

The START Triple-I project development tool kit

A handbook for initiating, building and evaluating high impact interdisciplinary projects
and converting them to successful funding applications

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Centre for Sustainable AgriFood Systems (START)

The START Triple-I project development tool kit

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Introduction to the START interdisciplinary tool kit

Transforming the agrifood system towards a more sustainable food production and diet will contribute significantly to the green transition of our society. To succeed in this endeavor, society will need to be disrupted. Interdisciplinary research is the foundation from which these uncharted waters can be navigated.

Congratulations on wanting to build an impactful interdisciplinary START project! If you are looking for inspiration to boost your interdisciplinary project development, you have come to the right place.

This handbook is intended as a guide and tool kit for START researchers who wish to initiate a truly interdisciplinary project and subsequently apply for research funding. Working across disciplines, however, is not always an easy task. It is our hope that this handbook can help you gain a common language and a shared understanding of the research problem that you are aiming to address.

Within this handbook you will find a 6-step guide to project development using the Triple-I approach ranging from initial concept idea, through finding collaborators, to co-creation of an impactful project through to work package creation. All with the intention of raising the chances of you getting that funding!

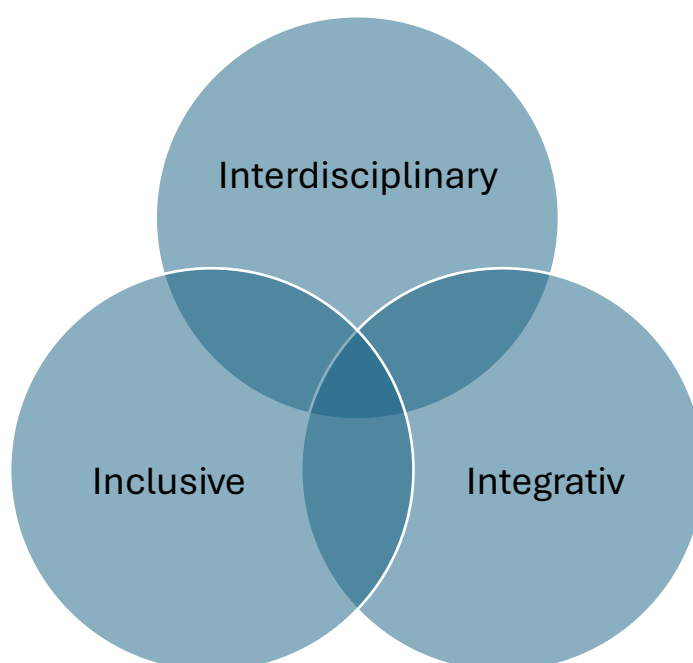
The guide will provide you with a series of workshops consisting of various tools supporting each step in your project development. You can choose to utilize all tools to boost your project development and ensure you get a 360-degree understanding of your research problem or you can cherry pick whichever tool you need at any given time of your project development.

The guide also provides you with tools to assess various aspects of your project. Two well-known assessment tools you can find here are the Technology Readiness Level (TRL) and Societal Readiness Level (SRL) along with some more niche assessment tools such as Business Model Readiness Level and User/Customer Readiness Level. Finally, we have developed a tool to assess your Funding Readiness Level (FRL). This tool can be used to assess your projects fundability, your funding strategy and the progression of your grant writing process.

If you are not comfortable using the tool kit on your own, please feel free to contact the **AU based Project Developers** who are more than willing to assist you or to facilitate a session with your project consortium.

Integration with the Triple-I approach

START has in the past two years built a structural foundation embodied by its novel Triple-I approach to address societal challenges within food systems and realize its vision of societal impact and transformation. This transformation can solely be achieved by disruptive changes in our society and economy with evidence-based co-creative world-class science. It mandates an **Integrative** approach to technical innovation and societal transformation for the various interlinked green challenges related to climate, environment, biodiversity, food, health, society, biobased economy, and more. It is founded on an **Inclusive** approach that involves stakeholders and actors in science, society and businesses by means of novel methodologies such as living labs and citizen sciences. To meaningfully achieve this, an **Interdisciplinary** approach that enhances the cooperation of scientific researchers from a wide diversity of disciplines from natural, technical and digital sciences to social sciences, humanities and arts, is essential. To effectuate this approach, one needs the proper tools. Those tools you can find in this guidebook.



A design approach to project development

You might not think of yourself as a designer, but chances are you design every single day. Design and Design Thinking is about seeing a problem and coming up with ideas to solve it – placing the problem in the center of your project design phase. Becoming conscious of this and paying more attention to **how you develop and try out new ideas** around the identified problem can make a real difference, turning good ideas into revolutionary ones. However, to move from silent design to conscious design requires tools and guidance – this is what we aim to provide in this guidebook.

Using Design Thinking in your project development will allow you to better understand the problem you are trying to address and continuously improve the impact a solution can have. Design Thinking is a non-linear iterative approach in which your understanding of the problem you are trying to address is continuously improved by repeatedly testing your understanding of it. You start out by empathizing with the problem you want to address by exploring it thoroughly. You then define the problem and test if you have the right perception of the problem by including a design team of various disciplines. You then ideate and generate ideas as to how you might address the problem you have defined. Once you have a preliminary idea about how to address the problem you test it with the relevant stakeholders and listen to the feedback. With the feedback you will gain a better understanding of the problem and the cycle continuous. This is the process aligned within this guidebook. You will be shown tools to continuously understand your research problem better while also finding the right partner to help you understand and develop ways to address the problem.

Using the guidebook:

In the following chapters we have outlined a project development timeline consisting of 6 steps. With each step we propose various tools which can be used to achieve the objectives of each step. You will be able to find guides for each method which will allow you to perform workshops for yourself, your research group and your project partners. The steps you will go through are as follows:

Step 1: Creating a Concept Note for your project idea

Step 2: Identify partners to co-create your project with

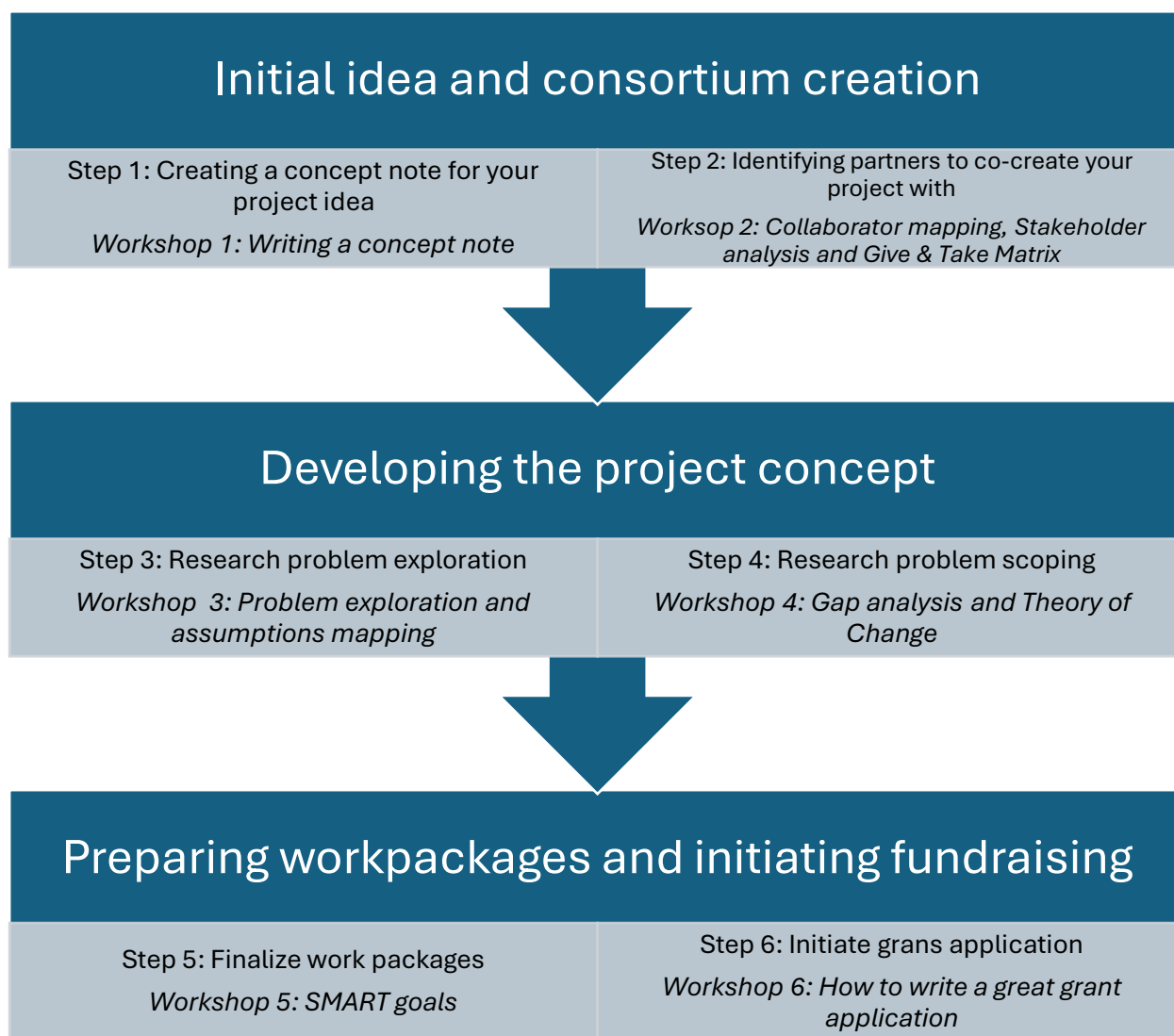
Step 3: Research Problem Exploration

Step 4: Research Problem Scoping

Step 5: Finish work packages and develop SMART goals

Step 6: Initiation of grant writing

How you approach this tool kit will vary based on the premise of your project development. Do you have a research idea, or does it stem from a funding call? Whichever it is you can still use these tools and the guide. The only difference is what material you use as your core concept – your own or the call guidelines.



