

Eco—i Manual

Eco-innovation
implementation process



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About the UN Environment Economy Division

The UN Environment Economy Division helps governments, local authorities and decision-makers in business and industry to develop and implement policies and practices focusing on sustainable development.

The Division works to promote:

- sustainable consumption and production,
- the efficient use of renewable energy,
- adequate management of chemicals,
- the integration of environmental costs in development policies.

The Office of the Director, located in Paris, coordinates activities through:

- The International Environmental Technology Centre - IETC (Osaka, Shiga), which implements integrated waste, water and disaster management programmes, focusing in particular on Asia.
- Production and Consumption (Paris), which promotes sustainable consumption and production patterns as a contribution to human development through global markets.
- Chemicals (Geneva), which catalyzes global actions to bring about the sound management of chemicals and the improvement of chemical safety worldwide.
- Energy (Paris), which fosters energy and transport policies for sustainable development and encourages investment in renewable energy and energy efficiency.
- OzonAction (Paris), which supports the phase-out of ozone depleting substances in developing countries and countries with economies in transition to ensure implementation of the Montreal Protocol.

- Economics and Trade (Geneva), which helps countries to integrate environmental considerations into economic and trade policies, and works with the finance sector to incorporate sustainable development policies.

UN Environment Economy Division activities focus on raising awareness, improving the transfer of knowledge and information, fostering technological cooperation and partnerships, and implementing international conventions and agreements.

For more information see www.unep.org

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Eco-innovation activity list

PREPARE

Identify the right market for the eco-innovation services

Evaluate potential markets
PR.1

Build the right team to deliver the service

Build the right internal team
PR.2

Build the right external partnerships
PR.3

Understand the value chain sustainability hotspots, opportunities and threats

Identify sustainability hotspots across the value chain
PR.4

Identify the general opportunities and threats across the value chain
PR.5

Develop a concept for a more sustainable value chain

Develop a value chain vision
PR.6

Engage potential clients

Develop a value chain pitch
PR.7

Plan and implement engagement activities
PR.8

Gain approval from senior management to proceed

Pitch the benefits of eco-innovation to the CEO
PR.9

SET STRATEGY

Get ready for the Preliminary Assessment

Plan my data gathering strategy
ST.1

Understand the current business strategy

Interview the CEO
ST.2

Understand the current business model

Capture the current business model
ST.3

Understand the current operational performance

Do a Walk-Through Audit
ST.4

Do a workshop/ interviews with staff
ST.5

Update the sustainability hotspots
ST.6

Analyse the information I have gathered

Do a SWOT analysis
ST.7

Define the company vision and strategic goals of the new business strategy

Develop a vision for the company
ST.8

Define the strategic goals
ST.9

Eco-innovation activity list

Define the products, markets and selling points of the new business strategy

Generate ideas for new products, markets and selling points

ST.10

Evaluate ideas for new markets, products and selling points

ST.11

Select which ideas for new markets, products and selling points to include in the strategy proposal

ST.12

Get senior management approval for the new business strategy

Do an individual/group review of the business strategy proposal

ST.13

Pitch the new business strategy to the CEO

ST.14

Consider key management issues for implementation

ST.15

SET BUSINESS MODEL

Understand in more detail the performance of the company through an In-Depth Assessment

Update the data gathering strategy

BM.1

Gather additional data on the business model

BM.2

Gather additional data on operational performance

BM.3

Generating business model concepts at the big picture level

Generate business model concepts at the big picture level

BM.4

Generating ideas at the individual building block level

Generate ideas for the customer segments block

BM.5

Generate marketing ideas for the value proposition block

BM.6

Generate technical ideas for the value proposition block

BM.7

Generate ideas for the channels block

BM.8

Generate ideas for the customer relationships block

BM.9

Generate ideas for the revenue streams block

BM.10

Generate ideas for the key resources block

BM.11

Generate ideas for the key activities block

BM.12

Generate ideas for the key partnerships block

BM.13

Generate ideas for the cost structure block

BM.14

Eco-innovation activity list

BUILD ROADMAP

Evaluate the business model concepts and select one to pitch

Evaluate the benefits
BM.15

Evaluate the costs
BM.16

Evaluate the risks
BM.17

Integrate all the evaluations and make the final selection
BM.18

Get senior management approval for the new business model

Pitch the new business model to the CEO
BM.19

Build a roadmap for eco-innovation implementation

Prepare for the roadmapping workshop
BR.1

Do a roadmapping workshop with input from value chain partners
BR.2

Define and prioritise the requirements of the first project
BR.3

Get senior management approval for the implementation roadmap

Pitch the implementation roadmap to the CEO
BR.4

IMPLEMENT

Create a project plan and get it approved

Create a project plan
IM.1

Present the project plan to the Senior Management Team
IM.2

Support the implementation activities

Provide guidance and solve problems
IM.3

REVIEW

Review the performance of the first project for eco-innovation

Do a project review workshop
RE.1

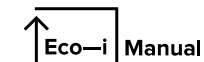
Do a personal review
RE.2

Review the business model and roadmap and agree the next steps

Review the business model and roadmap
RE.3

Present the review conclusions and agree next steps with the CEO
RE.4

About this Manual



AIM OF THE MANUAL

To introduce a methodology for the implementation of eco-innovation within small and medium sized companies in developing and emerging economies. The intended audience of this manual is organizations that provide professional consulting services (referred to in this manual as the 'Service Provider') to inform, guide and support manufacturing companies to improve their sustainability performance as a strategy for developing new business models.

Objectives

1. To introduce to the concept of eco-innovation.
2. To present a methodology for eco-innovation implementation that is relevant for Service Providers working with small and medium sized companies in developing and transitional economies.
3. To clearly describe the role that a Service Provider can play in supporting companies during the implementation of eco-innovation.
4. To provide a range of eco-innovation tools and resources that the Service Provider can draw upon to assist their activities.

THE ELEMENTS OF THE MANUAL

The Eco-innovation Manual is composed by 5 elements and each of them has a specific purpose.

The Business Case For Eco-innovation - This document presents good practices to demonstrate a compelling case for eco-innovation to a business audience.

Eco-innovation Manual - This is the main book of the Manual. It presents the core eco-innovation process and provides 54 activities to support Services Providers with its implementation.

Sector Supplements (Chemicals, Agri-food, Metals) - The core eco-innovation implementation process presented in this manual can be applied in a wide variety of industrial sectors. To support this, three sector-specific supplements have been produced, covering the Metals, Agri-food and Chemical industries. They provide additional case studies, tips and tricks, and background information that will be useful when working with companies in these sectors. The supplements are intended to be used alongside this manual and you will find a note at the end of each activity to show when sector specific information is available in the supplements.

Templates - Pack of blank activity templates. These can be used as worksheets when collaborating with the company, colleagues or working on your own. They should also provide a visual reminder of what needs to be done to complete an activity.

www.unep.ecoinnovation.org - Online resource to easy access the information of the Eco-innovation Manual



About this Manual

THE ECO-INNOVATION IMPLEMENTATION PROCESS

There are six main phases to the eco-innovation implementation process – see Figure 1 for a simple overview. A more detailed overview is provided in the Activity List at the end of this section. These are:

PREPARE

It is when the Service Provider identifies suitable sectors, markets and companies to target with their eco-innovation services and, having selected a company, builds a pitch based on their initial understanding of the sustainability threats and opportunities facing the company.

