive innovation

The interactive innovation model in the EIP-AGRI context is the collaboration between various actors to make the best use of complementary types of knowledge (scientific, practical, organisational, etc.) in view of co-creation and diffusion of solutions/opportunities ready to implement in practice.

The 'multi-actor' approach (of the European Commission's Horizon 2020 programme) is key for interactive innovation. It is explained here

#### 1.3. Who is This Handbook For?

If your project/initiative involves interactive innovation, and if you have an evaluation/impact assessment challenge, you can use this handbook to assist you to meet that challenge.

The handbook is designed for the use of:

- Participants in interactive innovation
- Leaders/facilitators of interactive innovation
- Project evaluators formally evaluating /assessing the impact of interactive innovation

This handbook is suitable for anyone who wishes to evaluate, monitor, improve and assess the impact of an interactive innovation process.

# 1.4. How Was This Handbook Developed?

This handbook was developed in the field, directly involving end-users. Actors and stakeholders involved in 'real life' interactive innovation projects adapted, re/configured used, and tested the tools in a process called 'co-design'.

The first step was LIAISON partners examining 'state of the art' in evaluation and impact assessment approaches. What approaches are most promising where interactive innovation is concerned? LIAISON partners sought to identify both quantitative and qualitative approaches. In simple terms,

- Quantitative approaches can measure in numbershow well a project/initiative is operating and how impactful it is.
- Qualitative approaches can understand what is happening in interactive innovation processes and can inform how these processes can be enhanced.





We identified 'families' of approaches that are promising when it comes to the challenge of evaluating/assessing the impact of interactive innovation. These are,

Developmental Evaluation (DE)	Developmental evaluation is a living, reflexive approach to evaluation and impact assessment, which evolves in response to project dynamics in 'real time'. Developmental evaluation can be described as a multi-actor laboratory that not only charts, incrementally, how and why (different types of) impacts occur throughout the interactive innovation process; but generates and tests strategies to alter the course of innovation	Quinn-Patton, 1994
Social Impact Management Planning (SIMP)	processes with a view to enhancing impacts (in the eyes of the actors involved).  SIMP is a management tool for addressing social impacts during the implementation of planned interventions (projects, plans, policies and programs)	Franks and Vanclay, 2013
Social Network Analysis (SNA)	Social Network Analysis (SNA) focuses on investigation of patterns of relations among people made up of a set of social actors (such as individuals or organizations), sets of dyadic ties, and other social interactions between actors. SNA can be used to draw the network and calculate indicators reflecting the type and structure of the network at a time t while identifying the interactivity level of relationships between stakeholders, the identification of the most powerful stakeholders, etc.	Wasserman et al., 1994
Participatory Impact Pathway Assessment	PIPA is a participatory approach allowing actors and change to mobilize and increase interactions within the innovation network.	Alvarez et al., 2010
PSC - Positive Social Change	The Positive Social Change (PSC) framework (Stephan et al., 2016) is an integrative framework that describes the transformational processes to advance societal well-being. The conceptual framework is built on sociological definitions of social change and positive organizational scholarship that intends to transform the thoughts and actions of individuals, organizations and institutions to generate beneficial outcomes for individuals, organizations and institutions.	Stephan et al., 2016
Classical, Quantitative Approaches	Quantitative evaluation is focused on assigning numerical values (metrics) to the observed changes (outputs, outcomes, impacts) resulting from the initiative interventions. In a systematic way, it intends to provide answers to questions such as: "How many?", "How much?", "How long?" etc. It is supported by the data collected from the desk and field surveys, questionnaires, workshops, and clinical trials, among others. As more recently various innovative technologies became available, including those of GIS, mobile phones or social media, they are increasingly used for evaluation purposes, too. Quantitative evaluation is a widely preferred approach to tracking the performance of the implemented initiatives such as those financed by the Horizon 2020 and the European Agricultural Fund for Rural Development (EAFRD). It enables a relatively straightforward observation and reporting about the changes when dealing with many instruments and beneficiaries.	LIAISON D5.2 - Co-designed impact assessment approaches and results.
	This can be also used for comparative and benchmarking purposes over the long term and in many instances, quantitative evaluation relies on the International Organization for Standardization (ISO) and other standards for statistics. Donors and evaluation commissioners are interested in gaining a bigger picture, supported with numbers (data), that allows informed decision making. Moreover, various principles and sophisticated approaches to quantitative evaluation have evolved over the years, such as those based on the randomized controlled trials and multivariate analyses, which bring evaluation closer to exact sciences. In the LIAISON project, we call them 'classical' methods	



#### Practitioner Handbook: Evaluation and Impact Assessment of Interactive Innovation



The second step was to take these 'families' of approaches into the field, and work with actors to scope out ways of applying these approaches in real life innovation cases. What were the most useful ways of applying these approaches? How could they work in practice? What were the most effective and efficient ways of implementing them? What lessons did we learn from them? In this process of co-design in multiple field sites, we also endeavoured to ensure that we maintained a broad focus on many different types of interactive innovation project/initiatives and on different scenarios/ challenges within them. This was to ensure that the tools contained in this handbook are applicable to wideranging interactive innovation projects/initiatives and the evaluation/impact assessment challenges that arise within them.

Once we had a shortlist of tools we had co-designed and tested with end-users in the field, we sought the views of formal evaluators and EC policy officers to verify that they found the tools to be effective.

This handbook contains 37 tools for you to use to evaluate/assess the impact of interactive innovation. The tools are practice-ready: each is explained in a procedural/step-by-step format, simply explained. Each tool is accompanied by an introduction, which explains the purpose, background and logic of each tool.

The LIAISON website may be visited to view reports that set out in greater detail the state-of-art review (D5.1) and co-design & testing process (D5.2) that informed the content of this handbook.





# 2. How to use this Practitioner Handbook

This handbook contains practice-ready tools to evaluate interactive innovation processes/assess the impact of interactive innovation. We provide a legend with key identifiers that will guide selection of the best tool, or selection of tools to suit different types of project/initiatives. End-users are guided by tool 'identifiers' to select a tool, or cluster of tools, for their project/initiative; and for the particular aspect of the project/initiative under evaluation/impact assessment.

Each tool is accompanied by an introduction, which explains the purpose, background and logic of each tool. These introductions provide more information to select the appropriate tool/s for a project/initiative and the evaluation/impact assessment challenge encountered.

#### 2.1. Step 1: Selecting the 'multiactor scenario' relevant to your evaluation/impact assessment challenge

How diverse actors work well together (the 'multi-actor approach') is crucial for interactive innovation to deliver unique results and benefits. The process of interactive innovation typically involves characteristic scenarios, shown in Figure 1. These range from engaging and incentivising actors/stakeholders to become involved, to co-creation, to applying new knowledge on the ground. That the scenarios shown in Figure 1 are rigorously implemented, impact assessed and evaluated is crucial for the success of the interactive innovation process overall.

End-users of this handbook are invited to reflexively (thoughtfully, considering implications) examine their interactive innovation process through the lens of the scenarios in Figure 1. What scenario/s are relevant to the aspect/s of the project/initiative being evaluated/impact assessed? This will help users to prepare for the selection of appropriate tools for their particular project/initiative and the activity/action being evaluated/impact assessed.

Figure 1: Key scenarios in multi-actor work

#### Multi Actor Work: Five Scenarios 5 INTERROGATING CREATING ADDRESSING APPLYING **ENGAGING &** existing knowledge new ideas and knowledge, challenges, problem solving, trouble shooting. knowledge to particular INCENTIVISING from experts and from including co-design of contexts, scenarios. actors and stakeholders by establishing and processes & products. static sources such as EIP abstracts. demonstrating the relevance of project activities, re/shaping activities where possible eagasc





2.2. Step 2: Review tool 'identifiers' to guide the selection of appropriate tools for your evaluation/impact assessment challenge

End-users are then invited to examine the full range of identifiers (Figure 2) that allow them to select an appropriate tool/s for their project/initiative. For each tool in the handbook, a range of identifiers are detailed (those in Figure 2), allowing end-users to select appropriate tool/s. End-users are asked to consider the following range of identifiers in selecting appropriate tool/s:

Figure 2: Which Tools Will You Use?

#### **MAA Scenario**



What multi-actor scenario/s does your evaluation/impact assessment challenge relate to?

#### When to Implement



When do you wish to use this tool? At the formation stage of a multi-actor group, to develop ideas, to make decisions regarding actions to take, to assess the impact of a particular activity? Etc.

#### **Group Size**



What size is the group you wish to implement the tool with? One-to-one? Small group? Large consortium?

# Level of Technical Difficulty



What technical skills (if any) will you require to implement this tool? No technical skills or particular technical skills?

#### Time Needed



What time (duration) does this tool require for implementation? Hours or days? Once-off or periodic implementation?

#### **Resources Required**



What resources are required? What materials are required? Is particular equipment or expertise required? Is the tool expensive to implement?

# Clustering with Other Tools \_



What other tools can this tool be paired with, to provide a more comprehensive and added value approach to evaluation/impact assessment of your project/initiative?





# **Tools for Evaluation & Impact Assessment**

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# PARTICIPATORY SOCIAL NETWORK MAPPING & APPRAISAL

#### **MAA Scenario**





When to Implement



Crucial at team-building stage and used iteratively throughout project/initiative to assess and improve network membership and collaborative relationships.

#### **Group Size**



Small to large multi actor group.

# Level of Technical Difficulty



No technical skills required.

#### **Time Needed**



20mins-1.5 hrs mins (depending on group size & extent of discussion).

#### **Resources Required**



Very low, requires basic materials. Can be conducted physically with participants in a room or on an online platform such as Klaxoon, Pinup, or Mural. At least one facilitator is required.

# Clustering with Other Tools



Tools # 2, 9, 11, 13, 26, 27, 28.

#### **PURPOSE, BACKGROUND & LOGIC**



#### **Purpose**

This tool is used to:

- Assess the types of actors involved in multi-actor teams, and the actors who may not but who ought to be involved.
- Sensitise and attune participants to the actor categories they are representing in multi-actor teams.
- Assess strengths and weaknesses of cooperative relationships within multi-actor teams.
- Identify and plan actions to exploit strengths and address weaknesses.
- Periodically assess changes in strengths and weaknesses of the network, also considering stakeholders (representativeness of and relationships within the network)



#### **Background and Logic**

Consensus is not always the main objective of multi-actor work, the aim is to draw out the different knowledges, perspectives and ideas that different actors have. It is important, thus, especially in the earliest stages of group formation, to appraise who is in the group and to allow each actor to make explicit their sectoral background and identity, and the associated knowledges, perspectives etc. that they bring. Because the objective and purpose of multi-actor approaches is to bring diverse actors together, it is very important for the actors involved to be aware of differences between actors in the group; and to periodically revisit how their different orientation is influencing the multi-actor process. Furthermore, it is necessary to appraise and evaluate group membership to establish whether the group is sufficiently diverse, balanced, and representative of all the actor cohorts who should be involved. This tool can also be used as an icebreaker, when bringing a group of actors together for the first time, supporting group members to claim particular actor identities from the earliest stages of a project and to attune members of the group to differences in the group, preparing for future potential to exploit those differences

#### **Materials**

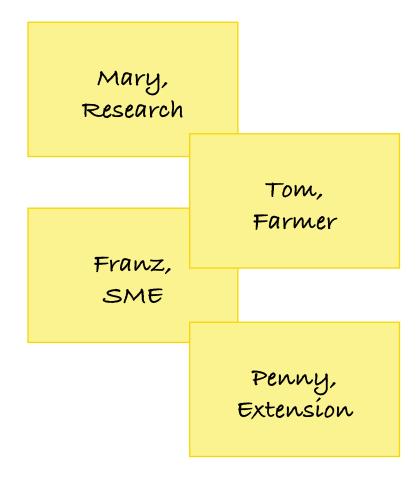
- Flip chart paper
- Sticky notes
- Thick dark markers

#### METHOD/HOW TO GUIDE



#### Step1

- Explain the purpose, logic and background of the exercise.
- Ask participants to write their name and an 'actor identifier' on a sticky note (either physically in an in-person meeting or virtually, using an appropriate platform such as Klaxoon, Mural, Pinup etc.)
- Actor identifiers depend on the orientation of the multi-actor project. For example, in a Horizon 2020 Thematic Network, the actor identifiers may include research, education, SME and extension. The diversity of actors (and their actor identifiers) are typically cited in funding applications, as a credential of the project's multi-actor approach. The group can be reminded of the importance of including different actor categories, and asked to reflect on the actor category they are representing in the group/network/project
- It is important to explain to the group that some actors may have other/several actor identifiers. Ask them to reflect on the particular role/s they will/ have in the project in choosing their actor identifiers. They may choose more than one identifier, but it is important for actors to represent the actor category/ ies they are representing in the project/ assigned in a grant agreement, where relevant.
- It is possible, such as in the example pictured on the right, to use icons to structure how actors identify the category to which they belong. This may be pertinent in projects such as Horizon 2020 projects, that



#### Step 2

- In a small group (up to 12) ask participants to cluster
  the sticky notes according to group identifiers. In a
  larger group, identify a representative from each actor
  category and invite them to approach the board and
  cluster the sticky notes according to actor categories.
  In the example to the right, participants have grouped
  the sticky notes into two categories: farmers and
  extension.
- Ask participants to draw a circle around the clustered post-its and to assign them an actor category label.
   In the example to the right, two labels are created: farmers and extension.
- Now we can see a graphical representation of the actor categories represented in the group, who is in the categories, and the numbers of actors in each of the categories.
- Facilitate a discussion around the following types of questions:
  - » Is the group/network balanced in terms of who is represented and the number of actors representing various categories?
  - » Is there any type of actor missing, who should be invited to become involved?

# Farmer Tomasz, Grower Tom, Farmer Penny, Extension Fedele, Extension Naomi, Extension

#### Step 3

- In a small group (up to 12) ask participants to draw lines between their actor category and any actor category/ies they are collaborating with. Thick lines can be drawn to indicate strong cooperation/sharing of resources. Thin or broken lines can be drawn to indicate undeveloped or cooperative relationships.
- We should see from thee graphical representation of cooperative relationships, the relationships that are strong, relationships that need development, and relationships that are absent and need to be built.

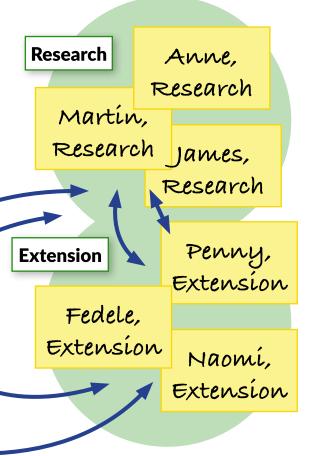
**Farmers** 

Tomasz,

Grower

Prue,

Farmer



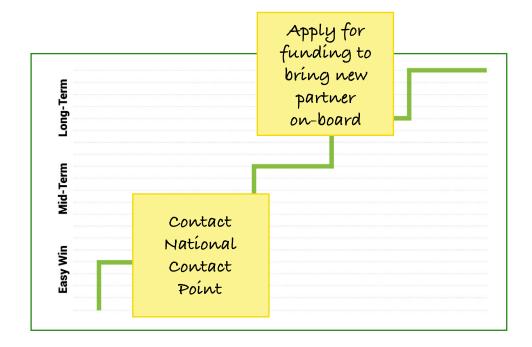
#### Step 4

On the basis of how the group has sketched details of who is represented in the group/network, facilitate a discussion of topics such as:

- How were strong cooperative relationships built and what can we learn from this to make other relationships stronger?
- What actions can we take to develop relatively weak relationships and collaborations?
- What actions can we take to build new relationships with actors who should be represented in the group/network but are currently absent?
- Optionally, the actions can be recorded on sticky notes and planned using the figure (as shown on the right).

#### Step 5

- Use the social network map generated in Step 3 periodically in team meetings to:
- Remind/attune members to the sector they are representing in the multi-actor process, and ask their perspectives about what actors within their sector might think or want at various stages of the project's evolution.
- Revisit the discussions and actions identified in Step 4 to regularly assess the network and how it may be improved (in terms of the representativeness of the network and collaborative relationships within it).
- Update the map periodically to reflect changes/ forms of progress made in the network.
- It is important to note that this exercise may also be extended to assessing interactions and relationships with stakeholders as the project progresses and impacting stakeholders becomes more important.



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# **ACTOR/ROLE IDENTIFICATION (ID)**

#### **MAA Scenario**





#### When to Implement



Crucial at team-building stage, often at the pre-project stage, and used iteratively throughout project/initiative to revisit/change/rotate roles of actors as necessary.

#### **Group Size**



Used in small, nascent groups, particularly in the pre-funding stage.

# Level of Technical Difficulty



No skill required.

#### **Time Needed**



30 mins-2 hrs mins (depending on group size & extent of discussion).

#### **Resources Required**



Very low, requires basic materials. Can be conducted physically with participants in a room or on an online platform such as Klaxoon, Pinup, or Mural. At least one facilitator is required.

# Clustering with Other Tools



Tools # 1, 17, 25, 26.

#### **PURPOSE, BACKGROUND & LOGIC**





Image source: Photo by Patrick Schneider on Unsplash

#### **Purpose**

This tool is used to:

- Identify a collection of tasks for completion, and the competencies required to undertake them.
- Understand the interests and capacities of participants in a multi-actor team.
- Identify the roles involved in progressing a team, often at nascent stage / in project proposal stage, when there are little or no resources: Who is good at doing what and who will do what?
- Employ whole-group thinking to the task of creatively and comprehensively envisioning roles.
- Make decisions regarding who will take up what roles in the short, medium and long terms, and whether to rotate/modify/re-allocate roles.
- To assess and revisit what role allocation and to change/adapt if necessary Identify and plan actions to exploit strengths and address weaknesses.

#### Background and Logic

In nascent stages of interactive innovation project development, the initial core group of actors are challenged with getting it 'off the ground' and, without resources, the core group members must often undertake this work themselves. Work is involved in identifying and recruiting all the appropriate actors who should be involved, researching state of the art, identifying research opportunities, formulating research proposals, and other tasks depending on the focus and nature of the initiatives. In multi-actor groups, a variety of skills, talents, and perspectives are brought together. How can this pool

of diverse capabilities be assessed & exploited? How can roles be allocated in such a way that reflects team members' interests and capabilities, ensuring that they bring the most knowledge available to the project and that they take roles that motivated them? Without roles being allocated equitably and in a way that energises different members of a multi-actor group, group members may lose enthusiasm, and the group may lose 'steam'.

This tool facilitates actors to brainstorm tasks and the competencies required to achieve them successfully. The tool takes a strategic approach to assessing interests and capabilities within a group, allocating roles in a way that leverages the skills, knowledges etc. available to the project. The tool takes into consideration the time and resources available for different group members to commit. It supports decision-making in allocating the roles, and flexibility to revise/rotate roles. It can be used periodically to appraise how members are satisfied with their current roles and make adaptations where necessary. It can be used in conjunction with Tool #1, which would be taken as a first step in mapping actors' different sectoral /professional orientations (actor categories).

#### **Materials**

- Flip chart paper
- Sticky notes
- Thick dark markers
- Stairs diagram (in how to guide, optional)
- Sellotape
- Match sticks

#### **METHOD / HOW - TO GUIDE**



#### **Step 1: Brainstorming Tasks**

- Explain the purpose, logic and background of the tool/exercise.
- Ask participants to brainstorm tasks for project/ initiative development, summarizing the task on a sticky-note (either physically in an in-person meeting or virtually, using an appropriate platform such as Klaxoon, Mural, Pinup etc.)

Líaíse with local press & medía

Explore funding opportunities

Review similar projects

Organise a meeting with local farmers

#### **Step 2: Clustering Tasks into Roles**

- Once the brainstorming process is completed, ask participants to cluster similar tasks together/tasks that need a particular skill set (e.g. Information Technology skills or communication skills).
- Once the tasks have been clustered, ask participants to choose a cluster of tasks & present it to the group (allocating roles to participants comes later – this step encourages participants to verbalise/make sense of the clusters).
- After each participant presents a cluster of tasks, facilitate a discussion around the following topics:
- Is the cluster of tasks comprehensive? Do you wish to add another task?
- Do you think that any of the tasks should be moved to another cluster?
- What are the skill sets required to undertake this cluster of tasks?
- What resources (e.g. time) are needed to undertake this cluster of tasks?
- Can the cluster be undertaken by one person, or would it need a team of people?
- Can you allocate a name to this cluster of tasks what would the role be called?



Image source: Teagasc

#### Step 3: Allocation/Adoption of Roles

- Allocate 6 matchsticks to participants
- Ask them to place a single or multiple matchsticks on a role to indicate their preferences to undertake that role.
- Once participants have signalled their preference/s to undertake role/s, the popularity of roles is clear from the placing of matchsticks.
- Facilitate a discussion around the following topics:
- Who indicated a preference for this role? Are you willing/available to undertake it?
- Where there are two or more participants wishing to undertake the same role, do you wish to undertake the role jointly, or to rotate the role?
- For how long can you undertake this role before we can as a group revisit the role and see if you need help for anyone?

# Step 4: Creating Plans for Roles & Follow-up

- At this point in the process, participants have agreed to take a role, and they can be invited to work alone or as a team (where there are two or more participants working on a task) in the aftermath of the meeting to create a plan of how and when tasks will be undertaken.
- A follow-up meeting should follow where participants present to the wider group their plans for undertaking the role & the tasks involved.
- At subsequent group meetings, the plans and timelines are referred to in assessing progress and aiding decision-making with regard to use of resources (if participants need more help).
- Discussions should facilitate role re-allocation & modification as necessary, in response to changes in project development

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# PERSONAS: UNDERSTANDING OUR STAKEHOLDERS

#### **MAA Scenario**





#### When to Implement



Crucial at project development stage and used iteratively throughout the interactive innovation process.

#### **Group Size**



Small groups or large consortia.

# Level of Technical Difficulty



Non-expert users, no technical knowledge required.

#### **Time Needed**



30 mins-2 hrs mins (depending on group size & extent of discussion). At least one facilitator is required.

#### **Resources Required**



Requires basic materials, although professional graphic design of personas is optional. Can be conducted physically with participants in a room or on an online platform such as Klaxoon, Pinup, or Mural.

# Clustering with Other Tools



Tools #1, 5, 19, 20, 26, 27, 28.

#### **PURPOSE, BACKGROUND & LOGIC**





Image source: Photo by Judith Prins on Unsplash

#### **Purpose**

This tool is used to:

- Sensitise actors involved in interactive innovation projects to the circumstances, challenges, innovation needs etc. of their stakeholders.
- To profile the whole range of stakeholders, and to understand their different circumstances/needs etc.
- To provide a tool to continuously revisit (throughout the interactive innovation process how well the project is responding to the realities, circumstances, needs etc. of stakeholders

#### **Background and Logic**

Multi-actor projects involve diverse actors who are directly involved in interactive innovation (and can represent different actor types in the process). However, not everyone can be directly involved in multi-actor projects, and projects (particularly publicly funded projects) need to be constantly mindful of their stakeholders. What is the full range of stakeholders? What are their circumstances, innovation challenges & needs? Profiling the range of stakeholders, using a persona template to bring them 'to life' sensitises actors involved in projects to stakeholder cohorts they are innovating for. As actors gain more insights to stakeholder circumstances, needs etc., over the lifetime of a project, personas can be modified and their range diversified. Personas can be revisited in interactive innovation processes, to support actors' attentiveness to their circumstances and needs etc. It is important that stakeholder profiling exercises take into account gender and diversity issues in how stakeholders are identified and profiled.

This tool can be used in conjunction with  $\underline{\text{Tool } \#5}$  (needs register) and other tools that map stakeholders, e.g. Tools  $\# \underline{1}, \underline{26}, \underline{27}, \underline{28}$ . The Tool to appraise gender and diversity (Tool #20) is important to ensure balance in how personas are selected and developed.

#### **Materials**

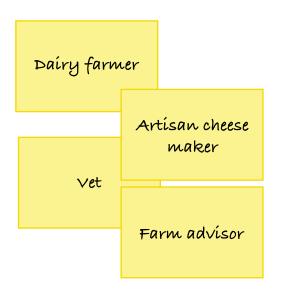
- Flip chart paper
- Thick dark markers
- Online persona generator (e.g. Mural) optional.

#### METHOD/HOW-TO GUIDE



#### **Step 1: Brainstorming Stakeholders**

- Explain the purpose, logic and background of the exercise.
- Ask participants to brainstorm the stakeholders/endusers who will use innovations/knowledge generated by the project.
- 'Who will use our new innovations & knowledge in wider society?'

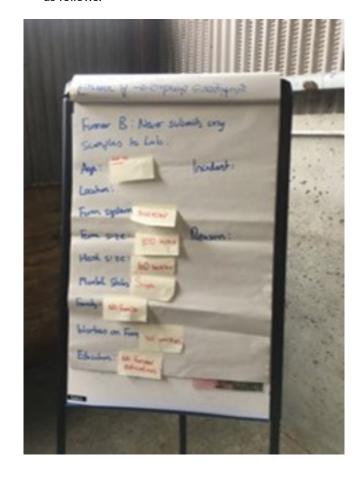


#### **Step 2: Develop Personas**

- For each of the stakeholder types identified, develop a persona or two or more personas (taking into account sub-types of stakeholders and gender, it may be appropriate to develop more than one persona per stakeholder category).
- If there are many stakeholder types identified, ask participants to work in pairs/small groups to develop the personas.
- It may be appropriate to ask participants who are particularly familiar with particular stakeholder types to develop personas for those types.
- The initial questions to lead participants to create a persona should focus directly on bringing the persona 'to life'. These are questions such as:
  - » What is his/her name?
  - » Age?
  - » Location/address
  - » What kind of house do they live in?
  - » Family members?

#### **Step 2: Persona Template**

- Participants can use flip chart paper to create the personas, using pre-defined headings/questions as well as any other headings/questions participants wish to add.
- It should take no longer than 20 mins to develop a single persona. Participants should be encouraged to work quickly, providing 'gut instinct' insights. Several personas may be developed per stakeholder type, to reflect diversity within types.
- An example of possible headings/questions, which can be customized to the project/stakeholder type, is as follows:



# Step 2: Completed Persona Template Example

The data entered on the flip chart paper can be transferred to an editable template.



Step 3: Use the Personas to Sensitise Participants to Stakeholders

Throughout the interactive innovation process

Throughout the interactive innovation process, participants must be facilitated to be mindful of stakeholders and to focus the process on the needs/challenges etc. of stakeholders. Personas can be introduced as a tool to remind participants of the circumstances, innovation needs & challenges etc. of project stakeholders; and as a tool for appraising how well the interactive innovation process is responding to the needs of stakeholders.

- As new developments in the interactive innovation process take place, the personas can be used as a tool to assess how the developments respond to the needs/challenges etc. of each stakeholder type.
- As new insights emerge in relation to stakeholders' needs/challenges etc. relevant to the interactive innovation process, they can be added to the data contained in the personas. The updated personas more accurately portray the needs/challenges etc. of stakeholders. Project actors use the updated personas to better attune the interactive innovation process to the needs/challenges etc. of stakeholders.

Image source: BovINE

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# GROUND RULES: IDENTIFICATION OF OPPORTUNITIES AND CHALLENGES OF AGREEMENT-BASED COOPERATION

#### **MAA Scenario**





When to Implement



Crucial at project development stage and used iteratively throughout the interactive innovation process.

#### **Group Size**



Small groups or large consortia

# Level of Technical Difficulty



Non-expert users, no technical knowledge required.

#### **Time Needed**



30 mins-1.5 hrs (depending on group size & extent of discussion). At least one facilitator is required.

#### **Resources Required**



Requires basic materials.

# Clustering with Other Tools



Tools #1, 3, 16.

#### **PURPOSE, BACKGROUND & LOGIC**





Image source: Photo by Anshu A on Unsplash

#### **Purpose**

This tool is used to:

- Assess cultural norms, held by different actors involved in multi-actor work, that should be respected in the interactive innovation process to enhance how the potential of a diverse group is realised.
- Draw attention to different norms held by different actor categories, while also allowing individuals (and their individual perspectives/norms/preferences) to be taken into account.
- Assess potential for group conflict to occur, attune the facilitator to potential for conflict, and provide tool to actively avoid conflict
- Establish culture & context-specific sensitive ground rules for how multi-actor groups work together
- Establish ground-rules for how multi-actor groups work with eternal actors.
- Update ground rules as necessary, regarding how multi-actor groups work together and how they work with external stakeholders.

#### **Background and Logic**

Multi-actor projects involve diverse actors who are directly involved in interactive innovation, and bring different types of knowledge to the process. A rich process of interactive innovation must tap into distinctive types of perspectives, experiences and ideas held by the different actors involved (this is called 'emic' knowledge). The whole logic of the multi-actor approach (and interactive innovation) is to avoid innovation being dominated by top-down, generic knowledge or knowledge that is traditionally perceived as 'expert' knowledge (this is called 'etic' knowledge).

However, because interactive innovation involves diverse types of people, different cultural, social, professional etc. norms must often be negotiated. If cultural norms are not assessed at the beginning of a process/project so that they can be observed and respected by actors throughout the process, it may transpire that some cultural norms are not observed/respected, and that other cultural norms dominate the process/project. This hampers interactive innovation, because actors may not contribute fully to the process and because they may feel that their knowledge, perspectives etc. are not valid, valuable or respected in the process. Conditions must be established where all actors feel that their norms are respected, so that they can contribute their knowledge as fully as possible to the interactive innovation process.

This tool assesses cultural norms and establishes 'ground rules' that can be referred to regularly in the interactive innovation process. Internal ground rules (in a multi-actor group) can be extended, when working with external stakeholders, to represent and include their ground rules. Ground rules can be periodically assessed/updated as required, as the interactive innovation process evolves to confront new challenges. It is important that stakeholder profiling exercises also take into account gender and diversity issues.

This tool can be used in conjunction with Tool #1, which identifies actors involved in interactive innovation according to their 'actor identifier/category' (the actor cohort they are representing in the interactive innovation process). Following the use of Tool #1, this Tool can be used to dig into their cultural norms and identify ground rules based on those norms.

#### **Materials**

- Template (adapted from Ginka Toegel & Jean-Louis Barsoux, 2015) to assess & uncover cultural norms.
- Flipchart paper
- Thick dark markers
- Word processing software, if preparing a professional representation of the group's ground rules

#### METHOD/HOW-TO GUIDE



# Step 1: Explain the Logic and Principles of Multi-actor Work

- Explain the purpose, logic and background of the tool.
- Optionally
  - » Show the 'multi-actor work' animation, which shows the importance of unearthing actors' individual and different customs, experiences, perspectives and ideas for innovation. This sensitises participants to the nature and focus of the exercise.
  - » The animation could also be sent by email/ WhatsApp in advance of the meeting, helping them to prepare for the content of the meeting.
  - » Use the template (or just parts of it) to facilitate a discussion of team-based cooperation, and the cultural norms that are/not acceptable to different actor types involved in the process. Choose just parts of the template, as appropriate to the nature of the group.

# Step 2: Preparation for Use of Template in Step 3

- The template may be issued (in print form, or by email if holding an online meeting) to group participants in different ways, depending on the nature of the group.
- Explain that the template is used to sensitise people to different cultural, professional and other norms, so that they can be mindful of these norms in the interactive innovation process; and so that the facilitator/s can assess norms to ensure they are respected in the process.
- In the meeting, allow participants to read through the template, taking each section in turn & answering questions in relation to each section before moving on to the next.
- Emphasise to participants to try to think about 'norms in their world' and to think about what would be distinctive of the actor category they are representing, but also their own individual perspectives.

- To make the exercise more specific to actor categories (rather than personal characteristics), change the wording to 'in a (actor category) world', e.g. 'in a farmer's world...'. Each participant would use the appropriate actor category, depending on what category they are representing in the interactive innovation process.
- Encourage participants to ask questions as needed, when they are completing the template, mindful that some participants may be more accustomed than others to completing such templates.
- Participants may be asked to complete the template in different ways, depending on the nature of the group and the time available.
  - » A whole group discussion may be held, where participants are asked to take turns in answering the 'in my world...' statements
  - » Actors can be split into smaller groups where they answer the 'in my world statements'
  - » Optionally, allow participants to choose particular 'in my word statements' that are particularly relevant to their world
- Whatever approach is taken, it is important for the facilitator/s to record the answers. Though it isn't necessary to record who said what, it is important to record answers according to the corresponding actor category.
- Consent may be sought to audio-record the discussions for transcription (adhering to appropriate data protection practices), for the facilitator/s sole use.

#### **Step 3: Template to Assess Norms**

Template adapted from Ginka Toegel & Jean-Louis Barsoux (2015), based on 'Act, Think, Speak, Feel' https://hbr.org/2016/06/how-to-preempt-team-conflict

#### ACT:

"In your world...

- ...how important are punctuality and time limits? ...are there consequences of being late or missing deadlines?
- ...what is a comfortable physical distance for interacting in the workplace?
- ...should people volunteer for assignments or wait to be nominated?
- ...what group behaviors are valued (helping others, not complaining)?"

#### **SPEAK:**

"In your world...

- ...is a promise an aspiration or a guarantee?
- ...which is most important: directness or harmony?
- ...are irony and sarcasm appreciated?
- ...do interruptions signal interest or rudeness?
- ...does silence mean reflection or disengagement?
- ...should dissenting views be aired in public or discussed off-line?
- ...is unsolicited feedback welcome?"

#### THINK:

"In your world...

- ...is uncertainty viewed as a threat or an opportunity? ...what's more important: the big picture or the details?
- ...is it better to be reliable or flexible?
- ...what is the attitude toward failure?
- ...how do people tolerate deviations from the plan?"

#### **FEEL:**

"In your world...

- ...what emotions (positive and negative) are acceptable and unacceptable to display in a business context?
- ...how do people express anger or enthusiasm?
- ...how would you react if you were annoyed with
- a teammate (with silence, body language, humor, through a third party)?"

#### **Step 5: Identify Ground Rules**

- It is important to take a break in the process, as the previous steps involve intensive work.
- Explain that the objective is to identify some important ground rules for the interactive innovation process, so that all participants feel respected and thus feel free and safe to contribute their ideas.
- Suggest some simple ground rules first, like the 'housekeeping' ones pictured.
- Ask participants to identify any other simple rules (this gets the process of identifying rules going)
- Then encourage participants to reflect on the norms that have been identified in previous steps, and to identify more rules to ensure participants feel respected in how they work together.
- Add rules on sticky-note to flip chart paper & finally, agree all rules with participants

#### Step 6: Ongoing assessment

- For all meetings where people are intended to work together openly and creatively, open the meeting by placing the poster showing ground rules in a visible location throughout the meeting.
- Refer briefly to the content at the beginning of the meeting
- Invite people to add new ground rules if they wish to, by writing a new rule on a sticky-note and placing it on the poster of ground rules.
- At the end of every meeting, if a new ground rule/s
  has been added to the poster, facilitate a discussion
  about its importance. Ask participants if they thought
  any of their ground rules were particularly important
  during the meeting and invite suggestions for new
  ground rules.

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## NEEDS REGISTER: RECORDING STAKEHOLDERS NEEDS & ASSESSING RESPONSIVENESS

#### **MAA Scenario**









When to Implement



Used at the beginning of interactive innovation, and iteratively throughout project/initiative to revisit/change/rotate roles of actors in projects/networks/initiatives as necessary.

#### **Group Size**



Any size

# Level of Technical Difficulty



No technical skills required.

#### **Time Needed**



Depends on size of stakeholder network

#### **Resources Required**



It may be preferable to maintain the register online, so internet and MS Office software.

# Clustering with Other Tools



Tools # 1, 2, 3, 6.