Step 1: The Concept Note

When you come up with a project idea or you identify a funding call you find interesting the first thing you should do is to write a pre-liminary Concept Note. This will serve as a brief outline of the project which you can use to present your proposed project concept idea to potential partners and stakeholders to gauge their interest. It should be specific enough so that partners understand what the project is about and whether they wish to engage with it or not, but it should not be too detailed as this leaves your future partners no room to add in their knowledge and reflections. The goal with the note is to gauge

partners interest to engage them early and co-create an impactful project. The concept note should at least contain a Project Title, Project Objectives, Background and Context, Expected Outcomes and Impact along with a very pre-liminary budget.

Workshop 1: How to write a Concept note

First off, don't spend forever writing the concept note. This is only a tool to gauge partners interests and for you to put your project concept on paper. Make it a maximum of one page.

1. **Project title:** *Should be clear and concise and describe the project in few words*
 - a. Don't spend time making it catchy. The title will change over time.
2. **Project Objectives:** *Clearly state what the objective of the project is and what it should achieve.*
 - a. This can be based on your own ideas, or the specific funding identified.
3. **Background and Context:** *This should provide an overview of the research problem you wish to address, why it is important to address and for whom it is important. In other words, this should highlight the context in which this research is important.*
4. **Expected Outcomes and Impact:** *What does this research problem aim to achieve and how will it contribute to society or the identified stakeholders?*
5. **Budget:** *A very short section on how much money you need to fundraise to make the project happen.*
 - a. This will change over time so just propose an estimate.

Step 2: Identify partners for co-creation of project

START is all about working together to perform impactful research with the opportunity to create systemic changes to our food systems. As a unified research center bringing together researchers across universities and disciplines START is the ideal umbrella to do your project development under. Here, you will find partners for your co-creation who can help you bring elevate your project development to new heights. Therefore, finding the right partners, and involving them as early in the project development process as possible, is essential for your project success.

How to be a partner in START when START is not a legal entity?

When you enter a project partnership you will enter as a partner from your home university and not as a START partner. However, that does not mean that your

membership in START does not have a tremendous value creation. As a member of START the partnership benefits through its access to the START platform's combined pool of researchers and its associated infrastructure. As a platform, START enables an efficient formation of networks as well as high-level dissemination and exchanges between researchers and disciplines working with the green transition.

START also serves as an amplifier for dissemination amongst the research community. Through its website, sharepoint hub and its two-day annual meeting, START enables wide reach of its studies, projects and papers while simultaneously creating efficient pathways for interdisciplinary debates and development of novel methodologies. As such, your membership of START is both a vital contributor to and benefactor of a vibrant high-level interdisciplinary research ecosystem.

START can be a vital guarantor of the sustainability of your project. The Ministry of Higher Education and Science, the Ministry of Food, Agriculture and Fisheries of Denmark, Directorate-Generals and representatives from the European Commission, as well as foundations such as the Novo Nordisk Foundation have all expressed support for START in acknowledgement of the importance of an interdisciplinary research center encompassing research into agrifood systems.

How to find the right partners in START?

To fully utilize the strength of START each project should aim at getting the exactly right competencies and knowledge into their team. These competencies might not exist within your own organization and therefore you might need to reach out to the other universities to gain access to the right partners. You can always use the START Administrative team to do this. You can find their names and contacts online at the START website.

Workshop 2: Collaborator mapping, Stakeholder analysis and Give & Take Matrix

To find core partners use the Collaborator Mapping model in [Appendix XX](#). You can see an example of a filled-out version below.

Collaborator name or Collaborator organization name:	Collaborators interest in the project: (Work related and personal)	This collaborator can contribute with?	Importance to include from 1-10?	Scientific, Industry, Policy or Societal partner?
XX	Have previously published within this research area. Wants to be involved in state-of-the-art research to stay ahead of the curve.	Great Technical knowledge, international network and experience in Fundraising	8	Scientific
YY	Have previously published within this research area. Soon needs new funding to support own salary.	New perspectives and reflections from completely different research discipline	8	Scientific
ZZ	Runs a business that would greatly benefit from this project. Could see a potential for expanding portfolio and accessing new markets.	Test facilities and established user/customer base	6	Industry
QQ	NGO which works with citizen involvement in the green transition of food production. Needs to stay relevant to maintain support for their cause.	Powerful in societal adaption of new initiatives/technologies and research	7	Societal
WW	Wants a greener local community. Wants the appearance of doing "something" and that they are working with experts	Implementation and testing in real life setting. Potential policy changes to ease implementation.	7	Policy

Be aware to not build a core group of more than 5-6 people as the more researchers means more opinions. Keep the core group small and interdisciplinary.

Ask the following questions when finding core project development partners?

1. What competencies that you don't have are essential to the success of this project?
 - a. Do you know someone with those competencies?
2. Who has previously published in this area?
 - a. Do they need to be included as a core partner?
3. Is this a strictly scientific project or is there a commercial/policy/societal aspect to the project?
 - a. Do you need to include industry, government or societal partners?
4. What are your potential partners' motivations to join?
 - a. Think both professionally and personally. Is it for the science of it, prestige, salary, status?
5. How important is this collaborator to the success of the project?
 - a. Is this collaborator detrimental or a "nice-to-have"?

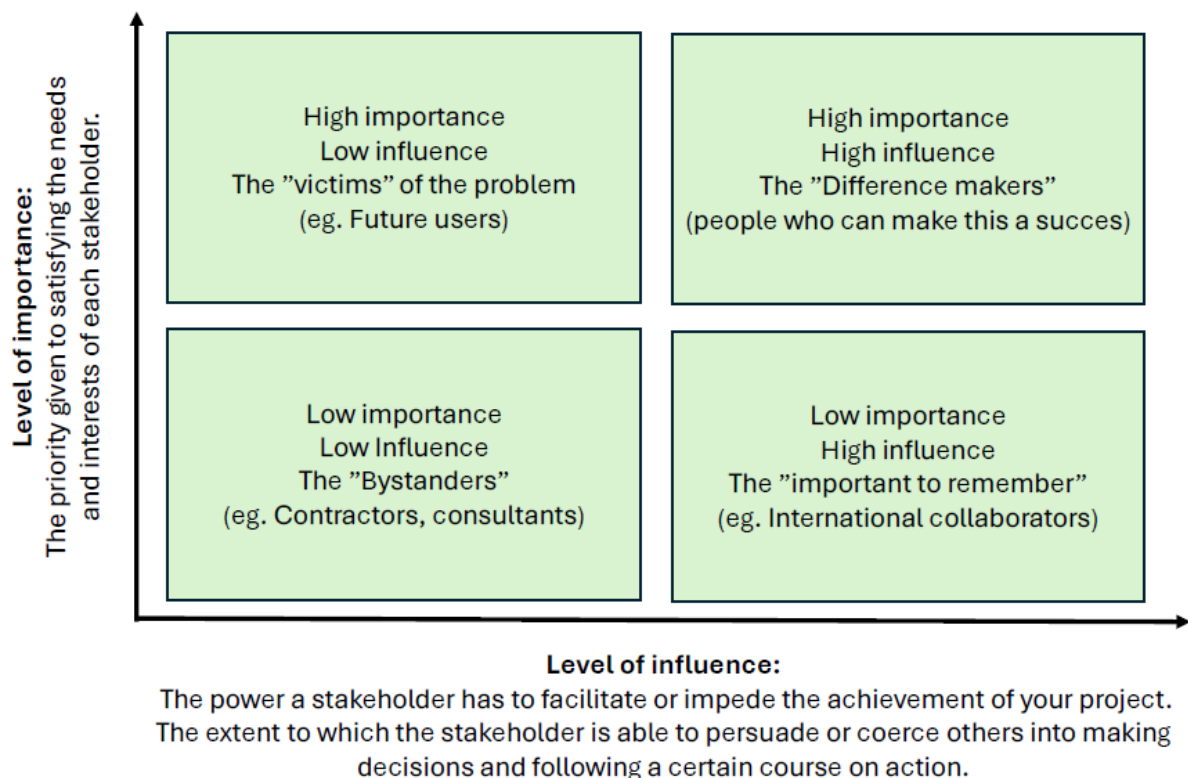
While filling it out you can also start looking into other important stakeholders to your project – see [Appendix XX](#). You can see an example of a filled out version below.