SET STRATEGY

It is when the Service Provider performs a preliminary assessment of how the company currently operates and then refines their understanding of the sustainability threats and opportunities facing the company. This information is used to develop and pitch a new business strategy for the company.

SET BUSINESS MODEL

This phase begins with a detailed assessment of the sustainability performance of the company, covering all aspects of the current business model. From here, options for new business models are generated along with a range of operational-level innovations that could support the implementation of the business model. These business model options are evaluated and the best option selected to take forward.

BUILD ROADMAP

Having selected a new business model, a roadmap of operational level projects that support the business model is generated. The initial steps towards implementing the business model are defined by selecting and planning the first one or two practical projects.

IMPLEMENT

Is where the initial project ideas are put into practice and delivered. Flexibility is required to adapt to issues as they arise.

REVIEW

The final phase of the initial implementation cycle is to review the success of the first projects and update the business strategy and business model in light of what the company has learned.

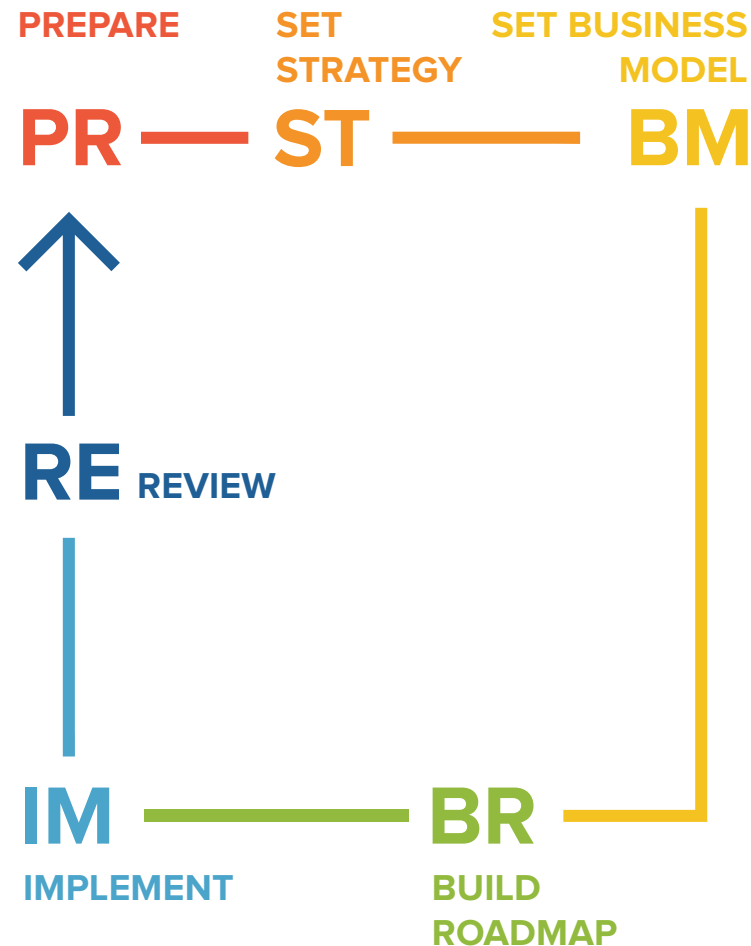


Figure 1: The eco-innovation implementation process.

About this Manual

AN ITERATIVE PROCESS

Implementing eco-innovation is an iterative process. So whilst the model and the manual. It should be noted that whilst the model and the manual suggest that progress during eco-innovation implementation proceeds neatly from one phase to the next, it may sometimes be necessary to revisit a previous phase in light of changes, developments and new information. This is true of any innovation process and should not be seen as a sign of failure. In fact, such setbacks will often lead to better results in the long term.

AN ACTIVITY BASED APPROACH

The eco-innovation implementation process is presented in this manual as a collection of 'activities'. Each activity represents a task to be completed by the Service Provider, often with input from the company or other stakeholders. To help you make sense of the many activities, they are grouped into 'steps' and 'phases'. Steps are made up of a number of activities that have the same overall objective. Phases represent the major milestones in the implementation of eco-innovation.

Each phase of the process begins with an overview, with all steps and activities compressed, that will help you to gain a quick, general understanding of that phase. Similarly, for each step we provide a page that describes the objective of the step and the suggested activities. Keep in mind that it is not obligatory to complete every activity or to complete the activity in the way suggested by the manual. You can use your knowledge of your particularly context and your experience to decide whether or not it is necessary to complete an activity or if there is a more efficient or effective means to completing the objectives described in the step overview.

Legend

PHASE

Step: General objective to be achieved

Activities: Practical work to carry out

Activity acronym

Example

PREPARE

Identify the right market for the eco-innovation services

Evaluate potential markets

PR.1

About this Manual

To help you decide if the suggested activity is relevant to your needs, each activity has a cover page that provides an overview, details of the necessary inputs and expected outputs, and a scale of the effort it requires. The effort scale has three ratings:

Simple - activities that can be completed on your own in less than a day

Requires dialogue - activities that you will need to work with company staff, partners or peers, and may involve data analysis or idea generation

Complex activity - activities that may require significant input from company staff, including senior management, through a workshop or meeting, with preparation/follow-up taking several days.

The activities themselves include an introduction, practical instructions describing how to go about the activity, and a visual representation of the most important elements to keep in mind. For most activities you will also find a learning case study - which shows how the eco-innovation methodology could be applied within a fictional company - along with 'tips and tricks' from the field and some background information.