#### **PURPOSE, BACKGROUND & LOGIC**





Image source: Roman Synkevych on Unsplash

#### **Purpose**

This tool is used to:

- Identify and record stakeholder needs in a register, accessible to participants of interactive innovation.
- Mobilise a multi-actor team to be continuously attuned to stakeholder needs, by: requesting them to seek out and record stakeholder needs; and by providing them with a register they can consult when trying to understand stakeholder needs
- Provide an evidence-based reference source to assess how well project/initiative activities are responding to stakeholder needs and to make necessary adjustments.

#### **Background and Logic**

Interactive innovation projects and initiatives are often publicly funded, in order to produce benefits for society. Multi-actor teams are tasked with representing different cohorts of society, bringing different types of knowledge to the interactive innovation process & responding to the needs of different cohorts. To respond to the needs of different stakeholders effectively, strategically and in an evidence-based way, it is necessary to identify and record the needs of different stakeholders, and to periodically assess how project activities respond to their needs. When stakeholder needs are properly understood and responded to, stakeholders' needs can drive and focus the innovation process, and, ultimately, stakeholders are more likely to engage with and adopt the new products and processes that emerge from the innovation process.

This tool provides a simple approach for identifying & recording stakeholder needs and for appraising how well project activities are responding to stakeholder needs. The needs' register can be updated to include new stakeholder types and their needs. Project activities can be periodically assessed through the lens of: whose stakeholders' needs are and are not being met; are there particular types of needs not being met etc.

This tool can be used in conjunction with Tool #1, which maps stakeholder types; Tool #2, which assigns tasks & roles to project actors (tasks such as engaging with stakeholders); and Tool #3, which creates persona models of stakeholder types. This tool complements these tools by providing a comprehensive register of the needs of wide-ranging stakeholders.

#### **Materials**

- Short questionnaire to assess needs
- MS word document or Excel file.

#### METHOD/HOW-TO GUIDE

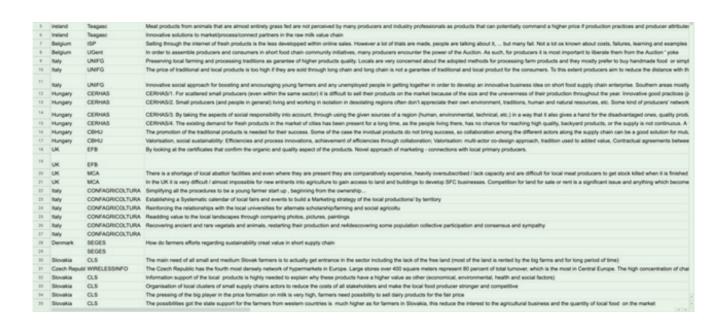


#### **Step 1: Preparation**

- Explain the purpose, logic and background of the tool.
- Optionally, show the 'multi-actor work' animation, which shows the importance of responding to stakeholders' needs, and their different operational contexts. The animation could also be sent by email/ WhatsApp in advance of the meeting, helping them to prepare for the content of the meeting.
- Initially, some information on needs can be collected from within the multi-actor group, which is representative of some stakeholder communities. Asking participants of a multi-actor group to think about stakeholder needs provokes them to think and work in a stakeholder-oriented way.
- Ask participants, considering the particular topic/s
  of the project, what are key stakeholder needs from
  their perspectives? Ask participants to note these on
  post-its and affix them to a flipchart/whiteboard.
- Show an example of a needs register, as pictured.

#### Step 2: Identify Opportunities to Engage with Stakeholders

- For projects that have begun (and have a planned work programme):
- Look through the programme to identify all opportunities / events where interaction with stakeholders will occur.
- Identify them on a timeline, with dates (months or quarters suffice where exact dates haven't yet been decided)
- For projects that have not yet begun, identify imminent opportunities to engage with stakeholders and make a plan, using a time-line with dates, of realistic opportunities to take.



# Step 3: Identify Ways of Collecting Information on Needs

- Ways of collecting needs from stakeholders themselves – are diverse and suitable ways can be identified for any given project/initiative:
  - » For each of the opportunities/events identified, facilitate a discussion around:
  - What are the ways in which we can easily elicit information on different stakeholders' needs at the event? E.g. a very short entry or exit survey, or deploying project actors to engage in conversation with stakeholders to find out what their key needs are (in the context of the prospective/project's focus). Note the ways suggested by participants on post-its beside the relevant opportunity on the time-line.
  - » Emphasise to participants the need to make the experience as burdenless as possible for stakeholders (i.e. completing a lengthy survey on needs at each project event is not likely to be favourable for stakeholders)
  - » Considering the ways participants have suggested (for each opportunity on the timeline), what are the most effective/realistic/ feasible to implement/popular to participants?
  - » Taking all opportunities may not be necessary. For example, some opportunities/events may take place very close to each other and involve the same participants. Which events are the most opportunistic and what selection of events are necessary to gain thorough, broad and updated information on stakeholder needs?
  - » Circle those that are favoured and selected by participants.

# Step 4: Creation of a Plan to Collect Stakeholders' Needs

- For each of the selected events/ways to collect information on stakeholder needs, create a plan of who will undertake what during the opportunities/ at the events, taking into account their workloads around the particular dates.
- If necessary, revisit the time-line and select alternative events/ways that are more feasible to implement.
- Consider allocating participants to specific stakeholder cohorts to leverage opportunities and avoid:

- » Participants may have existing relationships with/understandings of cohorts that can be leveraged when it comes to understanding stakeholder needs.
- Participants, when repeatedly engaging with particular cohorts, can actively avoid engaging with individual stakeholders repeatedly to avoid 'respondent fatigue'. Or, participants can strategically engage with actors to understand how their needs may be changing (perhaps in reflection of their engagement with the project).

# Step 5: Plan Implementation & Creation of the Register

- The register can be initially populated by the needs identified by project actors in Step 1.
- The structure of the register is as pictured, but can be modified according to needs of the project. It can be stored on a shared driver for easy access & updating.
- As each event in the plan for collecting needs is implemented, the implementers add the collected information to the register.
- The register should be mentioned at project meetings, and participants may add further stakeholder type.
- The implementation plan can be modified and extended as necessary (if further stakeholder types and events are added).

# Step 6: Assessment of Project Activities According to Stakeholder Needs

- The register should be regularly visited and perused in the context of project activities:
  - » How do our activities respond to stakeholder needs?
  - » Which stakeholders?
  - » Which needs do they respond to?
  - » Are some stakeholders and some needs responded to than others?
- Project activities may require modification on the basis of the assessment.
- The implementation plan and register shows how project actors have gathered evidence of stakeholder needs, and of the needs themselves.
- A record of how project activities have been assessed through the lens of stakeholder needs should be kept.

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#### **MOTIVATIONS REGISTER**

#### **MAA Scenario**





#### When to Implement





#### **Group Size**





### Level of Technical Difficulty



No technical skills required.

#### **Time Needed**



Depends on group size & extent of discussion when drafting first version, if building a dedicated register. Then periodically updated throughout the project.

#### **Resources Required**





### Clustering with Other Tools



Tools # 2, 3, 5.





Image source: Photo by Yan Krukov on Pexels.com

#### Purpose

This tool is used to:

- Identify the motivations of actors/stakeholders
   from their diverse perspectives to become involved in an interactive innovation project.
- Build a register of these motivations, which is periodically updated, and to which all actors have access.
- Assist to design and plan project/initiative activities so that they are relevant to and motivate the whole range of different actors/stakeholders.
- Assess how project/initiative activities respond to motivations of different actor/stakeholder types.
- Inform adjustment of project/initiative activities so that they appropriately respond to the required diversity of actor/stakeholder types in a balanced way.
- Share the motivations register with other multiactor initiatives so that knowledge about how to engage/incentivize actors/stakeholders to participate is shared.

#### **Background and Logic**

Traditional participants in research and innovation projects have been scientists and some other (typically government) actors whose habitual 'day job' involves participating in such projects. In the context of a wider 'science governance' movement, it is increasingly acknowledged that the pool of actors designing and implementing innovation projects must be diverse. Diversity ensures that the maximum variety of knowledges and perspectives are brought to bear on development problems and innovation opportunities. Through creatively combining knowledges, perspectives, ideas etc., the (interactive) innovation process is hugely enriched. Furthermore, for outputs of research, development or innovation projects to be taken up by end-users in society, representatives of such end-users must be directly involved or engaged with by projects.

To engage wide ranging actors and stakeholders in project/initiative activities, describing projects using academic or policy-making terms can have limited effectiveness. How can projects/initiatives (and individual activities/tasks) be described in ways that motivate actor/stakeholder types and incentivize them to engage? Even more importantly, how can projects/initiatives be designed in ways that truly do motivate actors/stakeholders? That the appropriate range of actors/stakeholders are enthusiastically involved is an important marker of how impactful in society a project/initiative will eventually be.

This tool – by building and periodically updating a register of the motivations of different actor/stakeholder types – aims to continuously attune project/initiative activities to the motivations of communities they serve. By responding to different motivations, actors/stakeholders engage better with and enrich projects/initiatives. Projects/initiatives are assessed on the basis of how well tools engage with the motivations of actors/stakeholders and are adjusted to ensure better and more representative/balanced engagement.

#### **Materials**

 Online register, pre-populated with names oof actor/ stakeholder types



#### **Step 1: Preparation**

- Explain the purpose, logic & background of exercise.
- Optionally, show this <u>whiteboard animation on</u>
   <u>multi-actor work</u> or circulate the video in advance
   of the meeting where the Motivations Register will
   be discussed. This is to sensitise participants to the
   importance of interactive innovations to respond to
   different actor/stakeholder motivations

### Step 2: Build/Modify a Motivations Register

- A bespoke/customised Motivations Register may be produced from scratch, or an existing Motivations Register (built by other interactive innovation projects) may be modified for the project.
- To build a register from scratch, follow the same steps taken in building the Needs Register (Tool #5)
- To modify an existing Motivations Register, show an existing register, such as the examples linked here:
  - » AgriDemo:F2F (Horizon 2020) Motivations Register
  - » Ploutos (Horizon 2020) Motivations Register
- The Motivations Register may be built/adapted according to the nature and needs of the interactive innovation project in question, using appropriate actor/stakeholder categories (customised to the categories the project is tasked with engaging).
- Facilitate discussion among project partners to assess existing register, deleting or adding actor/stakeholder categories; and modifying motivations as needed.
- The output of this Step (2) is the first draft of the Motivations Register, which can be periodically updated and consulted for the design and assessment of project activities.
- Upload the (editable) version of the register on a shared drive, Google Sheets, or any other easily accessible online forum. Ensure that a field records who adds data to the register. This is to ensure that a balanced range of partners (from a multi-actor consortium) all add data to the register. Optionally, add a field to record where/how partners obtained the data in relation to motivations.

### Step 3: Update the Motivations Register & Use it Internally

- Encourage partners (through regular reminders via corresponce and meetings) to visit the Motivations Register and to add to it. Partners elicit data on motivations through their interactions with actors/ stakeholders (not from their own views on what they think motivates actors/stakeholders).
- Encourage partners to add their own motivations (in relation to project activities) to the register & discuss entries in discussions of project activities.

# Step 4: Use the Motivations Register to Design and Assess Project/Initiative Activities

- When project activities are being planned and designed, facilitate a discussion around the following topics:
  - » At this event/activity, will we be engaging with any actors/stakeholder or do we have an opportunity to engage? Which groups/types are they?
  - » Consulting relevant information in the Motivations Register, in what ways are the listed actor/stakeholder types likely to become interested in the event/activity?
  - » How can we modify the activity to incentivise better the motivated participation of each of the actor/stakeholder categories?
- In the aftermath of events/activities, facilitate a discussion around:
  - » How well did our event/activity respond to the motivations of actors/stakeholders?
  - » What worked particularly well, and what did not?
  - » In what ways/what was the evidence? (the evidence should be recorded/the Motivations Register amended accordingly)
  - Did we gather any other evidence in relation to other motivations? (add them to the register accordingly)

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## 'HOT TOPICS': COALESCING INTERESTS ACROSS BOUNDARIES

#### **MAA Scenario**







When to Implement



Project proposal stages; and all stages when diverse forms of knowledge are combined, and when actors/stakeholders must interrogate/internalise new forms of knowledge.

#### **Group Size**



Small to large multi actor group.

### Level of Technical Difficulty



No technical skills required.

#### **Time Needed**



1.5-3 hrs mins (depending on group size & extent of discussion).

#### **Resources Required**



Requires basic materials. Can be conducted physically with participants in a room or on an online platform such as Klaxoon, Pinup, or Mural. At least one facilitator is required.

### Clustering with Other Tools



Tool # 13.





#### **Purpose**

This tool is used to:

- Identify 'Hot Topics' of interest to partners across disciplinary boundaries.
- Add the diverse knowledges/perspectives of the different partners to each of the hot topics
- Combine the knowledges/perspectives of actors, by creating a 'story' (or narrative) about how these knowledges interrelate and intertwine
- Create a matrix for external stakeholders to assess 'insider' knowledges/perspectives (in a multi-actor consortium) for thoroughness.
- Continuously evaluate how the different knowledges/ perspectives of different partners (and stakeholders) inform project activities and outputs.
- Adapt how knowledges/perspectives creatively combine in response to a challenge/activity, availing of new knowledges/perspectives as they are developed.

#### **Background and Logic**

The aim of multi-actor projects/initiatives (required for interactive innovation) is that they combine different knowledges. By definition, they aim to be transdisciplinary – which requires that knowledges are blended to create knowledge that goes beyond the sum of all the individual knowledges. Transdisciplinary (multi-actor) projects aim to go beyond approaches that layer knowledges on each other (inter- & multi-disciplinarity) to fuel innovation. It is the creative combination of knowledges that fuels innovation.

Deliberate strategies must be employed to assist actors to creatively combine their knowledges, much like a jigsaw puzzle (that has no instructions or guide, but is continuously evolving!). 'Hot Topics', originally used by the European Network of Rural Development (ENRD) to facilitate members of multi-actor groups to work together, can be used to coalesce different actors' knowledges/perspectives around topics of common interest.

This tool identifies the latest hot-topics (across disciplinary/professional boundaries) in relation to a particular theme, and different actors express their unique knowledges/perspectives in relation to the topics. The knowledges/perspectives are creatively combined using a story-board format. The tool uses a matrix to appraise internal partners' knowledge/perspectives for thoroughness. Together, the storyboard and matrix provide a tool for periodic evaluation of how well project activities are incorporating transdisciplinary (blended) knowledge to project/initiative activities. Transdisciplinary knowledge is also periodically updated as new knowledge is produced.

#### **Materials**

- Flipchart paper
- Sticky notes
- Thick dark markers
- Online storyboard generator or template (simple comic strip template) printed (large size) for hand written/drawn entries.



#### **Step 1: Preparation**

 Explain the purpose, logic and background of the exercise.

### Step 2: Identification of Project Themes

- Facilitate participants to identify the main themes/ topics of the project/initiative, with reference to a project contract, if one is in place. The facilitator or participants write/s these on post-its, placed on flip-chart paper.
- Some project partners are likely to have led the formation of the project/initiative and others are likely to have been invited 'on board'. Thus, there will be varying levels of awareness and knowledge of the themes/topics. The facilitator must be actively aware of this and ensure that there is adequate time devoted to questions/exploration of the main themes/topics.
- Where there are many themes/topics, ask participants 'do any of these go together and why?' (to cluster the theme/topics into manageable, distinctive themes).
- The output from step two is a list of themes/topics relevant to the project/initiative. Each theme/topic should be placed on the top of its own dedicated sheet of flipchart paper (currently blank)

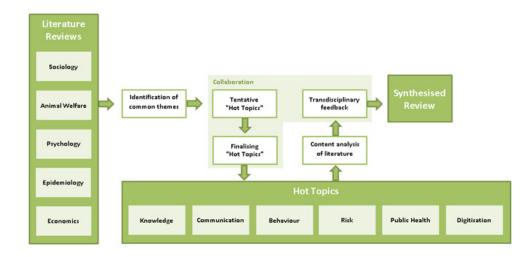
#### Step 3: Adding Knowledges/ Perspectives to Themes & Identification of 'Hot-Topics'

- Take each theme in turn, and ask participants what their perspectives are in relation to the theme (examples might be antimicrobial resistance, or short food supply chains). Ask participants the following types of probing questions:
  - » What is your experience of this [theme name]? This is an important exercise in facilitating partners to understand each other's different experiences and forms of experience.
  - » What do you/other people in the sector think are the main strategies to deal with this? What are the main approaches, or what advice would you give to others/clients?
  - » What are the 'hot topics' (i.e. main points of interest/strategy/areas of action) from your perspectives?
  - » Ask participants to write their hot topics on post-its and place them on the flip-chart sheet, entitled with the name of the theme/topic.
- After each theme has been brainstormed
   (identifying hot topics), revisit the title of each
   theme. The facilitator asks: 'considering the range
   of knoowledges/perspectives identified under this
   theme, do you wish to re-name it? It may be the case
   that partners may not wish to change the title, which
   is an endorsement of the existing title.
- The output from Step 3 is deciding the title of the themes and hot topics in relation to the theme that have been brainstormed from the perspectives of all the different partners in the multi-actor project/initiative.



Example from the SKIN Horizon 2020 Consortium: themes (products, organisational/institutional/systems, governance, sales) and associated hot topics (interactive version accessible at: D2.1)

**Example** from SWAB (consortium funded by the Research Stimulus Fund of Ireland's Department of Agriculture Food and the Marine)



### Step 4: Blending Knowledges Through Co-Creation of Storyboards

- For each theme, facilitate participants to develop a storyboard, by prompting the following/asking participants the following types of questions:
  - » We have several different types of people around the table, all with different types of perspectives/knowledges in relation to this topic.
  - » Lots of hot topics have been identified
  - » Can you imagine, in a story, where people similar to you working in a real life context might come together to work on this theme, addressing the hot topics you have identified?
  - » Remember, a story has a beginning, middle and end, with plenty of twists and turns!
  - » I'll assign each of you to a character. For example, the partner in the room who is a farmer is assigned to a farmer character. However, the character in the story has a different name to the partner him or herself, which gives more freedom in constructing the story.
  - o Once all characters are assigned, we'll go to the first scene of the story. What happens first? Which of you can think of a scene? What problem is the starting point? What happens next? Which character appears in the scene? Does anyone come into the scene next? What might a character like him/her say, consider his/her profession or discipline?

What challenges emerge? What solutions might be available? Who is needed for that? What resources/people are missing? Etc.

The output from Step 4 is a co-created storyboard, which blends the knowledges/ perspectives/hot topics of diverse partners into a single interactive story. The co-created storyboard pinpoints where knowledge blends (and also diverges) The storyboard can optionally be co-created virtually (or on a screen) using storyboard software (such as Boords, pictured below), a pre-printed template, or indeed flipchart paper. If a printed template/flipchart paper is used, it is advisable to have a collection of random images that people can select to use to accompany the brief story text (such images are available in online storyboarding tools).

Excerpt from example storyboard from the Ploutos (Horizon 2020) project. Full version available <a href="here:">here:</a>





27 Anta explains to Michelle problems when it comes to implementing new technology on her farm. For cultural reasons, and maybe due to lack of knowledge of how to use the technology. Technology is a way of capturing information for the consumer, and is often important for conveying messages to the consumer. In a context where Anita feels that sha's not getting rewarded price-wise there is technology to better capture the measurement of high wetter standards. This technology is essential in collating information and presenting it to the consumer. One of the challenges is that she feels, based on past experience, that she won't get rewarded for it. This is a conflict.



Patrick, a local innovation broker, would like to see improvement where Anita's situation is concerned. He would like to help through programmes & tools, such as innovation programmes, knowledge transfe & exchange initiatives through, for example, the National Rural Networks & through access to databases of projects that help in this area. He focuses on the importance of bringing people together to identify ways for consumers to access products with high welfare and sustainability attributes.

#### Step 5: Validation & Widening of Knowledges/Perspectives with Stakeholders

- Where the multi-actor consortium meets with wider stakeholders and wish to add to the hot topics (knowledges/perspectives already brainstormed (internally) for each theme), a matrix can be used to validate/widen/enrich the knowledges/perspectives with those of stakeholders.
- The facilitator prepares a 'matrix' on a white-board or flipchart. The matrix consists simply of a list of the themes, presented on the upper horizontal row.
- In the same way that partners were invited in Step 3, invite stakeholders to add their 'hot-topics' (as well as elucidating their knowledges/perspectives/ experiences), writing them on post-its (with scribes assisting where necessary). The post-its are placed underneath themes to form columns.
- At a subsequent meeting (involving partners) facilitate
  a discussion on if/how stakeholders' compare with
  internally identified hot topics; and if/how project hot
  topics should be adapted.
- This step can be implemented regularly, when interacting with new groups of stakeholders.

#### Step 6: Assessment of Project Activities and Updating of Transdisciplinary (Multi-actor) Knowledge

- At project meetings in relation to project activities:
  - » Revisit the hot-topics are they being addressed and are some being addressed more than others? What actions can be taken to improve how hottopics are more comprehensively addressed?
  - » Revisit the storyboards are opportunities for interplays and exchanges of knowledges (as depicted in the storyboards) being exploited? What actions can be taken to improve opportunities?
  - » Optionally, create new storyboards, that incorporate wider hot-topics and more opportunities for interplays and exchanges of knowledges. At the end of the project, a suite of storyboards will have been created, evidencing a rigorous, reflexive transdisciplinary (multi-actor) approach.

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## GOAL SETTING: BUILDING EMPATHY ONE-TO-ONE

#### **MAA Scenario**











When to Implement



At all stages of a project/initiative, where a facilitator/actor wishes to understand the 'world views', challenges, experiences of another actor/ a stakeholder / a client.

#### **Group Size**



One-to-one, optionally extended to the whole group.

### Level of Technical Difficulty



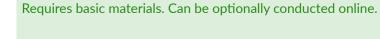
No technical skills required.

#### **Time Needed**



1-1.5 hrs

#### **Resources Required**



### Clustering with Other Tools



Tools # 3, 9, 14, 15.





Image source: Teagasc

#### **Purpose**

This tool is used to:

- Understand the world-views, experiences, priorities and goals of actors/stakeholders who are unfamiliar to an actor/facilitator/innovation broker etc.
- Build empathy between actors so they can work together more effectively, drawing from each other's talents, knowledges, experiences etc.
- Incorporate empathetic understandings of each other to the interactive innovation process, as a result of increased awareness of each other's needs, motivations, goals etc. – and also each other's different forms of knowledge (and gaps).
- Establish a 'buddy system', where appropriate, where actors have a source of moral/empathetic support throughout the interactive innovation process.
- Use knowledge from using this tool to appraise how project/initiative activities are responding to the goals of different actors

#### **Background and Logic**

In multi-actor projects/initiatives, different actors (with different worldviews, experiences etc.) are not only challenged with working together on a common workplan, but they must actively 'mine' each other's differences. Actors' differences are the 'gold' of the interactive innovation process. Bringing together different forms of knowledge enriches the innovation process, which is why interactive forms of innovation are favoured.

Uncovering and appreciating each other's differences (roles, needs, motivations etc.) is an important part of the interactive innovation process (as pursued in Tools # 1-6). Building empathy and rapport between actors is also important to accommodate and nurture differences. If participating actors are not aware and appreciative of each other's differences, they may become invisible in the innovation process in favour of sameness & consensus. This forfeits the potential of interactive innovation.

This tool is used for actors to build empathy and rapport between them on a one-to-one basis. It can be used by participants working collaboratively on a project/initiative; between an innovation broker and his/her client; or between a farm advisor and his/her client. It is used to create understandings between actors of each other's world-views, circumstances, goals etc. Or, it can be used by a facilitator/innovation broker etc. to understand a client's/actor's world-views (in a one-way process). A record is kept of different actors' goals. This record is used to assess how relevant project/initiative activities are to diverse actors' goals¹.

#### **Materials**

- Sticky notes
- Thick dark markers
- Images/pictures (randomly cut out from magazines)
- Camera/preferably a phone with a camera

<sup>1</sup> This tool is inspired by the Biographic Narrative Interpretive Method (BNIM) (Wengraf, 2001), which takes an open-ended approach to asking questions to elicit a narrative/story-like account of a person's life. This tool is adapted from a tool developed by Macken-Walsh et al., accessible here.

#### **Step 1: Preparation**

- Explain the purpose, logic and background of the one-to-one goal setting exercise, emphasising the need for actors to build empathy and understanding between each other.
- Issue the participating actors with their own copies of the purpose, logic and background document, comprising the steps of the exercise.
- For an facilitator/advisor/innovation broker working with an actor/client, and where the exercise is one way, explain that the facilitator etc. wishes to gain a better understanding of his/her client's circumstances & goals.

#### Step 2: 'Walk About'

- Actors may wish to visit each other's environment (such as a workplace/farm/other site of interest that's important to them and/or relevant to the project/initiative). Visiting a site of relevance brings conversation to life and allows actors to act as host, showing others insights to a place that is 'theirs'.
- Where such a visit is conducted, onn each occasion the conversation is focused on the person whose environment is being visited (actors may visit each other's environments, but the focus is always on the person whose environment is being visited)
  - » Where there are many themes/topics, ask participants 'do any of these go together and why?' (to cluster the theme/topics into manageable, distinctive themes).
  - » The actor who is seeking to understand more about the other (i.e. the visitor) asks,

Can you tell me the story about what this place means to you? (it is important that the listening actor doesn't interrupt, or ask questions, or offer advice. The listening actor should maintain a listening role. Clarifying questions may be asked after the whole story has been told, but the main aim is to listen!).

Are there any connections between this place and the project/initiative we are involved in? Or, for a facilitator/adviser/innovation broker – Are there any connections between this place and what my role could offer?

Leaving our project/initiative/my role aside... What do you see for the future for this place?

What would you ideally like to see happen with this place in the future?

• The output from step two is that the actor whose environment is being visited feels that they have freely explained their history and their hopes. They have spoken uninterruptedly and feel that they have been listened to (and hopefully understood) by the visiting actor. The visiting actor feels enlightened about the actor they have just learned about and has a new appreciation of their circumstances.

#### **Step 3: Goal Setting**

- After the walk about, sit down preferably in a room with tables and chairs.
- The visiting actor reiterates that they are now going to identify some goals, inspired by the walk-about they have just taken.
- A range of random images are spread out on either side of the table (cuttings from mainstream magazines, approx 15-20).
- The visiting actor asks,

'Considering the walk we've taken and all you've told me, what are your most important goals...?

'If any picture here inspires anything, you can pick it up and leave it in front of you'

- Once the visited actor identifies a goal, it is written down on a post-it (either actor, preferably the visited actor) and placed beside any related image/s placed beside it.
- The whole range of goals are photographed by both participants, or photographed by one participant and shared with the other.
- The output of step 3 is a range of goals that have been identified by the visited actor. The visiting actor is aware of and understands their goals, and also knows the history, experiences, perspectives etc. that informs them.
- Steps 2 & 3 are repeated in reverse for the other participating actor.

#### Step 6: Use of Goal Setting Exercise to Support and Assess Interactive Innovation

- For goal setting exercises undertaken by a facilitator/ advisor/innovation broker:
  - The pictured set of goals can be revisited at meetings, to assess how well project/initiative activities are responding to the achievement of those goals.
  - » Some facilitators may undertake the exercise with many or all members of a multi-actor group. The facilitator can examine all sets of goals to see how the goals inter-relate, coincide, possibly conflict with each other etc. This provides the facilitator with knowledge and sensitivity of likely dynamics within the group, and allows him/her to plan accordingly. S/he can also endeavour that goals are achieved across actor categories in a balanced way. The collection of different actors' goals provide a (benchmarking type) tool to assess if this is occuring.
- For goal setting exercises undertaken mutually between participants of a multi-actor group, empathy is created by the two participants involved. However, this empathy-making can be broadened to the wider multi-actor group, by presenting the outcomes to the wider group. A member of a pair may present the goals of the other to the wider group, or each person can present their own goals. Optionally, the group can be facilitated to examine the collection of all group members' goals, identifying synergies, conflicts and so on. This can assist in planning the nature of activities, avoiding overlaps and availing of opportunities to create collaborations in pursuing common goals. Similarly, conflicts may be avoided by discussions of how different goals may be pursued through different project activities.
- Overall, recorded goals (which may be updated by following Step 3, above), can be used to plan project activities and to assess how well project activities are meeting different actors' goals. Ensuring that all actors' goals are being responded to and avoiding some actors' goals being responded to more than others, is a central concern of interactive innovation processes.

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# WHAT, WHO, WHY, WHERE, WHEN & HOW?

#### **MAA Scenario**







INTERROGATING







ADDRESSING

APPLYING

When to Implement

At the beginning of a project/initiative, at the planning stage.



#### **Group Size**



Whole multi-actor group, small to large. Particularly useful for large consortia who are challenged with coordinating a consistent multi-actor approach across many tasks.

### Level of Technical Difficulty



Some technical skills required, involving the use of a simple template (MS Excel), maintained online.

#### Time Needed



Approx 1-2 hours initially (depending on the extent of the project/initiative – how many tasks etc.) with periodic maintenance throughout the lifetime of the project/initiative.

#### **Resources Required**

Requires basic materials, little or no cost.







Tools # 1, 2, 3, 6.





Image source: Teagasc

#### **Purpose**

This tool is used to:

- Plan multi-actor tasks in advance, identifying:
  - » Which actors & stakeholders will be involved Who?
  - » The tasks they will be involved in What?
  - » Why would they want to be involved in such tasks Why?
  - » The logistics and approach of the tasks
    - Where? When? and How?
- Challenge multi-actor consortia with implementing multi-actor tasks in a rigorous and meaningful way.
- To plan the range of multi-actor tasks and approaches used at the level of the whole project/initiative, sharing expertise and ensuring consistency.
- Plan at the level of the whole-project/initiative how the project plans to engage with its actor/stakeholder community to avoid fatigue, duplication and to maximise opportunities for synergies between tasks
- Record data iteratively on who actually was engaged with and how etc. (as per above), in a template that is periodically updated by project/initiative partners.
- To provide data for project coordinators to identify strengths in the multi-actor approach that may be shared across the project/initiative, and to identify areas for improvement.

#### **Background and Logic**

The 'multi-actor approach' (MAA) is central to the success of interactive innovation. The MAA is essentially about people from different professional and scientific backgrounds working together collaboratively and creatively combining their knowledge for innovation. LIAISON identifies ways to enhance the MAA, in the PLA manual and practice abstracts on co-learning produced by WP2, how-to guides produced by WP7 and in this current Evaluation & Impact Assessment handbook. However, particularly for large consortia implementing many tasks employing the MAA, how can all of the MAA activities be coordinated and maintained to a consistent standard?

This tool plans approaches to the MAA (who, what, why, where, when and how) at the level of a whole project/initiative. It supports a coordinated approach that ensures consistency, prevents duplication & maximises synergies; and it records data on what actually happened in MAA tasks ex-post, providing an evidence-base for evaluation in sharing strengths and addressing weaknesses.

#### **Materials**

- Sticky notes
- Thick dark markers
- MS Office Excel



#### **Step 1: Preparation**

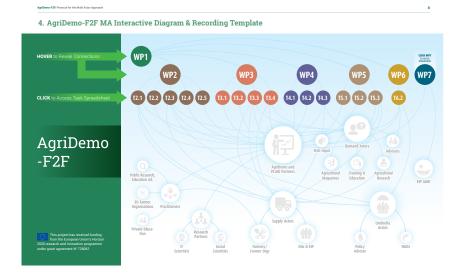
- Explain the purpose, logic and background.
- Where relevant, issue to each participant a copy of the project's/initiative's funding contract or planning document, which identifies all tasks.
- Shown on a screen (or issue a hard copy if a screen is not available) a sample copy of the 'Multi-Actor Recording Template'.

#### Step 2: What?

- The facilitator writes a 'topic banner' i.e. a title on flipchart paper 'What MAA Tasks?'
- Starting from the very beginning of the project and working through to the very, participants are facilitated to identify all tasks in the project/initiative that employ the MAA.
- The name of the tasks are written on post-its (by participants, with assistance where necessary) and affixed to the flipchart paper, in the sequence planned to be conducted. Where tasks are planned to occur simultaneously and of the same duration, they are placed side by side. The dates & period of implementation are written on the left hand side of the post-its (e.g. Nov 2022-Feb -2023). More flipchart paper is added to the bottom if needed, to accommodate a longer list of tasks.
- The output of Step 2 is a comprehensive list of the all MAA tasks to be undertaken, together with the dates and time-periods of implementation. Data have been gathered to populate the What tab of the MAA recording template.

#### Step 3: Who?

- The facilitator writes a 'topic banner' i.e. a title on flipchart paper – 'Who should be involved in this MAA Task?' (taking each task in turn, with its own flipchart paper)
- The project's/initiative's grant agreement/contract/ plan may or may not detail the actors/stakeholders who should be involved. Consulting the agreement/ contract/plan where relevant, but also brainstorming other potential actors/stakeholders, participants aree facilitated to identify:
  - The actors (who should be involved as partners) in the task, written on post its and affixed to the flipchart paper. Note that the actors are likely to include participants in the exercise who are partners in the project.
  - The stakeholders (who should be consulted) in relation to the task, written on post its and afflixed to the flipchart paper.
- The above is undertaken for each task.
- The output of Step 3 is a comprehensive list of all the actors and stakeholders who should be involved in each of the MAA tasks of the project/initiative. Data have been gathered to populate the MAA Recording Template.



Example from AgriDemo: F2F (Horizon 2020 project), graphically designed. Interactive PDF here

#### Step 4: Why?

- At this point in the exercise, actors are invited to envison why actors/stakeholders may be motivated/ incentivised to take part in the tasks. Why, from their perspectives, are they likely to want to be involved?
- An existing, relevant 'motivations register' may be consulted/adapted for this step, following Tool #6.
   Tool #6 details how to build a dedicated motivations register or adapt an existing one (examples, Tool #6).
- For each task, each actor & stakeholder type is taken in turn, and a motivations register is either:
  - » built using flipchart paper & post-its, taking each actor/stakeholder category in turn for each task, or
  - » modified (pre-existing register is viewed on screen or on paper), purusing existing content, deleting irrelevant motivations and adding new ones. Note that the facilitator may pre-prepare an exising motivations register by removing obviously irrelevant content to the project/ initiative (to save time and to make the register more relevant to participants).
- The output of Step 4 is a list of motivations, customised to each actor/stakeholder type and each tasks, detailing why they might be motivated/incentivised to participate what is their stake? As detailed in Tool #6, this is critical information for task leaders to design and organise tasks apprropriately. Data have been gathered to populate the Why tab of the MAA Recording Template.

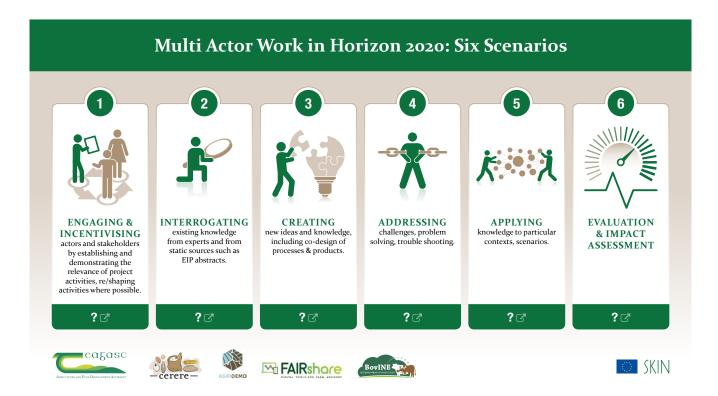
#### Step 5: Where and When?