Stakeholder name or organization:	Role	Contribution to outcome: (positive or negative)	Decision-making power (influential or not):	Interest in the project:
XX	Collaborator	Positive – can contribute with key competencies.	Non-influential Project can live-on without their contribution	Scientific interest
AA	Funding body	Both – can contribute to project success with funding.	Highly influential – decides on funding	Needs to invest in promising projects that have good chances of succeeding and have impact
BB	Future user/consumer	Positive - can help with user centric design of project	Non-influential	Wants the best possible solutions in the market to address needs/problems
CC	External Consultant/constructor	Positive – adds competencies otherwise not available	Non-influential	Wants to make money and do a good job to attract more costumers
DD	Competing research group	Negative – can scoop our tech, publish/finish project before us, get the funding we need	Influential – might be a part of assessment committees, peer review panels etc.	Wants to be first to develop new tech, publish novel science, get the funding
EE	Policy maker	Both – if we don't get support for the necessary policy changes, we can't implement our findings	Highly influential – has direct decision-making power	

Roles include, but are not limited to...:

Collaborator	Beneficiary	Informant/Consultant	Founder
Contractor	Policy maker	Knowledge provider	Funding body
Influencer/Champion	Competing researcher/institute	Regulator	Future consumer
Disseminator		Future user	Early adaptor

Remember to place your stakeholders in the stakeholder matrix ([Appendix XX](#)) to understand the stakeholder's importance vs. influence.



Once identified, all potential collaborators can be contacted. Remember to send your concept note to let them know the pre-liminary research idea.

Give and Take Matrix:

Once contacted, you as a group should aim at adjusting your expectations as early as possible. This is done to play with open cards and ensure everyone has their agenda for participation shown.

In practice you ask every participant what they wish to achieve from the collaboration. Be it, funding for their salary, a couple of high impact papers, funding for new equipment, a new PhD student, merging an existing project with a new one, to gain a larger network, etc. It can be anything from professional to personal achievements, but it must be specific for each collaborator.

You then proceed to plot in the names of collaborators in the top row and left column and write in their respective answers for what they want to achieve into a matrix as shown below. You can find a template for this in [Appendix XX](#).

Once that is done you then ask the questions, what can I do for everyone else to achieve their wants? And similarly they will answer what they can do for you to achieve your wants.

Gives to:	Person A	Person B	Person C	Person D	Person E	Person F	Person G
Person A	Wants to achieve X!	What can Person A give to Person B to achieve Z?	What can Person A give to Person C to achieve Y?	What can Person A give to Person D to achieve W?	What can Person A give to Person E to achieve V?	What can Person A give to Person F to achieve Q?	What can Person A give to Person G to achieve N?
Person B	What can Person B give to Person A to achieve X?	Wants to achieve Z!	What can Person B give to Person C to achieve Y?	What can Person B give to Person D to achieve W?	What can Person B give to Person E to achieve V?	What can Person B give to Person F to achieve Q?	What can Person B give to Person G to achieve N?
Person C	What can Person C give to Person A to achieve X?	What can Person C give to Person B to achieve Z?	Wants to achieve Y!	What can Person C give to Person D to achieve W?	What can Person C give to Person E to achieve V?	What can Person C give to Person F to achieve Q?	What can Person C give to Person G to achieve N?
Person D	What can Person D give to Person A to achieve X?	What can Person D give to Person B to achieve Z?	What can Person D give to Person C to achieve Y?	Wants to achieve W!	What can Person D give to Person E to achieve V?	What can Person D give to Person F to achieve Q?	What can Person D give to Person G to achieve N?
Person E	What can Person E give to Person A to achieve X?	What can Person E give to Person B to achieve Z?	What can Person E give to Person C to achieve Y?	What can Person E give to Person D to achieve W?	Wants to achieve V!	What can Person E give to Person F to achieve Q?	What can Person E give to Person G to achieve N?
Person F	What can Person F give to Person A to achieve X?	What can Person F give to Person B to achieve Z?	What can Person F give to Person C to achieve Y?	What can Person F give to Person D to achieve W?	What can Person F give to Person E to achieve V?	Wants to achieve Q!	What can Person F give to Person G to achieve N?
Person G	What can Person G give to Person A to achieve X?	What can Person G give to Person B to achieve Z?	What can Person G give to Person C to achieve Y?	What can Person G give to Person D to achieve W?	What can Person F give to Person E to achieve V?	What can Person G give to Person F to achieve Q?	Wants to achieve N!

Once the matrix is filled out it will become clear what everyone brings to the table and what everyone can achieve from the collaboration. This is also a good way to identify if someone has unrealistic expectations for the collaboration or if someone do not really bring anything to table.

Use this continuously as you progress through the project development process. What some wants to achieve might change over time or new things could pop up. The model will help you figure out how to best address the new needs and wants.

Once you have agreed to meet for an initial project discussion meeting, ask them to contemplate the following question:

In your opinion, what are the key issues within this research problem that need to be addressed?

The answers will be used in the next step.

Step 3: Research problem exploration

Once you have your core partners in place it is time to explore various angles to the proposed research problem from your Concept Note or the specific funding call you identified. Having a diversity of research fields in this stage is essential to gain a 360-degree holistic understanding of the research problem you wish to address. You will gain this through performing workshop 3 with your new research consortium.

Workshop 3: Problem exploration and assumptions mapping

In this workshop you aim at identifying the key critical issues of your research problem to clarify your priorities going forward. In this stage you investigate all angles to the research problem to fully understand it and to identify which areas you, as a core research consortium, can address it. For this you can use the problem exploration tool found in **figure XX** and as a black template in **Appendix XX**. Undoubtedly, you will run into various assumptions you have about the research problem, funding strategy, potential impact, your ability to finish everything, etc. For that you can begin tracking your assumptions to turn them into knowledge. Remember, assumptions are the mother of all mess-ups. This is also a good exercise in figuring out what you know, what you think you know and what you don't know. As Mark Twain puts it: "It ain't what you don't know that gets you into trouble. It's what you know for sure that just ain't so".

Problem exploration:

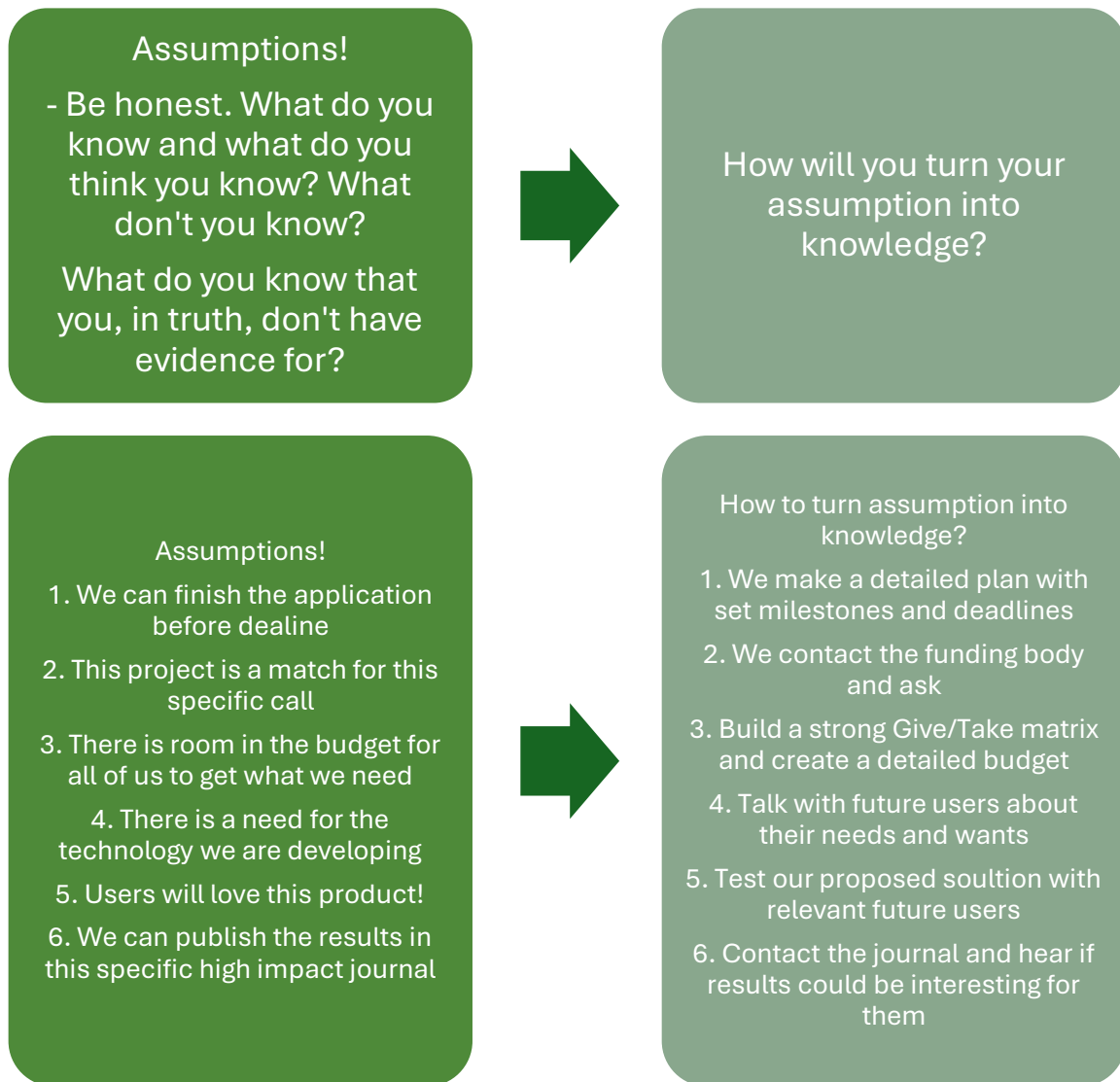
1. Start out by you presenting the research problem that you also send in your concept note. This will set the stage for the overall research theme you will all address.
2. You then kick-off the workshop by answering the first questions in **figure XX**.
3. Once you have presented your answer the other participants present their answer to the first question. Write all the answers down as you go.
4. Now, you go through each question addressing all the key issues you identified one by one. Why is answer 1 important, why is answer 2 important, etc.

During this session be sure that everyone gets to share their insights and ideas. Everyone should be heard to ensure all aspects of the research problem is touched upon.

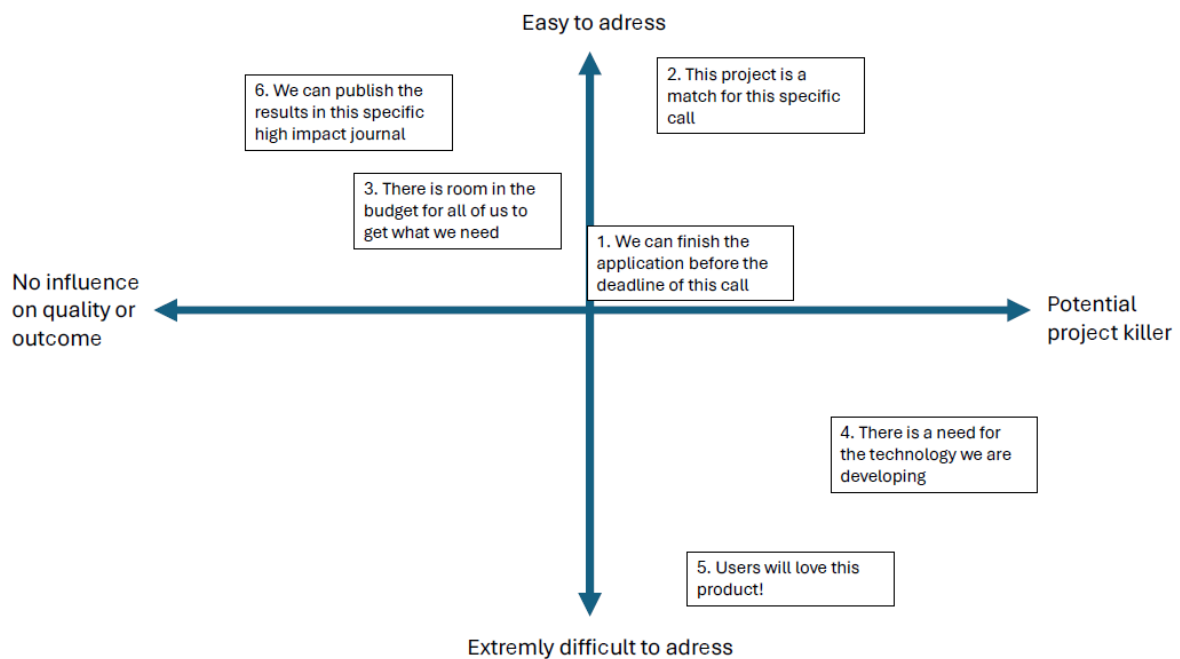
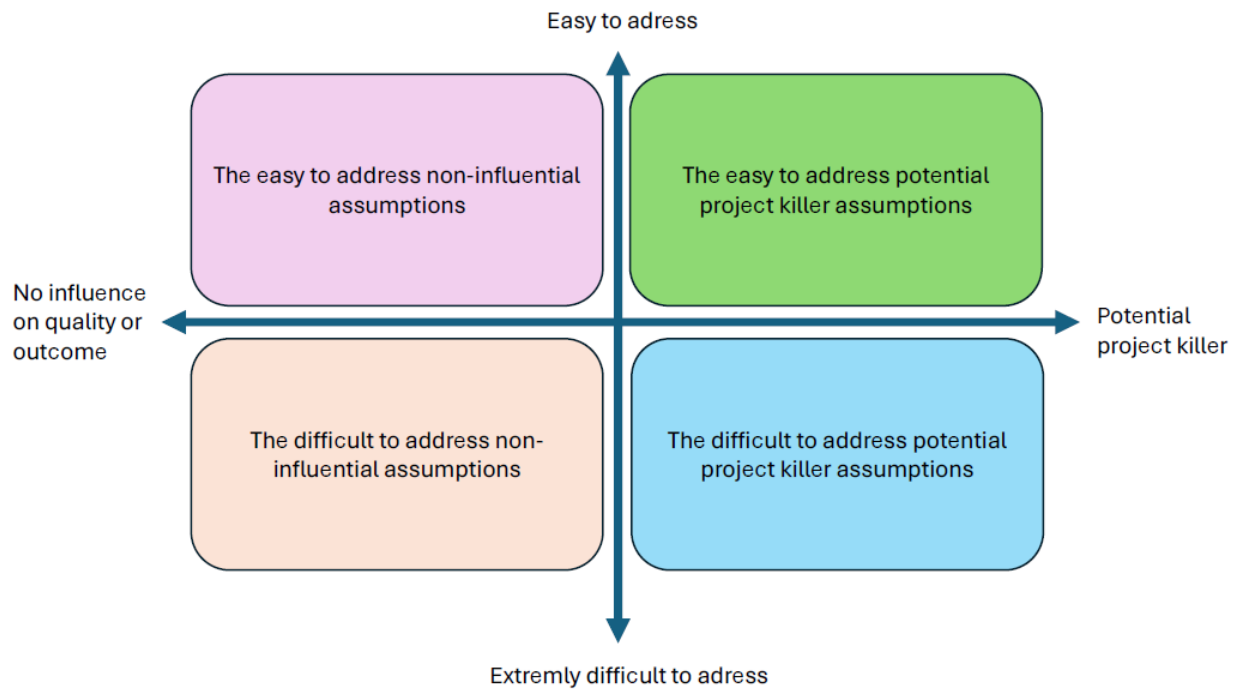


Assumptions mapping:

One way to eliminate risk in a project is to continuously keep track of your assumptions about key issues and being able to turn those assumptions into knowledge. In practice, every time you stumble upon any assumption about the project, write them down. Occasionally you visit those assumptions, evaluate their importance and write down how you plan on addressing them. In **figure XX** you will find an example of how this assumption mapping can look like. You can find empty versions in **Appendix XX**.



Once you have an overview of your assumptions and a pre-liminary idea of how to turn them into knowledge you should place them in the Assumptions matrix. This will help you determine which assumptions to prioritize addressing. You can see the matrix along with a filled-out example based on the above shown assumptions below. You can find an empty version in [Appendix XX](#).



Once placed in the assumption matrix, you should prioritize addressing your assumptions in the following order:

1. The easy to address potential project killers
2. The difficult to address potential project killers
3. The easy to address non-influential assumptions
4. The difficult to address non-influential assumptions

The reason for this prioritization is to decrease the risk of the project and thereby eliminate potential project killers. And then you might as well start with the low hanging fruits of the easy to address assumptions.