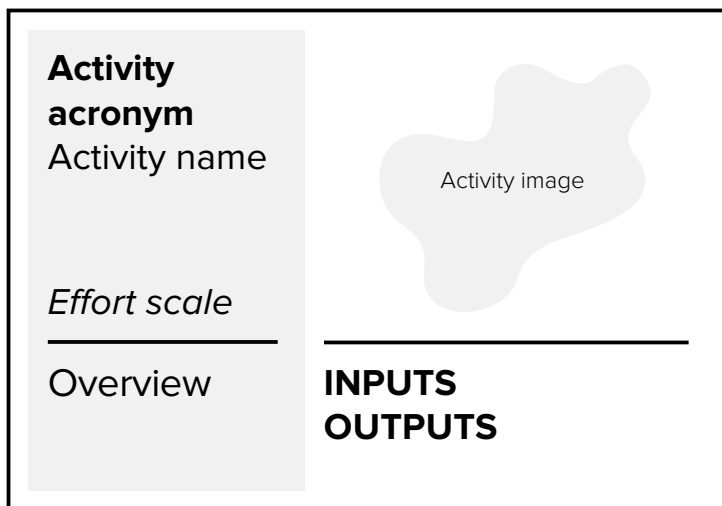


Figure 2: Activity Cover Legend

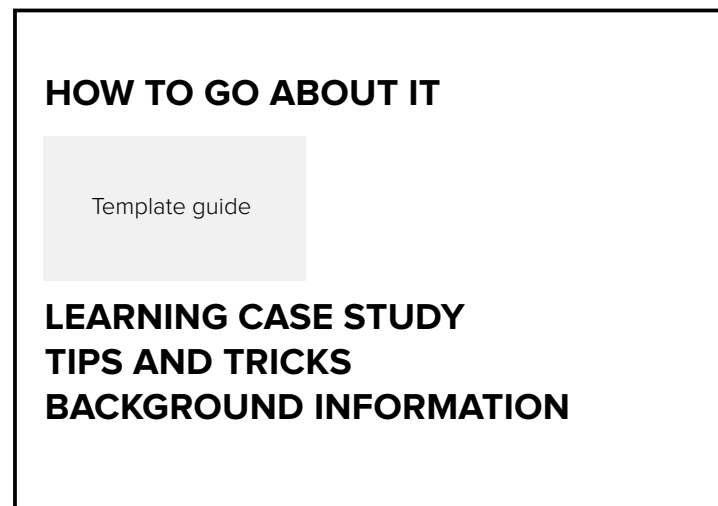


Figure 3: Activity pages Legend



WHY ECO-INNOVATION

Before starting the journey into eco-innovation, it is important to describe the operational approach, scope and expectations of eco-innovation, for the company that is to apply the methodology described in this manual and for you as a Service Provider

Why Eco-innovation

WHAT IS ECO-INNOVATION?

Within this manual, the operational approach to 'eco-innovation' is defined as follows:

Eco-innovation is the development and application of a business model, shaped by a new business strategy that incorporates sustainability throughout all business operations based on life cycle thinking and in cooperation with partners across the value chain. It entails a coordinated set of modifications or novel solutions to products (goods / services), processes, market approach and organizational structure which leads to a company's enhanced performance and competitiveness.

A conceptual model of eco-innovation that is based on this definition is shown in Figure 4 below.

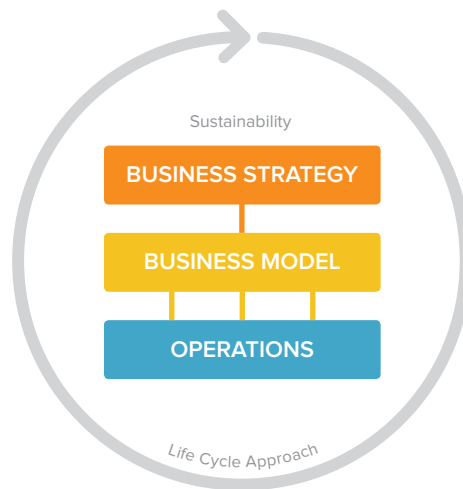


Figure 4: Conceptual model of eco-innovation.

There are a number of important points to note from this definition and model:

- **The implementation of eco-innovation must begin with a change in the business strategy** – There must be a conscious decision and commitment to embed sustainability into the business strategy of the company. Once the decision to embark upon the long journey towards sustainability implementation has been made this strategy must filter down, from the strategic level into the business model. Changes at the level of the business model then pave the way for changes at the operational level (including the company's products, customer segments, channels, customer relationships, revenue streams, production processes, key activities, partners and cost structure). Eco-innovation is therefore a primarily 'top-down' process that begins with a change in business strategy.
- **Eco-innovation requires a holistic approach** – Eco-innovation must be holistic in terms of considering all phases of the product life cycle, from extraction of raw materials through to disposal at end of life. This will help to ensure that time and effort spent on eco-innovation helps to make significant progress against the major threats faced by the industry and does not simply shift problems from one value chain partner or phase of the life cycle to another or from one category of problems to another.
- **Eco-innovation requires co-operation across the value chain** – The 'value chain' is the entire sequence of activities or parties that provide or receive value in the form of products or services (e.g. suppliers, outsources workers, contractors, investors, R&D, customers, consumers, members) (ISO14001:2015). The value chain runs in parallel with the product life cycle and so if

Why Eco-innovation

a company wants to adopt the life cycle perspective described above it will also need to consider the other actors in the value chain. Collaboration with other relevant actors in the value chain can help to maximize the impact of a company's eco-innovation activities by enabling action to be taken in the parts of the value chain that have the biggest influence on sustainability issues. It may be difficult to access, understand and take action in these critical areas of the value chain if working alone. Initiating these collaborations across the value chain requires the building of new types of relationships between suppliers, manufacturers, distributors, customers, recyclers for example, and is an important part of the challenge of eco-innovation.

- **Eco-innovation should consider all three aspects of sustainability: economic, social and environmental** – This is important because until now most companies have focused exclusively on the economic benefits they derive from their activities. In addition, companies must now look for reductions in the environmental impacts of their products and try to deliver social benefits for customers, employees and stakeholders (e.g. enhanced gender equality, creation of jobs, better pay and working conditions, fairer distribution of profits along the value chain etc.). These are new challenges for most companies, but they must be addressed if the company is to have a profitable, long-term future and contribute to the development of a sustainable society. The following sub-section explains how companies can gain a competitive advantage whilst making this contribution to society.

WHY DO COMPANIES NEED TO ECO-INNOVATE?

In recent decades, there has been a growing recognition amongst manufacturing business leaders that sustainability threats such as climate change, worker welfare and resource constraints are having a significant impact on the way manufacturing companies do business. These sustainability threats give rise to drivers for change in the way that companies operate. Sticking with the 'business as usual' approach will leave companies unable to respond to issues such as rising energy costs, disruptions to supply of their raw materials or changes in legislation. Ultimately, companies that do not take action now run a higher risk of failure when these issues inevitably take effect in their industry.

There is therefore a growing need to find alternative approaches that can help to address sustainability-related business drivers whilst at the same time offering opportunities for growth, cost reduction and competitive advantage. Eco-innovation is an approach that aims to fulfil these multiple requirements by identifying the key sustainability threats and opportunities and then using these to drive changes throughout the company and its value chain, from the business strategy and business model, through to the operational level.

When starting to develop eco-innovation implementation services, it is important to understand what the business case for action will look like from the company's perspective.

The experiences of companies that have successfully implemented eco-innovation have highlighted a number of ways in which eco-

Why Eco-innovation

innovation can add value for a company. These areas are shown in Figure 5 and are briefly described below.



Figure 5: Added value derived from eco-innovation.

- **Access to new and expanding markets** – There are many new market opportunities for companies that eco-innovate. These might include segments of existing markets with a strong interest in sustainability, entirely new, emerging markets, or access to markets that impose stringent sustainable procurement policies and standards.

- **Increase profitability along the value chain** – Modifying production processes to reduce key impacts, designing products to allow easier recovery and reuse of materials are some of the ways to increase profitability along the value chain.
- **Stay ahead of standards and regulations** – meeting the requirements of environmental legislation is often viewed as a costly but necessary activity. However, it can also be a source of competitive advantage if, for instance, changes in regulations lead to new market opportunities that are only identified by leading companies. The benefit of this approach can be leveraged if the company takes a leadership role and is able to influence policy makers to introduce legislation that is aligned with their own best-practice.
- **Attract investments** – Large companies that are implementing eco-innovation sometimes struggle to find suppliers or partners that can make a significant contribution to their sustainability efforts. Small companies that have shown the capacity to eco-innovate can therefore attract investment from these large companies in order to help scale-up production, improve product quality etc. Public funding and grants can also be easier to obtain if the company is able to demonstrate significant sustainability benefits as part of a funding proposal.
- **Increase productivity and technical capacity** – Workers prefer working for companies that they believe to be acting in an environmentally responsible and sustainable manner. Positioning the company as a leader in areas such as gender equality, employee welfare, environmental performance and corporate social responsibility can make it easier for the company to attract and retain a skilled and motivated workforce, leading

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to improvements in productivity and product quality. Also, eco-innovation often requires new skills and competencies. Investing in relevant training to meet these needs has been shown to have a significant pay-off through better terms through better working practices and greater innovation.