- At this step in the process, the logistical questions of where? and when? are answered, specfically in relation to the actor/stakeholder events/activities of the project.
- They are addressed together, particularly for international projects/initiatives, as there may be possibilities to hold more than one activity/event together (for stakeholder engagement, for example).
- The dates/rough time periods of the events/actitivies are identified, with reference to a grant agreement/ contract/plan of a project/initiative (where relevant)
- Then, examining all dates and time periods together, the facilitator draws a time-line, with the start date of the project at the beginning.
- The first MAA activity is plotted on the timeline, and if other MAA activities are taking place in the same period, a discussion is facilitated on the following topics:
  - » Are we seeking to engage any of the same actor/ stakeholder types in these activities?
  - » Are their motivations likely to be similar or related to enage in the (different) activities?

- » Is it workwhile for the relevant task leaders to collaborate in marketing/communicating/ organising/co-hosting the activities?
- » If so, the relevant task leaders agree to come up with a plan.
- The timeline above is completed, identifying all MAA tasks taking place in the same phase of the project. Initiative, examining across them actors/stakeholders involved, potential for collaboration & added-value, and preventing actors'/stakeholders' participation fatigue (where they are engaged with repeatedly by a project/initiative).
- The output of Step 4 is a timeline, identifying all MAA tasks and plans for collaboration (where fortuitous) assigned to task leaders. Information on where and when has been gathered for populating the MAA Recording Template.

#### Step 6: How?

- This step involves considering the approaches/tools/ methods that are most appropriate and effective for each MAA task/activity.
- Show the <u>Multi-Actor Approach animation</u> (or circulate the video to participants)
- The facilitator shows participants 'Multi Actor Work: Six Scenarios' (in interactive, online version of the toolbox (linked to lists of tools on Google sheets a screen, or printed lists of the tools suitable for each scenario.
- As a guide to selecting what technique/tool/method they may consider using for a MAA task/activity, participants are invited to consider the 'Six Multi-Actor Scenarios' (pictured). What scenario/s does the planned task/activity relate to?
- Participants select the scenario/s associated with each task. On flipchart paper with the topic banner 'How', number/s 1-6 are added. This is information for populating the How tab in the Multi-Actor Recording Template.
- Participants can be invited to peruse (in the aftermath of the meeting) these 'easy to use' tools to facilitate multi-actor work, relevant to their task.
- Participants may be aware of other suitable tools for use in the scenarios, and if so, they are invited to add them, preferably with a link to a reference detailing how to use the tool.
- The output of Step 4 are details of the 'multi-actor' scenario/s to owhich their MAA relates, so that participants are guided to identify appropriate and effective tools to guide the MAA. Data are collected to populate the How tab in the Multi-Actor Recording Template.



Multi-Actor Toolbox: Online, interactive version (with links to practical tools) available here.

### Step 7: Using Tool#9 for Evaluation & Impact Assessment

- Following steps 1-6 above, the first iteration of a populated Multi-Actor Recording template has been completed.
- A record has been taken of each MAA task, the
  actors/stakeholders involved, what is likely to
  motivate them to be involved, where & when the
  activity/ies of the task will take place, and how
  the MAA process will be facilitated/operated.
  Furthermore, opportunities for tasks to collaborate in
  the MAA have been identified.
  - » The plans in the template for each task should be regularly revisited by task leaders in the design of project activities to compare & contrast their activities with what was originally planned (as set out in the template) and reflect on,
    - Are we engaging with the appropriate diversity of actors/stakeholders?
    - Are we responding to their motivations?

- Are we being as efficient as possible in our engagement?
- Are we using appproate and effective tools to facilitate/conduct the MAA?
- Furthermore the Multi-Actor Recording Template contains fields where task leaders enter information about what actually happened with regard to who was involved, how the MAA was facilitated/conducted and when it happened. This provides an evidence base for coordinators to continuously assess how the MAA is being conducted with a view to sharing strengths and addressing weaknesses. The record will also be of interest to project/initiative evaluators who seek evidence of a rigorous approach to the MAA.

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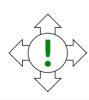
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# DIAGNOSTIC CHECKLIST AS A LEARNING TOOL FOR DEVELOPMENTAL EVALUATION (DE)

#### **MAA Scenario**











APPLYING

ADDRESSING

When to Implement



In nascent stages of an interactive project/initiative, and/or at junctures prior to creative, inventive, co-creative multi-actor work.

#### **Group Size**



Whole multi-actor group, small to medium. Most co-creation occurs in relatively small groups, which may amalgamate to a larger group as necessary.

### Level of Technical Difficulty



No technical skills required, although the language can be specialist at times. Language can be made more generic if required.

#### **Time Needed**



1-3 hours initially (depending on the length of associated discussions).

#### **Resources Required**



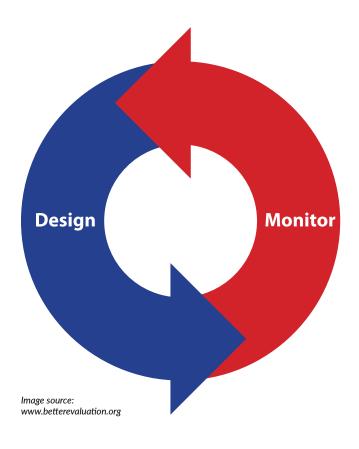
Requires basic materials, little or no cost.

### Clustering with Other Tools



Tools # 19, 20, 21.





#### **Purpose**

This tool is used to:

- Assess whether Developmental Evaluation (DE) is appropriate for a project/initiative. using three diagnostic checklists
- Use the checklists at individual or group level, to raise consciousness of very important features and dynamics of interactive innovation, which should be in place in all interactive innovation projects.
- Evaluate existing features and dynamics of interactive innovation in light of the questions posed in the checklists; and identify areas for improvement as necessary.
- Use the results (and periodic use) of the checklists to instigate a process of continuous improvement.



Image source: Alexandr Podvalny on Pexels.com

#### **Background and Logic**

Developmental Evaluation is described as 'an approach to understanding the activities of a program operating in dynamic, novel environments with complex interactions' (Norman, 2011¹). DE is in many ways inherent to interactive innovation and many of the tools in the current handbook are inspired by DE approaches. This DE diagnostic checklist ask facilitators/organisers/ implementers of interactive innovation very important questions that challenge them in relation to their nature of their project/initiative and how it is operated – does it (and its dynamics) really qualify as interactive innovation?

This valuable diagnostic tool was developed by Mark Cabaj<sup>2</sup> It assesses projects/initiatives or development situations in general through three main lenses. The first relates to the context or subject matter of the project/ initiative, does it really accommodate adaptiveness, a necessary condition for innovation? The second concerns those leading in a project/initiative, are they working in an adaptive way, facilitating co-creation? The third lens relates to those involved in interactive innovation and assesses the extent to which they are willing to work in an adaptive way, and to respond positively to information and assessments that seek to improve how they work. This last lens relates to how the tools presented in handbooks such as this one are used - how willing are participants to use tools such as those contained in this handbook, and to use the insights & learnings generated to positively improve their practices? In all, the three lenses entail questions that are challenging for even the most successful interactive innovation projects. The aim of this tool is to provoke a reflexive process where participants strive to be more compatible with DE. Used periodically, the tool can be used to benchmark progress against previous results and to create a culture where actors proactively create optimal conditions for interactive innovation.

It is important to note that the author of the tool suggests that the diagnostic checklists operate as three 'stage gates' i.e. if the context (assessed by checklist 1) is deemed incompatible with DE, there is little point in pursuing to the next checklist (2), which assesses the group, and even less point in progressing to checklist 3. This is logical when it comes to the assessment of projects/initiatives in general.

However, as multi-actor interactive innovation projects are generally formed in relation to a topic/context that requires an adaptive approach, such projects using this tool are highly likely to be found compatible with DE using checklist 1. Furthermore, we use the checklists as a tool to learn about DE and the conditions for DE. Checklist 1 is valuable, in that respect, because it can assess weaknesses & strengths in how adaptive the innovation context is, identifying areas for development (where possible). Furthermore, it attunes participants to leverage adaptiveness of the innovation context. Similarly, where checklist 2 is concerned, even if the adaptive capacity of the group is found to be low, we suggest progressing to use checklist 3 nonetheless. Learnings arise from these checklists regarding the conditions that make DE suitable (which are also essential conditions for interactive innovation). Therefore, where use of this tool for interactive innovation projects/ initiatives (specifically) is concerned, we suggest using all three diagnostic checklists and for participants to identify learnings from all three.

#### **Materials**

- Three diagnostic checklists (multiple copies and/or versions shown on screen and/or large poster prints)
- Stickers (small size, any shape, generic)
- Pens
- Flipchart paper
- Sticky-notes
- Thick black markers

 $<sup>1 \</sup>quad \text{https://censemaking.com/2011/11/19/what-is-developmental-evaluation} \\$ 

 $<sup>2\ \</sup> https://www.tamarackcommunity.ca/library/developmental-evaluation-diagnostic-checklist$ 



#### **Step 1: Preparation**

- Explain the purpose, logic and background.
- Optionally, distribute copies of the three diagnostic checklists (below) in advance of the meeting to allow participants to become familiar with the content.

### Step 2: Complete the Diagnostic Checklists

- Each of the checklists are completed in turn and discussed, rather than moving on to the next checklist:
- Issue the checklist individually to participants, with pens available.
- Place a large (flipchart size) copy of the checklist on a board/table
  - » OR data project the checklist on a large whiteboard
  - » OR print the checklist on size A3 paper.
- Allow participants approximately 20 mins to read and complete the checklist (individually and privately).
   Note: the facilitator may opt to allocate less or more or less time, depending on the experience of the group with such checklists).
- Issue stickers to each participant (one sticker per question on the checklist).
- Ask them to approach the board/table/whiteboard and select their chosen answers by placing a sticker in the field of their chosen answer OR hand around the checklist on a A3 sheet and ask participants to add their stickers, indicating their chosen answers.
- The facilitator calculates the score.

#### Step 3: Discuss the Results of Each Checklist in Turn and Identify Ideas/ Strategies for Improvement

- A sheet of flipchart paper is placed on a stand/board, with the following topic banner 'Checklist 1/2/3ideas for improvement'.
- Sticky notes and thick black markers are issued to participants
- A discussion is facilitated in relation to each individual score (scored collectively):
- Take the 'tips' below into account when discussing the scores – some questions are more relevant to certain actors than others.
- Using the following types of prompting questions to facilitate the discussion:
  - » Why do you think the majority has chosen this answer (where relevant)?
  - » What experiences or incidents do you think explain this particular answer?
  - » What about these other answers (minority responses, where relvant)- do they provide a different view? What is that view?
  - » Does anyone have any ideas to improve how we are operating according to the results of this question (each quuestion in turn)? Can anyone think of any strategies for improvement?
- Ideas are written on sticky notes by participants (with assistance where necessary), and placed on the flip chart sheet with topic banner.
- The overall score, calculated the facilitator, is discussed, using the following types of prompting questions:
  - » How suitable is our context/group to DE?
  - » Considering our discussion of the individual questions, can you identify any of the ideas or strategies you identified as particularly important?
- Make a note of the strategies that are considered particularly/important e.g. by circling them in marker, or by moving them to another piece of flipchart paper, with an identifying topic banner (citing the particular checklist under discussion).

# Step 4: Use of the Diagnostic Checklists as Tools for Formative Learning and Assessment

- The completed checklists provide a score regarding suitability of the suitability of the project's/initiative's context, leaders, and participants to DE. Because DE is integral to interactive innovation, the completed checklists evaluate important dynamics in the interactive innovation process.
- The nature of the questions in the checklists attune
  participants to very important questions relating
  to necessary conditions for interactive innovation,
  making them more conscious of the need to be
  proactive in creating those conditions. The process of
  completing the checklists, thus, is a learning process
  in itself, building reflexivity.
- It is important to record the suggestions from participants with regard to improving conditions for interactive innovation, and to revisit the suggesions and progress towards achieving them at project/ initiative meetings.
- The exercise can be repeated periodically, assessing changing dynamics and identifying further suggestions for improvement.
- When undertaken repeatedly, the results of previous diagnostic checklists may assess progress or otherwise, and outstanding suggestions for improvement may be identified and prioritised for implementation where necessary.

Checklist 1 (focused on context). Source Mark Cabaj, Better Evaluation. Original pdf accessible here.

#### Is it a developmental situation?

**TIP**: The higher the score (+), the better conditions for interactive innovations

		Strongly Agree				Strongly	
Sta	Statement			Agree	Neutral	Disagree	Disagree
1	The challenge we want to address is difficult to define (e.g.,	ooverty)	+2	+1	0	-1	-2
2	There are multiple, often unknown, causes underlying the challenge that interact in difficult-to-predict ways.		+2	+1	0	-1	-2
3	I be stakeholders involved (directly and indirectly)	of change it desired		+1	0	-1	-2
4	The group is experimenting with different ways to turn their idea 'theory of change' into reality (e.g. a grant program, a training course) but this idea or theory is not yet developed or tested)		+2	+1	0	-1	-2
5	The recults of our offerts (types scale speed)	adi willi likely		+1	0	-1	-2
6	The context in which the group is operating (e.g. funding, partners, demographics, stakeholders) is rapidly changing and may require the group to make changes to their work.			+1	0	-1	-2
7	The group is working in multiple different contexts or across scales (e.g. organisation, city, region, states) requiring some intervention.		+2	+1	0	-1	-2
	Sub-total						
	Total						

Results						
-11 to -14	Acountability Situation	Your intervention is well developed and may be working in a stable environment. You may be seeking evaluation feedback for accountability which aims to find out if you are implementing it with fidelity to a well laid out and proven model.	TIP: Main message here is 'implementing to a well laid out and proven model'			
-6 to -10	Effective Situation	Your intervention is very well developed. You may also be seeking evaluation feedback to judge the model's effectiveness (aka summative evaluation)	TIP: Main message here is that the project/initiative is decided and requires validation rather than experimentation			
+6 to -5	Improvement Situation	Your intervention is relatively stable and/or operating in a stable environment. You may be seeking evaluation feedback to improve the model (aka formative evaluation)	<b>TIP</b> : Main message here is that the project/initiative and its context is more or less decided but open to modification			
+7 to +14	Developmental Situation	Your intervention is developing or emerging. You may be seeking evaluation feedback to develop the model.	<b>TIP</b> : Main message here is that the project /initiative is developing/evolving/in the process of innovation. Very suited to DE & interactive innovation.			

Checklist 2 (focused on project/initiative leaders). Source Mark Cabaj, Better Evaluation. Original PDF accessible here.

**TIP**: The higher the score (+), the better conditions for interactive innovations

#### Do You Have Adaptive Capacity?

Statement		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	We have a history of innovation and tackling complex issues		+1	0	-1	-2
	Important to note that newly established groups may not have a 'history' may be 'comfortable' with innovation etc. Change if needed.					
	We are comfortable with ambiguity, uncertainty and the tension of adaptive work	+2	+1	0	-1	-2
	We are motivated to try something new and committed to a systemic process of innovation	+2	+1	0	-1	-2
	We have sufficient resources to carry out its work, and can invest more if/when promising new avenues emerge.		+1	0	-1	-2
Tip:	Instead of 'can invest more', can substitute with 'can investigate more'					
	We are willing to "learn-by-doing", allowing the intervention to emerge over time, rather "plan the work and work the plan"	+2	+1	0	-1	-2
Tip:	Tip: Particularly critical where interactive innovation is concerned!					
	We have the flexibility and authority to change the emerging intervention to reflect new learnings and shifts in environment.	+2	+1	0	-1	-2
Tip:	Particularly critical where interactive innovation is concerned!					
	We have permission and room to make "safe-to-fail" errors and mistakes in search of what does and does not work.	+2	+1	0	-1	-2
Tip:	Particularly critical where interactive innovation is concerned!					
	We are more interested in learning and getting results, than being perceived to be "right"	+2	+1	0	-1	-2
Tip:	Particularly critical where interactive innovation is concerned!					
	We have time and patience to experiment with new approaches and generate results.	+2	+1	0	-1	-2
Tip:	Particularly critical where interactive innovation is concerned!					
	Sub-total					
	Total					

#### Results

-9 to -18	Non-existent	Your group is working with fairly rigid context which does not allow it to engage in an authentic process of exploration and innovation
0 to -8	Low	Your group's ability to work adatively is very limited. You should proceed with extreme care (if at all) worand work hard at addressing your weak areas before or during the innovation process.
1 to 11	Good	Your group has an adaptive capacity to move forward, though some areas may need extra attention before or during the innovation process.
12 to 18	Excellent	Your group is in an excellent position to innovate and/or work on complex issues.

**Checklist 3** (focused on wider participants in innovation). Source Mark Cabaj, <u>Better Evaluation</u>. Original PDF accessible <u>here</u>.

**TIP**: The higher the score (+), the better conditions for interactive innovations

#### Are You Ready for Learning and Evaluation?

Stat	ement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	We are hungry for evaluative feedback on your work	+2	+1	0	-1	-2
2	We understand that we all operate with cultural and cognitive biases which "shape" the way we interpret the feedback on our work	+2	+1	0	-1	-2
3	We have a history of gathering, analysing and making sense of data (or fully prepared to going forward)		+1	0	-1	-2
	P: Some actors will have more experience than others in this area - that ouldn't be perceived as a problem – important to note during facilitation					
4	We have a culture of curiosity, enquiry and critical reflection	+2	+1	0	-1	-2
5	We have demonstrated commitment to "data based" decision making	+2	+1	0	-1	-2
Tip: See above comment. Not relevant to all participants, which should not be perceived as negative. However, in a multi-actor group, it is useful to have some actors with these skills. The overall (group) score should take this into account. How did the actors to whom these questions are relevant score the questions?						
6	We've had positive experiences in evaluations (and evaluators) in the past $% \left( \frac{1}{2}\right) =\left( \frac{1}{2}\right) \left( $	+2	+1	0	-1	-2
Tip: See above comment. Not relevant to all participants, which should not be perceived as negative. However, in a multi-actor group, it is useful to have some actors with these skills. The overall (group) score should take this into account. How did the actors to whom these questions are relevant score the questions?						
7	We understand and broadly support developmental evaluation	+2	+1	0	-1	-2
8	We are prepared to commit time and resources to developmental evaluation		+1	0	-1	-2
9	We have someone (external or internal) in the role of developmental evaluator		+1	0	-1	-2
Tip	c or, actor/s willing to take the role?					
	Sub-total					
	Total					

#### Results

-6 to -18	Poor	You require significant work to improve the conditions for developmental evaluation before you move forward
-5 to 0	Low	Your group readiness for developmental evaluation is limited. Proceed with caution. Address short-comings before you begin and/or intentionally approach the work moving forward as an opportunity to strengthen your capacity for developmental evaluation. Be prepared for the fact that you may choose to discontinue developmental evaluation mid-way through the process, or you may say you are doing developmental evaluation when you are infact using evaluation in more of a formative or summative mode.
1 to +10	Medium	Your group is sufficiently ready for developmental evaluation to begin, though it should keep on an eye on its weaker areas of readiness and/or identify measures to strengthen them as you proceed.
+11 to +14	High	You group is an excellent candidate for developmental evaluation.

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# 'CAUSES AND EFFECTS': BUILDING HYPOTHESES: LINKING ACTIONS TO RESULTS

#### **MAA Scenario**









When to Implement



When actors/stakeholders must interrogate/internalise new forms of knowledge and wish to generate ideas have been created through brainstorming.

**Group Size** 



Small to large multi-actor group.

### Level of Technical Difficulty



No technical skills required.

#### **Time Needed**



1.5-3 hrs (depending on group size & extent of discussion).

#### **Resources Required**



Requires basic materials. At least one facilitator is required.





Tools # 2, 12, 24.



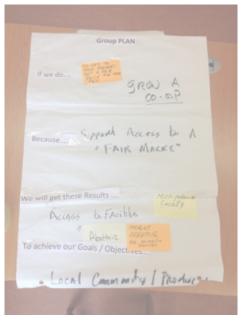


Image source: Teagasc

#### **Purpose**

This tool is used to:

- To generate group plans with clear actors/ objectives, with an added mechanism to allow reflexive decision-making.
- To facilitate participants to generate hypotheses regarding the causes of effects of actions leading to actions, then to results and subsequently to objectives and breaking it down, fact-checking and proofing.
- To facilitate participants to continuously reflect and evaluate the decision-making process regarding the choice of project actions, revising and adapting their plans.

#### **Background and Logic**

Multi-actor innovation brings together a diverse range of public and private innovation actors (farmers, foresters, advisors, researchers, NGOs etc.) with complementary types and sources of knowledge to appraise, gather, cocreate and disseminate practical solutions to real needs.

Multi-actor projects/initiatives require a participatory 'bottom-up approach', facilitating those at the core of the project to influence project outcomes. Taking a 'bottom-up' approach to development allows members to be involved in the entire development process, from decision-making to evaluation.

Interactive innovation is a social process rather than a 'top-down' scientific approach. Multi actor interactive innovation brings all the competent actors with various knowledge together, where it is agreed to plan and codesign practical and implementable solutions.

This tool is inspired by <u>Gamble (2018)</u> as a reflexive tool for hypothesis building and re/generation. It is informed by a Developmental Evaluation approach where assumptions are challenged and hypotheses are revisited by adapting as the learning is carried out. Actions are connected to hypothesised results. Actual/emerging results, fact-checking and proofing is conducted using this reflexive tool. This tool allows participants to outline their goals and objectives but also allows them to continually revise and adapt their plans throughout the process.

This tool can be used with Tool#2 and Tool#12, to build hypotheses for project tasks/actions and to reflexively revise tasks/actions.

#### **Materials**

- Flipchart paper
- Sticky notes
- Thick dark markers
- Sellotape
- Pre-printed headings



#### **Step 1: Preparation**

- Explain the purpose, logic and background of exercise.
- Hang up all ideas previously brainstormed, which are written on sticky notes attached to flipchart paper.
   Note: ideas/tasks/actions may have been generated using Tool#2 or Tool#11
- Otherwise, conduct a brainstorming of ideas for tasks/actions of the project, inviting participants to write them on sticky notes and affix them to flip chart paper.

### Step 2: Allocation of Ideas/Tasks/Actions

- Where Tool#2/Tool#11 was used.
  - » Revisit-reexamine the ideas/tasks/actions for the project as a reminder to participants.
  - » Each actor (working alone) team of actors (working group) is assigned its own table and ideas affixed to flipchart paper.
- Where Tool#2/Tool#11 was not used.
  - » Do a 'shopping for ideas' exercise
  - » Encourage participants to go 'shopping for ideas' where participants walk around the room and take sticky notes of previously brainstormed ideas off different flipchart sheets which contains ideas that they are interested in. Ensure sticky notes have been duplicated (or invite participants to duplicate them) for ideas that may have appealed to more than one participant.
  - » Ask participants to join together at tables where they have similar interests – these are working groups. Some actors may choose to work alone on tasks.



'Shopping for ideas'

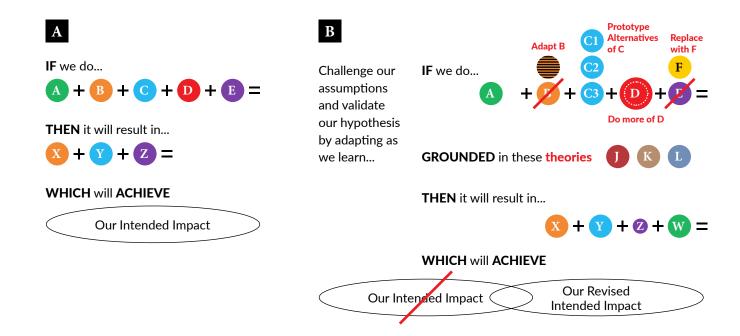
#### **Step 4: Formation of Group Plans**

- Each working group is then handed out a piece of flipchart paper with four pre-printed headings, which are as follows:
  - 1. If we do.... (idea/task/action)
  - **2.** Because.... (why?)
  - 3. We will get these results... (hypothesised)
  - 4. To achieve our goals/objectives... (impacts)

Participant/s at each table should be asked to complete each of the headings based on the ideas which they selected in the previous step. The facilitator should walk around the room engaging with each working group.

Traditional Approach (A) and a Developmental Evaluation Approach (B) (Gamble, 2018).

 At the end of the workshop, the facilitator should ask that one participant from each working group (or a single participant) presents the group plan to ensure that the entire group of participants are up to date with the plans of each individual working group. Ask that feedback is given to each group from the wider group, assisting individual groups allows them to reflect on and re-evaluate (if necessary) group plans.



#### **Step 5: Continuous Reflexivity**

As the participants continue through the process of interactive innovation, ensure that they are facilitated to continuously re-assess, update and revise group plans as required at further workshops/meetings. This encourages participants to think reflexively while also allowing participants to be in control of the decisions, adapting or revising their plans at any stage.

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# ACTIONS: IDENTIFICATION, PROOF, PHASE

#### **MAA Scenario**





INTERROGATING







ADDRESSING APPLYING

When to Implement



At decision-making junctures where actions for a project/initiative to take are identified. This can be at the project/initiative planning stage, or later in the project/initiative (if there is scope to decide actions).

#### **Group Size**



Small to medium (max 20), although use of the tool could be replicated in smaller groups (of a large consortium) and merged.

### Level of Technical Difficulty



No technical skills required for use of the tool itself, although the knowledge introduced by the external expert may be new and challenging.

#### **Time Needed**



1-3 hours (depending on the length of associated discussions & the number of actions being decided on).

#### **Resources Required**





Tools # 8, 22, 24, 25.





Image source: Teagasc

#### **Purpose**

This tool is used to:

- Use all the knowledge available in a multi-actor project/initiative to brainstorm potential actions for the project/initiative to take.
- Involve an outside 'expert/s' to evaluate the chosen actions and to suggest more/alternative potential actions.
- Make decisions in selecting actions, plotting them on a 'stairs chart'
- Use the stairs chart to periodically appraise progress in implementing actions, revising the actions/their timing where necessary.

#### **Background and Logic**

A principal advantage of interactive innovation in a multiactor group is that it leverages the different knowledges/ perspectives etc. of all actors involved. It is particularly vital that a rigorous multi-actor approach is taken at junctures where decisions are taken in relation to what actions a project/initiative will take. These decisions – regarding actions - decide the fate of how effective/ innovative a project/initiative will ultimately be.

This tool¹ employs a method to support all actors to influence the decision-making process in relation to actions that a project/initiative will take. It involves engaging an external actor/s into the process, as a neutral commentator regarding the choice of actions, and also to possibly challenge the group by introducing new/alternative actions. A multi-actor panel of experts can also be convened. Actions are chosen by the group and plotted on a 'stairs chart'. The stairs chart is subsequently used to assess progress in implementing actions. The chart can be reflexively adapted to accommodate new actions and/or to revise planned actions. The tool can be used to plan actions for a whole project or for a single work package, as required by the particular project/initiative in which it is being used.

#### **Materials**

- Thick black markers
- Sticky-notes
- Pens
- Stairs diagram, either printed in large poster size or drawn on flipchart paper or a whiteboard.
- Camera/phone camera.

<sup>1</sup> This tool is adapted from Macken-Walsh et al., 2019



#### **Step 1: Preparation**

- Explain the purpose, logic and background.
- Show the multi-actor animation (optional) to remind participants how vital different forms of knowledge are for interactive innovation.

#### **Step 2: Brainstorm Actions**

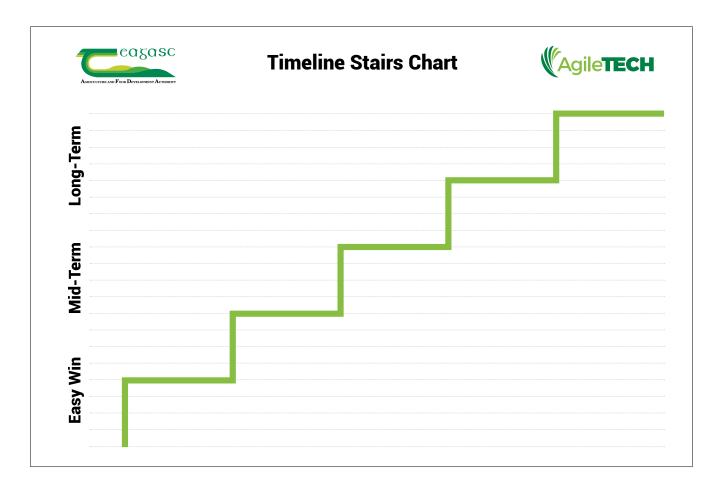
- It may be conducive to the decision-making process
  to undertake a field visit that relates to the decisionmaking process concerning actions. For example, a
  field visit to a site that relates to or is similar to the
  area/topic in relation to which the decision-making
  process is focused. Having a simple Walk About (with
  or without a host) will sensitise participants to the
  decision-making matter/s and is likely to provoke ideas.
- After the field visit, participants take a seat around a table with an appropriate topic banner relating to the decision-making topic. To engender a sense of collective ownership of the decision-making process, the topic banner can begin with 'Us and... (topic)'.
- Issue sticky notes and black markers to participants

   preferably different colour sticky notes to different actor types, so that their contributions are identifiable (this may not be possible if there is a relatively large group however it is possible also to place identifying stamps or stickers on sticky notes in advance).
- Ask participants to discuss what actions are appropriate to take, considering criteria such as the following (which may be adapted /replaced as needed – the aim of this particular exercise is to avoid entirely aspirational actions and instead focus on those that are reasonably implementable):
  - » Cost-effective? (considering any budgetary limitations)
  - » Impactful ('reasonable' expected benefit/s for 'reasonable' investment)
  - » Achievable (considering any time constraints, available human resources, any other factor, such as geographical factors etc.)
- Ask participants to consider these (or adapted/ customised) criteria and note their suggested actions on sticky notes (providing assistance where needed).
- There is no need to 'proof' the actions at this point this is a brainstorming process where all suggestions are valuable.

- The output of Step 2 is a diverse range of actions produced by all actors of a multi-actor group.
- Photograph actions for future reference.

#### **Step 3: Shortlist & Proof Actions**

- The invited expert/s may enter the workshop at this point, perhaps just after a short break for participants. S/he is / they are introduced by the facilitator. It may be the case that participants nominated the particular expert/s or perhaps s/he has been selected by the facilitator. It is possible (and desirable, where possible) to have a (multi-actor) panel of external experts.
- Present the stairs chart to participants & ask them
  to identify from the sticky notes on the table any
  imminent/'easy win'/flagship actions to be taken (the
  stairs chart can be customised by entering dates in
  days/months/quarters/years etc.).
- Each action is discussed:
  - » Does everyone agree that this action should be taken (and at this time etc., if relevant), and considering the criteria (Step 2), is it a valuable and possible action to take?
  - » Are there any other actions that could be taken instead of this one, or with it? (again, drawing from sticky notes on the table)
  - » Then, ask the visiting expert if there are other possible actions that the group may wish to consider?
  - » If the expert has an alternative/added action and the group agrees with it, it can be added to the stairs chart or, instead, added to the table for future consideration.
  - » The process (above) continues until the group has identified a sufficient range of actions.
  - It is important that the actions chosen don't all come from one or two actor types this will be easily visible if actor types use different colour/differentiated sticky notes in Step 2. If one or two actor types are represented by the majority of actions selected repeatedly, the facilitator can address this by asking participants to examine the wider range of sticky notes.
- The output of Step 3 is an agreed set of proofed actions, which have been informed (where valued by participants) by an outside expert/s.



### **Step 4: Use of Agreed Actions** for Evaluation

- The involvement of all the diverse actors in the multiactor group in both identifying and selecting actions can be verified by using differentiated sticky notes.
- The involvement of the external expert/s provides for neutral appraisal of the content of the actions, according to state-of-the-art and with a viewpoint that is outside of the immediate project/initiative team. A (multi-actor) panel of diverse experts can provide diversity in the appraisal process. This 'peer review' type process brings new expertise & rigour and can give confidence to project/initiative partners that their chosen actions are the best possible available. However, it is also the case that a balance has to be struck between internal (project/initiative) 'experts' and external 'experts'. Insider knowledge of internal participants is highly valuable, and in the steps above, they are positioned as empowered interrogators and judges of external viewpoints.

 The proofed set of actions (placed on a phased timeline) represent a blueprint against which progress can be periodically assessed. However, as innovation processes are continuously evolving and changing direction, new/adapted actions may be identified. This process should be accommodated by repeated use of the tool as necessary.

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# #13 MIND MEITHEAL (MIND COMMUNITY)

#### **MAA Scenario**







INTERROGATING





CREATING

ADDRESSING

When to Implement

Stages in a project where different actors/stakeholders interact.



#### **Group Size**

Small to large, up to approx. 100 people.



### Level of Technical Difficulty



No technical skills required.

#### Time Needed

2-4 hours (including preparation).



#### **Resources Required**

For large networking events, graphic design assistance is preferable, which can cost in the region of €1000.



### Clustering with Other Tools

1 2 3

Tool #5.





Image source: Teagasc

#### **Purpose**

This tool is used to:

- Facilitate co-creation of an aspirational multi-actor social network map, including all the actors who should ideally be involved in an initiative.
- Engage actors to become involved and facilitate networking between them.
- Periodically update the map to include more actors, where appropriate.
- Use the aspirational social network map to assess progress in engaging actors and in facilitating networking between them.

#### **Background and Logic**

Meitheal is a word in the Irish language, which simply means 'work team'. It is historically associated with people in the same community coming together to undertake collective work. In many ways, the concept is consistent with ideal conditions for interactive innovation, in the sense that actors come together willingly to co-innovate for mutual benefit. While other tools (e.g. Tool#1 in this toolbox) generate social network maps that depict the actors who are actually involved in a project/initiative and how they are cooperating together in 'real-life', this tool generates an aspirational depiction of an ideal social network: who are all the actors who should ideally be involved, and how should they cooperate together? Co-creation of such an aspirational picture should be undertaken by a multi-actor group, involving actors who see potential from very different perspectives. Once an aspirational map is co-created (depicting both actors who should become involved and the collaborative ties between them), it can be used as a guide to progress the development of the relationships needed, as well as to assess progress in that regard.

This tool provides a guide for the co-creation of an ideal social network map and practical ways of engaging new actors and building collaborations between them. How to use the map for assessing progress towards creating an ideal social network is described.

#### **Materials**

- Thick black markers
- Sticky-notes
- Camera/phone camera.
- Graphically designed social network map & customised name badges & colour-coded stickers for affixing to name badges. This is well described in the film, depicting the tool's use.



#### **Step 1: Preparation**

- Explain the purpose, logic and background of the tool.
- Optionally, show a <u>film</u> of the use of the tool for networking in a heritage grains multi-actor Horizon 2020 project, CERERE.

### Step 2: Co-create an Aspirational Social Network Map

- Issue post-it notes and markers to participants.
- Optionally, if Tool#1 (Participatory Social Network Mapping) was used, revisit the map created and ask participants to modify it to create an 'ideal' type – including all desirable actors for inclusion in a particular project/initiative.
- Otherwise, facilitate participants to brainstorm all desirable actors needed for a particular project/ initiative. The actor types are written on sticky notes by participants (providing assistance where required). The sticky notes are placed on flip chart paper, on a board or table (several pieces of flip chart paper may be joined together with tape, accommodating a larger social network).
- Once all actors have been identified, invite participants to cluster the actors – can they be categorised into a smaller number of cohorts (where similar actors are clustered together)? Note: this step may be unnecessary if actors are different from each other. Actors in different sectors (e.g. primary production, retail, innovation brokering, education, marketing etc.) may stay apart.
- Ask participants to draw lines (using marker), indicating where cooperation between actors is necessary. Extra thick lines can be drawn by participants to indicate cooperation between actors that is particularly vital.
- The output of Step 2 is a Social Network Map that identifies all desirable actors to be involved in an initiative and illustrates the collaborations required between actors within the initiative, with the importance of collaborations highlighted.
- Photograph the aspirational Social Network Map.