Step 4: Research problem scoping

With everything you now know about your research problem it is time to become more concrete on how you are going to work with your project. First, you will perform a gap analysis. This will help you understand what needs to be done to go from the current state-of-the-art to a future where your awesome innovation has created an impact. When that thought experiment is done you will move on to perform a Theory of Change. Here, you investigate the input, activities, outputs, outcomes, impact and vision of your project – essentially a road map to match your gap analysis. In the end, this workshop should allow you to define; The resources (**input**) invested to facilitate the work carried out (**activities**) and the results that the initiative generate (**outputs**) to achieve the desired change (**outcome**) and create the intended impact (**impact**) to fulfill the long-term objectives (**vision**).

Workshop 4: Gap analysis and Theory of Change

Gap analysis

Answer questions:

1. What is the current state-of-the-art and which elements of it do you seek to change?
2. If the elements are changed, what does the ideal situation then look like?
 - a. Be bold, how would the perfect world look like where your idea was a huge success?
 - b. Eg. Complete circularity in nutrients, Net zero CO2 emissions from farming, Lab grown meat as a common choice for meat in supermarkets
 - c. Your research might not achieve this future ideal state but should contribute significantly to reach this overarching vision
3. What is preventing the current stage from being the target state? What are the barriers that must be overcome to reach the target state?
 - a. Research not far enough, societal push-back, technology not advanced enough, lack of knowledge in industry
4. How can you traverse the gap and reach the ideal state? What solutions or knowledge must be generated?

Theory of Change

Using the knowledge from your research problem exploration and our understanding of the current state-of-the-art and future ideal state you have gained from the gap

analysis; it is time to create a Theory of Change (ToC). A (ToC) is an essential tool in the research project design process, offering a systematic approach to planning, implementing, and evaluating complex initiatives. It provides a detailed roadmap that outlines how and why a desired change is expected to occur based on the input and activities performed by the researchers. The roadmap is achieved by identifying the desired long-term goals and then working backward to map out the necessary inputs, activities, and outcomes that will lead to achieving these goals.

A ToC is beneficial for several reasons. Firstly, it enhances clarity and focus by articulating the detailed causal pathways leading to the intended outcomes. This clarity helps in aligning partners' and stakeholders' expectations and ensuring everyone is working towards common objectives. Secondly, a ToC is a powerful tool for identifying key assumptions and risks that might affect the project's success, allowing for better risk management and contingency planning. These can be mapped with the assumptions you already discovered in workshop 3.

Using a ToC is particularly advantageous when designing the framework and methodology of your project. It helps in structuring the research questions, hypotheses, and data collection methods to ensure they are aligned with the intended outcomes. Additionally, a ToC can be invaluable during the project's monitoring and evaluation phases. By establishing clear indicators and benchmarks linked to each step of the causal pathway, it facilitates ongoing assessment and adjustments, enhancing the project's effectiveness and impact.

The primary outputs of creating a ToC include a comprehensive visual diagram and a narrative explanation that detail the logical sequence of actions and outcomes. These outputs serve as living documents that guide the research process, inform decision-making, and communicate the project's rationale and progress to stakeholders and funders. Ultimately, a well-crafted ToC fosters a deeper understanding of the change process, promotes strategic planning, and improves the likelihood of achieving meaningful, sustainable results.

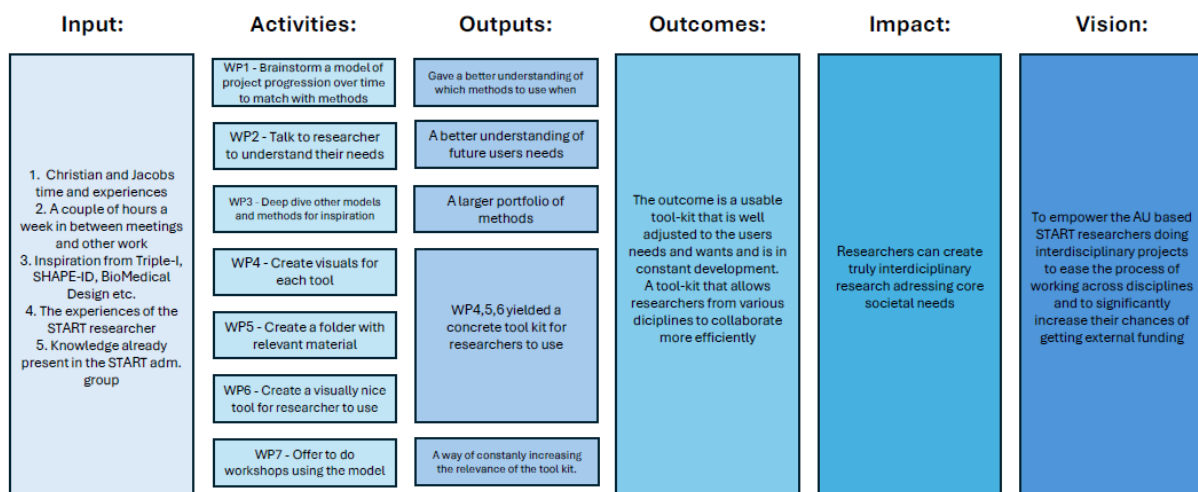
The ToC should be revisited often and used as a framework to adjust the project to always full-fill the longterm vision. As you progress in the project planning more details about work packages, resources and results can be added. This will only strengthen the model and make your project clearer to you, your collaborators and externals.

We will not provide you with a visual diagram for your ToC as each ToC is unique in the interconnection between the various elements. We will provide you with the steps to go through the creation of a ToC and provide important questions to ask along the way.

Steps:

- 1. Vision – Define the overall purpose and goals to which the research project aims at to contribute (but is not necessarily accountable for)**
 - a. This is the ideal state you identified in your gap analysis
 - b. Questions to ask:
 - i. *What is the overall purpose and goal to which the research aims to contribute?*
 - ii. *What is the common goal all work packages aims at addressing?*
- 2. Inputs – Outline the input of resources invested to reach the overall goals and purpose**
 - a. This could be personnel, pre-existing funding, networks, research facilities etc.
 - b. Questions to ask:
 - i. *What inputs do I have available to contribute with?*
- 3. Activities – Identify main activities and the actors to be involved**
 - a. This is where you start building work packages
 - b. Questions to ask:
 - i. *What must be done and who/what can help you achieve it?*
 - ii. *What projects should be done to reach the overall vision?*
 - iii. *Do we need to host workshops, attend conferences, to disseminate the project?*
- 4. Outputs – Identify the outputs of the research project**
 - a. Knowledge creation, new technology, public engagement, policy changes,
 - b. Questions to ask:
 - i. *What knowledge, technology, relationships, movements, etc. did we gain from the listed activities?*
- 5. Outcome – Identify outcomes that will result from the planned activities, engagement and outputs produced. Consider the outcomes at different stages of the process.**
 - a. Consider immediate/short-term outcomes, at the end of the project and long-term outcomes
 - b. Questions to ask:
 - i. *What outcomes do we anticipate the outputs to generate?*
 - ii. *Who is affected and how?*
 - iii. *What can you use the research outputs for and what did you gain?*
- 6. Impact – Identify impacts that will be influenced by the outcomes**
 - a. Tangible social, economic, and/or environmental benefits
 - b. Think as big as possible.
 - i. *What is the tangible impact to society from your outcome?*
 - ii. *Who benefits from it and why?*
 - iii. *What is the importance for your outcomes?*

An example of a ToC for this toolkit:



Step 5: Finalize work packages

Once you have created your ToC a collection of activities has been identified. These can now serve as inspiration for the creation of project work packages (WP's). Usually, one or two partners will be responsible for the completion of a WP but aligning your expectations of each other before initiating your project is essential. Especially if multiple WPs rely on the completion of other WPs. For this you can sit together in your core partner group and develop SMART goals for each activity or WP. Creating SMART goals is a tool that uses a specific set of criteria to help ensure that project WP goals are clearly defined and attainable within a certain timeframe. It ensures that you set goals for the completion of your activities or WP's that are **Specific, Measurable, Assignable, Relevant/Realistic & Time-bound**. Below you will find a series of relevant questions to ask when developing your SMART goals.

Workshop 5 – SMART goals

For each activity or WP ask some of the following questions in your core partner group. You can also come up with questions on your own. Just ensure you dive deep into all five areas.

- **S: Specific** – *Get to the core of what you're aiming for with this activity*
 - What specifically needs to be done to complete the activity?
 - What steps need to be taken to complete it?
 - What milestone do you need to reach along the way?
 - Should the activity be subdivided into multiple smaller activities?