These drivers for eco-innovation are described in more detail and with real life examples in the accompanying publication *'The business case for eco-innovation'* (UN Environment, 2014).

The nature of eco-innovation means that it has impact on all areas of a company, from strategy and business model through to operational activities such as design, production, purchasing and marketing. For most companies, eco-innovation will involve a transformation in how they do business. To be successful eco-innovation must ultimately become embedded in the culture and working practices of the company.

This type of transformative change can be exciting and rewarding for those involved, but it cannot be accomplished quickly or easily. It will require a significant commitment of time, resources and effort by a company over a sustained period of time to implement eco-innovation. Securing this type of commitment can be challenging.

Companies that want to pursue the rewards of eco-innovation will need to consider their capacity for innovation. Many small and medium-sized companies, particularly in conservative, low-growth industries, do not have a strong track record in research and development activities, introducing new products to their range, or implementing new ways of working. Therefore, some prior experience, skill and capability in these general innovation activities will greatly help companies that want to implement eco-innovation.

Fortunately, small companies tend to be flexible and responsive which can help to overcome other deficiencies.

To be a good candidate for eco-innovation, a company should also be able to recognize the importance of the long term sustainability threats faced by their industry and be ready to take action to turn these threats into opportunities. This requires leadership and a culture within the company that is open, responsive and willing to take on big challenges.

There are therefore significant demands placed on a company when trying to implement eco-innovation. But for the companies that are willing to take on the challenge of eco-innovation the potential rewards are equally big and can contribute to the long term survival and success of the company.

However, finding one suitable company within a value chain that is ready and willing to take on the challenge of eco-innovation may not be enough. Tackling the type of important and complex threats that eco-innovation is intended to address will generally require collaboration and cooperation across the value chain. Working with customers is essential to understand their needs and requirements and to assess the acceptability of alternative solutions. Working with suppliers is often required to support changes to the design or production of the product or raw material. And where an eco-innovation involves new technology, skills or competencies that are not yet present in the value chain, it may be necessary to bring in external partners such as research institutions and universities to fill these gaps. So instead of focusing on one particular company, eco-innovation will require the support of a number of different organizations across the value chain and beyond.

Why Eco-innovation

Finding the right company, who is ready and able to start implementing eco-innovation, along with the right set of partners to support the eco-innovation activities can seem like a daunting prospect at first. Nevertheless, it is worth persisting as you can realize a number of significant benefits, including:

- **New services for existing markets** – In situations where revenues from companies that you have worked with in the past are declining because you have already completed several projects with them on resource efficient and cleaner production and exploited most of the ‘low-hanging fruit’ opportunities, eco-innovation can be a way to engage these companies in new, bigger programmes.
- **Access to new markets** – Further revenue growth can be achieved by targeting new markets, which were perhaps not suitable or interested in your existing service offerings.
- **Access to senior management** – As eco-innovation is fundamentally a strategic issue this will involve engagement with senior management at the company. This can help to raise your profile with the company and potentially provide access to larger budgets in the longer term.
- **Long-term relationships** – Eco-innovation involves a long-term commitment from a company to implementing eco-innovation. This can help to generate long-term revenue streams, in contrast to the more typical short, project-based activities.
- **Creation of a holistic way to handle sustainability issues** – Eco-innovation provides multiple-opportunities for off-shoot projects and bring you into contact with other companies in the company’s value chain.

- **Positioning yourself as a sustainability thought leader** – eco-innovation is a new and exciting topic in its early stages. Sustainability demands are increasing more and more globally – it is a great opportunity for you to contribute and be a front-runner in your country in the provision of eco-innovation services.

SKILLS, KNOWLEDGE AND COMPETENCIES REQUIRED TO SUPPORT ECO-INNOVATION

Delivering eco-innovation implementation services will need you, as the Service Provider, to possess a variety of skills, knowledge and competencies, or at least know where and how to obtain the skills, knowledge and competencies when they are required. Many of the skills, knowledge and competencies that you will need to support eco-innovation, such as resource-efficient and cleaner product and design for sustainability, will be familiar to you and are discussed in detail in previous UN Environment publications e.g. PRE-SME toolkit and D4S Manual (see the ‘General references and resources’ section at the end of the manual for details). The focus within this manual is on the skills, competencies and knowledge that are likely to be new to you or may require further development for the purposes of eco-innovation. Below we present a list of the main competences, skills and knowledge that will enable you to deliver successful eco-innovation implementation services:

- **Business management** – There are two key aspects of business management that are essential for eco-innovation: business strategy development (defining strategic goals, creating a long-term vision, identifying markets to target) and business model

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innovation (the process of defining and testing a scalable, repeatable business model that will help a company to achieve its strategic goals).

- **Sector specific knowledge** - Is the technical and commercial knowledge of the sectors in which you will be offering eco-innovation services. Technical knowledge requirements include an expert knowledge of how the product is produced, the processes involved, who is involved in producing the product, the technical threats faced in the sector. Commercial knowledge requirements include an expert knowledge of what the main markets are for the product, who are key customers, the business strategies and business models typically employed in the sector and key commercial threats facing the sector.
- **Life cycle thinking** – Is a mostly qualitative approach to understand how our choices influence what happens at each of the stages of the life cycle of an industrial activity: from raw material acquisition through manufacture, distribution, product use and disposal. This approach is needed in order for us to balance trade-offs and positively impact the economy, the environment, and society (UN Environment, 2004).
- **Design for Sustainability** – Pro-active approach to the integration of environmental, social and economic sustainability issues into the product development processes, without compromising the traditional requirements for a product, such as quality, cost and performance.
- **Creative thinking tools** – Approaches that help to identify opportunities for innovation and novel solutions to problems by encouraging people to think about an issue in different ways and from different perspectives.
- **Innovation management** – Offers management guidance that can support the implementation of innovations such as the development

of new products (e.g. how to engage the customer, how to structure the development process), the introduction of new ways of working (e.g. how to introduce a sustainable procurement system), and new business models (e.g. how to transition to a product-service system).

- **Organizational change management** – Aims to guide and support the implementation of changes in organizations, such as new business processes and structures as well as new/strengthened cultural behaviour and social norms such as ensuring gender-balance in project teams and gender equality in the company.
- **Marketing** – Is the set of activities that are designed to help the company to understand the type of product it should offer to a market and communicate the benefits and value of the product to the targeted consumer. Marketing focuses on the product, promotion, price and distribution channels.
- **Technology transfer** – SMEs often lack the resources and capacity to develop fundamental new technology but can often benefit from adopting and adapting technology developed outside of the company. A strong network of contacts covering different sectors, business and research institutes, along with good technical knowledge and appreciation of the local context are required to support this type of activity – making it an ideal role for a Service Provider. Further advice on the role of the Service Provider in supporting technology transfer is provided in the publication Technologies for Eco-innovation (UN Environment, 2016).