### Step 3: Preparation for a Networking Event

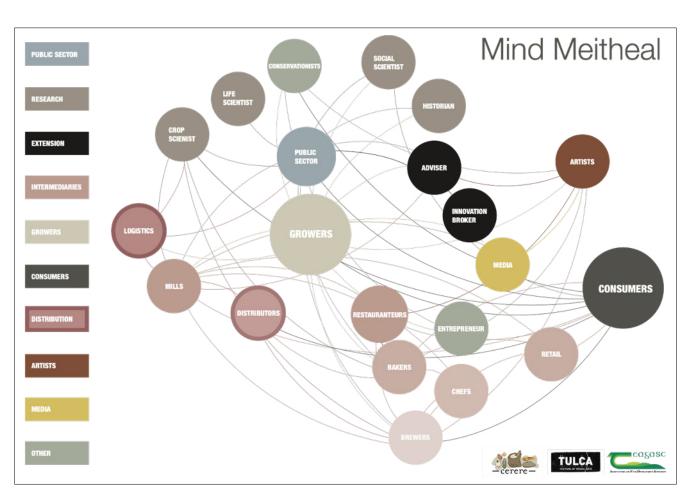
- Use the completed aspirational Social Network Map to design a networking event.
- First, commission a graphic designer to create a
  professionally produced version of the map, or create
  a version using (free) software such as <u>Gephi</u> (requires
  technical expertise in social network mapping) or
  Mural (requires basic technical expertise).
  - » Each of the actor categories should be colour coded (as pictured). A legend should accompany the social network map, indicating which actor category corresponds to each colour.
  - » Stickers (round discs) should be available/ customised to match the colours used in the legend.
  - » A large poster version of the social network map is printed for display at the social networking event. It is vital that it is sufficiently large so that actors participating in the event can view it. Another option is to project an image of the social network map onto a screen.
- Actors representing each of the actor categories in the social network map are invited to the networking event. Participants who created the social network map can use their contacts, and the facilitator makes contact with organisations/associations to identify new actors. It is important to add as many actors as possible from outside existing social networks, enhancing diversity. The number of actors invited per category depends on the budget/venue available and the needs/orientation of the project/initiative.
- Choose any venue for the networking event. If possible, it is worth considering having an event themed according to the topic of the project/initiative, possibly with a contribution from public artists. This makes the event more engaging, enjoyable and the environment will stimulate more ideas. This is the approach followed in the film, where a Horizon 2020 project partnered with an experienced public artist and an established arts festival.

- Once a confirmed list of participants in the social networking event is available, name badges are printed/hand-drawn. The name of the person should be printed in large font, allowing participants in the event to easily find and identify each other.
- The output of Step 3 is that a venue and list of diverse participants are confirmed for the social networking event. Actors identified in the aspirational social network map are represented in the confirmed list of participants. Name badges have been printed, with some blank badges available for unexpected participating actors. Stickers that match the colours of the legend in the social network map are available (a sufficient number at least one of each colour for confirmed participant remaining stickers can be used for future events). The large image of the social network map is ready for display at the venue.

#### **Step 4: Social Networking Event**

- Actors arrive at the social networking event and are invited to view the social network map. Facilitators/ hosts are at hand to explain that they may select the colour/s of the actor category/ies to which they feel they belong. Actors may choose more than one category. On the basis of their choice/s, actors are provided with sticker/s, which are affixed in a visible position on their name badge.
- Actors are invited to observe the social network map

   can they identify potential collaborators from the
   map, or can they identify other collaborators on the
   map they would like to network with at the event?
- Actors circulate and identify each other, discussing mutual interests, and forging nascent collaborations.



# Step 5: Use of Social Network Map & Networking Event for Assessment and Evaluation

- Contact can be made with participants in the aftermath of the event in a variety of ways to assess the impact of the social networking event. A questionnaire may be issued, or phone/online contact may be established to answer the following types of questions:
  - » Did you meet any potential collaborators at the event?
  - » Did you exchange contact details / forge a new collaboration with anyone and if so who?
  - » Is there any other actor who wasn't present, who you would like to collaborate with (relevant to the topic of the event/project/initiative)?
  - » It is important to note that there are learnings from answers to the above question that are relevant not only in relation to the social networking event, but in relation to the project/ initiative overall. Who are we seeking to engage with? Is our chosen selection of actors complete? Are there other actors we should consider? Such questions are important for improving reflexivity in developing/forming the ideal (multi-actor) social network, setting optimal conditions for interactive innovation.

- The aspirational social network diagram produced by this tool can be compared to the actual social network diagram (produced, for example, by Tool#1 of this toolbox). Actions may be planned, for instance using Tool#12, to progress the aspired diversity of the social network.
- The actual versus aspirational social network diagrams may be compared periodically to assess progress in diversifying the social network to achieve the ideal social network.

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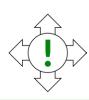






## **JOURNEY MAPPING**

### **MAA Scenario**











ADDRESSING



CREATING

APPLYING

### When to Implement



After an actor/stakeholder has engaged with a project or part of a project to assess the impact of the project where that actor is concerned. This tool can also be used to vision desired impacts of a project in advance of project implementation.

### **Group Size**



One to one or group basis (with a maximum of 6 participants).

# Level of Technical Difficulty



Requires use of any online storyboarding tool. Optionally an artist can be engaged to develop a bespoke storyboard.

### **Time Needed**

2-4 hours (including preparation).



### **Resources Required**



Internet access & use of (free or fee-based) online storyboarding tool. Optionally engage an artist.

## Clustering with Other Tools



Tools # 2 and 24.





Image source: Teagasc

### **Purpose**

This tool is used to:

- Understand the experiences of an actor/stakeholder with a project/initiative, identifying impacts of the project/initiative and their subjective evaluations of the project/initiative.
- Develop an easy to interpret storyboard about the actor's/stakeholder's experiences, pinpointing events where the project/initiative had impact/s.
- Assess the extent to which the actor's/stakeholder's experiences match with what the project/initiative envisaged and intended, pinpointing particular events and experiences.
- Vision aspirational/desired impacts of a project in advance of project implementation, periodically thereafter using the 'journey map' to assess how a project is delivering planned impacts.

### **Background and Logic**

Tools such as Tool #11 (causes and effects) and Tool #5 & Tool #6 (needs and motivations registers) generate hypotheses and collect information about the intended impacts of a project/initiative and what actors/stakeholders want from a project/initiative. These are very important planning tools in making reflexive, evidence-based decisions that are attuned to different actors' & stakeholders' needs & motivations in real-life circumstances. However, as the project/initiative progresses and/or matures to completion what were participants' experiences in practice?

This tool takes a 'storyboarding' approach', which generates a visual, easy to interpret account of an actor's/ stakeholder's experiences of a project/initiative. It condenses a lengthy story into a shorter account of key events and experiences. It can portray the key events/ activities of a project where impact occurred. Intended impacts can be assessed against the actual impacts experienced by participants, as portrayed in the storyboard. Storyboards can be developed to portray the experiences of a single actor/stakeholder or a group approach can be taken, where a group of actors/stakeholders tell their collective stories. Taking a group approach, each actor/ stakeholder would have a different character in the story, similar to the approach taken in Tool#3

This tool is inspired by Wengraf (2008) & Vanclay (2012)

### **Materials:**

- Online storyboarding tool or artist
- List of project/initiative intended impacts customised to the actor/stakeholder featured in the storyboard (where relevant).



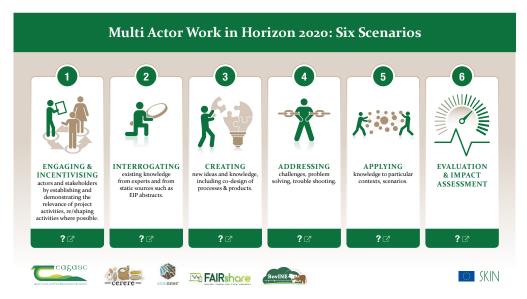
### **Step 1: Preparation**

- Explain the purpose, logic and background of the tool.
- Optionally, show examples of completed storyboards, such as those created by the Ploutos Horizon 2020 project <a href="here">here</a> or an animated version from the SWAB project <a href="here">here</a>.

### Step 2: Facilitator Preparation<sup>1</sup>

- The facilitator acts in an interviewer role. An open-ended approach is taken, inviting the actor/ stakeholder to tell their story. No question list of preprepared questions is used. The role of the facilitator is to listen and, if necessary, limit questions only to asking more detail about what the actor/stakeholder has told them.
- It may be the case that a key planned impact does not arise in the story, and if so, this is likely to indicate that the impact did not occur or lacked significance.
   In such a way, what is absent from the story can be as important as what is in the story.
- The facilitator should prepare him/herself, where relevant, with a list of the key events/impacts planned by the project/initiative for the actor/stakeholder so that s/he can be attentive to how these are (or are not) portrayed in the story.

- Considering that the storyboard is about interactive innovation, the facilitator should also be attentive to the various multi-actor scenarios – what were the actor's/stakeholder's experiences of these important scenarios in interactive innovation?
- The most important prompt questions to elicit story type narrative for populating the storyboard are:
  - » Can you tell me the story of your experiences of (project/initiative), all the experiences and events that are important to you personally.
  - The facilitator (who is acting in a role similar to that of an interviewer) can ask for more detail on the story, such as:
    - Tell me more about how all that happened?
    - Do you remember anything more about that particular moment/time?
    - The storyboard may also portray aspirational/desired impacts of a project, in advance of its implementation. In such a case, appropriate prompt questions are:
  - » Can you tell me the story of what will happen in this project, and how you'd like it to play out? Start from the beginning...



Multi-Actor toolbox – online, interactive version (with links to practical tools) available <u>here.</u>

<sup>1</sup> This approach is inspired by the Biographic Narrative Interpretive Method (BNIM) Wengraf (2008).

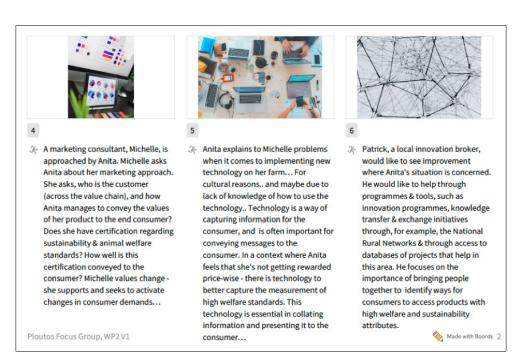
- The facilitator (who is acting in a role similar to that of an interviewer) can ask for more detail on the story, such as:
  - Tell me more about how that might happen?
  - Can you think of any more detail about how that might happen?

### Step 3: Create the Storyboard

- The facilitator works with a single actor/stakeholder
   OR a group (maximum 6), where each has a different character in the story (their real names and characters)
- The storyboard can be created in-person or online (e.g. conversing on Zoom), with the facilitator screensharing an online storyboard creator.
- Open an online storyboard creator (such as www.boords.com or www.storyboardthat.com)
- Remind participant/s that all good stories have a start, middle and end! Begin with the question in Step 2 above and after each significant juncture/main event:
  - ask the participant/s to summarise what they have said to insert concise text to a scene of the storyboard.
  - Choose an appropriate image for the scene
- Repeat the above until the storyboard is populated with all the main events, told from the perspective of the participant/s.

# Step 4: Use of storyboard to assess/ evaluate the project/initiative

- The storyboard portrays participant/s experiences of the project/initiative, telling the story of all impacts as experienced by the participant/s. It provides evidence of the more immeasurable, experiential and unintended as well as intended impact/s of the project/initiative.
- Processes of interactive innovation, such as the key scenarios of multi-actor work, can be qualitatively described.
- Whether the intended impacts of the project were experienced by the participant/s (and how significant they were) can be assessed.
- Storyboards portraying different actors' experiences of the project/initiative can be used to assess varying impacts of the project/initiative among actor types.



Example from Ploutos (Horizon 2020) storyboard

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## **IMPACT STORIES**

### **MAA Scenario**











ADDRESSING



CREATING

APPLYING

When to Implement



After an actor/stakeholder has engaged with a project or part of a project to assess the impact of the project where that actor is concerned.

### **Group Size**



One to one

# Level of Technical Difficulty



No technical expertise required.

### **Time Needed**



30 minutes-2 hours (depending on length of story).

### **Resources Required**



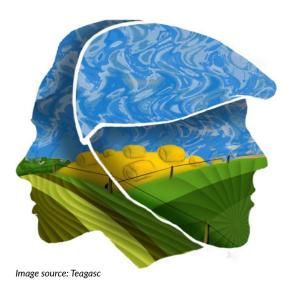
Optional transcription of the impact story.

## Clustering with Other Tools



Tools # 5, 6, 11, 14.





### **Purpose**

This tool is used to:

- Understand the experiences of an actor/stakeholder with a project/initiative, identifying impacts of the project/initiative and their subjective evaluations of the project/initiative.
- Understand the actor's/stakeholder's experiences, pinpointing events where the project/initiative had impact/s and eliciting a detailed description of these.
- Understand the experiences and learnings that give rise to impact.
- Assess the extent to which the actor's/stakeholder's experiences match with what the project/initiative envisaged and intended, pinpointing particular events and experiences.

### **Background and Logic**

Tools such as Tool#11 (causes and effects) and Tools #5 & #6 (needs and motivations registers) generate hypotheses and collect information about intended impacts of a project/initiative and what actors/ stakeholders want from a project/initiative. These are very important planning tools in making reflexive, evidence-based decisions that are attuned to different actors' & stakeholders' needs & motivations in real-life circumstances. However, as the project/initiative progresses and/or matures to completion what were participants' experiences in practice?

This tool is similar to Tool#14, but takes a more in-depth approach. Instead of presenting the story of impact in a concise storyboard format, this tool elicits a detailed narrative about an actor's/stakeholder's experiences. This tool is inspired by the 'performance story' approach (Vanclay, 2012). The method of eliciting the narrative/story draws from Wengraf (2008).

### **Materials:**

- Audio recording device for transcription of the narrative to text format.
- Appropriate procedures for compliance with the General Data Protection Regulation (GDPR).

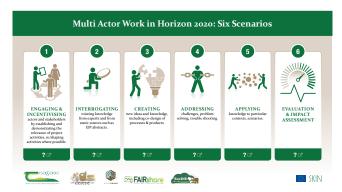


### **Step 1: Preparation**

Explain the purpose, logic and background of the tool.

### Step 2: Facilitator preparation<sup>1</sup>

- The facilitator acts in an interviewer role. An open ended approach is taken, inviting the actor/stakeholder to tell their story. No question list of pre-prepared questions is used. The role of the facilitator is to listen and, if necessary, limit questions only to asking more detail about what the actor/stakeholder has told them.
- It may be the case that a key planned impact does not arise in the story and if so, this is likely to indicate that the impact did not occur or lacked significance. In such a way, what is absent from the story can be as important as what is in the story.
- The facilitator should prepare him/herself, where relevant, with a list of the key events/impacts planned by the project/initiative for the actor/stakeholder so that s/he can be attentive to how these are (or are not) portrayed in the story.
- Considering that the story is about interactive innovation, the facilitator should also be attentive to the various multi-actor scenarios - what were the actor's/stakeholder's experiences of these important scenarios in interactive innovation?



Multi-Actor toolbox - online, interactive version (with links to practical tools) available here.

1 This approach is inspired by the Biographic Narrative

- The most important prompt questions to elicit a story type narrative for populating the storyboard are:
  - Can you tell me the story of your experiences of (project/initiative), all the experiences and events that are important to you personally. Start from the beginning.
  - The facilitator (who is acting in a role similar to that of an interviewer) can ask for more detail on the story, such as:
    - Can you tell me more about how all that happened?
    - Do you remember anything more about that particular moment/time?

### Step 3: Use of the Story/Narrative to assess/evaluate the project/initiative

- The story portrays participant/s experiences of the project/initiative, telling the story of all impacts as experienced by the participant/s. It provides evidence of the more immeasurable, experiential and unintended as well as intended impact/s of the project/initiative.
- Processes of interactive innovation, such as the key scenarios of multi-actor work, are qualitatively described.
- Whether the intended impacts of the project were experienced by the participant/s (and how significant they were) can be assessed.
- Stories portraying different actors' experiences of the project/initiative can be used to assess varying impacts of the project/initiative among actor types.

Interpretive Method (BNIM) Wengraf (2008)

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### **MAA Scenario**







INTERROGATING







ADDRESSING APPLYING

When to Implement

Periodically throughout the interactive innovation process.



### **Group Size**



Small group, 12-15 actors.

### **Level of Technical Difficulty**



No technical expertise required.

### **Time Needed**



Approximately 2 hours.

### **Resources Required**



### **Clustering with Other Tools**



Tool #4.





Image source: Teagasc.

### **Purpose**

This tool is used to:

- Assess relationships in multi-actor group, focusing on:
  - » Trust
  - » Willingness, ease and openness in sharing information
  - » Effectiveness of the facilitator
  - » General enjoyment of membership of the group
- Decide actions to improve group functioning.

### **Background and Logic**

What characterises a multi-actor approach to interactive innovation is that people with different knowledges, perspectives etc. come together. The process by which different actors interact and feel comfortable sharing their knowledge & perspectives is not without challenges. Some actors (for instance, scientists) can have wideranging experience with projects. Other actors may be participating in a project for the very first time. The language and modus operandi of formally organised/ funded projects can be unfamiliar terrain for some. Participation in the form of open sharing of knowledge and perspectives may be hampered by some actors feeling unsure of what they bring to the interactive innovation process: where does their knowledge/ perspective fit in and is it of value, some actors may ask themselves. Facilitators of multi-actor approaches must employ deliberate strategies to support diverse actors to openly contribute to the interactive innovation process. Difference is the 'gold' of the multi-actor approach, and it must be strategically 'mined'.

This tool provides an approach to assess relational dynamics within a multi-actor group, creating a safe environment for group members to assess relational dynamics from their own perspectives. A guide is offered for the group and its facilitators to make improvements to relational dynamics.

### **Materials**

- 'Five Ingredients for Success' infographic.
- A4 size assessment sheet (pdf) one for each member.
- A0 size assessment sheet
- Sticky discs/stickers each member to be allocated one per question (10 stickers for each member).



# **Group Work:** Five Ingredients for Success



### Ingredient 1: Membership & Organisation

"We might all be different as individuals but our group has common goals. We as members genuinely believe in and commit to these goals. Our group is well organised and we have a clear idea about how we operate. We have our schedule of meetings well in advance so that we can plan and prepare."



### **Ingredient 3: Trust & Security**

"In order for use as group to create solutions, we must feel that we can speak openly and truthfully without feeling that what we say might be irrelevant or not useful... We are all different, we speak different languages, and it's important that we show that we value each other's point of view. There's no sense that certain types of knowledge are superiour in the group and people are not afraid to speak up."



### **Ingredient 2: Social & Emotional Dynamics**

"Enjoyment and fun is an important part of how our group works. It makes taking part a more positive experience. We have developed good working relationships and even some friendships. This provides an environment conducive to sharing challenges and to identifying solutions."



### **Ingredient 4: Solidarity**

"While the proverbial saying 'a rising tide lifts all boats' may not be true in many cases, it is a core principle of this group. What we do is relevant to all members and therefore is of interest (and potential benefit) to all members."



### **Ingredient 5: Facilitation & Learning Drivers**

"We have access to and are exposed to different types of expertise in the group and this is a major driver of the group – it is why we want to be involved. Our group is also expertly facilitated and if we didn't have that expert facilitation, our group wouldn't operate as well as it does."

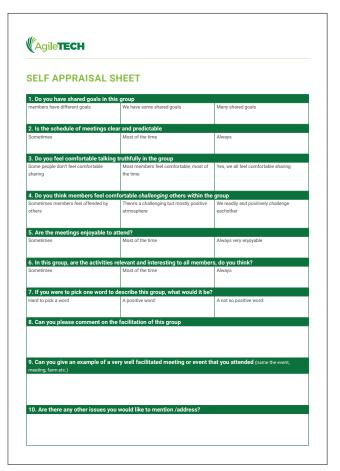
# Self-Appraisal for Groups: Guide for Facilitators

This assessment sheet is designed to assist you to facilitate a structured conversation about how the group you facilitate is functioning and how it might function better. The sheet is divided into five components, which correspond to five key ingredients for successful groups. These key ingredients were identified through research undertaken in Ireland and are consistent with research findings internationally in relation to how groups function at their best.

### How to Use The Sheet

- Distribute a copy of the appraisal sheet to each of the group member present.
- 2. Allow an appropriate time (10 minutes suggested) for each member to complete the sheet.
- Prior to the meeting, you will have placed the AO (flip chart size) version of the appraisal sheet on a flipchart stand.
- Distribute 10 self-adhesive discs to each group member. All discs should be of the same size and colour.
- 5. Once the allocated time has elapsed, invite each member to mark their answers onto the AO size poster on the flipchart. In this way, each individual group member has an equal opportunity to record their views anonymously.

- 6. Take a short break to visually review the scatter of sticky discs under each question. It is likely that the collective answer i.e. the arrangement of the adhesive discs under each answer will shed some light on group perceptions.
- 7. Use the questions listed below to prompt further appraisal and reflection within your group. Pose the questions to the group and allow them time to respond. Make sure to acknowledge the questions where the perceptions are positive (you want more of that in the future) as well as probing how to improve the situation where perceptions are less positive/negative (what can we do to improve?).
- Record the decisions reached and agreed actions, including the individual(s) responsible. Ideally, group members would take responsibility for many of the actions.



Self Appraisal. Full-size form on the next page.

## **Self Appraisal Sheet**

1. Do you have shared goals in this group						
members have different goals	We have some shared goals	Many shared goals				
2. Is the schedule of meetings clear and	predictable					
Sometimes	Most of the time	Always				
3. Do you feel comfortable talking truth	fully in the group					
Some people don't feel comfortable sharing	Most members feel comfortable, most of the time	Yes, we all feel comfortable sharing				
4. Do you think members feel comforta	ble challenging others within the group					
Sometimes members feel offended by others	There's a challenging but mostly positive atmosphere	We readily and positively challenge eachother				
5. Are the meetings enjoyable to attend	?					
Sometimes	Most of the time	Always very enjoyable				
6. In this group, are the activities releva	nt and interesting to all members, do you	think?				
Sometimes	Most of the time	Always				
7. If you were to pick one word to descr	ibe this group, what would it be?					
Hard to pick a word	A positive word:	A not so positive word:				
8. Can you please comment on the facil	itation of this group					
9. Can you give an example of a very we	ell facilitated meeting or event that you a	ttended (name the event, meeting, farm etc.)				
10. Are there any other issues you would	d like to mention /address?					

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# GUIDE TO THE LEADING/BLEEDING EDGE: INNOVATION CASE TRANSFER

### **MAA Scenario**









INTERROGATING

REATING

APPLYING

### When to Implement



Project proposal stages; at stages when actors are interrogating/internalising new forms of knowledge and while they are co-creating/co-adapting this knowledge for application. The tool should also be used by the facilitator to evaluate their own performance at the end of the process.

### **Group Size**



Small to large multi-actor group.

## Level of Technical Difficulty



No technical skills required.

### **Time Needed**



6-8 hrs mins (depending on group size & extent of discussion).

### **Resources Required**



Requires basic materials such as sticky notes, flipchart paper and markers. Requires organisation of a physical trip to the leading edge.

## Clustering with Other Tools



Tool #11, 17, 19.





Image source: foodtank.com

### **Purpose**

This tool is used to:

- The bleeding/leading edge tool offers participants opportunities to be introduced to innovative possibilities, emergent trends, creative approaches, and new knowledge.
- It can contribute useful knowledge and inject innovative possibilities that solve problems and inform choices on issues, challenge a group while inspiring values by enlarging visions and enhancing impact through creative new possibilities.
- It allows the facilitator to self-reflect on their injection of leading/bleeding edge principles to the process. It challenges facilitators to create a rigorous approach to visiting each case at the bleeding/leading edge.

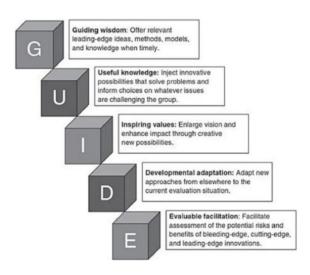


Figure 1: A GUIDE for identification of high-quality leading/bleeding edge cases Quinn-Patton (2018).

### **Background and Logic**

Developed by Michael Quinn-Patton, the leading/ bleeding edge is a principle that connects participants to state-of-the-art.

'Leading edge refers to people or things who are the foremost or the best in technology, science, art, skill, etc. Bleeding edge technology refers to technology that is so new that it could have a high risk of being unreliable and may incur greater expense in order to use it.' (Dictionary Reference).

The leading/bleeding edge tool can be introduced to participants by the facilitator when they feel the timing is right. The tool requires the facilitator to not only be active in supporting the tool in the group, but also acting reflexively themselves in identifying new developments in evaluation, watching for emergent concepts and knowledge from research and paying attention to trends in society that are related to issues being addressed by participants.

A GUIDE criteria was developed by Michael Quinn-Patton for the identification of high-quality leading/ bleeding edge cases. A high-quality case should be guiding, useful, inspiring, developmental and evaluable.

### **Materials**

- Suitable leading/bleeding edge case
- Flipchart paper
- Sticky notes
- Thick dark markers
- Sellotape
- Pre-printed headings



### **Step 1: Preparation**

Identify a suitable example which represents the GUIDE to the leading/bleeding edge.

# Step 2: Introduction of the Leading-Edge Principles

- Firstly, present the principles of the leading/bleeding edge example to participants, allowing them to examine this existing knowledge and to give them insights and knowledge about the leading/bleeding edge case.
- While sitting in groups of approximately 3-8 people per group, facilitate participants to brainstorm ideas that represent their own project/initiative while also taking into mind characteristics of the leading/bleeding edge case. Write down these ideas on sticky notes and place them on sheets of flipchart paper. The facilitator should allow for around 40 minutes to complete this exercise and should walk around the room engaging with each of the groups.
- Ask each individual group to present their brainstorming ideas to the rest of the room and ask for feedback from other groups.
- Gather each group's flipchart sheets which will be used again in the future.

# Step 3: Preparation for a Trip to the Leading-edge

- Identify an appropriate leading edge case to visit, engaging and communicating with the multi-actor group in selecting an appropriate case to visit.
- Facilitate participants to create group plans (following Tool #11).
- Work one-on-one with each individual group of participants to prepare group presentations for delivering as part of the visit to the leading/bleeding edge case. This offers participants an opportunity to connect their work to the latest knowledge breakthroughs and trends. It can help to expand horizons by placing each group's work in a broader societal context, even at an early stage but they are beginning to make specific decisions.

### Step 4: Trip to the Leading Edge

- The trip to the leading/bleeding edge typically involves a site visit where participants can explore the case and ask questions.
- During the trip to the leading-edge, the facilitator encourages participants to ask questions throughout the day so that they can further examine the GUIDE principles of the leading/bleeding edge while also gaining knowledge.
- Facilitate participants to present their work while
  visiting the leading/bleeding edge and look for advice
  and feedback from those who have developed the
  leading/bleeding edge case. Feedback will encourage
  participants to think reflexively and may inspire them
  to innovatively alter their plans.



Figure 2: Participants visiting the leading edge

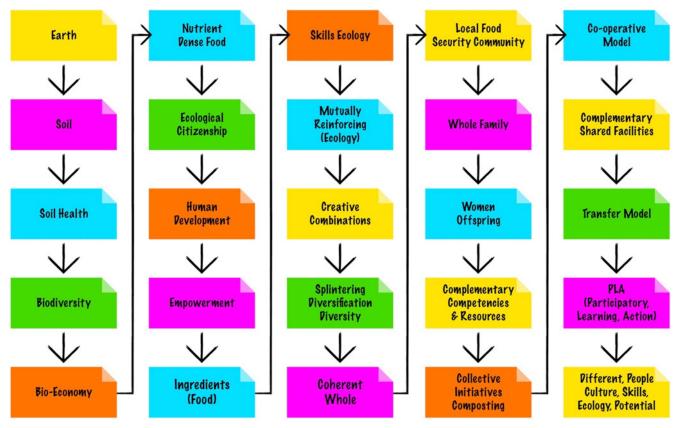


Figure 3: Characteristics & key principles of a 'leading edge' case visited by a multi-actor group.

# Step 5: Evaluation of the Injection of Leading-Edge inputs into a Facilitation Process

Following on from the trip to the leading/bleeding edge, the facilitator completes a self assessment template which evaluates the injection of the leading-edge inputs into a facilitation process, which follows the logic of the GUIDE principles (Figure 1). The template can be found in Michael Quinn-Patton's book called <u>Facilitating Evaluation</u>. Each question should be answered honestly by the facilitator and their reflections/considerations/ observations should be included.

Evaluation Criteria	Reflections/Observations/Considerations
How relevant is the input to the group's process and progress?	The trip was extremely relevant as the participants had expressed a direct interest in learning from the model. The trip helped the groups to refocus their goals and gave them encouragement and belief to continue to make progress. The trip was a turning point and without it, I think the groups would not have progressed and achieved what they did.
2. How knowledgeable am I about the input?	I was very familiar with [leading edge] having travelled there a year previously to meet the family and to discuss my project with them. I knew exactly what to expect on the day.
3. How good is the timing for the input?	The timing was excellent. Before the trip the groups had come to somewhat of a standstill and I felt that some participants were beginning to lose interest in the project. The trip injected new life and energy back into the groups and helped them to drive on.
<b>4.</b> How likely is this input to be well-received by the group?	The trip was well received. A number of the group participants expressed their sheer delight at the trip while others spoke less positively about it.
5. To what extent will this input help the group make progress towards its desired outcomes?	The trip allowed the four working groups to refocus and to take on board the information they learned. It also allowed them to examine first hand a 'good practice' and to interrogate that practice and rethink and refocus their goals.
6. How direct is the connection between the input and the groups issues?	Both the [leading edge] model and the project are focused on shortening food chains, reflecting culture, heritage and tradition through products and using the land and other resources to create viable enterprise opportunities. Ballymaloe represents a vision and a goal similar to that of the people of [project] so therefore there was much to be learned from [leading edge].
7. Could the input be perceived as culturally inappropriate?	No - both the model and the project are based on the use of natural resources and developing and fostering opportunities from them to create viable enterprise opportunities.
8. Any racist, sexist, homophobic, ageist, religious, political, or other innuendos that might be offensive?	No.
<b>9.</b> Have you used it before with success or know other who have?	No I had never before introduced a group to the leading edge. However, I was encouraged to do so by my supervisor.
<b>10</b> . Honestly, what are my motivations for introducing this input?	The motivations to bring the project participants to the leading-edge were to allow them to examine and question at first hand a model which they had expressed interest in learning from. The group at this time was in need of renewed focus and inspiration and the trip to [leading edge] was the obvious and appropriate step.

 $\label{prop:completed} \textit{Figure 4: A template completed by a facilitator reflecting on their use of the leading/bleeding edge principle.}$ 

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## PRACTICING EVALUATIVE THINKING

### **MAA Scenario**







When to Implement

Throughout the process with completion of a self-assessment template by the facilitator at the end.



### **Group Size**

One person, implemented by a single facilitator/actor.



# Level of Technical Difficulty

No technical skills required.

### Time Needed

1 hour and practiced periodically.



### **Resources Required**

Self-Assessment Template.







Tools # 2, 3, 4, 5, 6, 16, 19, 20.





Image source: Katherine Hough (www.katherinehaugh.com)

### **Purpose**

This tool is used to:

- Embed evaluative thinking throughout the interactive innovation process.
- Support the facilitator to think reflexively and methodically about assumptions (particularly concerning the use of evidence to make sound judgements).
- Assess and evaluate progress in thinking evaluatively.

### **Background and Logic**

Evaluative thinking is particularly critical for facilitators of multi-actor work but also participants. When we engage in evaluative thinking, we:

- Suspend judgement, considering alternative explanations and allowing new evidence to change our mind
- Question assumptions, particularly about the pathway of cause and effect
- Select and develop solutions that are informed by a strong evidence base and are responsive to our context and priorities
- Value the lessons we can learn from all our experiences? Disappointments as well as triumphs
- Wrestle with questions of impact and effectiveness, not just activity and implementation
- Maximise the value of existing data sources already available to us, mindful of their limitations
- Work to improve the strength of our evidence base as we go.

Source: New South Wales Government Resources

Evaluative thinking involves questioning assumptions, examining whether conclusions logically flow from findings and distinguishing opinions from factual evidence Quinn-Patton (2018). Evaluative thinking is similar to reflective practice and is a way to question, reflect and modify actions. It is increasingly recognised as a key component of high-quality evaluation practice. The logic and values of evaluation derive from the principles of systematic inquiry, logical reasoning and effective communication.

Use of a Self-Assessment template developed by Developmental Evaluation (DE) expert Michael Quinn-Patton<sup>1</sup> can be used periodically to support the facilitator to assess and map their progress in applying evaluative thinking.

### **Materials**

- Reflective Journal
- Self-Assessment Template

 $<sup>1\,</sup>$   $\,$  This link leads to accessible infographics and a podcast explaining the DE approach.



### **Step 1: Preparation**

- Before starting the facilitation process, the facilitator should get a reflective journal which they use to document the processes & learnings from their perspective.
- Note: while we refer to the facilitator's implementation of this self-assessment in this guide, actors/participants involved in interactive innovation can also use and benefit from this guide. It is particularly useful for actors considering to become a facilitator of interactive innovation.

### **Step 2: Document the Process**

- As the interactive innovation process begins, each and every stage should be documented by the facilitator. Learnings (and false assumptions) should be included in the reflective journal.
- Any issues that arise with participants (e.g. conflicts or unities) or with the process (e.g. successes, 'lightbulb' moments, relationship-building, challenges, failures etc.) should be documented.
- How did the facilitator feel at that time? What actions would s/he take if the situation arose again? Any indications of how actors felt at that time and what actions they would take if the situation arose again?
- The reflective journal is for the facilitator's own personal use and is not typically shown to anyone else. When reflecting on the overall process, the facilitator has access to a clear and concise account of each stage of the process if 'mysteries' subsequently arise. They may use reflective diaries from one project to provide insights & learnings in facilitating another project. Using reflective practice aids the facilitator in their evaluative thinking.

# **Step 3: Completing the Self-Assessment Template**

- The reflective diary is a source of information to accurately and reflexively complete the Evaluative Thinking Self-Assessment Template.
- A self-assessment template of practicing evaluative thinking - as presented below - can be completed by the facilitator.
- It is important that the facilitator answers the question honestly and openly to truly practice evaluative thinking.
- The facilitator may use the template periodically in order to assess and map progress in practicing evaluative thinking.
- Example of a completed Self-Assessment template on Practicing Evaluative Thinking. Template taken from Michael Quinn-Patton's book Facilitating Evaluation.

\*Frequency: Always / Usually / Sometimes / Rarely/ Never

	*Frequency: Always / Usually / Sometimes / Rarely/ Nev					
Principle	Explanation	Frequency*	Example of This Principle in Your Practice	Example of this Principle Absent from Your Practice		
1. Be Clear	Be clear about goals and purposes; be clear about what's being evaluated, what data will be collected, what judgement are to be made, and how results will be usedindeed, be as clear as possible about everything	Usually	I was very clear with participants about my role in the process and my reason for being in[ place]	I wasn't clear enough about the issues raised in relation to funding and at times allowed it to dominate the topic of conversation.		
2. Be intentional	Know what you want to do and why. Plan your work and work your plan. Think through what you're doing. Consider contingencies	Usually	I was very purposeful in planning for each workshop, with the exception of the "first small steps" workshop. All other workshops were very-well planned with aims and objectives outlined. Very clear methods and techniques needed to achieve them were identified.	I was not fully prepared for the first workshop which I facilitated on my own. I was asked to facilitate on my own at short notice and did not feel fully-prepared going into the workshop.		
3. Be accountable	Systematically examine the extent to which your intentions and hopes work out as planned and accomplish what you want to accomplish.	Usually	Throughout the process I kept my reflective diary which allowed me to reflect and examine each step of the process. After each action I was able to stop and reflect to determine if things were going in the right direction and how I felt about the process. Using DE techniques also allowed for participants to be accountable for their actions throughout the process (Gamble, 2018).	Within the process an individual may have mislead others into believing I had all the answers in relation to an Agri-Environmental scheme. I don't think I fully addressed this issue which led to one of the working groups becoming somewhat reluctant about seeking information about this elsewhere.		
4. Be specific	Specificity is related to clarity; hone in on concrete and precise details of your work to enhance meaning and support effective communication	Usually	When it came to choosing the roles I was very specific and clear in explaining the type of roles that were required such as administrative roles that I had been carrying out for all of the groups in the earlier stages of the process. When engaging and incentivising the community I used methods of communication that were relevant to local people.	I made it very clear from the outset that one of my core values was to be very fair with people and to give everyone equal chances and opportunity's. One individual questioned that during the process and implied that I was not being fair and equal which I felt wasn't the case. I should have pulled him up on this issue in hindsight.		