- **M: Measurable** – *Make your activities measurable to track progression*
 - Come up with a measurement for success to track progression and to celebrate when your activities are finished
 - How will you know when your activities are finished?
 - How will you track milestones?
 - How will you report to the project manager?
- **A: Assignable** – *Look at your team*
 - Who is responsible for making this activity happen?
 - Can they achieve it on their own or do they need assistance?
 - Should the activity be split between multiple partners? If so, who will take the lead and how will they keep track of the multi-partner activity team?
- **R: Relevant/Realistic** – *Take a step back and give yourself a reality check*
 - Be sure to include all involved stakeholders! Don't set unrealistic goals for others to deliver.
 - Is this activity something your team can reasonably accomplish?
 - Is this activity necessary to do? Why?
 - Is this activity high or low priority compared to the other activities?
 - Could our time be better spent on the other activities?
- **T: Time-bound** – *Get on the same page about when to accomplish the activity*
 - When should this activity be initiated?
 - When should this activity be finished?
 - What milestones should be reached at what time?

Step 6: Initiate grant writing

Finding the right funding call – if you did not find one before initiating your project development.

Workshop 6 – How to write a great grant application

<https://medarbejdere.au.dk/administration/forskningspraksis/forskningsstoetteenheden/raad-og-vaerktoejer-til-din-fondsansoegning>

Step 1: deconstruer grantet – hvilken kontekst lægger det sig ind i

Additional usable models

Impact assessment

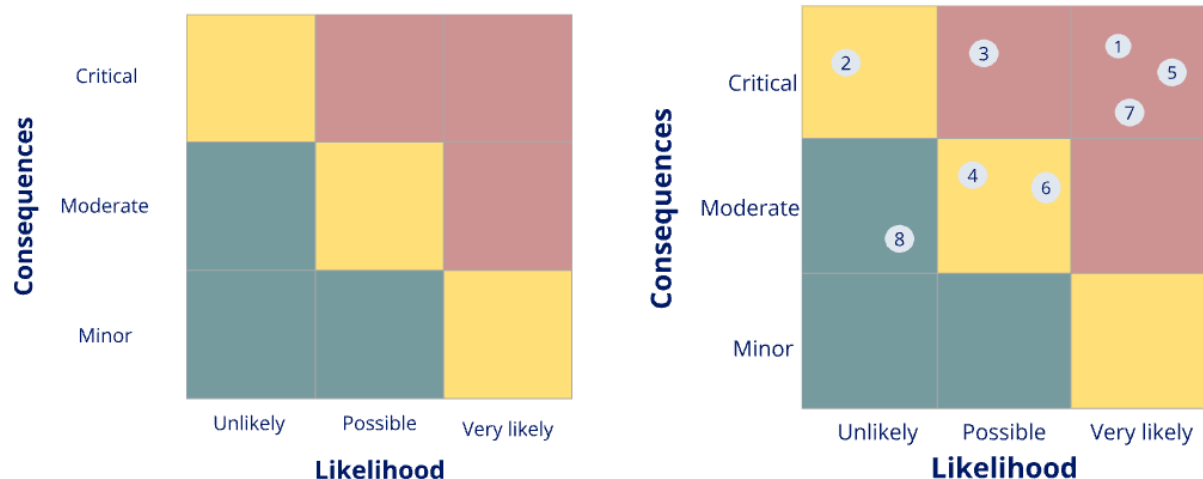
Risk assessment:

Some funding bodies will require you to perform a risk assessment. This is effectively an exercise in which you, during your project development, reflect on what might go wrong while you are executing your project. You will spend time evaluating what the likelihood is of this risk happening and what the consequences might be should the risk come to be. You can plot that into a table and graph such as the one below.

Table 1:

ID	Risk	Likelihood	Consequence
	Give a brief summary of the risk.	How likely is it the described risk is going to happen? Unlikely – Possible – Very Likely	What is the impact of said risk happening? Minor – Moderate - Critical
1			
2			
3			
4			
5			
6			
7			
8			

Graph 1:



Once this is filled out you need to provide the funding body your means of prevention and mitigation of your risks. Again, you plot in your identified risk, but this time ask the two questions shown below:

Table 2:

ID	Risk	Prevention	Mitigation
	Give a brief summary of the risk.	What can be done to lower or eliminate the likelihood?	What can be done to lower or eliminate the impact?
1			
2			
3			
4			
5			
6			
7			
8			

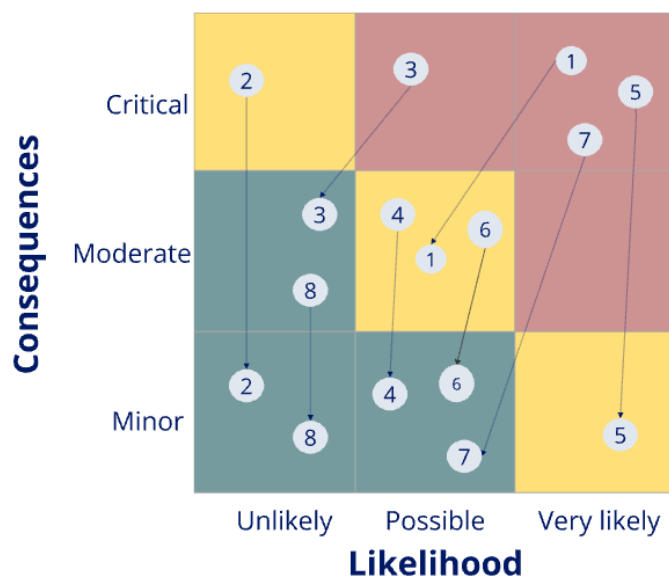
When finished, it is time to provide the funding body with your renewed risk assessment now that you have a strategy for decreasing the likelihood and consequences of the identified risk.

Table 3:

ID	Risk	Likelihood	Consequence
	Give a brief summary of the risk.	How likely is it the described risk is going to happen after your prevention measures? Unlikely – Possible – Very Likely	What is the impact of said risk happening with your mitigation strategy in place? Minor – Moderate - Critical
1			
2			
3			
4			
5			
6			
7			
8			

Lastly, you plot your risk back into the graph to show how they change with your prevention and mitigation strategy.

Graph 2:



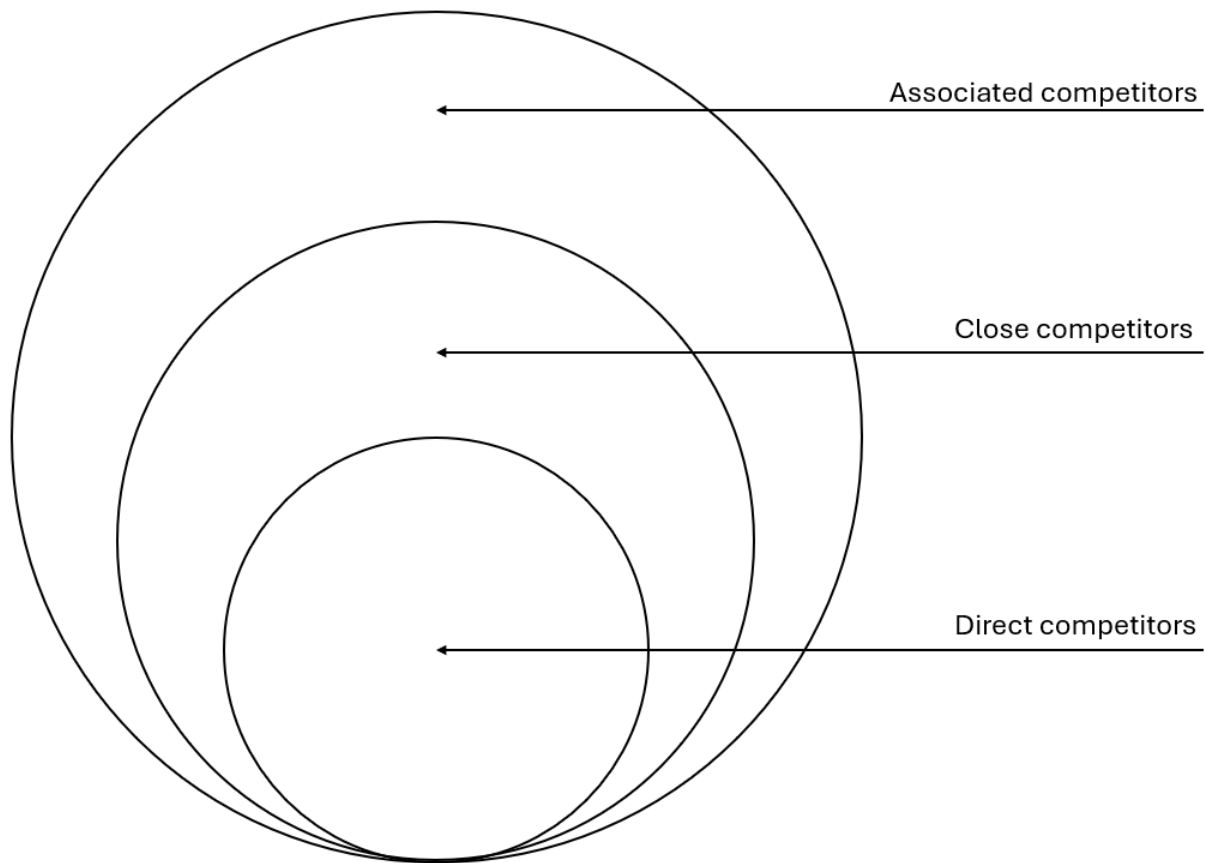
The foundation might ask for this to be in a written form or in the shape of a table or graph. You should always aim at showing your risk assessment as per described by the application template. If no specific structure is provided, we recommend you add in filled out versions of table 2 and graph 2.