Throughout the eco-innovation process you will need to draw on your knowledge, skills and competencies in these topics. If any of these topics are unfamiliar to you, further information can be found in the 'Background information' section at the end of each activity.



PREPARE

Prepare to engage a company and its value chain
and build the potential company's interest
in the rewards available from eco-innovation

PHASE 1 — PR

PREPARE

OVERVIEW

The PREPARE phase begins by identifying a market that may be interested in your eco-innovation services. Desk research is then required to help understand the main sustainability threats faced by that market and the general opportunities for eco-innovation. This knowledge can then be used to generate interest in eco-innovation within your target market. The ultimate aim of this phase is to obtain approval from the CEO of one or more of the companies with high potential for eco-innovation to proceed to the SET STRATEGY phase.

STEPS & ACTIVITIES

Identify the right market for the eco-innovation services

Evaluate potential markets
PR.1

Build the right team to deliver the service

Build the right internal team
PR.2

Build the right external partnerships
PR.3

Understand the value chain sustainability hotspots, opportunities and threats

Identify sustainability hotspots across the value chain
PR.4

Identify the general opportunities and threats across the value chain
PR.5

Develop a concept for a more sustainable value chain

Develop a value chain vision

PR.6

Engage potential clients

Develop a value chain pitch

PR.7

Plan and implement engagement activities

PR.8

Gain approval from senior management to proceed

Pitch the benefits of eco-innovation to the CEO

PR.9

STEP

Identify the right market for my eco-innovation services

ACTIVITIES

PR.1

Evaluate potential
markets

OVERVIEW

The drivers of eco-innovation are stronger in some markets than in others. Identifying a market that has strong drivers for eco-innovation is critical to the success of your eco-innovation activities as it will be easier to convince stakeholders of the need to engage in eco-innovation and the rewards for all parties are likely to be greater if you are successful.

PR.1

Evaluate potential markets

Simple activity

This activity provides a structured approach to identifying suitable markets to target with your eco-innovation services.



INPUTS

- List of the main industrial sectors and markets that SMEs in your country are involved in.
- Basic information about the characteristics of the main industry sectors, markets and companies operate in your country.

OUTPUTS

- A well-defined market or set of markets that you will target with your eco-innovation services.
- Preliminary list of relevant companies in your target market, used in the activities *PR.4 Identify sustainability hotspots across the value chain* and *PR.8 Plan and implement engagement activities*.

PR.1 Evaluate potential markets

There are three levels of granularity that should be considered when looking for new markets to target: the sector level, the market level, and the company level.

At the sector level, some of the key considerations for choosing a sector to target are the contribution of the sector to environmental sustainability problems at a global level (such as climate change, pollution, resource consumption, water use), the direct social sustainability impacts of the sector (on issues such as gender equality, job creation and worker welfare), and the amount of attention the sector receives from NGOs regarding sustainability issues in the sector.

At the market level, some of the key considerations are:

- Supporting policy and finance - If your country has a National Development Plan or a Sustainable Consumption and Production Strategy, this can provide a good source of information about national priority sectors and long term sustainability targets. Focusing on these priority sectors can make it easier to gain support and funding from government organizations.
- Credibility and channel - Which sectors and markets do you currently work with? Do you have existing contacts (senior management at relevant companies) in a sector or market that could support you? Or would you be starting from scratch?
- Growth and profitability – Markets where growth, margins and profitability are good are more likely to have funds available to invest in eco-innovation and your consulting services.

Finally, at the company level, some of the key considerations are:

- Commercial success – Companies that are profitable and growing strongly make better targets for eco-innovation services as they are more likely to have a good senior management team in place and have the financial resources available for investment in eco-innovation implementation.
- Innovation track record - Companies that have a good track record of innovation in terms of their products, operations and business model are more likely to be able to cope with the demands of eco-innovation, which requires innovation in many areas of the company.
- Existing sustainability performance – Companies that have already publicly shown their commitment to improving their sustainability performance and have experienced the benefits of pursuing sustainability activities (such as Cleaner Production and environmental management) are more likely to be successful at eco-innovation.

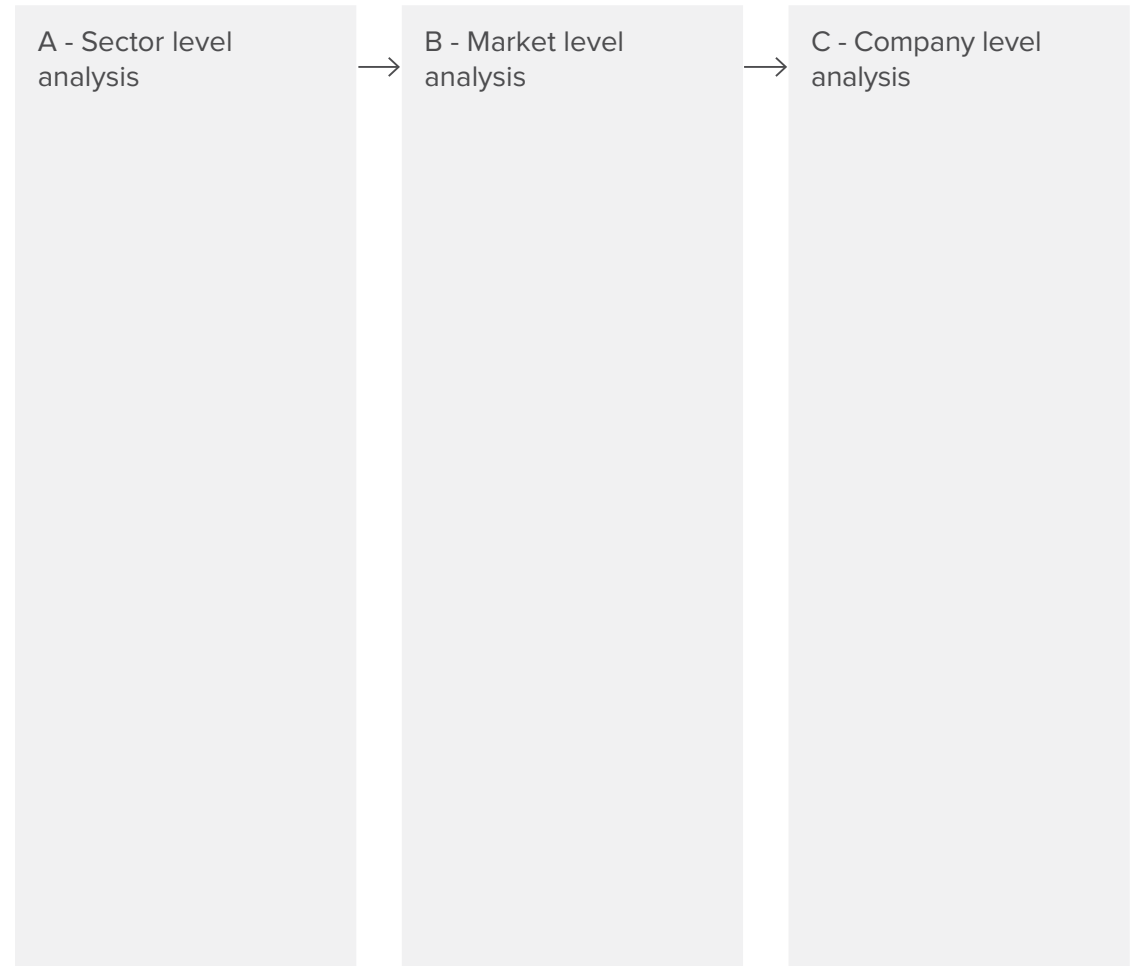
It is important to complete this process of analysing sectors, markets and types of company in a thorough and comprehensive manner. Rushing this process can result in a poor choice of target market, which in turn will lead to significant time and effort being wasted on companies that are not really committed to/suitable for eco-innovation.