\*Frequency: Always / Usually / Sometimes / Rarely/ Never

	Frequency. Always / Osually / Sometimes / Rafely/ Neve					
Principle	Explanation	Frequency*	Example of This Principle in Your Practice	Example of this Principle Absent from Your Practice		
5. Focus and prioritize	Be purposeful in deciding what's worth doing and knowing; make decisions about priorities and own the consequences.	Usually	In the workshop where the groups were brainstorming and choosing their roles the Food Production Group were losing sight of the tasks and were having a very detailed discussion which was slightly off- topic. I had to be quite firm with them to remind them to stay on-task and once I raised the issue they focused on the task they were supposed to be carrying out	In facilitation I believe there is a boundary that you have to maintain to protect yourself during the process. If you do not respect this boundary you can easily become consumed by the process. At the beginning I was quite poor a maintaining this boundary between my research and me. It was something I should have prioritised more at the beginning.		
6. Be systematic.	Organise and document all that is done. Engage logically, sequentially and comprehensively	Usually	I was very organised throughout the process and after each workshop all of the work that had been carried out on flipchart paper was transcribed onto a word document. This allowed for a record of all the work carried out throughout the process to be well documented and was easily accessible.	At one particular workshop I was not fully logical when I varied the headings used for group plans. The mistake was mine and I had to redo the workshop at a later date because of it.		
7. Make assumptions explicit	Determine what can and cannot be subjected to empirical tests	Usually	Carried out willingness to pay survey and used hypotheses framework (Gamble, 2018)			
8. Draw conclusion based on evidence	Collect and use data to support finding and logical explanations for conclusions	Usually	When the issue was raised in relation to some of the groups capitalising on selling locally-produced food to tourists I put together a willingness-to-pay survey to conduct research to examine if visitors to [place] were willing to pay for locally-produced food.			

\*Frequency: Always / Usually / Sometimes / Rarely/ Never

	Frequency: Always / Osually / Sometimes / Rarely/ Nev					
Principle	Explanation	Frequency*	Example of This Principle in Your Practice	Example of this Principle Absent from Your Practice		
9. Be attuned to and adapt to complex considerations and implications	Watch for and adapt to what emerges, nonlinear effects, dynamic interactions and turbulence in complex dynamic systems	Usually	As the project progressed I was able to predict when trouble was going to arise and often was able to diffuse the situation before an issue arose.	When issues arose throughout the project with one individual I was able to use the skills I had developed to deal with situations there and then in a professional way. However, I was very poor at dealing with the situation on a personal level. I would take the bad behaviour and the cross words to heart and at times would spend a few days being slightly upset by it.		
10. Think systemically	Examine interrelationships, perspectives and boundaries and their implications for evaluation.	Usually	I clearly identified early on that there were no cliques within the groups. This allowed the workshops to be very enjoyable and productive throughout the process for the most part.	At the beginning I may not have fully understood the relationship that the [actor] had with [organisation]. If I had examined this relationship further it would have made things clearer from me.		
11. Make criteria and standards for judgements explicit	Identify, communicate and use clear criteria, values, and standards for judgements. Considerable decisions and sensible conclusions	Usually	Throughout the process I was fully aware that there were people involved in the project that I preferred, on a personal level, over others. I was very conscious of this fact so I ensured that I did not allow it to affect the research process	At times I was unsure as to what direction the project was going in. From workshop to workshop I was uncertain of what the next step was as I felt I didn't fully understand the process as it was my first time facilitating a project.		
12.Limit generalisations and casual explanation to what data support	Align conclusions about possible generalisations and attributions of causality with the nature of the data being interpreted.	Usually	I never made generalisations in my mind about the people of [place]. I never considered them to be 'just sheep farmers'. I was always open-minded to their background views and opinions.	A number of times throughout the process generalised comments were made and I didn't correct them when perhaps I should have.		

\*Frequency: Always / Usually / Sometimes / Rarely/ Never

	Example of This Principle in Example of this Principle			
Principle	Explanation	Frequency*	Your Practice	Absent from Your Practice
13. Be culturally sensitive and competent.	Engage with diverse segments of communities to include cultural and contextual dimensions important to the evaluation. Cultural variations and factor are critical to understanding.	Usually	I was very conscious at the beginning to take the time to get to know the people involved with the project as well as the landscape and area itself. The trip which I was brought on in [place] allowed me to get a true sense of the people along with the traditions and culture of the area.	When I distributed the leaflets into [place] for the Engagement Day I only printed them in English. Even though I was aware that parts of [place] were [language] speaking regions, I did not cater for this initially.
14. Be contextually sensitive	Pay attention to what is happening in the greater context and how it may be influencing your work. Adapt to the changing context as necessary/ possible	Usually	It was brought to my attention at the beginning that the [place] was divided "above and below the hill". To ensure that everyone was accommodated in the best possible way brainstorming workshops was held "above and below the hill".	When issues arose with a certain individual I began to feel some resentment towards the project and its participants. I was conscious of being professional and of concealing this from participants. I strove to maintain good relationships with them.
15. Be alert to the unanticipated consequences.	Don't just look for what you expect to see or planned to measure. Unintended consequences can be as important as those intended.	Usually	I was aware for a while that the group with an individual who caused a number of difficulties was not progressing. At times this individual's behaviour towards me in workshops did influence the progression of that group. As a consequence of this individual's behaviour and poor attitude towards me at workshops the progress made by that group may have been impeded.	When I made a mistake over a name in relation to the trip to [leading edge] I had no idea that the fallout would be so severe. It was an unintended consequence that I had not anticipated.

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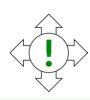
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# **EVALUATOR SELF-ASSESSMENT: UNCONSCIOUS BIAS**

### **MAA Scenario**













APPLYING

When to Implement

Periodically throughout the interactive innovation process.



### **Group Size**

Evaluator self-assessment (one person) & discussion groups of 3 actors.



# Level of Technical Difficulty



No technical expertise required, although this tool can be challenging if the user isn't familiar with the topic of unconscious bias.

### **Time Needed**

Implemented periodically.



### **Resources Required**

No resources required, apart from basic materials.







Tools # 2, 3, 5, 6, 19, 20.



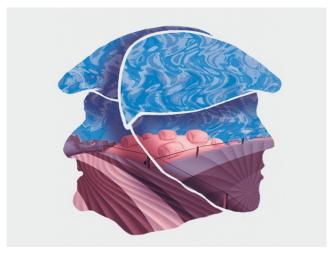


Image source: Teagasc.

### **Purpose**

This tool is used to:

- Self-assess for unconscious bias.
- Take actions to avoid unconscious bias.

### **Background and Logic**

The success of multi-actor work depends on the quality of diversity in a group. The quality of diversity is determined by the actors who become (and are invited to be) involved, and the range of stakeholders engaged by a project. While other tools in this handbook (e.g. Tool #5 and Tool #6) are targeted at supporting meaningful inclusion of an appropriate diversity of actors/ stakeholders (by discovering and responding to different needs and motivations), this tool challenges actors leading and involved in multi-actor work to think critically about their biases.

### **Materials**

- Online tools to learn about unconscious bias and to self assess for unconscious bias: available here & here
- Persona template
- Storyboarding template
- Reflective diary.



The challenge of reducing unconscious bias is two-fold: raising awareness of the unconscious biases that people have; and taking actions to reduce unconscious bias. Harvard University provides useful resources for both. Aside from reading material, a comprehensive podcast debates the challenges of uncovering and addressing unconscious biases. In addition, Harvard's Project Implicit provides multiple tools for self-assessing unconscious biases.

In this tool, we set out some of the key learnings from these resources that are particularly relevant to interactive innovation and the multi-actor approach. We identify practical approaches for end-users in interactive innovation projects, which are suitable for enhancing the use of other tools in this handbook.

# 1. Assessing Actor/Role ID for Unconscious Bias

Tool#2 in this handbook presents how to assign tasks according to the different (sometimes unique) knowledges of different actors in the interactive innovation process. While the tool aims to focus in on the special capabilities of each actor, facilitating actors to self-nominate for tasks, and providing the opportunity to assess actors' changing interests in undertaking tasks, screening for unconscious biases in the process of self-nomination/allocation is nonetheless important.

As the Harvard podcast and other resources on unconscious bias teach us, we can hold biases about ourselves. We can hold beliefs and prejudices that limit what is possible about our own capabilities: what do we know, what skills or talents do we have, what are we capable of or not? Unleashing new (individual and collective) capabilities is a critical characteristic of the interactive innovation process.

Tool#2 in this handbook may be accompanied by an approach to assess unconscious biases that may influence the self-assigning/allocation of project tasks:

- Once the tasks have been brainstormed, invite participants to create a fictitious persona for each task/cluster of tasks based on the following questions (informed by the Harvard podcast):
  - » Who is an ideal candidate for this task (name, age, gender, location, ethnicity, profession/job etc.)
  - » How important are the following criteria for the person's capability to undertake this task?
    - Technical ability/'insider' knowledge?
    - Caring responsibilities/young children?
    - Introverted/extroverted nature?
    - Driven/ambitious/relaxed demeanour?
  - » Invite participants to discuss how important these criteria are in self-nominating for/being allocated to a task. According to the Harvard podcast, only the first criterion is legitimate: the others relate to personal/personality factors that are not deterministic of the capability to undertake a task. While it is important to note that some actors may not wish to undertake a task on the basis of their preferences, they should not feel limited by personal/personality characteristics.
  - » Facilitate a discussion about stereotypes, and how roles are perceived as suitable for some and not suitable for others. This discussion heightens awareness and reflexivity in how members of the multi-actor group think about their own and other's capabilities and possibilities.

# 2. Assessing Personas for Unconscious Bias

Tool#3 of this handbook supports a greater understanding of the actors involved/stakeholders engaged within the interactive innovation process, so that their knowledge is leveraged and their circumstances & needs understood. Personas are based on stereotypes, and while stereotypes can be useful for targeting project actions to some extent, biases must simultaneously be avoided. In addition to creating personas based on needs, circumstances etc. associated with a particular actor/stakeholder type, ask participants to build another persona - one who is the opposite to the stereotype portrayed in the original persona. The 'opposite' persona can be used as a communication tool to show 'unusual suspects' involved in and impacted by the interactive innovation process. This is particularly useful in a context where, according to some academic studies on non/ participation in funded projects, the usual suspects tend to become involved. Optionally, the persona can be developed into a storyboard, where an unusual case of participation in interactive innovation is portrayed. As mentioned in the Harvard podcast, these stories can be used as 'nudges' to encourage greater participation - and more diverse participants - in interactive innovation.

# 3. Use of Reflective Diaries and Discussion Groups

Actors involved in interactive innovation – particularly those leading actions or tasks – can be encouraged to maintain a reflective diary. Accounts of their interactions, with different actors and stakeholders, detailing expectations and how they were/not met can be recorded. When unexpected/previously unknown needs & motivations are discovered, they can be added to the needs and motivations registers (Tool #5 and Tool #6).

A particularly successful initiative, as profiled in the Harvard podcast, took place as part of Starbuck's Third Place Initiative. An aspect of the initiative was to allocate dedicated periods of time for Starbucks staff to discuss unconscious bias in small groups. Resources, such as podcasts, are issued to staff and staff are encouraged to discuss the content. An increasing awareness of unconscious bias among Starbucks staff created positive, more inclusive culture change. This culture change extended beyond Starbucks staff to its customers, making the international chain more welcoming. The initiative at Starbucks is transferable to multi-actor teams of diverse members, supporting a more inclusive culture of knowledge/needs/perspective appreciation, which may be extended also to project stakeholders. The culture of curiosity described in the Harvard podcast - one that is inquisitive about and understanding of cultural difference - is crucial for innovation.

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## **GENDER APPRAISAL**

### **MAA Scenario**















When to Implement

At the beginning of a project/initiative and during implementation, as required.



### **Group Size**



Whole multi-actor group, small to large. Particularly useful for large consortia where there are different levels of knowledge about gender.

# Level of Technical Difficulty



Some technical skills required, involving the use of a simple survey tool.

### **Time Needed**



Approx. 2 hours in total. Survey preparation takes about 1 hour. Survey completion takes 10-15 minutes for participants. Results can be summarised in less than an hour. Gender Appraisal can be repeated as necessary, with the option to compare results throughout the lifetime of the project/initiative.

### **Resources Required**

Requires basic materials, little or no cost. Free survey tools are available online.



Clustering with Other Tools



Tool # 3, 19.





Image source: Teagasc.

### **Purpose**

This tool is used to:

- Raise awareness of gender within the project or initiative.
- Evaluate if gender balance has been achieved at the project and leadership level within the project or initiative.
- Assess gender balance at different points during the project or initiative.
- Invite project partners to reflect on how they will incorporate gender into their project tasks.
- Provide information for project coordinators to help identify if any further actions are required.

### **Background and Logic**

Projects/initiatives that are gender-balanced at the project and leadership level, and include considerations of gender in their tasks are more successful and innovative. This means it is important to ensure gender balance at the project level and within the project leadership team while also including consideration of gender in tasks, particularly at the beginning of a project or initiative. Projects with large or small consortia may have different levels of knowledge and awareness of gender, which must be monitored and led.

This tool enables recording of gender types participating at project and leadership level at the start, and periodically throughout the project. The tool also encourages reflection on the relevance of gender to project/initiative tasks. The tool raises awareness of gender within the consortium and highlights if there are gaps in knowledge, which could require further action.

### **Materials**

• Survey tool (paper or online)



### **Step 1: Preparation**

- Adapt the Gender Appraisal survey tool template (below)to the needs of the project/initiative. Note: Question 2. is optional, may be relevant for formal projects with specified work packages.
- Prepare a brief introduction to the survey tool to explain why it is being used at this time in the project/initiative (if distributing the tool online, this can be a brief email).
- Obtain names and email addresses of all project participants per institution/partner and issue the email invitation to complete the survey individually, with assurance (using Research Ethics or GDPR compliance documents, where relevant) that all data will be treated anonymously and analysis presented anonymously.

Gender Appraisal Tool Template	Women	Men	Non-binary	Prefer not to say
Number of people in the work package with a leadership role:				
2. Number of people with a ask leadership role:				
3. Number of people without a leadership role:				
4. Any comments? For example, if a male worked on the project at the start and was replaced by a female employee, please elaborate and implications/changes here. Any other comments are welcome.				
5. Please explain if and how gender is relevant to the work (insert examples) you undertake for, as you perceive it?				

# **Step 2: Distribute the Survey to All Project Participants**

 Ensure enough time is allowed to complete the survey. The survey must be involved. Email reminders are useful for participants completing the online format.

### **Step 3: Presenting Survey Data**

- A summary table can be used to illustrate survey results, showing the numbers of people in each category and responses to the final question.
- Repeated summary tables are issued after each periodic issuing of the survey.

### **Step 4: Further Actions**

- Participants take other actions to raise awareness of gender in projects. Examples:
  - » A project team member adding an email banner including gender-awareness quotes to their electronic signature.
  - » A dedicated slot at team meetings to discuss issues of gender. Recent discussion items have been discussions of gendered implications of COVID-19.

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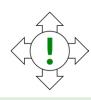
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## **EMPOWERMENT APPRAISAL**

### **MAA Scenario**













APPLYING

RESSING

When to Implement

Periodically throughout the interactive innovation process.



### **Group Size**

Evaluator self-assessment (one person) & discussion groups of 3 actors.



# Level of Technical Difficulty

No technical expertise required.



### **Time Needed**

Implemented periodically.



### **Resources Required**

No resources required, apart from basic materials.







Tool #20.





Image source: Teagasc, inspired by Arnstein, 1969.

### **Purpose**

This tool is used to:

- Self-assess for how empowered an actor is in a process of interactive innovation
- Take actions to improve empowered participation.

### **Background and Logic**

'The best people to assess empowerment are the people who may or may not be empowered' Robert Chambers, 2002.

Empowerment is a term that has been associated with participatory processes, like interactive innovation, for decades. That actors participate in an empowered (open, confident) way is critical for the interactive innovation process to be a success. If actors are disempowered (undermined, unconfident) they cannot effectively contribute their valuable knowledge and they don't come to co-own the innovation process, necessary for the process to be energetically driven and fertilised by different knowledges.

This tool complements other tools in this handbook, such as Tool#16 (appraisal of group dynamics) and facilitates to assess how empowered each individual actor feels, acts and contributes to the interactive innovation process. This process of reflection will allow actors involved to become more aware of the conditions for empowerment.

As described in some academic (sociological) studies, empowerment can be a vague term that can escape measurement:

'Empowerment seems to be everybody's aim, although its precise meaning and its attainment elude us. In part, it acquires a legitimating function in many development projects, particularly in the Third World...It is often used without any precise definition, but uncritical use of the concept renders it meaningless. Thus, empowerment may signal concern with people's participation, compassion with the 'powerless,' and a commitment to bottom-up development, while in fact it may be no more than a fig leaf of political correctness, behind which all can carry on as before.' – Petterson & Solbakken, 1998, p. 319

To avoid the elusiveness described above, we present for the purposes of this tool a definition of empowerment that has resonated with actors in the field. The definition was originally used in a study of farm women:

There are three conditions for empowerment:

- 1. Participation taking action to pursue one's interests.
- 2. Conscientisation having awareness of the constraints (such as lack of resources or being subject to biases) that can limit one's potential & interests
- 3. Solidarity accessing social connections and supports, 'one cannot be empowered alone'.

### (Adapted from Solbakken, 1996).

The last condition for empowerment is notable. While the first two conditions are focused on the individual, the third identifies engaging with others as a condition for empowerment. This aspect of the above definition draws attention to the connection between empowerment and resilience: having, accessing and using resources (social as well as economic) is necessary for resilience.

This tool is inspired by SIDA (2010).

### **Materials**

- Template with three images showing conditions for empowerment
- Discussion facilitation guide from SIDA (2010)



### 1. Topic Guide

The images below relate to the three conditions for empowerment, which we have identified with actors in the field as particularly relevant to the multi-actor approach and interactive innovation.

Explain the definition of empowerment to members, explaining each of the criteria in turn with reference to the images (shown on a screen or printed).

There are three conditions for empowerment:

### **Participation**

Taking action to pursue one's interests (citizen power)



 ${\it Image source: Teagasc~(2019), inspired~by~Arnstein~(1969)}.$ 

### Conscientisation

Having awareness of the constraints (such as lack of resources or being subject to biases) that can limit one's potential & interests.



Image source: Teagasc (2019).

### **Solidarity**

Accessing social connections and supports, 'one cannot be empowered alone'.



Image source: Teagasc (2019).

### 2. Discussion Facilitation Guide

Use the following approach from SIDA (2010, 52) to facilitate a discussion.

### **How This Monitoring Tool Works**



"As far as they are concerned the process is one that they drive and own and is purely for their purposes. For them the analysis stops here." (SIDA, 2010)

Image: A Women's group involved in a reflection session (SIDA, 2010).

At the group level: The groups meet to review the statements once every year. In this movement the men and women meet separately. They sit at times which are convenient for them, the men preferring the evening and the women the afternoon. They organise some snacks and make an occasion of the session. The review process takes about three hours.

A facilitator helps the process. He/she is a Movement member from another group and has been mentored to manage the process and ensure that the group engages in the evaluation properly.

The facilitator reads out each statement and the group discusses whether it applies to them or not. They are encouraged by the facili-tator to explore what the statement means and must use examples to help them to assess their own achievement. For instance, in discussing whether they have achieved the indicator, 'the position of women and girls in all group members' families is valued' (an 'awareness' level indicator), examples are provided by each member. Such examples as 'we all eat together', 'both girls and boys have time set aside to do school home-work', 'mothers don't only eat the fish head as they had to before', etc. lead to extensive discussion before finally, the group members assign a 'happy face' or an 'unhappy face' to the statement. Any reluctance to score a 'happy face' is automatically scored as an 'unhappy face'. The fact that all the group members have to put forward their opin-ion and provide evidence to support this encourages joint analysis and mutual support.

As far as the group is concerned, their main motivation is to eventually be able to insert 'happy faces' in all the boxes. They take the exercise very seriously and where there are 'unhappy faces', take stock and reflect on what the group must do in the following year to improve on this.

'We talked with a men's group that had been in existence for more than 20 years about their experience of using the reflection tool. 'It took about 3 hours to complete, but it will take less next time. We thought it was time well spent. The facilitator is a member of the Movement and this is good because he uses language we can understand. He also has more time for us. We get a feeling that we are doing this ourselves, not top-down. We still have not got 'full marks' - we will try to get this next year and then we can help other groups. The process is very important it is like looking in a mirror. When we find out what we have not been able to achieve we make a plan to take action. We have been a group for nearly 23 years and if we had done this before it would have made a big difference. We would have been able to pick up on our shortcomings earlier.' SIDA (2010)

They develop an action plan for the following year based on their analyses and scores. They regard this reflection process as an important milestone each year and look forward to it. It is not used to compare themselves with another group or as a means to access resources, but purely as a self-assessment tool that encourages reflection and defines future action.

**Note:** The above exercise is part of a wider evaluation approach, which can be accessed here.

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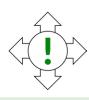
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# **SYSTEM ID**

### **MAA Scenario**





INTERROGATING





When to Implement



Particularly useful at the beginning of a project, then used periodically throughout the interactive innovation process.

**Group Size** 



Group of approx. 12-15.

# Level of Technical Difficulty



No technical expertise required, although different forms of knowledge are needed to identify wide-ranging elements in the system (in which the project/initiative is operating)).

### Time Needed





# **Resources Required**

No resources required, apart from basic materials.



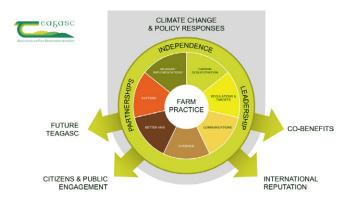




Tools # 1, 11, 12, 21, 24.

# **PURPOSE, BACKGROUND & LOGIC**





# **Purpose**

This tool is used to:

- Create a systems schematic for a project/initiative
   what are the features of the system in which our project/initiative is operating?
- Generate awareness and accountability of the project/initiative to societal challenges/ responsibilities/constraints of the system.
- Identify the values of the project/initiative in the context of the system – what values does it strive for & wish to maintain?
- Assess the project's/initiative's awareness and accountability of the system and its pursuit of values in the system.

# **Background and Logic**

No project/initiative exists in a vacuum. All multiactor projects typically have communities in the wider community with/for whom they are seeking to innovate. Projects/initiatives are likely to have particular values in the overall system, which they wish to maintain and further through their activities.

This is a tool that takes a participatory approach to developing a systems schematic. The systems schematic incorporates policy context; main operational themes; key actors; actions; 'horizon' outcomes etc. Once these are identified at an early stage in a project/initiative, the data in the schematic can be periodically revisited as required.

This tool can be used with Tool#1, which maps actors to be involved; Tool#11 & Tool#12, which identify and generate hypotheses in relation to the causes and effects of actions. This tool may also be used with Tool #21, empowerment appraisal because it can be used to raise awareness of constraints surrounding a project/initiative.

### **Materials**

For in person-meetings:

- Sticky notes
- Flipchart paper
- Black markers

For online meetings, an online platform such as Klaxoon or Mural can be used in conjunction with an audio function such as Zoom.

A Graphic Designer may be commissioned to design a systems map, but this is optional.

# **METHOD/HOW-TO GUIDE**



# 1. Preparation

- Explain the purpose, logic and background of the tool.
- This tool may be building on other tools (such as tool#1 that identifies actors, and tools#11&12 that identify actions). If so, the outcomes of those tools should be put in place for the workshop to implement this tool.
- Note: the outcome of the exercise may be a relatively simple systems 'map' such as in Figure 1, or, in accommodating a larger project, such as Figure 2.

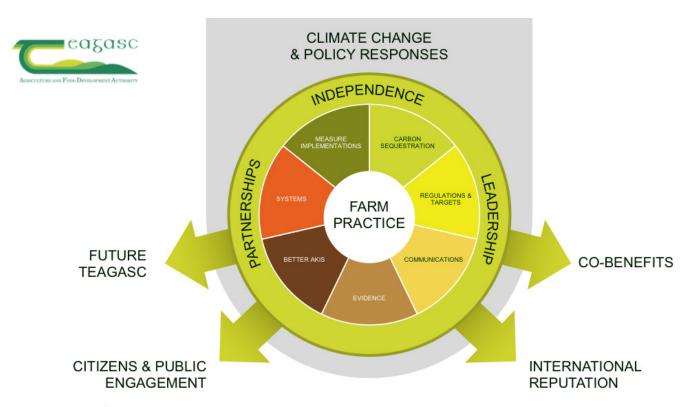
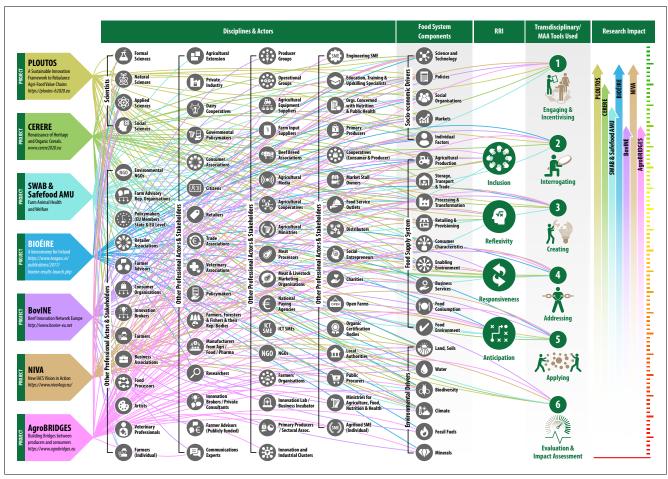


Figure 1: Systems 'map' depicting main themes of activity surrounded by values (leadership, partnerships, independence) and the wider context (climate change, future Teagasc, co-benefits etc.).



Source: Macken-Walsh, Henchion, Regan (in press, 2021)

# 2. Creation of the Systems Map

A flexible approach is taken in the development of the systems map, which accommodates diversity across different initiatives/projects.

#### The main prompt questions for the discussion are:

- What are our main areas of activity/our main themes?
  - » What are the actions (and associated actors and stakeholders)
  - » Note: some of all of this brainstorming may be completed in advance and revisited to address the below
- How do these areas of activity/main themes relate to the 'outside world' thinking globally as well as nationally.
  - » Do we have particular responsibilities?
  - » What factors may constrain our achievements (optionally using the empowerment appraisal Tool #21 at this step)?
  - » What are our values in relation to how our activities link with the global picture?
  - » What is our desired legacy?

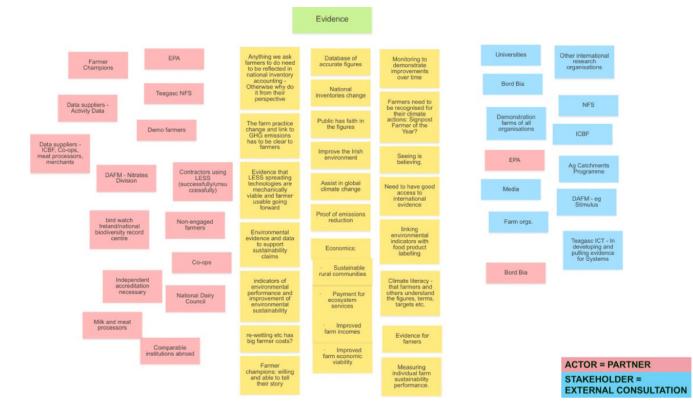
- Participants are invited to write on sticky notes, shown in the below images, and cluster them into themes/clusters for greater manageability of content.
- Participants use the information written on sticky notes to build their own systems 'map, illustrating the key thematic areas of activity, how they connect with the outside system, and the key values to be pursued.
- Not all information needs to be portrayed in the systems map (e.g. actions/actors/stakeholders), but it is important that the information is considered in the creation of the systems map. Any information not used can be retained and referred to in future discussions.

# 3. Use of Systems Map for Assessment

- The systems map is a graphical representation of the main project/initiative themes (areas of intervention); connections with the wider/global picture; and values of the initiative/project to be maintained (possibly as a legacy)
- It should be revisited periodically to assess the extent to which the project/initiative is maintaining a focus on the 'systems' (wider) perspective
- The map can be used to revisit the constraints identified, to 'keep check' that project/initiative actors are maintaining a focus on these constraints (and their mitigation)
- The map can be used to revisit the identified values/ legacy of the project, to 'keep check' that the project/ initiative actors are 'keeping check' and mindful of the values/legacy.



Selected snapshots from the co-creation process developing a systems 'map'.



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# TRIZ (THEORY OF INVENTIVE PROBLEM-SOLVING)

#### **MAA Scenario**











INTERROGATING

ADDRESSING

APPLYING

# When to Implement



Any stage in the interactive process when new/external knowledge is needed from the outside.

### **Group Size**



No limitation on size, but used by smaller projects/initiatives that are seeking new forms of external knowledge (often unexpectedly) that is unavailable in their small group.

# Level of Technical Difficulty



Technical expertise may need to be developed (e.g. through training) for identifying and using new forms of external knowledge.

### **Time Needed**



Depends on the extent of external knowledge sought. This tool is best used with complementary tools in this handbook (Tool#2, Tool#11, Tool#12), which themselves require dedicated time to implement.

### **Resources Required**



External knowledge, which may or may not be fees-based. Furthermore, this tool is best used with Tool#2, Tool#11, Tool#12, otherwise it can be lengthy to implement.

# Clustering with Other Tools



Tools #2, 11, 12.

# PURPOSE, BACKGROUND & LOGIC (OF THE TOOL)





Image source: www.marketing91.com

# **Purpose**

This tool is used to:

- Assess (often unexpected) needs for new forms of knowledge in the multi-actor process.
- Assess how actors are examining challenges and opportunities in the interactive innovation process, facilitating them to look at challenges and opportunities from new perspectives.
- Engage new forms of external knowledge to a multiactor group to fuel interactive innovation.
- Address deficit/s in the group's 'knowledge bank' as the interactive innovation process evolves.
- Facilitate actors in the multi-actor group to interrogate new forms of knowledge.

# **Background and Logic**

Other tools in this handbook focus on identifying, leveraging and assessing how different forms of knowledge are used in the interactive innovation process. As the process of interactive innovation evolves and the group becomes aware of new opportunities for innovation, they may require new forms of knowledge that may not have been envisaged when the multi-actor group was formed. Resource-availability and other practical constraints may exist, preventing the inclusion of a partner/actor once the interactive innovation is in progress.

The TRIZ (theory of inventive decision-making) model inspires this tool. TRIZ has been identified as useful for SMEs pursuing sustainability-oriented innovation (SOI), which are often 'dependent on external sources of innovation knowledge' Feniser et al. (2017). TRIZ (as described by Feniser et al. (2017)) is by definition a process where actors in an initiative access technical methods of problem-solving, using TRIZ software, identifying and accessing new forms of knowledge. We present an approach in this tool that is inspired by some characteristics of TRIZ, but does not offer an explanation of the whole approach nor its full utility. More information in relation to TRIZ is accessible here.

We refer to a characteristic of TRIZ by offering a discussion topic guide, led by principles of 'inventive decision-making'. Essentially, the discussion topic guide encourages participants in a multi-actor group to examine challenges and opportunities in different ways and from new perspectives. We then present a tool for groups to use to 'interrogate' new information, facilitating them to take active roles in examining new information through their own (multi-actor) lenses.

#### **Materials**

- For online meetings, an online platform such as Klaxoon or Mural can be used in conjunction with an audio function such as Zoom.
- A graphic designer may be commissioned to design a systems map, but this is optional.

# METHOD/HOW-TO GUIDE



# **Step 1: Preparation**

- Explain the purpose, logic and background of the tool.
- This tool may be building on other tools (such as tool#2 that assigns actors to tasks/actions according to their knowledge). If so, the outcomes of those tools (particularly with regard to knowledge held by actors of a group) should be put in place for the workshop to implement this tool.

# **Step 2: Problem-Driven Process**

This tool is employed at any juncture in the interactive innovation process when a challenge/problem arises. It may become apparent to actors that they do not have enough/the required information, expertise or skills to effectively engage with the problem/challenge, to turn it into an opportunity for interactive innovation process.

Once a problem/s or challenge/s arises, this tool can be engaged to facilitate actors assess existing knowledge/skills within the group and to identify more knowledge (in an inventive way) if necessary.

The problem/s are written as topic guides on sheets of flipchart paper.

# Step 3: Re/Assessment of Knowledges/Skills

Tool #2 identifies project/initiative tasks and matches them with the different knowledges/skills/interests of members of the multi-actor group. Tool#11 generates hypotheses about tasks/actions in relation to what likely effect they will have. Tool#12 phases actions with an external 'expert'.

The outcomes of Tool#2/Tool#11/Tool#12- often implemented iteratively throughout the innovation process – are revisited using this tool. Do the tasks require revision? Do the hypotheses regarding cause and effect require revision? The revised tasks are updated and replace the preceding ones, as necessary.

Then, the group turns to the question of whether the revised tasks are suitable for any actor/s within the multi-actor group to undertake? If not, the required skill-set (as perceived at this stage of the process) is noted and associated with the task. The facilitator ensures that the discussion of tasks/knowledges is as multi-actor as possible, with ideas generated by as many actors within the group as possible.

The group is then facilitated to examine the problem/ challenge through new lenses - entering into the 'inventive decision-making' process. A suite of questions to prompt this inventive decision-making process is outlined below. It is important to note that the questions below may be altered by the facilitator to suit the focus of the tasks/project/initiative; and, importantly, the language of participants in the multi-actor group. Furthermore, not all questions must be used, though it is important for the facilitator to challenge participants. The facilitator can choose/adapt any questions deemed most relevant, including some challenging questions. The aim is to encourage participants in the interactive innovation process to look at challenges/problems with new perspectives. This is the purchase of TRIZ - it can facilitate actors to identify new opportunities in response to challenges/problems, which allows them to identify (in a subsequent step) the appropriate type/range of knowledge/expertise to pursue the opportunities.

On a table/board in the room of the workshop, the flipchart paper (from Step 1, identifying problems/ challenges) is hung, and an additional topic guide is written: 'IDEAS'. New ideas (for tasks/actions/problem solving) are written on sticky notes by participants, as they iteratively emerge from the process as the facilitator leads participants through the questionnaires below. The facilitator regularly asks participants if they have any new ideas for responding to the problems/challenges ideas identified, prompted by discussions of the following questionnaires.

#### **Innovative System/Situation Questionnaire**

- Name the system and its primary function? (this resonates with Tool# 22 in this handbook, System ID)
- What is the current and desired system structure?
- How does the system execute the primary function now?
- What is the operating environment?
- What are the available resources and natural phenomena?
- What are the problems or opportunities?
- What factor/mechanism constrains achievement?
- Can a substitute problem be solved?
- What system changes are allowed/prohibited?
- What time, money, people issues constrain solutions?
   Previous attempts? Solved elsewhere?