Competitor analysis:

Some funding bodies will require you to perform a competitor analysis. Here, you should name the most relevant academic and industrial competitors, with respect to e.g. technology or service development and/or market applications. You should aim at describing how the competitors, to the best of your knowledge, are currently trying to solve the unmet need you are also trying to solve. Performing a competitor analysis is a great way for you to clarify what makes your research, product, service, technology, etc. unique (your unique value proposition) and it will help you to better understand future users, consumers, buyers, etc.

To perform a competitor analysis, you should start by mapping your known competitors. If you follow this tutorial you already did this to a certain extent in your stakeholder mapping. You should now stratify your competitors into *direct*, *close* and *associated* competitors. The *direct competitors* are essentially solving the problem in the same way you are so here the unique value proposition of your solution is essential. The *close competitors* are competitors that might occupy a large quantity of your future users but address the scientific problem or societal need in a different way than you. Lastly, the *associated competitors* are every alternative the user have to your solution. An

associated competitor could even be that they learn to live with the problem and simply don't seek out any solutions.



Be bold and remember, having competitors is not a bad thing. It is a sign that others have also identified the societal need that you are trying to solve. Now it is time for you to show that your solution to that problem is the best. Once finished, you will have a great understanding of the competitive landscape in which you operate and what sets your project apart. Remember, some competitors might be converted to collaborators through various interactions.

The Sustainable Business Model Canvas:

Some funding bodies will require you to at least consider a business case for your proposed project. If you do not have experience in this regard, we highly recommend you reach out to researchers experienced in new business models or the likes. You can also try to create a pre-liminary business model yourself using the Sustainable Business Model Canvas. The Sustainable Business Model Canvas is different from the well-known business model canvas as it takes Eco-social Costs and Benefits into account. As we are pushing towards a more sustainable food system it is worth taking into account how your proposed solution affects the world around us.

How to write START into your proposal without having a PIC number

How to use this: Given that START lacks a PIC number, its relevance and added value to a project will need to be embedded in the narrative part. This text is an attempt at providing a generic introductory text that can be tweaked according to any given project while simultaneously encompassing the essence and added value of START. Parts can be cut, added or meshed according to researchers' needs; this is merely a starting point for operationalizing START and leveraging membership to an advantage in the application process.

A successful green transition of agriculture and food systems is paramount to addressing the multitude of global challenges inherent in securing nutritious food and other biomass within planetary boundaries. This transformation can solely be achieved through disruptive changes in our society and economy rooted in evidence-based co-creative world-class interdisciplinary, inclusive and integrative science spanning all disciplines from technical, natural and digital sciences to social sciences, health and humanities.

The Center for Sustainable Agrifood Systems - START - has been established as a unique platform for collaboration between all Danish universities for strategic and interdisciplinary research, with the overarching purpose to deliver future research solutions to unlock the green transition of Agrifood Systems. The EU aims to be a global leader in transforming the economy for a sustainable future through a just transition leaving no one behind, while Denmark has the proposition to be the European living lab to highlight the envisaged transition of European agrifood systems. START marries both ambitions as it aims to showcase and exploit Danish innovative leadership and identify and develop pathways for systemic transition of the agrifood system towards the SDG objectives in terms of climate, environment, biodiversity, food, health, energy, land use, inclusive society and resource sufficiency.

START enters the European arena as an academic powerhouse in the top-three European knowledge institutions, being the first of its kind national collaborative effort between the combined resources of all eight Danish universities. It currently comprises more than 280 researchers from all Danish universities. It is a platform comprising researchers across all disciplines and seniority, offering access to unparalleled research infrastructure while benefitting from – and contributing to – the creation of a novel research environment aimed at societal impact through interdisciplinary research shaping the green transformation of agrifood systems. START furthermore contributes to fostering a new generation of talent encompassing the magnitude of the green societal transformation as well as broadening the expertise of the old through its creation of a 'green academic society.'

[This project] benefits from START through its access to the platform's combined pool of researchers and its associated infrastructure. As a platform, START enables an efficient formation of networks as well as high-level dissemination and exchanges between researchers and disciplines working with the green transition. START is comprised of ten research hubs acting as umbrellas for interdisciplinary research into the multitudes of the agrifood system. **[This project falls under X hub... [Insert summary of hub and elaboration on why this project benefits from the hub and, by extension, START]].**

START also serves as an amplifier for dissemination amongst the research community. Through its website, sharepoint hub and its two-day annual meeting, START enables wide reach of its studies, projects and papers while simultaneously creating efficient pathways for interdisciplinary debates and development of novel methodologies. As such, **[this project]** is both a vital contributor to and benefactor of a vibrant high-level interdisciplinary research ecosystem.

START is a vital guarantor of the sustainability of **[this project]**. The Ministry of Higher Education and Science, the Ministry of Food, Agriculture and Fisheries of Denmark, Directorate-Generals and representatives from the European Commission, as well as foundations such as the Novo Nordisk Foundation have all expressed support for START in acknowledgement of the importance of an interdisciplinary research center encompassing research into agrifood systems. Thus, beyond the merits of **[this project]**, there is diverse and wide-ranging commitment to the mission and strategy of START, which **[this project]** aligns with.

Relevance: Depends on project content, context, partners and call, but general pointers are:

- Tie it into existing EU missions if possible
- Tie it into EU policies (and/or ambitions)
- Tie it into prior projects (not necessarily "our own") in order to emphasize continuous development and a solid evidence-base.
- Provide a compelling needs analysis.
- Delineate clear target group(s) -> tie into subsequent impact section.

We can help with formulating this into a START relevant context!

Impact: Depends on project content, context, partners and call, but general pointers are:

- Fostering new talent?
- Impact analysis for the proposed project

- Impact analysis tied into above-mentioned target groups
- Compelling theory of change
- Contribution to the 'living lab' ambition, if any

We can help with formulating this into a START relevant context!

Communication and dissemination: depends on project context, call and scope.

- Annual meeting is a resource that could be leveraged.
- SharePoint hubs
- Website
- University resources across partners!
- Tie it into the last section on the previous page surrounding support by various stakeholders, START can be leveraged to open doors to said stakeholders.

Assessment of project fundability

As you move along with your interdisciplinary project development it is important to assess the fundability of your project. This can be done by assessing the maturity of your project in various categories. Below is a list of various categories you can use. Some (like TRL and SRL) are also used by funding bodies and assessing these as you go can be beneficial for the creation of future funding applications. You can cherry pick what you think is relevant for your project. If your project doesn't have any prospect of IP or commercialization it is not relevant for you to assess the BRL or IPRL.

Assessment tools:

- Funding Readiness Level (FRL)
- Societal Readiness Level (SRL)
- Technology Readiness Level (TRL)
- Team Readiness Level (TeamRL)
- Business Model Readiness Level (BRL)
- User/Costumer Readiness Level (URL/CRL)
- Intellectual Property Readiness Level (IPRL)

Funding Readiness Level (FRL)

The Funding Readiness Level (FRL) framework is designed to evaluate the preparedness of a research project to secure funding. This method evaluates how well-developed the project is in terms of its funding strategy and requirements. When the FRL is low, work needs to be done on the project development and initial screen of funding sources. As

such, the lower the FRL, the less detailed the plan for obtaining funding is. The FRL scale ranges from 1 to 9, with 1 representing an initial concept with no clear funding plan, and 9 representing a fully funded project with continuous evaluation of funding needs and opportunities. This structured approach ensures systematic progression towards achieving financial readiness for your research project.