PR.1 Evaluate potential markets

HOW TO GO ABOUT IT

1. Begin by creating a list of the main industrial sectors and markets that SMEs in your country are involved in.
2. Answer the questions in Section A (Sector-level analysis) and add up the score out of 10 points for each of the sectors in your list.
3. Decide which sectors to focus on by comparing the scores from Section A. Filter out low-scoring sectors and select two or three of the highest scoring sectors to take forward to the next step.
4. Answer the questions in Section B (Market-level analysis) and add up the score for the market out of 20 points for each of the markets within your chosen sectors.
5. Decide which markets to focus on by comparing the scores from Section B. Filter out low-scoring markets and select two or three of the highest scoring markets to target.
6. Within each of your selected markets try to identify some relevant companies.
7. Answer the questions in Section C (Company-level analysis) and add up the score out of 10 points. You should target the highest scoring companies when you begin to engage companies later in the process.

Template of Target Identification



PR.1 Evaluate potential markets

LEARNING CASE STUDY OF TARGET IDENTIFICATION

A - Sector-level analysis

Sector name: Food processing

Score: 9/10

A1 – To what extent does the sector contribute to global greenhouse gas emissions and climate change (taking into account the full lifecycle of the product or service delivered by the sector)?

- Major contributor e.g. agriculture, chemicals, automotive, energy etc. [2 points]
- Moderate contributor e.g. Insurance, banking, software etc. [1 point]
- Contribution is negligible. [0 points]

A2 - To what extent does the sector contribute to global consumption of non-renewable resources and potable water (taking into account the full lifecycle of the product or service delivered by the sector)?

- Major contributor e.g. agriculture, chemicals, automotive, energy etc. [2 points]
- Minor contributor e.g. Insurance, banking, software etc. [1 point]
- Contribution is negligible. [0 points]

A3. To what extent does the sector contribute to global pollution problems (taking into account the full lifecycle of the product or service delivered by the sector)?

N.B. A 2012 report defined the 10 worst global pollution problems as follows:

10 worst global pollution problems in 2012

(Blacksmith Institute & UNIDO, 2012)

Lead-Acid Battery Recycling	Industrial Estates
Lead Smelting	Artisanal Gold Mining
Mining and Ore Processing	Product Manufacturing
Tannery Operations	Chemical Manufacturing
Industrial/Municipal Dump Sites	Dye Industry

- Major contributor e.g. see list above. [2 points]
- Moderate contributor e.g. Insurance, banking, software etc. [1 point]
- Contribution is negligible. [0 points]

A4. How important is the sector for the national economy?

- High importance, contributes over 15% of GDP or employs over 15% of workforce [2 points]
- Medium importance, contributes over 5% of GDP or employs over 5% of workforce [1 point]
- Low importance, contributes less than 5% of GDP and employs less than 5% of workforce [0 points]

A5. To what extent has this sector been targeted by Non-Governmental Organizations (NGOs) to encourage improvements in sustainability performance?

- Major focus of sustained, global campaigns by NGOs. [2 points]
- Focus of occasional, local campaigns by NGOs. [1 point]
- No focus/attention from NGOs. [0 points]

PR.1 Evaluate potential markets

B - Markets-level analysis

Description of the market: Canned tuna producers selling to domestic and international markets.

Score: 16/20

N.B. Questions B1-B6 assess the likely demand for eco-innovation services in the market. Questions B7-B10 assess the probability that your organization could successfully provide this service.

B1. How strong is the growth of this market?

- Strong (>5% per year) [2 points]
- Moderate (2-5% per year) [1 point]
- Weak (<2% per year) [0 points]

B2. How strong is the competition in this market?

- Strong (6+ companies competing) [2 points]
- Moderate (2-5 companies competing) [1 point]
- Monopoly (1 company) [0 points]

B3. To what extent is government policy encouraging and supporting moves towards improved sustainability performance?

- Major support from policy, including financial measures. [2 points]
- Moderate support from policy, but no financial measures. [1 point]
- No support from policy. [0 points]

B4. Is this market affected by new or forthcoming legislation?

- Major changes required to meet new or forthcoming legislative requirements [2 points]
- Moderate changes required to meet new or forthcoming legislative requirements [1 point]
- No new or forthcoming legislation. [0 points]

List the relevant legislation that you have identified in the space below: Fisheries Ministry currently considering imposing fishing quotas on tuna.

B5. How interested are the end customers of this market in improved sustainability performance?

- Major interest – willing to switch products/suppliers or pay a price premium for better sustainability performance. [2 points]
- Moderate interest – information about sustainability performance is considered as part of the purchase decision, but not a deciding factor. [1 point]
- No interest. [0 points]

B6. Are there trends that would encourage eco-innovation in this market?

Relevant trends might include: new energy efficient technologies being developed; companies marketing products based on sustainability characteristics; a workforce that is motivated to support progress on sustainability issues etc.

- Yes, several strong trends that would encourage eco-innovation. [2 points]
- Possibly, one or two weak trends that would encourage eco-innovation. [1 point]
- No relevant trends. [0 points]

PR.1 Evaluate potential markets

List the trends that you have identified for this market in the space below: Development of more sustainable Fish Aggregation Devices (FADs) that help to avoid by-catch. Concerns from international NGOs about overfishing.

B7. Do you have existing customers, reputation and credibility in this market?

- Yes, significant number of existing customers and well known in this market. **[2 points]**
- Yes, some existing customers but not well known in this market. [1 point]
- No customers or reputation in this market. [0 points]

B8. Are the potential companys in this market similar to the types of organization that we normally choose to work with? Would they make good companys for our organization?

- Yes, exactly the type of company that we aim to work with. **[2 points]**
- Possibly, some similarities but some differences. [1 point]
- No, not the type of company that we aim to work with. [0 points]

B9. Do we have the necessary sector and market knowledge within our organisation today to deliver eco-innovation services to this market?

- Yes, we have several staff with relevant sector and market knowledge **[2 points]**
- Possibly, we have one member of staff with some relevant sector and market knowledge. [1 point]
- No relevant sector or market knowledge. [0 points]

B10. How easy would it be to collaborate with other organisations within this

market based on geographic location?