Source: Adapted from Apte (2020)

### **Identify the Problem Questionnaire**

We begin with "5W's and an H" of Innovation. Ask these questions of every system so that the system function and problem is identified.

- W1. Who has the problem?
- **W2.** What does the problem seem to be? What are the resources?
- **W3.** When does the problem occur? Under what circumstances?
- **W4.** Where does the problem occur?
- **W5.** Why does the problem occur? What is the root cause?
- **H1.** How does the problem occur? How can the problem be solved?

Source: Adapted from Apte (2020)

The output of Step 2 is an assessment of problems/ challenges through new lenses. New ideas for addressing problems/challenges are added to the flipchart paper. They are clustered and, optionally, shortlisted phased using Tool #12.

# 4. Assessing the need for/Introducing new knowledge

- This step involves introducing new knowledge to the group, if it is required.
- The ideas for revised actions are assessed by the group – does the group have the required knowledge/ expertise to implement them?
- If not, the tasks/requiring external knowledge are focused on.
- Considering the social networks of all the actors involved, decisions are reached about who/what assistance to invite into the group (temporarily or on a longer-term basis). Resource issues and implications are discussed. For some groups, complimentary advice and expertise may be available from government agencies and NGOs. For other groups, funding may be sought to bring the required knowledge/expertise to the group, by adding a new partner. The types of options available to different groups are identified in other LIAISON resources, such as PLA manual and practice abstracts on colearning produced by WP2, how-to guides produced by WP7.
- For short interventions from external actors, such as guest seminars or workshops, the following tool can be used to facilitate group members to interrogate/ internalise new knowledge from the external actor/s. The terminology/language to the 'Interview technique' below can be adapted to suit the multiactor group context/the particular topic/interests of the group. The example below is customised to the topic of 'farm partnerships' and a peer-to-peer group of farmers who wish to learn more about farm partnerships.

# Interview Technique

The Interview Technique is an effective tool for farmers to learn from other farmers' experiences. It provides an alternative to farmers giving formal presentations or talks to the Farm Partnership Incubation Group on one hand and to loose, unstructured discussions on the other. A strategic approach can be taken to highlight the diversity of benefits associated with Farm Partnerships. It is necessary to highlight the diversity of benefits identified by research on Irish farmers' experiences of Farm Partnerships because they are relevant in different ways to members of the Farm Partnership Incubation Group who have different circumstances, needs, preferences and aspirations.

The Interview Technique is instrumental for such a strategic approach and involves the facilitator interviewing farmers who are selected because of the diversity of benefits they have experienced and the associated diversity of their circumstances, needs, preferences and aspirations. Members of the Farm Partnership Incubation Group are the audience of this 'live' interview. The facilitator asks questions that prompt the farmers being interviewed to elaborate important contextual information in relation to various challenges they were experiencing and the way in which solutions were found through a Farm Partnership. The key benefits of Farm Partnerships are highlighted in this way, providing a focused introduction to an open discussion and questions from the audience.

#### **Interview Technique**

The interview is a presentation in which one or more resource people (i.e. farmers with experience of Farm Partnerships) respond to questioning by one or more interviewers.

### The interview may be used...

1. To explore a specific topic in depth where a more formal presentation is not desired by either resource expert or audience.

#### **Some Advantages**

- The presentation is less formal than a speech or lecture
- The audience is represented by the interviewer, which saves time and can be an efficient way of targeting key topics of interest
- 3. There is some assurance that the discussion will follow the interests of the members of the audience, as the interviewer asks questions that directly reflect the interests and objectives of the group.
- 4. Many resource people shy away from formal presentation and may not be willing to invest the required preparation time. The Interview Technique delegates some responsibility to the interviewer and prov ides a more relaxed method for the resource person to impart their knowledge and experiences
- 5. For the audience, listening to an interview can be far more engaging than listening to a formal presentation. Enhanced learning is possible in this context.

#### **Some Limitations**

- 1. The role of the audience is basically passive
- 2. The effectiveness of the technique is reliant on interviewer being strategic in terms of achieving the objectives of the audience and his/her adeptness at managing a lively, interesting and relevant interview.

#### **Physical Requirements**

- **1.** Adequate seating so every member of the audience may see and hear the speakers in comfort
- 2. Use of a platform/microphone where necessary

#### **Procedure**

- The interviewer and resource person discuss the overall topic and agree on the general line of questioning
- 2. The interviewer asks the resource person questions designed to explore various aspects of the topic and improvises quest ions as the interview progresses.
- **3.** Open discussion and questions from the audience may be used at the end of the interview.

Source: Adapted from Fuhrman and Rohs (2011)

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# **UNINTENDED IMPACTS MITIGATION**

#### **MAA Scenario**





When to Implement

At any stage in a project, foreseeing and mitigating unintended impacts.



# **Group Size**

Small to mid-sized multi-actor group.



# Level of Technical Difficulty



No technical skills required, although brainstorming of unintended impacts (which may be unknown to actors) is required.

# **Time Needed**

1.5 -3 hrs mins (depending on group size & extent of discussion).



# **Resources Required**

Requires basic materials. At least one facilitator is required.



# Clustering with Other Tools



Tools # 2, 11, 12.

# **PURPOSE, BACKGROUND & LOGIC**





Image source: Samuel Jeronimo on Unsplash

# **Purpose**

This tool is used to:

- To identify possible unintended impacts.
- To facilitate participants to generate hypotheses regarding the causes and effects of actions, which may lead to unintended impacts.
- To facilitate participants to continuously reflect and evaluate the decision-making process regarding the choice of project actions, revising and adapting plans.

# **Background and Logic**

Due to the experimental nature of interactive innovation, its very nature and the processes involved can lead to unintended impacts. It is important for groups involved in interactive innovation to assess risks as well as benefits for unintended impacts to occur.

Tool #11 provides a tool to periodically assess and revise actions to ensure that the most beneficial impacts are achieved. This tool provides a tool to periodically assess the opposite: to appraise how unintended impacts may be occurring – particularly those identified as unwanted/sub-optimal from the perspectives of the actors involved. The tool facilitates actors to adjust/adapt/replace actions so that any unwanted/sub-optimal impacts may be prevented or mitigated.

Like Tool #11, this tool is inspired by Gamble (2018) as a reflexive tool for hypothesis building and re/generation. It is informed by a Developmental Evaluation approach where assumptions are challenged and hypotheses are revisited by adapting as the learning is carried out. Actual/emerging results, fact-checking and proofing is conducted using this reflexive tool. This tool allows participants to outline their goals and objectives but also allows them to continually revise and adapt their plans throughout the process.

This tool can be used with <u>Tool #2</u>, <u>Tool #11</u>, <u>Tool #12</u>, to build hypotheses for project tasks/actions and to reflexively revise tasks/actions.

#### **Materials**

- Flipchart paper
- Sticky notes
- Thick dark markers
- Sellotape
- · Pre-printed headings

# METHOD/HOW-TO GUIDE



# Step 1. Preparation

- Explain the purpose, logic and background of the exercise.
- Hang up the completed hypotheses templates, generated by Tool#11

The hypotheses templates contain the following information for each task/action or cluster of tasks/ actions:

- If we do.... (idea/task/action)
- Because.... (why?)
- We will get these results... (hypothesised)
- To achieve our goals/objectives... (impacts).

# **Step 2: Assessment of Hypotheses** for Unintended Impacts

- Revisit-re-examine the ideas/tasks/actions for the project as a reminder to participants (originally identified by using Tool#2/Tool#11).
- Each actor (working alone) team of actors (working group) is assigned its own table and the tasks assigned to them in Tool#2/Tool#11 affixed to flipchart paper.

# Step 4: Revision of Tasks/Actions

Each working group is then handed out a blank hypotheses template, again with the same headings:

- If we do.... (idea/task/action)
- Because.... (why?)
- We will get these results... (hypothesised)
- To achieve out goals/objectives... (impacts).

Participant/s at each table are asked to complete the blank hypotheses template, focusing specifically on whether they notice any unintended, unwanted impacts emerging from the process. The facilitator should walk around the room engaging with actor/s at the tables. Participants are then asked to revise any actions to avert or mitigate any unwanted, unintended aspect.

Traditional Approach (A) and a Developmental Evaluation Approach (B) (Gamble, 2018).

At the end of the workshop, the facilitator asks that one participant from each working group (or a single participant) present their revised plans. Facilitators ask that feedback is given to each group from the wider group. Assisting individual groups allows them to reflect on and re-evaluate (if necessary) their group plans.



IF we do...



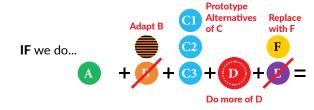
THEN it will result in...



#### WHICH will ACHIEVE

Our Intended Impact

Challenge our assumptions and validate our hypothesis by adapting as we learn...



**GROUNDED** in these theories

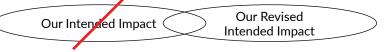




**THEN** it will result in...



#### WHICH will ACHIEVE



Source: Gamble (2018)

# **Step 5: Continuous Reflexivity**

As the participants continue through the process of interactive innovation, ensure that they are facilitated to continuously re-assess, update and revise group plans as required at further workshops/meetings. This encourages participants to think reflexively while also allowing participants to be in control of the decisions, adapting or revising their plans at any stage, avoiding or mitigating any unwanted, unintended impacts.

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# ECOCYCLE PLANNING (PRIORITISING TASKS)

#### **MAA Scenario**





When to Implement

At any stage in a project, foreseeing and mitigating unintended impacts.



# **Group Size**

Small to mid-sized multi-actor group.



# Level of Technical Difficulty



No technical skills required, although brainstorming of unintended impacts (which may be unknown to actors) is required.

### **Time Needed**

1.5-3 hrs mins (depending on group size & extent of discussion).



# **Resources Required**

Requires basic materials. At least one facilitator is required.







Tools #2, 11, 12.

# **PURPOSE, BACKGROUND & LOGIC**





Image source: Cory Billingsley on Unsplash

# **Purpose**

This tool is used to:

- To identify possible unintended impacts.
- To facilitate participants to generate hypotheses regarding the causes and effects of actions, which may lead to unintended impacts.
- To facilitate participants to continuously reflect and evaluate the decision-making process regarding the choice of project actions, revising and adapting their plans.

# **Background and Logic**

'Ecocycle Planning is about exploring what it is that you're keeping in the air (but shouldn't), and what it is that you aren't (but should)' (Overeem, 2018).

Interactive innovation is experimental and requires reflexive decision-making rather than rigid plans. Creating supporting spaces for actors to work together co-creatively is paramount, and many of the tools in this handbook are oriented to evaluating, assessing, and enhancing those spaces, as well as increasing reflexivity in decision-making. However, it is also important to monitor the 'unpredictability' of spaces where interactive innovation occurs: it can make planning and assessment of activities challenging because innovation processes are (and should be) continuously evolving. While Tools

#11 & #24 periodically and reflexively assess how actions are giving rise to intended/unintended impacts, this tool assists actors involved in interactive innovation to assess their activities and focus on the more important ones.

Overeem (2018), referring to the useful <u>Liberating</u>
<u>Structures</u> toolbox, refers to a 'metaphor from nature' to explain ecocycle planning that resonates with the process of interactive innovation:

'Plants, for example, grow from seeds when they land in fertile ground (incubation). When the ground is fertile enough, seedlings will sprint that in turn depend on sufficient sun, shelter and minerals to grow (birth). When these conditions have been met, seedlings grow into plants that bear fruits and/or spread new seeds (maturation). But eventually, even mature plants die and are composted to become energy for new plants. Or their removal simply makes place for new seeds to grow (creative destruction).

The work that we do in daily life can be plotted onto this cycle. We often embark on activities that may become valuable at some point, but require our energy and time to grow. Other activities are more mature in that we can do them without much effort to get a lot of value out of them. But as with plants, sometimes we need to stop activities (destroy them) to make space for something new in our agendas'

The above metaphor underpins the philosophy of ecocycle planning, which supports actors' prioritization of actions in the continuous process of renewal of interactive innovation. Assisting the process of renewal and regeneration is particularly relevant to the LIAISON's objective to 'speed up' the innovation process.

### **Materials**

- Ecocycle planning template
- Flipchart paper
- Sticky notes
- Thick dark markers
- Sellotape

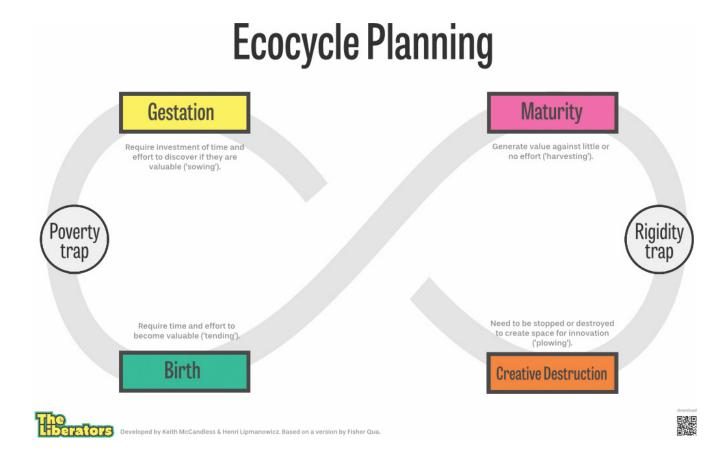
# METHOD/HOW-TO GUIDE



# **Step 1: Preparation**

- Explain the purpose, logic and background of the exercise.
- Present the tasks/actions generated by Tool#2/#11 in view, with information on who has been assigned to the tasks.
- Provide participants with <u>Ecocycle Planning</u> Templates, printed on A3 size paper.
- Explain the template, referencing the following points:
  - » The interactive innovation process is continuously evolving, and it may be necessary to revise current actions/tasks in terms of what is most important and deserving of resources, currently.

- As explained by <u>Overeem (2018)</u>, The Ecocycle model has two dimensions:
  - 'Some activities may get stuck in the Poverty
    Trap or the Rigidity Trap. The first holds the
    activities that aren't getting the energy and time
    they need to grow into something valuable,
    while the second holds the activities that are
    costing us energy and time while their value is
    diminished or diminished;
  - As in nature, ecocycles are multi-layered in that every activity on the ecocycle contains another ecocycle, only on a lower level. So one ecocycle may describe your personal hobbies or all the products you're working on as a team. A lower-level ecocycle can describe the activities you perform for one specific personal hobby or one particular product that you're working on. This layering also emphasizes that everything is related. Change on one level impact activities on other levels'.



# **Step 2: Population of Template**

- Revisit-examine the ideas/tasks/actions for the project as a reminder to participants (originally identified by using Tool#2/Tool#11).
- Each actor (working alone) team of actors (working group) is assigned its own table and the tasks assigned to them in Tool#2/Tool#11 written on sticky notes and affixed to flipchart paper. Each table is issued with one blank Ecocycle Planning template, which they can use/complete collectively if working in groups.
- Participants are invited to place their current tasks on the template (duplicating sticky notes where necessary if working in groups and working on the same tasks), indicating where each task in the Ecocycle currently sits. Actors note their initials or an identifying sticker on the post its, so that actors know which tasks are theirs.
- Participants are asked to add any other tasks/actions (not assigned or identified previously) that they are working on currently.
- Once all actions are entered, participants photograph their actions and optionally send an image to the group facilitator/s for their records (to compare to the revised set of actions in Step 3).

# **Step 3: Revision of Tasks/Actions**

- The facilitator re-explains the ecocycle template, where necessary, and prompts actors to re-examine the tasks they are currently undertaking. Are their tasks,
  - » In the Poverty Trap: activities that aren't getting the energy and time they need to grow into something valuable.
  - » In the Rigidity Trap: activities that are costing us energy and time while their value is diminished or diminished;
- There may be different layers of ecocycles:
  - » One layer may describe personal hobbies, for example
  - » Another layer one particular project
  - » This layering emphasizes that everything is related. Changes on one layer can impact activities on other levels
- Participants are asked to now reconsider any task they think should be revised; and to re/move on the template as necessary. Group discussion is encouraged by the facilitator.

# **Step 4: Continuous Reflexivity**

As the participants continue through the process of interactive innovation, ensure that they are facilitated to continuously re-assess, update and revise their tasks/actions as required at wfurther workshops/meetings.

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# **SOCIAL NETWORK ANALYSIS**

#### **MAA Scenario**





# When to Implement



To be used iteratively throughout the project/initiative to assess and improve network membership and collaborative relationships.

### **Group Size**



Small to large multi actor group.

# Level of Technical Difficulty



Basic Microsoft Excel skills required.

### **Time Needed**



 $\frac{1}{2}$  day each time the evaluation is done (depending on group size & extent of discussion needed internally or/and with stakeholders). The interpretation may take another  $\frac{1}{2}$  day or more.

### **Resources Required**



Very low, requires basic materials. Can be conducted physically with internal/external participants in a room or on an online platform such as Klaxoon, Pinup, or Mural. The online option can also be used to simply fill the matrix of relationships (see Excel template). At least one facilitator is required.

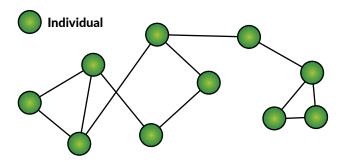
# Clustering with Other Tools



Tools # 2, 3.

# **PURPOSE, BACKGROUND & LOGIC**





# **Purpose**

This tool is used to:

- Identify crucial actors that shape the network and/or boost the innovation
- Identify actors that negatively affect the actors and/ or undermine the innovation
- Monitor the way the network develop and adapt the strategy/activities accordingly.

# **Background and Logic**

The idea is to evaluate interactive innovation projects in terms of the role of actors' interactivity in relation to decision-making on the innovation process (through information or knowledge exchange, and joint or cooperative research). This can be for example about the role of an actor that entered in the course of the process and that strengthened the innovation through establishing suitable connections with other actors, leading to a better decision-making process on the innovation.

The analysis of the network of actors can be made at one point of time only, or at 2 or 3 consecutive periods of time. We recommend the latter as it allows us to see the evolution of the network of actors over time.

The evaluation can be done in quasi real time, but also in an ex-post manner. An ex-post assessment means that the evaluator will reconstruct the network as it was at the period of interest. In terms of data source, three options are possible:

- The evaluator makes its own estimation of relationship level between the actors;
- The evaluator involve key actors to estimate the levels of relationships; or
- He/she asks the actors involved in the network, what their levels of relationships with the other actors are. In this case, bilateral exchanges are generally recommended. However, if actors feel or would feel comfortable to discuss this together, for example in case there is no major power asymmetries or conflicts between actors, a workshop could also be performed.

The choice between the three above options should be based on three criteria: (1) time investment, (2) financial and human resources, and (3) the degree of knowledge of the auditor and other actors on how the network's actors are connected to each other.

#### **Materials**

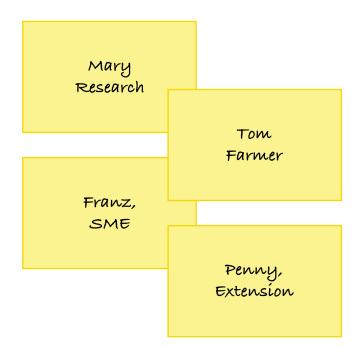
- Flipchart paper
- If a workshop with stakeholders is implanted:
  - » Sticky notes
  - » Thick dark markers

# METHOD/HOW-TO GUIDE



# Step 1

- In case a workshop is conducted, explain the purpose, logic and background of the exercise.
- Ask participants to write their name and an 'actor identifier' on a sticky note (either physically in an in-person meeting or virtually, using an appropriate platform such as Klaxoon, Mural, Pinup etc.)
- Actor identifiers depend on the orientation of the multi-actor project. For example, in a Horizon 2020 Thematic Network, the actor identifiers may include research, education, SME and extension. The diversity of actors (and their actor identifiers) are typically cited in funding applications, as a credential of the project's multi-actor approach. The group can be reminded of the importance of including different actor categories, and asked to reflect on the actor category they are representing in the group/network/project
- It is important to explain to the group that some actors may have other/several actor identifiers. Ask them to reflect on the particular role/s they will/ have in the project in choosing their actor identifiers. They may choose more than one identifier, but it is important for actors to represent the actor category/ ies they are representing in the project/ assigned in a grant agreement, where relevant.



# Step 2

Step 2 only applies if the evaluator decides to draw the map of actors. Otherwise, the evaluator should go directly to step 3.

Before drawing the map of actors, the scale of relationships should be selected. The scale corresponds to the number of possible relationship levels. The relationship level corresponds to the level of interactivity in relation to decision-making on the innovation (through information / knowledge exchange, and joint or cooperative research) throughout the innovation process. The evaluator should select a scale of 3, 4, or 5 levels. A scale of 3 levels, for instance, means that any existing relationships can be of minor (1), medium, (2), or high level (3). The other possible scales work on the same principle, with (1) being the lowest level of existing relationships. In any case, when no relationship exist between two actors, the level of relationships is considered to be (0).

The drawing of the map of actors can either be done internally or with stakeholders in a workshop setting. The name of the actors should be written/specified on separate sticky notes, and arrows should also be constructed in order to link the actors. Arrows of different colours should be constructed in order to represent the different levels of relationships (e.g. 'green' for level 1, 'blue' for level 2). The map of actors is then drawn (time: 45-60 min) by stakeholders in groups of maximum 6 participants. This means that there can be multiple groups. If that is the case, each group should be as diverse as possible in terms of types of actors involved. Once the groups have finalised the drawing, one person from each group presents the map of actors to the attendees (time: 5-10 min for each group). This should include a short discussion session after each presentation.

The drawing can be made at one point of time only, or at 2 or 3 consecutive periods of time. We recommend the latter as it allows us to see the evolution of the network of actors over time.

# Step 3

The Excel evaluation tool should be used to enter data and be able to interpret results in a more detailed manner. This should be done internally. Data should be based on step 2, if the latter was performed. Otherwise, data is directly entered in the Excel file.

The analysis of the network of actors can be made at one point of time only, or at 2 or 3 consecutive periods of time. We recommend the latter as it allows us to see the evolution of the network of actors over time.

The Excel file refers to 3 possible time periods: Periods 'A', 'B' and 'C'. The evaluator should start with period 'A', corresponding to the first period of time, he/she wants to evaluate the quality of the network of actors.

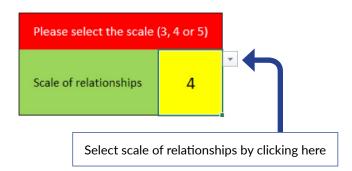
The following Excel 'how to guide' is split into four consecutive parts:

- Periods 'A'
- Period 'B'
- Period 'C'
- Summary

#### Period 'A'

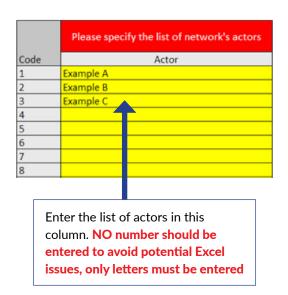
#### FIRST TAB - 'Actors\_pA'

First the scale of relationships should be specified in the tab 'Actors\_pA'. The scale corresponds to the number of possible relationship levels. The relationship level corresponds to the level of interactivity in relation to decision-making on the innovation (through information / knowledge exchange, and joint or cooperative research) throughout the innovation process.



The evaluator should select a scale of 3, 4, or 5 levels. A scale of 3 levels, for instance, means that any existing relationships can be of minor (1), medium, (2), or high level (3). The other possible scales work on the same principle, with (1) being the lowest level of existing relationships. In any case, when no relationship exists between two actors, the level of relationships is considered to be (0).

The network of actors under review can contain up to 46 actors. The list of actors should be specified in the tab 'Actors\_pA'. Please note that NO numbers must be entered, only letters.



Once the scale of relationships as well as the list of actors are defined, the evaluator should click on 'COMPUTE', so that the Excel file can process the information.



Note that most tabs contain the button 'COMPUTE', triggering the Excel file to process the data entered (from all sheets). Results will only be accurate if the last entered data has been processed.

#### SECOND TAB - 'Matrix\_pA'

Secondly, the evaluator should specify the level of relationships between each pair of actors in the tab 'Matrix\_pA'. The scale corresponds to the number of possible levels of relationship. In the below example,

Click here to compute once you entered the data.

the selected scale of relationships was 4, so each pair of existing relationship should be rated from 1 to 4. In the case of absence of relationships, the cell can be either left empty or be rated '0'.

'Problem Box': COMPUTE selected scale of relationships = 4 If empty, there is 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 no apparent issue Actor 0 Please fill the 0 0 0 0 cells below the Fill the cells below grey diagonal, 0 representing the grey diagonal, the level of corresponding to the 10 11 12 0 0 0 0 0 0 relationships 0 0 0 0 0 0 0 level of relationships. between the actors If the defined scale 0 0 0 0 0 13 14 15 16 17 0 0 is '4', the evaluator 0 0 0 0 should enter a 0 0 0 number from '1' to '4'. In case of no relationships, you can either leave the cell empty or specify '0'. Actors\_pA Matrix\_pA PDist\_pA Gph\_pA Actors\_pB Matrix\_pB PDist\_pB

The rows for which the first column "actor" is coloured in black should not be filled out; they do not refer to any actors. All actors that were specified in the first tab 'Actors\_pA' appear in the first column "Actor" of this tab 'Matrix\_pA'.

Once the matrix (the half part below the grey diagonal) is filled out, the evaluator should click on 'COMPUTE' (on the top & left hand side) in order to process the data. Note that only the lowest half of the matrix has to be filled out, because the network is "undirected", meaning that we do not consider to what degree the exchange of information between actor 'A' and 'B' is directed by 'A' or 'B'. The relationship is considered as "interactive". The upper part of the Matrix is being filled out automatically after clicking on 'COMPUTE'.

#### THIRD TAB - 'PDist\_pA'

The tab 'PDist\_pA' indicates the so-called "partial distance" between each pair of actors, in a matrix format, based on the previous tab 'Matrix\_pA'. No entry is required in this sheet; it indicates some preliminary results. The distance corresponds to the number of ties through which an actor should pass by to connect with another actor. The "partial distance" follows the same definition, except that it does not account for "distance" above '3'. If the actual "distance" between two actors is above '3', the "partial distance" refers to it as a "partial distance" of '3'. The reason for this are three folds:

- It considerably simplify the calculation of distance;
- Distances above '3' are rare in actors' network, and a high share of such high distances indicates a poor quality of network;
- We are interested in the evolution of the network's quality, rather than in the absolute value of distance or other indicators.

#### FOURTH TAB - 'Sum\_pA'

The tab 'Sum\_pA' indicates the results for the first period of time 'pA'. The upper part summarises the results for the overall network of actors. The indicators are as follows:

- Number of Nodes: Number of actors in the network;
- Number of Ties: Number of existing pairs of relationship in the network;
- Average Degrees: Average number of direct ties per actor; in other words, the average number of direct connections an actor has in the network:
- Weighted Average Degrees: Weighted average number of direct ties per actor, where each direct connection is weighted by the level of relationship;
- Density: Actual number of connections relative to the maximum possible number of connections in the network;
- Weighted Density: Weighted actual number of connections relative to the maximum possible number of connections in the network;
- Partial Average Distance: Average minimum number of ties required to connect two particular actors;
- Adjusted Average Distance: Average number of ties required to connect two particular actors when excluding distances of '3' and above;

Particular Room for Distance Improvement: 'Partial average distance' minus 'adjusted average distance'.
 This indicates. The higher the number of distances of '3' or above, the higher the indicators 'particular room for distance improvement' is. Concretely, it indicates whether and to what extent the network could be significantly improved.

The results not only specify the actual value of each indicator, but also what the best possible value is and the level of "completeness". A "completeness" level of 100% means that the indicator in question cannot be improved. Some indicators have to be maximised while others should be minimised.

#### Indicators that should be maximised are:

- Average degrees
- Weighted average degrees
- Density
- Weighted density

#### Indicators that should be minimised are:

- Partial average distance
- Adjusted average distance
- 'Particular room for distance improvement'

COMPUTE	Coherence indicators (entire network)												
	Number of nodes Number of ties				Density				Particular room for distance				
				degrees	**		distance (each pair of distance capped to 3)		Improvement ((Partial average distance) - (Adjusted average distance))				
Result - Value	3	4	1.33	1.33	0.67	0.17	1.33	1.33	0%				
Best possible value	#	6	2	8	1	1	1	1	,				
Result - Completeness	#	67%	67%	17%	67%	17%	ii	,					

	Indicators at actor level										
Sort		Sort	Sort	Sort	Sort	Sort	Sort	Sort	Sort	Sort	
Code	Actor	Degrees	Weighted degrees	Density	Weighted density	Partial average	SD Partial average	Adjusted average	SD Adjusted average	Particular room for distance	
						distance distance		distance distance		improvement ((Partial average distance)	
	*									(Adjusted average distance))	
1	Example A	1	1	0.50	0.13	1.50	0.71	1.50	0.71	0%	
3	Example C	1	1	0.50	0.13	1.50	0.71		0.71	0%	
2	Example 8	2	2	1.00	0.25	1.00	0.00	1.00	0.00	0%	
4											
5						./.				i	
6											
7											
8							,		,		
9			-						4		
10											

The lower part specifies the indicators for each of the actors involved in the network. The indicators are the same as above, with the following additions:

- SD Partial Average Distance: Standard deviation
  of the 'partial average distance'; in other words, the
  heterogeneity of 'partial distance' a given actor has
  with the others.
- SD Adjusted Average Distance: Standard deviation of the 'adjusted partial average distance'; in other words, the heterogeneity of 'adjusted distance' a given actor has with the others.

Note that he evaluator has the option to sort the results (ascending) for each column by clicking on 'SORT'.



#### FIFTH TAB - 'Gph\_pA'

The tab 'Gph\_pA' indicates the key results for the first period of time 'pA' in the form of graphs. The following indicators are represented:

- **Degrees**
- Weighted degrees
- Density
- Weighted density
- Partial distance
- Adjusted distance

For example, click here to sort the results in ascending order

#### Period 'B'

The same basic structure as period 'A' applies to period 'B'. The five tabs corresponding to period 'B' are labelled as follows: 'Actors\_pB', 'Matrix\_pB', 'PDist\_pB', 'Sum\_pB', and 'Gph\_pB'.

The only difference between period 'A' and 'B' resides in tab 'Actors\_pB'.

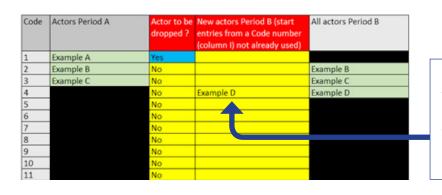
### How to fill the tab 'Actors\_pB'?

First, the level of relationships should be specified, as for the tab 'Actors\_pA'. Note that if the specified level of relationships is not the same as for 'Actors\_pA', the results between the first and second period of time (pA vs pB) would not all be comparable. In that case, the weighted scores (weighted average degrees and weighted density) cannot be compared between the two periods. We strongly recommend the evaluator to specify the

same level of relationships as for the first period 'A'.

The actors specified in the tab 'Actors\_pA' are automatically transferred to the column "Actors Period A" in the present tab 'Actors\_pB'. The evaluator should then specify in the column "Actor to be dropped?", whether or not some of the actors that were present at the first period of time are still present in the second period. In addition, the evaluator should specify which new actors eventually entered the network in the second period. New actors should be specified in the column "New actors Period B", and the entries should only start from a code number (column "Code") not already used. Below we illustrate a situation where a new actor, "Example D", entered the network in period B. You will notice that the entry is made at the row corresponding to Code n°4, which is the first code, in numerical order, that was not already used. Please note again that NO numbers must be entered, only letters.

The last column "All actors Period B" specifies the full list of actors in period B.



Enter the list of new actors for period B in this column. NO number should be entered to avoid potential **Excel issues, only letters** must be entered

#### Period 'C'

The same basic structure as period 'A' and 'B' applies to period 'C'. The five tabs corresponding to period 'C' are labelled as follows: 'Actors\_pC', 'Matrix\_pC', 'PDist\_pC', 'Sum\_pC', and 'Gph\_pC'.

The only difference resides in tab 'Actors\_pC'.

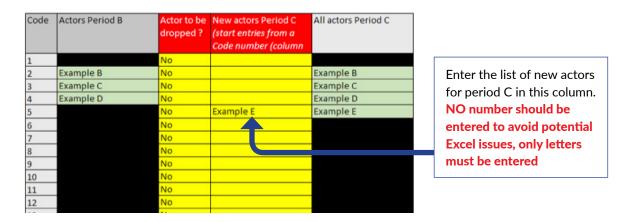
#### How to fill the tab 'Actors\_pC'?

First, the level of relationships should be specified, as for the tab 'Actors\_pA' and 'Actors\_pB'. Note that if the specified level of relationships is not the same as for 'Actors\_pA' or 'Actors\_pB', the results between the successive periods of time would not all be comparable. In that case, the weighted scores (weighted average degrees and weighted density) cannot be compared between the periods.

We strongly recommend the evaluator to specify the same level of relationships as for the first period 'A' and second period 'B'.

The actors specified in the tab 'Actors\_pB' are automatically transferred to the column "Actors Period C" in the present tab 'Actors\_pC'. The evaluator should then specify in the column "Actor to be dropped?", whether or not some of the actors that were present in the second period of time are still present in the third period. In addition, the evaluator should specify which new actors eventually entered the network in the third period. New actors should be specified in the column "New actors Period C", and the entries should only start from a code number (column "Code") not already used. Below we illustrate a situation where a new actor, "Example E", entered the network in period C. You will notice that the entry is made at the row corresponding to Code n°5, which is the first code, in numerical order, that was not already used. Please note again that NO numbers must be entered, only letters.

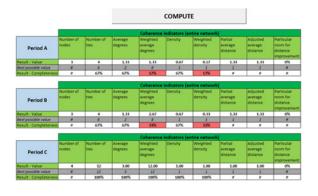
The last column "All actors Period C" specifies the full list of actors in period C

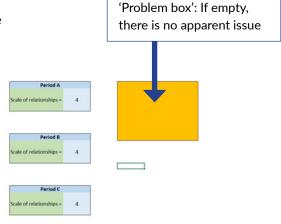


# **Summary**

#### FIRST TAB - 'Sum'

All results from the periods 'A', 'B', and 'C' are specified in the tab 'sum'. The upper part indicates results for the overall network and each period.



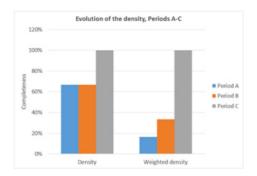


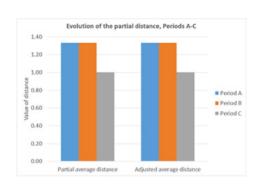
The lower part specifies the results for each individual actor and each period.

									Indicators at	actor level									
	1		Degrees		V	veighted degre	es	100	Density	100	100	Weighted densi	ty	Par	tial average dis	tance	Adjur	sted average d	istance
Sort	Actor	Sort	Sort	Sort	Sort	Sort	Sort	Sort	Sort	Sort	Sort	Sort	Sort	Sort	Sort	Sort	Sort	Sort	Sort
Code +		Period A	Period B -	Period C =	Period A =	Period 8	Period C =	Period A	Period B -	Period C -	Period A -	Period B ~	Period C =	Period A	Period B -	Period C *	Period A =	Period B	Period C
1															-		4		-
2	Example B	2	1	3	2	2	12	1.00	0.50	1.00	0.25	0.25	1.00	1.00	1.50	1.00	1.00	1.50	1.00
3	Example C	1	1	3	1	2	12	0.50	0.50	1.00	0.13	0.25	1.00	1.50	1.50	1.00	1.50	1.50	1.00
4	Example D	0	2	3	0	4	12	0.00	1.00	1.00	0.00	0.50	1.00		1.00	1.00		1.00	1.00
5	Example E	0	0	3	0	0	12	0.00	0.00	1.00	0.00	0.00	1.00			1.00			1.00
6															-				
7															-		4		
8																			
9															-				
10		4									-				-				
11					4												4		

### SECOND TAB - 'Sum\_gph'

The tab "Sum\_gph" indicates the key results for the three periods of time in the form of graphs. The indicators represented are the density and the partial distance.