FRL levels:

1. Conceptual idea with limited detail. No defined funding requirements or potential sources identified.
2. Initial research concept formulated along with pre-liminary understanding of research funding requirements. Initial exploration of potential funding sources begins.
3. Initial draft of research proposal with pre-liminary budget estimates. Identification of potential funding bodies and their call requirements.
4. Detailed research proposal created with refined budget and funding strategy. Identified potential funding bodies and peer review of grant application performed.
5. Positive feedback received from peer review. Comprehensive grant application developed.
6. Active discussions with funding body. Final peer review evaluation initiated.
7. Final grant finished and accepted by all partners. Application submitted.
8. Grant awarded and commitment from funding body secured. Formal agreements are in place and the research project is initiated with regular financial monitoring and reporting mechanisms established.
9. Full funding secured. Ongoing assessment with funding agencies to ensure sustained financial support.

FRL 1-3 reflects your project development from initial concept idea to well thought out project ready for drafting of a research proposal. Here, you should do preliminary searches for funding sources and specific calls to form your application to match with funding body requirements.

FRL 4-6 represents the grant writing process including communications with the funding body. Here, you should try and get as much feedback on your grant application as possible either from the funding body itself or from peers in your research environment. This is also when you create a detailed budget with your partners. When the grant application is finished and submitted you move from FRL 6 to FRL 7.

FRL 7-9 represents the period from your grant has been submitted to you having required your funding. At the highest level of FRL your project is running and you have continuous monitoring of the project financials to always be able to report back to your funding source.

Societal Readiness Level (SRL)

Societal Readiness Level (SRL) is a method for evaluating how well a social project, technology, product, process, intervention, service, or innovation is adapted for integration into society. **When the evaluated societal readiness level for your solution is low, a realistic recommendation for achieving any societal adaptation is necessary.** Consequently, the lower SRL, the more thorough the transition plan should be. SRL 1 represents the lowest level, while SRL 9 represents the highest.

SRL levels:

1. Identify problems and identify societal readiness.
2. Formulation of problem, proposed solution and potential impact, expected societal readiness; identify relevant stakeholders for the project.
3. Initial testing of proposed solution(s) together with relevant stakeholders.
4. Problem validated through pilot testing in relevant environment to substantiate proposed impact and societal readiness.
5. Proposed solution(s) validated, now by relevant stakeholders in the area
6. Solution(s) demonstrated in relevant environment and in co-operation with relevant stakeholders to gain initial feedback on potential impact.
7. Refinement of project and/or solutions and, if needed, retesting in relevant environment with relevant stakeholders.
8. Proposed solution(s) as well as a plan for societal adaptation completed and qualified.
9. Actual project solution(s) proven and adopted in relevant environment.

SRL 1-3 reflects the early work in a research project, including suggesting and testing on a preliminary basis a technological and/or social solution to a technical or societal problem. Here, reflections about the general societal readiness towards the idea and its proposed solutions are required, including identifying relevant stakeholders and how to include them (such as partners, future users, decision makers, policy makers, future consumers, etc.).

SRL 4-6 represents the actual solution(s), the research hypothesis, and testing it/them in the relevant context in co-operation and with relevant stakeholders, while keeping focus on impact and societies readiness for the product. In these SRL levels expectations on the societal adaptation must be described in specific terms and, to the extent possible, be part of the testing phase.

SRL 7-9 include the end stages of the research project, including refining the solution(s), implementation and dissemination of results and/or solution(s). Here, the plan for

addressing the societal readiness on a practical level to gain impact, creating awareness, disseminating results etc., will be carried out.

Technology Readiness Level (TRL)

Technology Readiness Level (TRL) provides a way to gauge the maturity of a specific technology from early idea through testing to fully operational. Funding bodies often ask applicants to evaluate the TRL of their technology and how it might be improved in the project period. Note that some funding bodies are specific with what TRL level projects they support, disregarding applications for technologies outside of that range.

TRL Levels:

1. Interesting research results or initial technology idea identifies
2. Technology concept and/or application formulated
3. Proof-of-concept of critical functions and/or characteristics in laboratory
4. Technology validated in laboratory
5. Technology validated in relevant environment
6. Technology prototype demonstration in relevant environment
7. Technology prototype demonstration in operational environment
8. Technology complete and demonstrated in actual operations
9. Technology complete and proven in actual operations over time

TRL1-3 reflects early concept development and testing of core functions. Being in this range you will have some indications that your technology might work but the technology is not yet on a prototype stage and has not been tested in any relevant environment.

TRL 4-6 reflects more specific testing and technology development through to a prototype stage. To progress from that stage the technology must be developed to a close-to-finished stage and tested in operational relevant environment.

TRL 7-9 reflects the transition from prototype to fully developed and tested technology along with continuous monitoring and improvements.

Team Readiness Level (TeamRL)

Having the proper team of researchers and partners set up is detrimental for a project's success. This evaluation scheme will help you determine how far you are in setting up a strong collaborative team capable of not only developing an impactful project idea but getting the appropriate funding and executing on the project idea.

TeamRL levels:

1. Lack of necessary competencies/resources to verify idea. Little insight into team needs.
2. Limited competencies in place to start verifying the idea. First idea of additional necessary competencies or resources
3. Some of the necessary competencies in place to verify/develop idea. Defined needed competencies and a plan for finding them.
4. A champion is present with clear idea of direction (lead in the consortia). Several needed competencies in place, initiated plan to complement
5. Initial founding team with main needed competencies and capacity. Team agrees on roles, goals, and vision
6. Complementary, diverse, and committed project team with all necessary competencies and capacity to build a fulfilling project
7. Well-functioning team and culture in place. Initial project management plan set.
8. Project management strategy in place
9. High performing, well-structured organization at all levels that is maintained, develops, and performs over time

Business Model Readiness Level (BRL)

Some funding bodies (such as GUDP) have a strong focus on the commercialization perspectives of funded projects. Therefore, it can be beneficial to evaluate the business model made using the business model canvas. This evaluation method covers business model readiness all the way up to development of a profitable business with continuous sales and profit. So, as a researcher you should not expect to reach higher than BRL 5.

BRL levels:

1. No or unclear hypothesis of possible business idea, market idea, market potential, and competition
2. First hypothesis of possible business concept (in any format) and identifies overall market potential and competition
3. Description of sustainable business model and target market(s), including competition
4. First calculations indicate economically viable business model. First assessment indicating environmental and social sustainability
5. Key assumptions in sustainable business model tested on market
6. Full sustainable business model tested on consumers, partners, suppliers (e.g. By test sales)
7. Viability of sustainable business model (pricing, revenue model, etc.)
8. Sales and metrics show that sustainable business model is viable

9. Sustainable business model proven to meet internal and external expectations on profit, scalability and impact over time

User/Customer Readiness Level (URL/CRL)

If your project is aimed at developing a technology or service that is to be implemented in society once done, having a good understanding of your future users (or customers if your idea is to be commercialized) is key. Too many innovations are designed without including the future users. This runs the risk of the innovation not being picked up by the users as its design does not meet the actual need of the user. Therefore, keeping track of users' actual needs, and your innovation in relation to it, is key. You can use the User/Customer Readiness Level to assess your understanding of your future users needs/problems and how your innovation addresses these needs.

URL/CRL levels:

1. Hypothesis of possible problem/need in society
2. Identified specific problem/need in society
3. First feedback on your understanding of the problem/need from future users/customers established
4. Confirmed problem/need from several users/customers – development of solution start
5. Established relations with users/customers and interest in your solution
6. Benefits of solution confirmed by first user testing
7. Customers/users enrolled for extended testing or first test sales. Small number of active users
8. First commercial sales and implemented sales process. Substantial number of active users
9. Widespread scalable sales. Large number of active users with prospects of substantial growth.

URL 1-3 is mostly about understanding your future users and their needs/problems.

URL 4-6 is about testing your solution in relation to the addressed need/problem.

URL7-9 is about getting the innovation in the hands of the users and scaling the number of users.

Intellectual Property Readiness Level (IPRL)

IPRL is a method of evaluating the readiness level of the IP you create while doing your project. We highly recommend reaching out to your local Technology Transfer Office (TTO) if you believe your research project will develop any IP.

IPRL levels:

1. Hypothesizing on your possible IPR
2. Identified different form of possible IPR that you have/create. Ownership is clarified and you can use relevant IPR
3. Description of possible key IPR in some detail. Initial evaluation of potential to protect key IPR.
4. Confirmed that IPR protection is possible and for what. Decided why to protect certain IPR (business relevance).
5. Draft of IPR strategy to create business value is in place. Filed first formal application/registration of key IPR
6. First complete IPR strategy in place considering different IPR. Positive response on filed application/registrations
7. Filed formal applications/registrations of key IPR in relevant countries/regions according to IPR strategy
8. IPR strategy and management practices fully implemented. Filed formal applications/registrations of complementary IPR
9. Strong IPR support and protection for business. IPR protection is granted and maintained in relevant countries.