- Relatively easy – majority of market, including final customer, is within the same country [2 points]
- Somewhat difficult – significant proportion of market or final customer is in a different country **[1 point]**
- Very difficult – majority of market, including final customer, is in a different country [0 points]

C - Company-level analysis

Name of the company: Tuna Processing Company

Score: 6/10

C1. To what extent is sustainability an explicit and public part of the core strategy and values of the company?

- Major focus on sustainability – public statements or literature explicitly stating that sustainability is a core part of the company strategy and values. [2 points]
- Moderate focus on sustainability – sustainability not mentioned in company strategy or values but some evidence of interest in sustainability performance. **[1 point]**
- No existing focus on sustainability. [0 points]

C2. To what extent is sustainability performance of the company's products and

PR.1 Evaluate potential markets

services part of their product marketing and positioning?

- Major focus on sustainability – sustainability performance a major and consistent feature of the marketing and branding of the products and services of the company. [2 points]
- Moderate focus on sustainability – a minor and occasional feature of the marketing and branding of the products and services of the company. [1 point]
- No existing focus on sustainability in marketing and positioning. [0 points].

C3. What experience and capability does the company have in innovation?

- Significant experience and capability – frequent, successful innovations with evidence of significant resources dedicated to innovation, such as the existence of an R&D team. [2 points]
- Moderate experience and capability – some notable innovations, but no resources dedicated to supporting innovation. [1 point]
- No experience or existing capability in innovation. [0 points]

C4. What experience and capability does the company have in managing environmental issues?

- Significant experience and capability – formal environmental management system in operation and resources dedicated to supporting environmental improvement [2 points]
- Moderate experience and capability – some environmental management initiatives in operation but no resources dedicated to environmental improvement. [1 point]

- No experience or existing capability in managing environmental issues. [0 points]

C5. What is the position of the company in their market?

- Market leader. [2 points]
- Not the market leader. [0 points]

PR.1 Evaluate potential markets

TIPS & TRICKS

DESK RESEARCH ACTIVITY

Note that this activity should be completed as desk research - it is not necessary to contact any of the potential clients at this stage

ADD YOUR OWN CRITERIA

Remember that the selection criteria proposed in the *Target Identification template* are generally relevant but that you should add your own selection criteria based on your understanding of the companies in your country and the business strategy of your own organisation. You should also revisit the criteria and choice of target markets if you find that your initial choices are not successful.

KEEP A RECORD

You should keep a record of potential customers that you have identified and researched, whether or not you decide they are a good prospect. Keeping a record of this information and making sure the rest of your team have access to it will avoid duplication of work and will make communication with customers more effective and efficient. The information you gather about potential customers should be managed through some kind of Customer relationship management (CRM) system, which might be a simple spreadsheet that is easily accessed and updated by other members of your team, or could be one of the many dedicated software solutions.

BACKGROUND INFORMATION

It is worth noting at this point that it is assumed throughout the manual that the company's are Small and Medium-sized Enterprises (SMEs). Depending on the definition adopted, an SME can include companies ranging from 'start-ups' with one or two employees, 'micro enterprises' with fewer than 10 employees, 'small enterprises' with fewer than 49 employees, all the way through to well-established medium-sized companies employing up to 249 people (European Commission, 2003). This manual does not specifically focus on the particular needs of start-ups and micro enterprises, but the methodology described is applicable to these types of company with a little extra thought. Table 1 highlights some of the attributes of a company that are important for eco-innovation and describes how they are likely to vary from a start-up or micro enterprise to a small or medium enterprise. Of course every company is unique and will deviate to some extent from these typical models, but they should provide a useful starting point to guide your thinking.

PR.1 Evaluate potential markets

Table 1: Attributes of an organisation important for eco-innovation and the type of company.

Attribute	Relevance for eco-innovation	Start-up	Micro enterprise	Small or Medium enterprise
Strategic inertia (resistance to change in strategy and business model)	High strategic inertia will require more effort to initiate and implement changes in strategy and business model.	Low – Still learning about markets, competitors. May not yet have decided on strategy and business model.	Low-moderate – Likely to have strategy and business model which they can articulate but low level of maturity.	Moderate-high – Well-established strategy and business model which may be difficult to change.
Operational inertia (resistance to change in operations)	If the company has made large investments in production equipment or has well established ways of working it will be harder to make changes in these areas.	Low – unlikely to have made significant capital investments in production equipment or personnel and still working out best ways of working.	Low-moderate – Likely to have established particular ways of working but may not yet have made large capital investments in production equipment.	Moderate-high – Likely to have significant capital investments in current technology, personnel etc.
Attitude to risk and risk management	Eco-innovation, like any innovation activity, will involve some risk. The company must be willing to take calculated risks and capable of managing those risks.	Willing to take risks – Entrepreneurs are typically willing to take risks but lack of resources and systems for formal risk analysis and management can result in failure.	Moderately risk averse – Having survived the start-up phase, micro enterprises will probably have experienced some tough periods and so begin to become more risk aware and sensitive to risk taking.	Increasingly risk averse – Typically, companies become more risk averse as they grow larger. However, well established companies will tend to have better systems in place for managing risk.
Innovation resources	The greater the quantity of financial, technical and human resources available for innovation the easier it will be to initiate eco-innovation activities.	Limited – very few staff and narrow range of expertise, very limited financial resources.	Limited-moderate – Few staff and narrow range of expertise but may have better access to finance if the company has a stable financial track record.	Moderate – Larger number of staff may include wider range of expertise and more likely to be able to access additional financial resources from investors or government schemes.
Decision making style	Senior management within the company will be required to make important decisions at every step of the eco-innovation process.	Rapid and responsive – Everything is decided by company founders so decisions are made quickly.	Efficient – Without multiple layers of management, decisions can still be taken efficiently but may require more time for consideration than in a start-up.	Becoming bureaucratic – May have formalized decision-making procedures and bodies such as a Board of Directors. Such procedures will tend to slow down the decision-making process.

PR.1 Evaluate potential markets

References and resources

Industry classification and definition of SME:

- United Nations International Standard Industrial Classification of all Economic Activities (ISIC) rev.4. Available from: http://unstats.un.org/unsd/publication/seriesM/seriesm_4rev4e.pdf
- European Commission Recommendation 2003/361/EC concerning the definition of micro, small and medium-sized enterprises. Available from: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:124:0036:0041:en:PDF>

Sources of market analysis data:

- International Trade Centre (ITC). General data on international trade. Available from: <http://www.intracen.org/>
- CBI (Centre for the Promotion of Imports from developing countries). Data on EU markets and trading with partners within the EU. Available from: http://www.cbi.eu/marketintel_platform
- Food and Agriculture Organization of the United Nations. Data on global food prices and sustainability threats being faced by the agri-food sector. Available from: <http://www.fao.org/home/en/>
- COLEACP. Information on sustainable horticulture. Available from: <http://www.coleacp.org/en>

→ Further information in the Agri-food, Chemicals and Metals Supplements



STEP

Build the right team to deliver the service

ACTIVITIES

PR.2

Build the right internal team

PR.3

Build the right external partnerships

OVERVIEW

To deliver a high quality, credible service to your selected market, you need to build a team with the right combination of skills, knowledge and experience. This involves having the right people in your internal team but can also involve building partnerships with other organisations.