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# **INTEREST-INFLUENCE MATRIX**

#### **MAA Scenario**





# When to Implement



To be used iteratively throughout the project/initiative to assess and improve network membership and collaborative relationships.

# **Group Size**



Small to large multi actor group.

# Level of Technical Difficulty



Basic Microsoft Word skills required if that option is selected.

### **Time Needed**



1-2 hrs each time the evaluation is done (depending on group size & extent of discussion needed internally or/and with stakeholders). The interpretation may take another 1-2 hrs or more.

### **Resources Required**



Requires basic materials. Can be conducted physically with internal/external participants in a room or online. The online option implies filling the Microsoft Word Tool (see template). At least one facilitator is required.

# Clustering with Other Tools



Tools # 1, 3.

# **PURPOSE, BACKGROUND & LOGIC**



ş		
older	High Power, Low Interest	High Power, High Interest
akeh	Meet their needs	Key Player
of St	Keep Satisfied	Engage Closely
wer		
/Po	Low Power, Low Interest	Low Power, High Interest
Influence/Power of Stakeholders	Least Important Minimal Effort	Show Consideration Keep Informed
Infl Infl	William Enort	Reep informed

Interest of Stakeholders

# **Purpose**

This tool is used to:

- Identify crucial actors that shape the network and/ or boost the innovation according to their influence/ power and interest
- Identify actors that negatively affect the actors and/ or undermine the innovation according to their influence/power and interest
- Monitor the role of actors according to their influence/power and interest and adapt the strategy/ activities accordingly.

# **Background and Logic**

The Interest-Influence Microsoft Word Tool aims to support practitioners in evaluating project-based interactive innovations.

The objective of making an Interest-Influence matrix is to identify the stakeholders that are important for the interactive innovation project, in the sense that they significantly influence it. It is a priori important to also consider stakeholders that influence much the interactive innovation, but that are not necessarily very interactive with the others.

The analysis can be made at one point of time only, or at 2 or 3 consecutive periods of time. We recommend the latter as it allows us to see the evolution of the network of actors over time.

The Tool can be used multiple times, e.g. at the periods 'A', 'B' and 'C'. This evaluation can be done in quasi real time, but also in an ex-post manner. An ex-post assessment means that the evaluator will reconstruct the network as it was at the period of interest.

The above figure represents the Interest-Influence matrix and indicates the four categories resulting from the crossroad between the level of Influence/Power of stakeholders as well as the level of Interest of stakeholders.

The best case scenario is when both the Interest and Influence/Power of the stakeholders is high. The implications of the other scenarios depends on the context but, in principle, the higher the interest, the better.

In terms of data source, two options are possible:

- The evaluator makes its own estimation;
- The evaluator involves key actors to estimate the level of Influence and Interest/Power of stakeholders.

The choice between the two above options should be based on three criteria: (1) time investment, (2) financial and human resources, and (3) the degree of knowledge of the auditor and other actors on the level of Influence and Interest/Power of stakeholders.

#### **Materials**

- Flipchart paper
- Sticky notes
- · Thick dark markers.

# METHOD/HOW-TO GUIDE



# Step 1

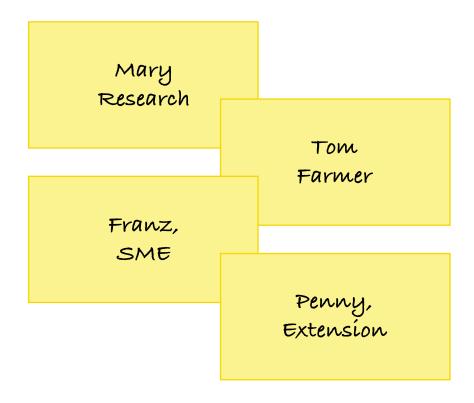
- In case a workshop is conducted, explain the purpose, logic and background of the exercise.
- Ask participants to write their name and an 'actor identifier' on a sticky note (either physically in an inperson meeting or virtually.
- Actor identifiers depend on the orientation of the multi-actor project. For example, in a Horizon 2020 Thematic Network, the actor identifiers may include research, education, SME and extension. The diversity of actors (and their actor identifiers) are typically cited in funding applications, as a credential of the project's multi-actor approach. The group can be reminded of the importance of including different actor categories, and asked to reflect on the actor category they are representing in the group/network/project.
- It is important to explain to the group that some actors may have other/several actor identifiers. Ask them to reflect on the particular role/s they will/ have in the project in choosing their actor identifiers. They may choose more than one identifier, but it is important for actors to represent the actor category/ ies they are representing in the project/ assigned in a grant agreement, where relevant.

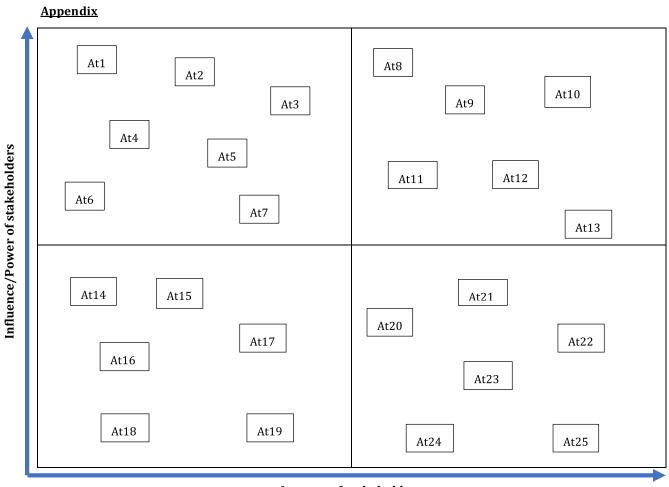
# Step 2

Depending on whether the evaluator wished to involve stakeholders or not, the exercise may be participatory or not. Should it be participatory (recommended), all stakeholders should reflect on the position of the different actors within the matrix and a collective agreement is to be found.

The actors' name should be written/specified on separate sticky notes and placed within the matrix, depending on their level of Interest and Influence/Power. In the appendix is an example where actors ('At1, At2, etc.) are placed within the matrix.

The Tool attached to this guide is available in a Word A4 but also A3 format, depending on the needs; the evaluator can create text areas (click on Insert, create text area) in which the actor's full name or acronym is specified. Another possibility is simply to print the empty matrix, and fill it manually. Finally, the matrix can be drawn on a poster, which would be particularly appropriate in a workshop setting.





Interest of stakeholders

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# **RAINBOW DIAGRAM**

#### **MAA Scenario**





# When to Implement



To be used iteratively throughout the project/initiative to assess and improve network membership and collaborative relationships.

### **Group Size**



Small to large multi-actor group.

# Level of Technical Difficulty



Basic Microsoft Word skills required if that option is selected.

### **Time Needed**



1-2 hrs each time the evaluation is done (depending on group size & extent of discussion needed internally or/and with stakeholders). The interpretation and may take another 1-2 hrs or more.

### **Resources Required**



Requires basic materials. Can be conducted physically with internal/external participants in a room or online. The online option implies filling the Microsoft Word Tool (see template). At least one facilitator is required.

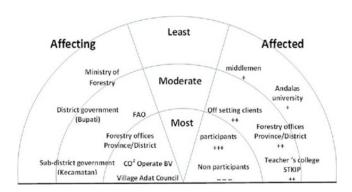
# Clustering with Other Tools



Tools # 1, 2.

# **PURPOSE, BACKGROUND & LOGIC**





**Purpose** 

This tool is used to:

- Identify crucial actors that shape the network and/or boost the innovation according to the extent to which they affect and/or are affected by the innovation process
- Identify actors that negatively affect the actors and/ or undermine the innovation according to the extent to which they affect and/or are affected by the innovation process
- Monitor the role of actors according to the extent to which they affect and/or are affected by the innovation process.

# Background and Logic

The Word Rainbow diagram Tool aims to support practitioners in evaluating project-based interactive innovations.

The objective of making a Rainbow diagram is to characterize and classify stakeholders according to the degree they affect or are affected by the interactive innovation project.

The analysis can be made at one point of time only, or at 2 or 3 consecutive periods of time. We recommend the latter as it allows us to see the evolution of the network of actors over time.

The Tool can be used multiple times, e.g. at the periods 'A', 'B' and 'C'. This evaluation can be done in quasi real time, but also in an ex-post manner. An ex-post assessment means that the evaluator will reconstruct the network as it was at the period of interest.

The above figure represents the Rainbow Diagram and refers to nine categories: mostly affecting, moderately affecting, least affecting; mostly affected, moderately affected, least affected; and both affecting and affected in a little ('least'), moderate or important ('most') manner.

The best case scenario is generally when the different stakeholders are mostly affected and/or affecting, depending on the context. This also depends on the strategy that was developed. It may be deliberate not to have some actors affecting the project too much.

In terms of data source, two options are possible:

- The evaluator makes its own estimation;
- The evaluator involves key actors to estimate the level of Influence and Interest/Power of stakeholders.

The choice between the two above options should be based on three criteria: (1) time investment, (2) financial and human resources, and (3) the degree of knowledge of the auditor and other actors on the level of Influence and Interest/Power of stakeholders.

#### **Materials**

- Flipchart paper
- Sticky notes
- Thick dark markers

# METHOD/HOW-TO GUIDE



# Step 1

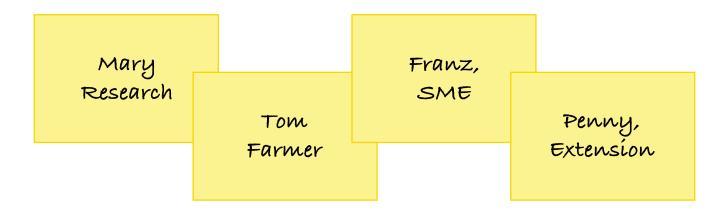
- In case a workshop is conducted, explain the purpose, logic and background of the exercise.
- Ask participants to write their name and an 'actor identifier' on a sticky note (either physically in an in-person meeting or virtually, using an appropriate platform such as Klaxoon, Mural, Pinup etc.)
- Actor identifiers depend on the orientation of the multi-actor project. For example, in a Horizon 2020 Thematic Network, the actor identifiers may include research, education, SME and extension. The diversity of actors (and their actor identifiers) are typically cited in funding applications, as a credential of the project's multi-actor approach. The group can be reminded of the importance of including different actor categories, and asked to reflect on the actor category they are representing in the group/network/project
- It is important to explain to the group that some actors may have other/several actor identifiers. Ask them to reflect on the particular role/s they will/ have in the project in choosing their actor identifiers. They may choose more than one identifier, but it is important for actors to represent the actor category/ ies they are representing in the project/ assigned in a grant agreement, where relevant.

# Step 2

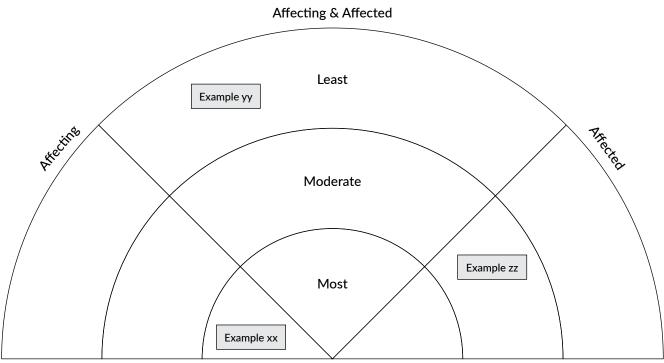
Depending on whether the evaluator wished to involve stakeholders or not, the exercise may be participatory or not. Should it be participatory (recommended), all stakeholders should reflect on the position of the different actors within the diagram and a collective agreement is to be found.

The actors' name should be written/specified on separate sticky notes and placed within the diagram, depending on the extent to which they affect and/or are affected. In the appendix is an example where actors ('AT1, AT2, etc.) are placed within the matrix.

The Tool attached to this guide is available in a Word A4 but also A3 format, depending on the needs; the evaluator can create text areas (click on Insert, create text area) in which the actor's full name or acronym is specified. Another possibility is simply to print the empty diagram, and fill it manually. Finally, the diagram can be drawn on a poster, which would be particularly appropriate in a workshop setting.



# **Appendix**



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## **DIAGNOSTIC CHECKLIST FOR INTERACTIONS**

## **MAA Scenario**













ADDRESSING

APPLYING

When to Implement



Used at the beginning of interactive innovation, and iteratively throughout the project.

## **Group Size**



Any size

## **Level of Technical Difficulty**



Chart interpretation - some technical expertise is required.

## **Time Needed**



40 minutes approx.

## **Resources Required**



Access to a computer, tablet or phone that has MS Office package installed.



**Clustering with Other Tools** 



Tools # 5, 3.





Image source: Roman Synkevych on Unsplash

## **Purpose**

The tool is useful to perform an analysis of the state of the different interactions in each stage of the initiative. Through this, the user can determine which aspects of their process should be improved and which, on the contrary, fit with an established standard. This self-evaluation process allows the manager to focus efforts and resources in areas that have a deficit, thus improving the results. Likewise, it offers the possibility of identifying the level of interaction with the support innovation system and whether it is sufficient or not.

The checklist is commonly used for self-evaluation in project management, which is developed by establishing the fundamental criteria under which it will be evaluated.

## **Background and Logic**

In an interactive innovation initiative, a central theme is an adequate interaction with the actors. Interaction can be understood as an exchange of knowledge, information, or opinions between two or more actors, which can be institutions, NGOs, universities, etc. The interactions can be subdivided into typologies, namely:

- Interaction with financing mechanisms: all those actors that can finance or sponsor an initiative idea, with whom a strong and constant relationship is required for a correct exchange of information.
- Interactions within the initiative: the members of the initiative or the actors that are constantly associated with it throughout the entire innovation process, maintaining a formal link between them.

- Interaction with other actors that are not formally involved: Actors with whom there are constant connections throughout the initiative but who do not formally belong to its central nucleus. These actors are aware of the initiative and exert influence on it, either positively or negatively, for example, collaborators, suppliers, etc.
- Interaction with the context: Aspects of the context, both formal (policies, laws, government) and informal (culture, society, norms), that inadvertently affect the initiative and that generally require a monitoring process (competitors).
- Interaction with social challenges: Social challenges are common problems today. The initiatives that innovate interact with these challenges since in some way they contribute to their solution.

All these interactions are crucial for the success of the initiative, so they must be monitored throughout the, as well as considered during the planning and execution of the initiative. In this way, the user can determine which aspects of their process should be improved. If it is used periodically, it is also useful to monitor the changes.

This tool is designed for initiatives that want to determine the status of the innovation initiative interactions. The tool can be used by initiative coordinators to monitor the crucial aspects for the success of innovation and help decision-making. It can also be used for evaluators who want to quickly detect areas of possible improvement and areas of achievement, to focus their more detailed analysis. If they are new initiatives in a state of planning, this tool can be very useful in generating a guided reflection of users on relevant aspects of innovation and therefore contribute to planning. This tool can be used in conjunction with Tool #5 and 3, as good instruments to start planning initial actions.

#### **Materials**

MS Excel file.

## METHOD/HOW-TO GUIDE



This tool is a data visualization system that aims to guide the user's reflection on relevant topics for the correct development of the initiative. At the same time, allow simple visualization of results, facilitating interpretation and decision-making.

## What do you need? How to prepare for it?

To use this tool, it is necessary to have access to a computer, tablet or phone that has the Office package installed. The Excel file is both the analysis matrix and the template for collecting information. Initial tabs are used to enter the information, while the following are created automatically, allowing the data to be viewed. If the data collection process wants to be done outside the Excel program, it is sufficient to print the first tabs of the Excel. However, to use the visualization system, data entry is required.

#### **Excel Structure**

When opening the Excel file, the user will find three tabs, the first of which is the "Checklist", where the data should be entered, and the other two dedicated to two different formats for the results.

Once positioned in the checklist tab, the user will find a matrix divided into four stages, each having four or five categories of interaction that are related to it. The table also has three columns, namely interactions, topics, and assessment.

The column 'Assessment' is the only one that the user can modify depending on their considerations.

The results tabs "Graphic Results" and "Matrix Results" will be produced autonomously when the data entry process is finished. In addition, the Results Tabs can be printed for further interpretation if desired.

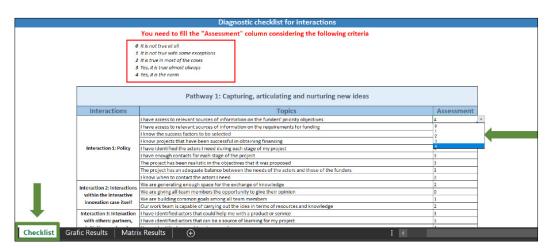
## **Data Entry**

Once placed on the "Checklist" tab, the user will find a matrix divided into three columns. The first column 'Interaction' describes the interaction to which the statement is referred. The statement is detailed in the column 'Topics'. The user must reflect on them and then include in the column "Assessment" a number from 0 to 4 that corresponds to the option that best fits in each case, considering the criteria displayed on the upper side of the tab.

The input information necessary for the use of this tool can be obtained in several ways:

- The initiative manager autonomously;
- Through a meeting with the steering committee;
- Through a participatory workshop with the members of the team and the closest parties;
- Through stakeholder surveys, that is, submitting them to the same questions on the checklist, asking them how they think the initiative has developed in this area. Then average the results;
- The above tools can be integrated to average results;

However, it should be noted that the more participatory the gathering of the information, the more objective the result will be.



**Illustration 1.** Screenshots of the "Checklist" tab

## **EXPECTED RESULTS**



Once the values have been inserted into the checklist, the user must go to the "Graphic results" and "Matrix results" tabs to see the results obtained.

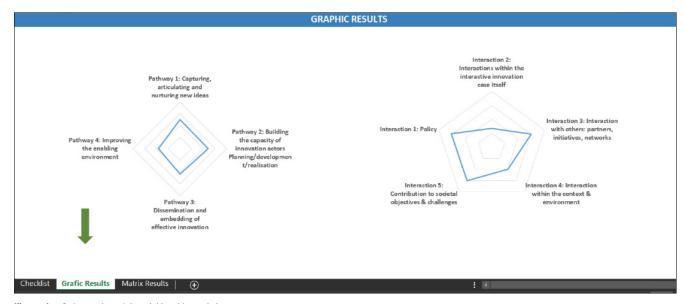


If the results are not displayed automatically, it will be necessary to refresh the data (Select Data > Refresh All)

By completing the questionnaire, it will be possible to know at which stage and to which types of actors and interactions greater efforts should be assigned.

## **Graphic Results**

There are two spider graphs, one that exemplifies the current situation of the initiative concerning the stages and interactions. It should be mentioned that the further from the centre of the figure the lines are, the better the result will be in terms of the stages of an initiative and/or type of interaction. This type of visualization allows an overview of the state of the interactions, regardless of the stage of the initiative, as well as the state of the interactions in general at each stage. To make more conscious decisions on specific aspects that are failing in the process, it will be necessary to proceed with the results matrix in the next tab.

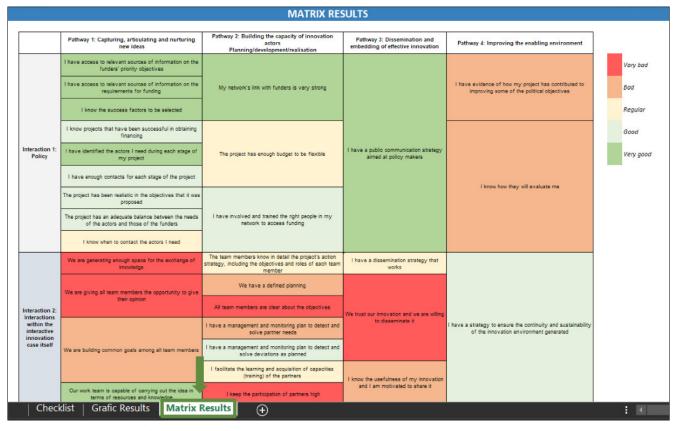


 $\textbf{Illustration 3.} \ \textit{Screenshot of the tab 'Graphic results'}$ 

## **Matrix Results**

In this tab, a matrix is presented with each of the topics evaluated by the user in the checklist painted in different colours that indicate the performance of the initiative, depending on the value assigned to each item. This is so that a detailed or general visualization of all aspects can be made. The topics are arranged in a matrix format, where both interactions and stages are interrelated. For a more

in-depth analysis, the quality of the initiative's interaction can be visually determined by stage, analysing it vertically, or by the type of interaction, analysing it horizontally. In this visualization, the results are interpreted according to a colour code described in the legend. The aspects in red are those that have been evaluated negatively; therefore, if the context requires it, actions should be taken to improve each aspect.



**Illustration 4.** Screenshot of the tab 'Matrix results'

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## **ACTORS MONITORING DASHBOARD**

#### **MAA Scenario**













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APPLYING

When to Implement



Useful during all stages of the initiative, although mostly in the execution and dissemination stage.

## **Group Size**



Any size. If the initiative has a big network, the tools would be more useful.

## Level of Technical Difficulty



Chart interpretation and basic knowledge on project management.

### **Time Needed**



Depends on the size of the stakeholder network.

## **Resources Required**



Access to a computer, tablet or phone that has MS Office package installed.

## Clustering with Other Tools



Tool #4.





Image source: Roman Synkevych on Unsplash

## **Purpose**

The tool is useful to monitor the actors under various aspects in an integrated way, thanks to the visualization of information. In this way, the managers of innovation initiatives can have under control the progress of the interactions with the different actors in the initiative and generate strategies based on the analysis of the current situation.

This tool pretends to facilitate the visualization of the network status through some parameters that help to analyse how the relationship between the initiative and the actors involved is. It allows one to identify which are the actors closest to the initiative, with whom an interactive work is being done, and with whom, on the contrary, the relationship is weak. Based on this knowledge, the need to improve some connections can be analysed.

Dashboards are commonly used for self-evaluation in project management because it is considered the most efficient way to monitor performance through multiple data sources.

## **Background Logic**

The innovation process is not linear but is considered a complex social system in which different actors participate both formally and informally. In interactive innovation processes, interactions are an aspect that determines the success of initiatives.

In the rural context, the lack of geographical proximity hinders innovation processes, so work must be done to strengthen other aspects that can compensate for or replace geographic isolation. In any case, it is not enough that the actors are close to each other for the innovation process to be carried out successfully, but rather the presence of strong work networks is required for co-design, knowledge transfer, and communication. Dissemination of results. When a network is created around an initiative, its relations need to be monitored to improve them, when necessary, but also to understand how it evolves along with the initiative development and defines plans for future actions.

This tool can be used in conjunction with Tool #4, which can provide a deeper understanding of the satisfaction level of the actors.

#### **Materials**

MS Excel file.

## METHOD/HOW-TO GUIDE



This tool integrates data visualization techniques that guide the user's reflection, and dashboard instruments of monitoring. Both aspects allow for the simple analysis of results, facilitating interpretation and decision-making.

## What do you need? How to prepare for it?

To use this tool, it is necessary to have access to a computer, tablet, or phone that has the Office package installed. The Excel file is both the analysis matrix and the template for collecting information. Initial tabs are used to enter the information, while the following are created automatically, allowing the data to be viewed. If the data collection process wants to be done outside the Excel program, it is sufficient to print the first tabs of the Excel. However, to use the visualization system, data entry is required.

#### **Excel Structure**

The file has seven tabs, namely: legend, data entry, matrix results, characterization, relationship analysis, satisfaction level, and participation level. The first serves as a support material, with the description of the criteria that must be used to assign the values to each actor; the second is where the data are inserted; between the third and seventh tabs, the results obtained are presented automatically from different perspectives.

In the "Data entry" tab, the user will find a table with ten columns, each of which is different information associated with the different actors. The first tab 'Legend' is used as a support to fill the 'Data entry table' because it includes an explanation of the values that must be added to the columns for each actor.

The remaining tabs will be produced autonomously when the data entry process is finished. 'Matrix results', 'Characterization' and 'relationship analysis' are static graphics that visualize information in a general way; on the other hand, 'satisfaction level' and 'participation level' are dynamic graphics that can be analysed through a different range of filters located on the right side of the tab. This system allows for the crossing of different variables that may be useful for interpreting the data and making a more specific decision.

## **Data Entry**

When opening the Excel file, the user must enter the information into the "Data entry" tab. The first column of the table is 'Actor's name'. The step of identifying the actors is crucial: the actors belonging to the network that is interacting with the initiative, or the ones that should be interacting, need to be included in this list. Users can write the name of an institution or person, or even a short description or nickname. The tool does not have predefined information on this aspect, because innovation initiatives are so varied among themselves that there may be a wide range of possibilities to complete the said information. The tool is designed for 30 actors, but there is the option that the user can add others just by including the name at the end of the pre-established space. The table will resize, and the automation will be maintained, although some options will be reduced if the number of actors is more than pre-established.

It is important to identify the relevant actors, and for this reason, some guiding questions are presented below to help identify these actors, but it should be noted that the possibilities are not restricted to the proposed options:

- Who do I get the resources or funding from?
- From whom do I get useful information for initiative?
- Who can I learn from to improve the performance of my initiative?
- Who are my collaborators?
- Who are the end users of the product of innovation?
- Who are my service providers?
- Who are the actors who belong to the supply chain?
- Who can help me ensure the sustainability of the innovation environment generated?
- Who is interested in my field to know about my innovation?
- Who can help and advise me (e.g., universities, public institutions, etc.)?
- Who can help maintain the initiative over time in terms of sustainability?
- Who can help disseminate the results of my innovation to policymakers?
- Which actors help the initiative overcome the social challenges it is addressing?
- Who are my competitors?

Once the actor identification process is finished and the actors have been listed in the first column 'Actor's name', the user must go to the other columns and complete the information related to each actor: information about 'Type of actor' must be selected from the options available in the tool; the existing 'Type of relationship' for each actor is selected, which can be formal or informal; in the 'Actor location' refers to where the actor is commonly located; Fill in columns 'Type of interaction',

'Level of interaction' and 'Communication type a value must be selected from those available in the dropdown list and the meaning of each value is explained in detail in the 'Legend' tab; Level of satisfaction, 'Power' and 'Participation information need to be selected through the dropdown lists that appear in the columns, and the options available in these cases are: very low, low, medium, high and very high.

		* *	Data	entry table				do sido	* *
ie the name, or an 10 of the actor	Select the typology that are man suitable with the actor	Select if the relation is formal ar informal	Write where the actor is commonly located. Write a city, a province or a country.	reference to the		Select making reference to the legend explanation	Select now much the actor is satisfied with the initiative	Select how much power/influence this actor has in the mitrative context	Select how much the octor have been lovolved in the initiative's activities
Actor's name	Type of actor	Type of relationship		Type of Interaction			Satisfaction Level	Power	Participation
//ctor 1	Private company	Informal	England	1	3	0	High	High	High
Actor 2	GNO	Informal	Italy	2	3	1	Moderate	Moderate	Moderate
Actor 3	GNO	Formal	Madrid, Spain	3	3	2	Low	Low	Low
Actor 4	GNO	Informal	Barcelona, Spain	4	2	1	High	High	High
Actor 5	Individual	Informal	Vigo, Spain	3	1	3			
Actor 6	Individual	Informal	Italy	4	2	2	Low	Low	Low
Actor 7	Private company	Formal	Italy	3	1	3	Low	Low	Low
Actor B	Academic institution	Formal	Madrid, Spain	2	1	D	Low	Low	Low
Actor 9	Academic institution	Informal	Madrid, Spain	1	2	D	High	High	High
Actor 10	GNO	Formal	Madrid, Spain	2	2	0	High	High	High
Actor 11	Others	Informal	Madrid, Spain	3	4	0	High	High	High
Actor 12	Public institution	Formal	Vigo, Spain	1	4	3	Moderate	Moderate	Moderate
Actor 13	Public Institution	Informal	Vigo, Spain	1	4	2	Moderate	Moderate	Moderate
Actor 14	Public Institution	Informal	Barcelona, Spain	1	3	0	Very low	Very low	Very low
Actor 15	GNO	Informal	Barcelona, Spain	2	,	1	Very low	Very low	Very low
Actor 16	GNO	Informal	Barcelona, Spain	2	1	2	Very low	Very low	Very low
Actor 17	Private company	Formal	Vigo, Spain	2	2	1	Very high	Very high	Very high
Actor 18	Private company	Informal	Italy	2	1	3	Very high	Very high	Very high
Actor 19	Others	Informal	Madrid, Spain	2	4	0	Moderate	Moderate	Moderate
Actor 20	Public institution	Informal	Barcelona, Spain	1	4	0	Very low	Very low	Very low
Actor	CNO	Informal	Barrolona Coala				Monulous	Manuface	Manclani
<ul> <li>Legend Data entities</li> </ul>	ry Matrix results Cha	racterization F	Relationship analysis	Satisfaction leve	l Participation	level +			

**Illustration 1.** Screenshot of the "Data entry" tab

Some of the information requested about the actors can be provided by the user, but in some cases, the opinion about an actor may not be correct. Regarding this, it is worth mentioning that to have more sources of information to carry out this monitoring exercise, it is possible to apply the survey to the actors involved as much as possible, using the file in Annex 1, called 'Survey to actors'. In addition, if more detail is desired on the parameter 'Satisfaction level', a specific tool is available for that (Satisfaction survey).

In case this is not possible to integrate the information, the tool can work anyway, but it must be considered that all results will be assumptions of the initiative towards the actor, and therefore there will be a different validity of the results, which must be considered when planning strategies. Other ways to determine the indicators are as follows:

- The initiative manager autonomously;
- Through a meeting with the initiative's steering committee;
- Through a participatory workshop with the members of the team and the closest parties.
- The above tools can be integrated to average results.

## **EXPECTED RESULTS**



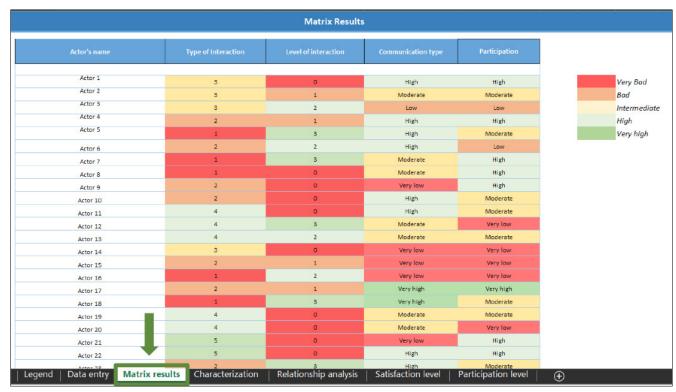
Once the values have been inserted into the 'Data entry table', the user must go to the other tabs to see the results obtained.



If the results are not displayed automatically, it will be necessary to refresh the data (Select Data > Refresh All).

## **Matrix Results**

In this tab, a matrix is presented where the boxes will change colour depending on the value assigned to each item, showing the results visually. This so that a detailed or general visualization of all aspects and all actors can be made. The topics are arranged in a matrix format, where both actors and variables are interrelated. For a more in-depth analysis, the general status of the interaction with a particular actor can be visually evaluated by analysing the matrix horizontally; to make a general consideration about the variables throughout the actors, the matrix can be analysed vertically. In this visualization, the results are interpreted according to a colour code described in the legend on the right side of the tab. The aspects in red are those that have been evaluated negatively; therefore, if the context requires it, actions should be taken to improve each aspect for a specific actor.

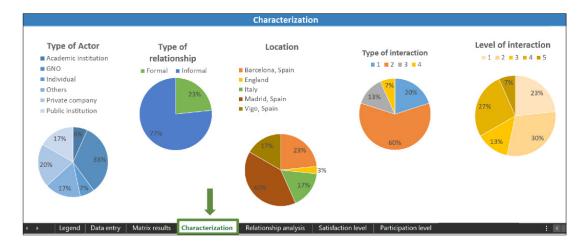


**Illustration 2.** Screenshot of the tab 'Matrix results'

#### Characterization

In this tab, there is a dashboard with the characterization of the actors that are forming the network. From the graphs, the typologies of the actors and their diversity or homogeneity can be easily visualized. It is a dashboard that characterizes the actors who were identified through the basic information assigned. This information is useful to

analyse the variability of actors and compare it with what was planned or estimated during the planning phase. If the deviations are high or the initiative neglects potentially relevant stakeholder typologies, this will be visualized, and decisions can be made to improve it.

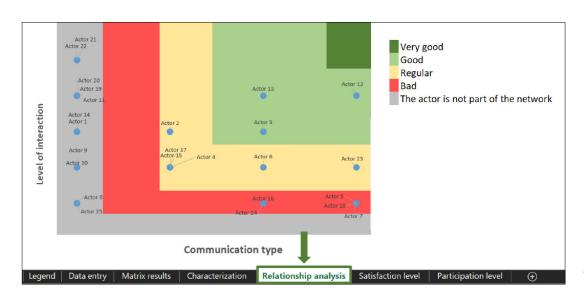


**Illustration 3.** Screenshot of the tab 'Characterization'

In this tab, a single scatter plot is displayed. This graph shows the results of the distribution of the different actors according to their type of communication and level of interaction. These variables, which have been indicated in the input data table, are information that gives an approximate indication of the quality of the relationship that exists between the initiative and a given actor. This graph must be interpreted based on the knowledge of the initiative manager in each of the specific cases, but, as a general indication, the colour code that appears can be used. Based on where the actor is placed on the graph, it will have a related colour, which indicates the quality of the relationship. Important to highlight is the grey colour, where

all those actors that could currently be considered outside the network are located but that have been named as potentially relevant actors. If the data are updated over time, it is possible to obtain a temporal sequence of the inclusion of actors within the network, as well as to see the evolution of the relationships between the actors and the initiative.

If the names of the actors overlap, it is possible to move them to better appreciate the results, dragging them to a more visible place on the graph. The grey line that detaches from each circle should always be considered to have more clarity about the location of the actor in the graph.



**Illustration 4.**Screenshot of the tab 'Relationship analysis'.

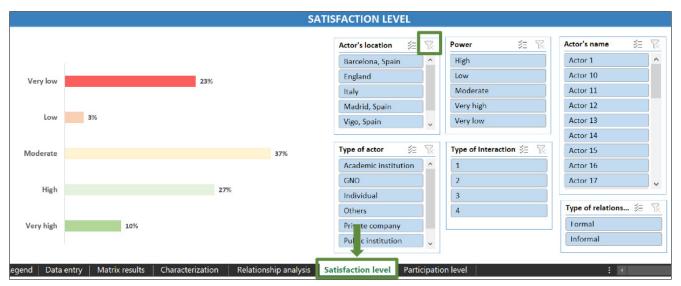
#### Satisfaction Level

The graph shown in this tab shows the distribution of the level of satisfaction through the different actors. It can be interpreted using the filters on the right. The filters that are applied will modify the results of the graph showing only those that the user wants to analyse. The filter function is very useful to cross information from different actors to

analyse a specific situation. For example, to know the level of satisfaction of those actors who have a high power/influence on the initiative but only those who belong to the interaction type of the funders, it would be necessary to select the corresponding filters, and the graph would modify automatically.



To remove all filters, you must press this button in each filter category.



**Illustration 5.** Screenshot of the tab 'Satisfaction level'

## **Participation Level**

Its operation is like that presented in the tab "Satisfaction level", but in this case, it is allowed to analyse the level of participation of all actors by subdividing them, according to what is required to be analysed through the filters placed on the right.

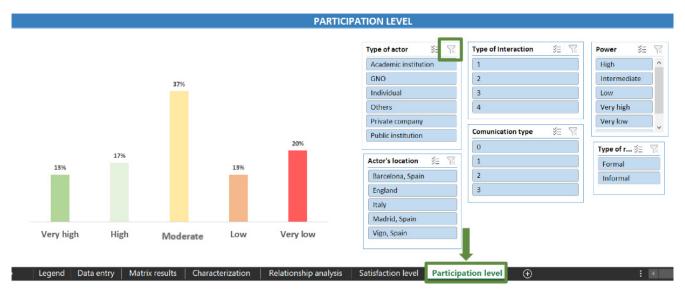


Illustration 6. Screenshot of the tab "Participation level"





# STAKEHOLDER-ASSOCIATED RISK ANALYSIS

#### **MAA Scenario**







INTERROGATING







ADDRESSING

APPLYING

When to Implement



Useful during all stages of the initiative, although mostly in the planning stage and iteratively throughout the project.

## **Group Size**



Any size. If the initiative has a big network, the tools would be more useful.

## Level of Technical Difficulty



Chart interpretation and basic knowledge on project management.

#### Time Needed



40 minutes approx.

## **Resources Required**



Access to a computer, tablet or phone that has the MS Office package installed.





Tools # 1, 3.





Image source: Roman Synkevych on Unsplash

## **Purpose**

The tool is useful to guide the reflections of innovators toward an analysis of potential risks associated with specific actors and the context where the initiative is inserted.

## **Background and Logic**

The identification and management of risks is a crucial element in project management, mainly because they allow us to maintain control, and anticipate those situations that may compromise the desired objectives. Although risks are present in different ways and in relative amounts depending on the scale of the initiative and the resources involved.

Dashboards are commonly used for self-evaluation in project management because it is considered the most efficient way to monitor performance through multiple data sources.

In general, regardless of the area in which the initiative activities occur, it is always exposed to a certain risk that can negatively or positively impact the development of the initiative. For this reason, it is necessary to study and evaluate the risks that the initiative may face to the point of being able to counteract them. Risk prevention allows, among many other benefits, to reduce costs, meet technical specifications, or perform activities according to the initiative schedule.

When deciding to innovate interactively, one of the fundamental elements is the participation of actors. Each of them has certain points of view and can take unforeseen actions throughout the development of the initiative generating problems. To counteract these possible risks, it is important to have risk identification and management processes, focusing in part on analysing the diverse opinions and ideas of all those involved in the initiative to identify the risks to which they could be related. Knowing and preventing risks as much as possible increases the capacity to respond to the various inconveniences that may arise, which can provide optimization of cost, time, and quality of results.

This tool can be used in conjunction with Tool #1 and 5, as good instruments to start planning initial actions.

#### **Materials**

MS Excel file.

## METHOD/HOW-TO GUIDE



This tool uses data visualization techniques that guide the user's reflection, showing the data in an easy and accessible way. Allows for simple analysis of results, facilitating interpretation and decision making.

## What Do You Need? How to Prepare For it?

To use this tool, it is necessary to have access to a computer, tablet, or phone that has the Office package installed. The Excel file is both the analysis matrix and the template to collect information. The first tab is used to enter the information, while the next is created automatically, allowing the data to be viewed. If the data collection process wants to be done outside the Excel program, it is sufficient to print the first tabs of the Excel. However, to use the visualization system, data entry is required.

### **Excel Structure**

This tool is made up of two tabs, named: data entry and graphical results. The first tab is composed of a matrix divided into five columns that allow each of the actors to be related to the risks or problems of the initiative, assigning a value for the frequency and impact, according to the preestablished levels. On the other hand, the second tab shows the graphical results of the analysis of risks associated with the actors.

## **Data Entry**

When opening the Excel file, the user must enter the information into the "Data entry" tab. Once placed in this tab, the user will find five columns, namely: risks, actor, frequency, impact, and risk level.

The first column 'Risks' is subdivided into five different risk typologies. There, the risks are already predefined by the tool because it has been tried to facilitate the reflection process, including the most common risks that affect interactive innovation initiatives. Although, in the subdivision of "Other risks" at the end of the table, there are blank spaces that can be filled in freely by the user if considered pertinent. If more space is needed, the option 'Insert row' can be used up to the number of 60 rows.

In the second column 'Actor', the names of the actors related to the risks detailed in the first column must be included. The user should reflect on which actor involved or not in the initiative is most related to this specific inconvenience that may be happening. It can be an institution name or a generic descriptor for a group of actors. If a risk is present in the initiative, but it has no relation to any actor in concrete, it can be marked as "General" and will be visualised in this way.

Then, in columns three and four 'Frequency', 'Impact', the values referring to frequency and impact associated with risks must be included, that is, a number from 0 to 5 that must correspond to the criteria explained in the upper section of the Data Entry tab, in a table called 'Description of criteria for frequency and impact assessment'.

Finally, column five 'Risk level', which will show the intensity of the risk, that is, the result of a calculation automatically generated by the tool from the values that refer to the frequency and impact of the risks previously provided by the user. The value obtained will change the format of the cell, and a primary interpretation of the results can be made through the legend displayed in the upper section of the table. This column has not to be modified, although the automatic calculation, as well as the associated conditional formatting, does not work correctly.

The input information necessary for the use of this tool can be obtained in several ways:

- The initiative manager autonomously;
- Through a meeting with the initiative's steering committee;
- Through a participatory workshop with the members of the team and the closest parties;

The above tools can be integrated to average the results. However, it should be noted that the more participatory the information gathering, the more objective the result will be.

	Data entry				
DESCRIPTION OF THE CRITERIA FOR THE	HE ASSESSMENT OF FREQUENCY AND IMPACT				
Frequency Impact					
How often was it or can it be presented?	What was or could be the impact of each factor?				
an not happen	No consequences				
likely	Mild consequences				
derately likely	Moderate consequences				
bable	Relevant consequences				
hly probable	Serious consequences				
vill surely pass	Project abandonment				
Related Actors	Frequency	Impact	Risk's level		
Related Actors	Frequency	Impact	Risk's level  Do not modify this column	0	N
Related Actors	Frequency	Impact			N
Related Actors  Actor 3	Frequency 0	Impact 0		0 1 - 6	I F
V			Do not modify this column	0 1 - 6 7 - 16	's Level N L R
Actor 3	0	0	Do not modify this column	0 1 - 6 7 - 16	l R
Actor 3 Actor 4	0	0	Do not modify this column	0 1 - 6 7 - 16	l R

**Illustration 1.** Screenshot of the "Data entry" tab.

## **EXPECTED RESULTS**



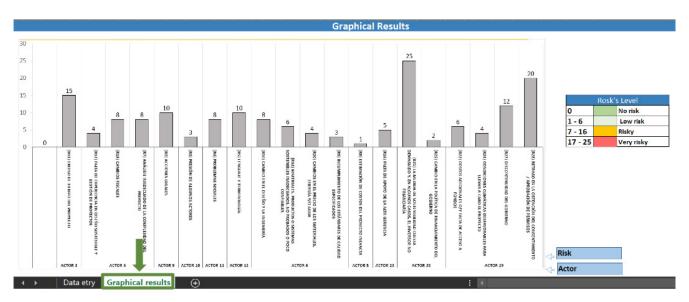
Once the values have been inserted into the "Data entry" tab, the user must go to the other tab to see the results obtained.



If the results are not displayed automatically, it will be necessary to refresh the data (Select Data > Refresh All)

## **Graphical Results**

In this tab, there is a bar graph that represents the risk values associated with the actors, and each bar has the intensity of each risk detailed on the upper side. This graph groups together the risks that have been associated with a given actor, allowing one to identify the most critical actors, who would possibly require more attention during the development of the initiative. On the other hand, through this graph, it is easy to see which risks have the greatest potential to generate problems throughout the activities, being those with the highest bars and considered very risky. The highest value is 30, which would imply that it is a very frequent risk and that it would also cause serious damage to the initiative. Risks that have been marked in the data entry tab, but that result in a value of 0 are not displayed in this graph. In this visualization, the results are interpreted according to a legend described in the table on the right side of the tab.



**Illustration 2.** Screenshot of the tab 'Graphical results'.

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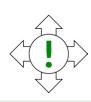






## **SATISFACTION SURVEY**

## **MAA Scenario**













APPLYING

When to Implement

Useful during all stages of the initiative and iteratively throughout the project.



## **Group Size**



Any size. If the number of actors involved in the survey is high the tools would be more useful.

## Level of Technical Difficulty



No technical skills required.

## **Time Needed**

Depends on the amount of actors involved in the survey.



## **Resources Required**

Access to a computer, tablet or phone that has the MS Office package installed.







Tools #2.





Image source: Roman Synkevych on Unsplash

## **Purpose**

The tool is useful to determine simply the level of satisfaction of the actors who belong to an initiative. In addition, it allows the visual and intuitive analysis of the answers for future decision-making.

## **Background and Logic**

For innovation initiatives that carry out an interactive process, it is essential to establish and maintain relationships with different types of actors. A good connection between the parties facilitates the exchange of knowledge and, consequently, the possibility of creating the desired interaction. The actors can be internal or external to the initiative and are differentiated by their role in it: an internal actor is a member of the initiative or, in that case, an associate to it constantly throughout the entire innovation process and that generally has a formal link; an external actor is not formally involved in the initiative, but they know about it and can influence it.

The satisfaction of the internal or external actors of an initiative is key to its sustainability over time. A healthy and communicative relationship between them can improve the results of the initiative and facilitate its dissemination. The satisfaction of an actor is determined by different aspects that are synonymous with trust, both in the initiative and between the different actors. This tool can be used in conjunction with Tool #4, which can provide a deeper understanding of the satisfaction level of the actors.

Target group This tool is designed for initiatives that want to know how the status of the relationship between actors and the initiative is. The tool should be used by initiative coordinators who should manage the survey process, and all relevant actors, internal or external to the initiative, should be involved. The information would be useful for decision making.

This tool is useful during all stages of the initiative, although mostly in the execution stage, where the satisfaction of the actors is crucial for the development of the activities. If updated periodically, the tool can generate information on deviations throughout the initiative, allowing one to detect the evolution of the network and actors relations throughout the initiative.

### **Materials**

- MS Excel file
- Annex 1 External Actors Survey
- Annex 2 External Actors Survey.

## METHOD/HOW-TO GUIDE



This tool uses data visualization techniques that guide the user's reflection, showing the data in an easy and accessible way. Allows for simple analysis of results, facilitating interpretation and decision making.

## What do you need? How to prepare for it?

To use this tool, it is necessary to have access to a computer, tablet, or phone that has the Office package installed. The Excel file is a template for collecting the information obtained through the survey, and at the same time, it has incorporated a visualization system. The first tab is used to enter the information, while the next is created automatically, allowing the data to be viewed. The data collection process must be performed outside of the Excel program, using the annexed format for the survey.

#### **Tool Logic**

This tool is made up of two important steps:

**Survey Application:** using the format in Annex 1 and Annex 2, the user must disseminate the survey to as many actors as possible. It is a quick survey, but it can provide a lot of information on satisfaction. The two available surveys are targeted differently depending on the type of actor: one to external actors, all those actors that are related to the initiative but not part of the managing group; the other is more appropriate to actors actively involved in decision making and deeply involved in the activities. The survey can be carried out anonymously if the initiative considers that the no anonymization would affect the results.

Analysis of Results: The Excel file would be the template for analysing the information obtained. There are two different data entry tables for each of the surveys, identifiable by the tab title. The user will enter the answers in the associated table and the columns dedicated to each actor.

#### **Excel Structure**

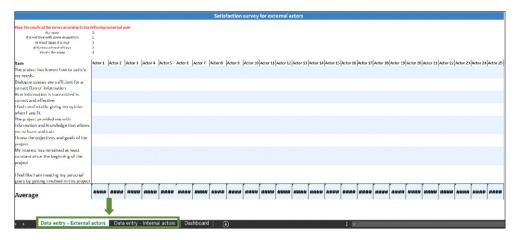
This tool is made up of three tabs, named: data entry - external actors, data entry - internal actors, and dashboard. The first tab is used to insert the data related to the survey of external actors (Annex 1), while the second is used to insert the data of the survey of internal actors to the initiative (Annex 2). The last tab is a dashboard format that is generated automatically and allows viewing the results in a summarized and general way.

## **Data Entry**

Once positioned in the tab associated with the survey applied, the user will find a matrix where the first column "Item" represents statements about important aspects to monitor the satisfaction of the actors with the initiative, which are also part of the survey in the annexes.

The other columns of the table are dedicated to the systematization of the values obtained by applying the survey to the actors. The coding process of the answers needs to be done following the legend displayed on the upper side of the table.

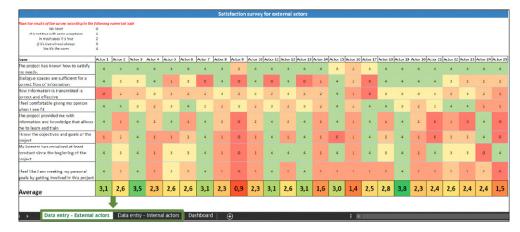
The tool is designed for 25 actors, if it is necessary to increase the number of actors surveyed, more columns can be created with the excel option 'insert column'.



**Illustration 1.** Screenshot of the "Data entry – External actors" tab.

## **EXPECTED RESULTS**





**Illustration 2.** Screenshot of the tab "Data entry – External actors" showing the colour code visualization.



**Illustration 3.** Screenshot of the tab 'Dashboard' showing the visualization of the level graph

Once the values have been inserted into the 'External actors' and 'Internal actors' tabs, the user can analyse the results in two different ways: the colour code in the same data entry tables and/or the level graphs automatically generated in the dashboard tab.



If the results are not displayed automatically, it will be necessary to refresh the data (Select Data > Refresh All)

## **Level Graph**

In the dashboard tab, two-level graphs are displayed. Through that, the general status of the results and averaging values can be seen. The graph uses the same colour code as the previous visualizations.

### Colour Code

In the two tabs "External Actors" and "Internal Actors", when the data are inserted, the boxes will change colour depending on the value assigned to each item, showing the results visually. This is so that a detailed or general visualization of all aspects and all actors can be made. The topics are organized in a matrix format, where both actors and variables are interrelated. For a more in-depth analysis, the answers of a particular actor can be visually evaluated by analysing the matrix vertically; to make a general consideration about the variables throughout the actors, the matrix can be analysed horizontally. In this visualization, the results are interpreted according to a colour scale from red to green, where red is the lower value, meaning a negative response from the actor, and green is the higher value, meaning a positive response. The last row represents the average of the answers from the corresponding actors.

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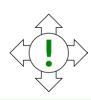






## **MONITORING TOOL FOR IMPACTS**

## **MAA Scenario**













ADDRESSING APPLYING

When to Implement



Used at the beginning of interactive innovation, and iteratively throughout the project.

## **Group Size**



Any size.

## Level of Technical Difficulty



Chart interpretation and basic knowledge on project management.

### **Time Needed**



40 minutes approx.

## **Resources Required**



Access to a computer, tablet or phone that has MS Office package installed.

## Clustering with Other Tools



Tools #1, 3.





Image source: Roman Synkevych on Unsplash

## **Purpose**

The tool is useful to set the basis for capturing the key aspects of the initiative to monitor the expected impacts. It has been designed to reflect in a participatory way on the design of the initiative and the impacts that the initiative wants to achieve. During the application of this tool, it is possible to focus beyond the first short-term results, but to plan and estimate the process required to achieve long-term impacts. The tool allows for a more in-depth analysis of the interaction with social challenges and helps to monitor them.

## **Background and Logic**

The impacts of an innovation initiative are linked to the changes it generates and which can be directly associated with its activities. These impacts can be internal or external: they are considered external to the initiative when changes are generated in the social, environmental, or economic environment that surrounds it; on the other hand, it is considered internal when it causes a positive change in the attitudes, knowledge, or practices of the actors that are part of it.

The satisfaction of the internal or external actors of an initiative is key to its sustainability over time. A healthy and communicative relationship between them can improve the results of the initiative and facilitate its dissemination.

It is important that the expected impacts are considered during the activities of the initiative, and not only at the end. This is because they can serve as a measure to understand if expectations are being met or if, on the contrary, an adjustment in activities is required.

This tool is designed for initiatives that want to focus on the impacts and maintain them monitored during the initiative activities. The tool should be used in a participatory way, including the core actors. This is because the process of generating the information necessary for the operation of the tool can give rise to valuable conversations and confrontations that, in themselves, are an expected result of the use of this tool.

The tool can be used at any time in the process to determine its status. However, it is advisable to do it the first time at the beginning of the initiative, to establish objectives and expectations and share them with the different actors involved. After that, its periodic use is recommended to monitor the progress of the initiative and make a self-reflective analysis of the future steps to be taken.

This tool can be used in conjunction with Tool #1 and 3, as good instruments to start planning initial actions.

#### **Materials**

MS Excel file.

## METHOD/HOW-TO GUIDE



This tool pretends to be a guide for participatory reflection on the expected impacts of the initiative. At the same time, when the data have been obtained after the participatory discussion, the data visualization system includes a guide about the user's reflection, showing the data in an easy and accessible way.

## What do you need? How to prepare for it?

To use this tool, it is necessary to have access to a computer, tablet, or phone that has the Office package installed. The Excel file is a template for collecting the information obtained through the survey, and at the same time, it has incorporated a visualization system. The first tab is used to enter the information, while the following is created automatically, allowing the data to be viewed. The data collection process must be done outside the Excel program, using the annexed format for the survey.

#### **Excel Structure**

This tool is made up of three tabs, named: data entry - initiative design, data entry - societal challenges, and dashboard. The first tab seeks to analyse what the initiative objectives are, and the specific products expected from the activities, as well as their progress status, so that they can be compared with what was projected. The tab dedicated to social challenges allows an analysis of the social challenges to which the initiative intends to contribute to its innovation. The dashboard tab provides a graphical visualization of the data inserted previously.

## **Data Entry**

It is suggested to obtain the information required through a participatory workshop with team members and the closest parties. The more participatory the collection of information is, the more useful the tool will be since the sharing of objectives and goals is one of its expected results.

When opening the Excel file, the user will find three tabs; in the first two, with the description "Data entry", the data must be entered for the analysis of the estimated external impacts of the initiative.

Once positioned on the "Initiative design" tab, the user will find a matrix divided into three columns. The first column 'Outputs' is a space to describe the immediate results obtained from the innovation produced; In the second column 'Results' it is necessary to describe the objectives of the innovation, which are expected to be obtained from the above-mentioned products; in the last column 'Status', the user should assign a percentage value that exemplifies the progress status of each of the objectives, taking into account the criteria displayed on the upper side of the column.

Once positioned in the "**Societal challenges**" tab, the user will find a matrix divided into seven columns, which serve to guide reasoning.

Outputs	Outcomes	Status	
		0-20%	Initial phase
Describe the products that are	Describe the outcome of the innovation. What is expected to be obtained from	20-40%	Start activities
obtained from the innovation	productos.	40-60 %	Execution of activities
produced		60-80%	<b>Ending of activities</b>
Outputs 1	Outcome 1		30
Outputs 2	Outcome 2		40
Outputs 3	Outcome 3		55
Outputs 4	Outcome 4		21
Outputs 5	Outcome 5		36
Outputs 6	Outcome 6		74

**Illustration 1.** Screenshot of the tab "Data entry – Initiative design".

## **Societal Challenges**

A predetermined list of some of the social challenges that exist today. There is also a space at the end of the preestablished list where, in case it is considered necessary, the user can add more challenges.

#### **Extent of Expected Contribution**

The user must include a numerical assessment that represents the level of contribution that the initiative hopes to make to the related social challenge.

Assessment must be made according to the criteria displayed on the upper side of the column. For example: Our initiative is based on reforestation, therefore, my initiative will make an expected contribution to high climate change.

#### **Actors Involved/Required**

Space where the user must reflect on those actors that are necessary for the concrete realization of the expected contribution. Identified actors should be written in this column.

**For example:** To contribute to climate change, livestock producers and the country's Ministry of Environment are required and should be involved.

## Changes Expected by the Actors to Achieve the Expected Impacts

Once the necessary actors have been identified to achieve the expected contribution, the user must reflect on which are the concrete changes that must occur in the actor so that the expected contribution can be achieved. The actors that were identified as necessary can change attitudes, behaviours, or, on the other hand, acquire knowledge and/or capacity.

**For example:** For our initiative to contribute to climate change, it is required that producers change their attitude towards conservation, learn about its importance, and apply specific practices. It is also necessary for the Ministry of Environment to implement bonuses for forest conservation.

#### **Status**

A value from 1 to 100 that exemplifies the progress status of the necessary changes in the actors.

#### Strategy

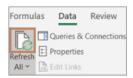
Reflect and write what strategy to be put into practice to increase the percentage marked in the previous column. The proposed strategy must be based on three key aspects of planning: What are you going to do? How will it get done? When are you going to do it?

## **EXPECTED RESULTS**



The main result of this tool is participatory reflection. Therefore, having filled in the tables with the information agreed between the various actors involved in the initiative is the main result of this tool. The monitoring component is generated once this exercise is performed periodically, and the results obtained are compared by analysing the deviations.

Once the values have been inserted into the 'External actors' and 'Internal actors' tab, the user can view the results through a dashboard where the values inserted about the status are displayed.



If the results are not displayed automatically, it will be necessary to refresh the data (Select Data > Refresh All)

## **Dashboard**

Once the required data have been inserted, the user must go to the "External impact results" tab to view the results obtained. In the first graph, you can visually see the status of the initiative's objectives, categorized by their level of progress. The second graph is like the first, except that it refers to the social challenges to which the initiative hopes to contribute. In this visualization, the results of both graphics are interpreted according to a colour scale from red to green, where red is the lower value, meaning that the status is undeveloped, and green is the higher value, meaning positive progress.



 $\textbf{Illustration 2.} Screenshot of the \ tab \ "Data \ entry-Societal \ challenges" \ showing \ the \ colour \ code \ visualization.$ 

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## **ALTMERICS**

## **MAA Scenario**







When to Implement

Interim and ex-post



## **Group Size**



Any

Level of Technical Difficulty



High, advanced quantitative and IT skills needed.

**Time Needed** 





**Resources Required** 

PC and software access, data collection costs if not available.



Clustering with Other Tools



Tool # 35, 36, 37.



## **Purpose**

Altmetrics are used to:

- · Assess the performance of the projects
- Evaluate project outreach
- Assess the impact of R&I outputs.

## **Background and Logic**

Altmetrics are metrics and qualitative data that are complementary to traditional, citation-based metrics. They can include (but are not limited to) peer reviews on Faculty of 1000, citations on Wikipedia and in public policy documents, discussions on research blogs, mainstream media coverage, bookmarks on reference managers like Mendeley, and mentions on social networks such as Twitter.

(Source: www.altmetric.com).

As alternatives to the standard scientific impact measurement, they are typically quicker to obtain and not limited to the scientific arena. Altmetrics highlight (in a visible way) the engagement (interactions) of science with practice. The numbers associated with the altmetrics should not be treated in a simplistic way, however, if we are interested in gaining the picture about impacts. They should be a starting point for the reflections over the qualities behind project dissemination, that ideally should be impacts enabling.

Altmetrics enable the measurement of attention, dissemination, influence and impact that scientific outputs have. The following examples of altmetrics can be used:

- Mentions in the news
- Mentions in blogs
- Mentions on Twitter
- Article page views
- Article downloads
- GitHub repository watchers
- Facebook shares
- Number of interactions on social media
- References in policy documents
- Commentaries from experts and practitioners.

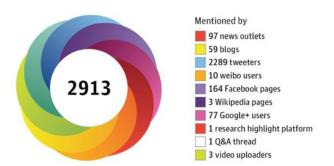


Image source: Rahimi, Forough, et al. "How Academia and Society Pay Attention to Climate Changes: A Bibliometric and Altmetric Analysis." Webology 16.2 (2019).





# ECONOMIC PERFORMANCE EVALUATION

## **MAA Scenario**





When to Implement

At any stage of the project.



## **Group Size**



Any.

Level of Technical Difficulty



High, advanced quantitative and IT skills needed.

**Time Needed** 

Depends on the project size and data volume.



**Resources Required** 

PC and software access, data collection costs if not available.



Clustering with Other Tools



Tools # 34, 36, 37.



## Purpose

The economic tools are used to:

- Assess the economic performance of the projects
- Monitor expenditure of the project
- Attract potential innovation investors.

## **Background and Logic**

The evaluation of economic aspects of the project implementation has a special place in the donor agendas. Many programmes, especially those administered by the European Union, focus on spending funds allocated to achieving different objectives and priorities. There is a great interest in various economic aspects of the programmes' performance, which can be measured in many ways. Economic indicators are commonly acknowledged in the business practice and thus sought after by potential investors interested in the exploitation of the innovation projects' results. Some of the most popular approaches include:

#### Cost-Benefit Analysis (CBA)

This is a systematic approach focusing on the estimation of the strengths and weaknesses of alternatives to enable most benefits from the investments. It consists of determined options, which provide the best approach to achieving benefits while preserving savings. A step-by-step approach and mathematical formula are used to assess CBA, which can be also modified in a given project context. Computations involve discount rate and sensitivity analysis, among others. For whom would this approach be helpful and suitable? Which questions would a user ask when using this CBA?

#### **Return on Investment (ROI)**

This is a popular and rather simple performance metric applied for evaluation of the efficiency of an investment. Comparing the efficiency of a number of different investments can be also enabled with a dedicated formula. The calculation of ROI involves dividing the benefit (or return) of an investment by the cost of the investment. The ratio or percentage are used to describe the result.

#### **Cost-Effectiveness Analysis (CEA)**

This approach compares relative costs and outcomes (effects) of different courses of action. Unlike the CBA, in this method monetization is not necessary, thus it can be useful for evaluations in the public goods domains. CEA is most suitable, where cost-benefit analysis is constrained by the difficulty to estimate monetary value of benefits. Moreover, if incommensurability of assessed alternatives occurs, computations of ratio can be used. This method is particularly useful for the social and environmental outputs of a project because they can be ranked. Cost-Utility Analysis (CUA): this approach examines the preference of individuals in the context of multiple choices (different projects and interventions in the same area). Computations typically focus on the various cost types, e.g., personnel, facilities, equipment. The ingredients of a project need to be clearly distinguished as well as causality in the intervention logic.

#### Social Return on Investment (SROI)

Social, environmental, economic and other values are systematically incorporated into decision-making processes. SROI can be used for designing a Theory of Change or Business Plan. It is also applicable for assessing to what extent the impacts are realized or changes need to occur within the intervention logic. SROI is particularly useful for measuring non-monetary effects from the investment. Actors' perspectives are strongly encouraged as a way to determine the success/failure of the interventions. The approach often combines quantitative and participatory approaches to evaluation

## METHOD/HOW-TO GUIDE



## **Cost-Benefit Analysis (CBA)**

- 1. Identify costs of the investment / project
- **2.** Assign monetary values to the investment (e.g. human resources, training)
- **3.** Assign monetary value to the benefits (positive results of the project)
- 4. Compare costs and benefits using common metric
- Calculate discount rate, net present value and sensitivity
  - » Net Present Value (NPV)=  $\Sigma$  Present Value of Future Benefits  $\Sigma$  Present Value of Future Costs
  - » **Benefit-Cost Ratio=** $\Sigma$  Present Value of Future Benefits /  $\Sigma$  Present Value of Future Costs

#### $NPV = value / (1 + r)^t$

"r" is the discount rate such as the rate of inflation
"t" is the service life of the project, that is, the period the project
will provide benefits (e.g., year)

## **Cost-Effectiveness Analysis (CEA)**

- Express costs in a common monetary value (££) and the effectiveness of an option in terms of physical units
- 2. Because the two are incommensurable, they cannot be added or subtracted to obtain a single criterion measure
- Compute the ratio of costs to effectiveness in the following ways:

CE ratio = C1/E1 EC ratio = E1/C1

where:

C1 = the cost of option 1 (in £)

E1 = the effectiveness of option 1 (in physical units)

## **Cost-Utility Analysis (CUA)**

In order to assess the attribute utility you can do the following:

- Proportional scoring: Use a common scale (eg. x/y axes) to assess
- 2. Direct method: Low or high value can be assessed on a numerical scale (eg. 0 for low and 100 for high)
- **3.** Variable probability method: Stakeholders assess their preferences for varying amounts of a range of probabilities

Then assess the importance of weights:

- 1. Direct method: Individuals allocate a total (e.g. 100) of points among attributes according to their relative importance
- 2. Variable probability method: Individuals choose between two options when there is a 100% chance of A occurring and a 0% chance of B occurring; the probabilities are changed until there is no difference between whether they choose option A or B.

## **Return on Investment (ROI)**

**Option 1:** ROI=(Net return on investment/Cost of investment) x 100%.

**Option 1:** ROI=(Final value of investment – Initial value of investment)/(Cost of investment)x100%.

## Social Return on Investment (SROI)

Establishing SROI is a rather complex task and often involves participatory process and data collection. The stages of SROI process can be grouped as follows:

- 1. Identification of the scope for the analysis
- 2. Identification of the relevant stakeholders
- 3. Mapping of the project outcomes
- **4.** Providing evidence for the outcomes and assigning their values
- Establishing the impact: (a) financial value of the investment and (b) value of social costs and benefits, supported with the calculations of the net present value and sensitivity analysis.

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## **INDICATOR DASHBOARDS**

## **MAA Scenario**







When to Implement

At any stage of the implementation.



## **Group Size**



Large

## Level of Technical Difficulty



High, advanced quantitative and IT skills needed.

## **Time Needed**



Depends on the data volume.

## **Resources Required**



PC and software access, data collection costs if not available.





Tool # 34, 35, 37.

# PURPOSE, BACKGROUND & LOGIC (OF THE TOOL)



## **Purpose**

Indicator dashboards are used to:

- Monitor innovation performance of the projects, programmes, portfolios or countries
- Enable performance comparison between entities
- Assess the impact of R&I outputs
- Enable predictive modeling.

## **Background and Logic**

Indicators and dashboards (indices) are frequently used to monitor innovation of the programmes and projects. They typically consist of multiple indicator layers – composite indicators, which attempt to describe complex reality, in which the interventions are implemented. They are frequently used in order to assess and compare performance over time and between different stakeholders. We will support the application of the two most established dashboards in the area of agricultural innovation: IFPRI ASTI and OECD Frascati Manual.

## Agricultural Science and Technology Indicators (ASTI)

An evaluation framework developed by the International Food Policy Research Institute (IFPRI). ASTI collects and shares data on institutional developments, investments, and capacity in agricultural Research and Development (R&D) at national, regional, and global levels for low-and middle-income countries. ASTI also produces reports and publication describing trends in human and financial capacity in agricultural R&D at national levels, along with information on comparative agricultural R&D performance across countries and regions. Benchmarking tools enable cross-country comparisons and rankings of key spending and researcher indicators. Indicators from this framework can be used as resources for the selection of indicators for evaluation of Research and Innovation (R&I)projects and portfolios. The comprehensive database allows monitoring the progress of a project against the benchmarks. They can be found on a dedicated website coordinated by the CGIAR. Useful resources: www.asti.cgiar.org

#### **OECD Manuals**

The OECD is an important player involved into development of Science and Technology (S&T)evaluation dashboards. Two of them, which are most relevant for our requirements are the Frascati Manual (2015) and the Oslo Manual developed by the OECD with Eurostat (2018).

The dashboards provide a comprehensive overview of the data collection in terms of specific indicators at the national level. Additional background information on agriculture-related indicators can be found in these specific OECD documents on measuring agricultural innovation investments:

#### Frascati Manual

www.oecd.org/publications/frascati-manual-2015-9789264239012-en.htm

#### Oslo Manual

www.oecd-ilibrary.org/science-and-technology/oslo-manual-2018\_9789264304604-en https://www.oecd.org/agriculture/topics/agricultural-productivity-and-innovation/documents/analysing-policies-to-improve-agricultural-productivity-growth-sustainably.pdf



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# SCIENTOMETRICS, PATENTS AND SPIN-OFFS

## **MAA Scenario**







When to Implement

Interim and ex-post.



**Group Size** 



Any.





High, advanced quantitative and IT skills needed.

**Time Needed** 





**Resources Required** 

PC and software access, data collection costs if not available.



Clustering with Other Tools



Tool # 34, 35, 36.



## **Purpose**

Scientometrics, patents and spinoffs are used to:

- Assess the scientific performance of the projects
- · Identify innovation outputs
- Support academic rankings and scientific careers.

## **Background and Logic**

This evaluation field is particularly focused on measuring scientific performance. Evaluation methods rely on qualitative, quantitative and computational (using advanced computer aid) approaches. In quantitative terms, most attention is paid to data collection, which depicts the impacts of scientific publications. Common Scientometric indicators include:

#### Impact Factor (IF)

The impact factor (IF) or journal impact factor (JIF) of an academic journal enables measurement with yearly average number of citations in relation with the recently published articles in a given scientific journal. This factor helps to estimate the relative importance of the scientific outputs. This measurement could be applied for the assessment of results of agricultural innovation projects, where scientific actors are directly involved in co-creation for innovation. This indicator helps with the comparison of performances between projects, organisations, individual researchers and science fields.

#### **Science Citation Index (SCI)**

This is a trademarked index owned by Clarivate Analytics. It was originally developed by the Institute of Scientific Information in 1964. A large number of journals is covered throughout dozens of disciplines. The reference journals are the world leaders in science and technology.

#### **Author-level metrics**

This is a broad category, which measures scientific performance of the individuals. Some of the popular indicators include h-index, author-level 'Eigenfaktor', 'erdős number', 'i10-index'and RG Score. Various critics are associated with these metrics, such as inaccurate influencing the scores through self-citations.

#### **Acknowledgement Index**

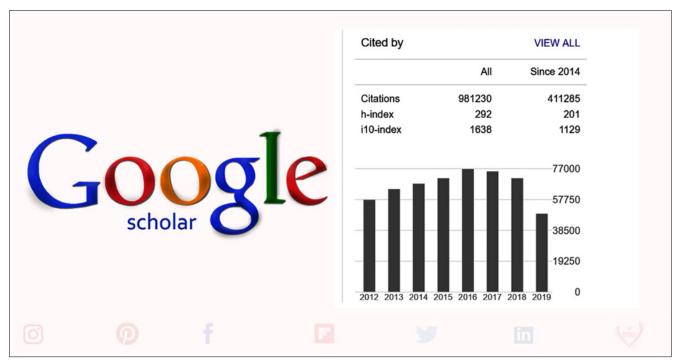
The measurement focuses on indexing and analyzing acknowledgments in the scientific literature. The index measures influence on the scientific work that are institutional and economic. Moreover, it considers the informal influences that are connected to individuals. The metric provides an analytical approach for several components. The index is supported by the automated digital library CiteSeerX. Google Scholar and Microsoft Academic Search. The library allows for automated data extraction and crawling (a bot, script, or software grabs content and links from a website), among others.

#### **Patents**

This measurement is supportive to analysis of the project outputs in terms of market expansion. Patents concern rights to use a given inventions that are legally registered and protected. An economic impact is typically associated with the patent but can be enabled or constrained due to various circumstances. Patent procedures vary between countries, even within the EC. Patents are also widely applied in the international comparative analyses of the R&I performance. At the global level, useful search engines are powered by the Google Patents and WIPO Patents (World Intellectual Property Organization).

#### Spin-offs

Creation of spin-offs is intended to support transformation of the technological innovations from the scientific context towards other application domains. This is a part of the exploitation process, typically oriented on further development and commercialization of the R&I outputs. Several types of spin-offs can be distinguished, e.g., companies with equity investment from a research institution, companies with a technology license from a public research entity, companies founded by a researcher affiliated with a public research institution or companies created directly by the research entity.



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