PR.2

Building the right internal team

Simple activity

This activity helps you think about the competencies, skills and knowledge necessary to deliver eco-innovation services, identify what gaps exist within your team and plan how to address these gaps.



INPUTS

- Details of the types of competencies, skills and knowledge offered by each of your eco-innovation team members.

OUTPUTS

- Plan for how to fill any gaps you have in your internal team in terms of the competencies, skills and knowledge required to deliver your eco-innovation services, is used in the activity *PR.3 Build the right external partnerships.*

PR.2 Building the right internal team

In the section ‘Skills, knowledge and competencies required to support eco-innovation’ some of the general skills and knowledge required to deliver eco-innovation services were mentioned. To ensure you have the necessary competencies, skills and knowledge covered within your internal team you can use the *Competencies Checklist template*.

When you complete the Competencies Checklist you may find that you are missing certain essential competencies, skills or knowledge. There are several ways you can fill these gaps, which are summarised here:

Training – Purchase standard or bespoke training courses for your team in the areas where you are lacking the necessary skills or knowledge.

Buy-in services – Purchase the services of a consultant who already operates in your target market to support your initial projects. The objective is for your team to gain the skills and industry knowledge they need by working on projects with the support of the external consultant.

Recruitment – Hire an experienced consultant or industry professional with good knowledge of your target market.

Strategic partnership – Identify a consultancy, university research group or other organisation that can provide the skills and knowledge you need then agree a revenue-sharing deal for joint projects.

HOW TO GO ABOUT IT

1. Using the *Competencies Checklist template*, start by filling in the names of each of your eco-innovation team members, including yourself.
2. Review the list of competencies, skills and knowledge areas shown in the first column and add any other ones that you feel are important for your situation - indicate if they are ‘essential’ or ‘beneficial’.
3. Go through each team member and put a tick in the cell for the competences, skills and knowledge that they can provide (you may need to discuss this with them to ensure accuracy).
4. Once you have completed the checklist for each of your team members, review the checklist and look for competency gaps. In particular focus on the competencies, skills and knowledge areas that you consider to be ‘Essential’. Ideally you should have two members of staff available for each of the essential competencies.
5. Where you have identified competency gaps, think about the best way to fill those gaps. Indicate how you will do this by putting a tick in the relevant solution column. Then add further details in the ‘Comments on solution proposed’ cell about your plan to fill this gap, such as who will be involved in filling this gap, which external partners will be involved (if any), how much training will cost, schedule for filling the gap etc.
6. Review this checklist before completing the *PREPARE* phase to ensure that your plans have been executed and that all ‘essential’ competencies have been filled.

PR.2 Building the right internal team

Template of Competencies Checklist

Competence	→ Essential/ beneficial	→ In-house	→ Needs



PR.2 Building the right internal team

LEARNING CASE STUDY OF COMPETENCIES CHECKLIST

Competence, skill or knowledge type	Essential or beneficial beneficial?	Do we have this competence, skill and knowledge in-house?			If not, how can you get the competence/skill/knowledge you need?					
		Team member 1	Team member 2	Team member 3	Training	Recruit	Partnership	Buy-in services	Others	Comments on solution proposed
Business strategy development	<i>Essential</i>	✓	✓							
Business model innovation	<i>Essential</i>						✓			<i>Work with local business school?</i>
Sector specific knowledge	<i>Essential</i>	✓		✓						
Life cycle thinking	<i>Essential</i>	✓		✓						
Design for Sustainability	<i>Essential</i>			✓						
Creative thinking tools	<i>Beneficial</i>	✓	✓							
Innovation management	<i>Beneficial</i>		✓							
Organizational change management	<i>Beneficial</i>									<i>Work with local business school?</i>
Marketing	<i>Beneficial</i>		✓							
Technology transfer	<i>Beneficial</i>				✓					<i>Read UN Environment guidance on topic</i>

PR.2 Building the right internal team

TIPS & TRICKS

NEED A SECTOR EXPERT

One of the topics mentioned in the Competencies Checklist is relevant sector expertise. Now that you have selected a target market it is important to ensure that you have at least one 'sector expert' in the team for every sector you intend to target. The sector expert can provide the rest of the team with a better understanding of how the market operates (typical business strategies, business models, and who are the main stakeholders) and understands the technologies and processes commonly used in the market. Ideally they should also have a good network of contacts in the sector.

MORE HELP ON PARTNERSHIPS

If you decide that a strategic partnership might be an appropriate way to gain a missing competency, skill or knowledge then the following activity provides further guidance on how to build such partnerships.

→ Further information in the Chemicals and Metals Supplements





PR.3

Build the right external partnerships

Requires dialogue

This activity enables you to identify external stakeholders and think about how they could contribute to your eco-innovation services and activities.



INPUTS

- Plan for how to fill any gaps you have in your internal team in terms of the competencies, skills and knowledge required to deliver your eco-innovation services, from the activity *PR.2 Build the right internal team*.

OUTPUTS

- New external partnership initiated where appropriate.
- List of key stakeholders.

These outputs are used in the activities: *PR.6 Develop a value chain vision* and *ST.7 Do a SWOT analysis*.

PR.3 Build the right external partnerships

Building partnerships with other organisations is an essential part of eco-innovation, either as a means to gain competencies, skills or knowledge that are missing in your internal team or to enhance the credibility and effectiveness your eco-innovation services. Making initial contact with relevant organizations at this stage will help to build a stronger pitch to a company or provide useful contacts within your target market.

The *Competencies Checklist template* helps you to identify stakeholders specific to your target market and think about how they could contribute to your eco-innovation services and activities within that market.

You should also think about more general partnerships that could help you to build a more complete service offering or provide access to a wider range of companies. The types of organizations that might provide this type of general support and partnership in your eco-innovation activities include:

- **Innovation hubs/National Cleaner Production Centres** – If you are based within an NCPC then your organization may benefit from partnering with an innovation hub, which will have experience of supporting companies through strategy and business model innovation. Conversely, if you are based within an innovation hub, then your organization may benefit from partnering with an NCPC who have significant technical expertise and an extensive knowledge of sustainability issues.
- **Local development agency** – A development agency in your region may be able to identify and help you apply for regional, national or international sources of funding to get your eco-innovation services started.
- **Trade promotion organizations** – Many national governments have a trade promotion agency. These can be a useful source of export and trade data to help you identify the major export sectors of your country and the companies involved in those sectors.
- **Ministry for commerce or industry** – These organizations can often provide support for small and medium enterprises providing help such as business mentoring and access to finance.
- **Possible financiers** – Local banks, investment angels and other sources of finance should be approached if there is a strong likelihood that funding will be required at some point. These organizations may need to be educated on what eco-innovation is and what the long term benefits for the company will be. An important point to keep in mind when preparing a pitch for funding is to focus on the key issues and metrics from the investors perspective e.g. return on investment, payback period, risk management and suchlike.
- **Research institutes** – Having access to research and development facilities and relevant technical know-how can be crucial to the success of projects involving some amount of technology development. Small and medium sized companies will almost certainly not have their own facilities and so they will need to gain access to these facilities elsewhere. Universities and research centres are often willing to provide free or low cost access to their facilities and staff in return for permission to use the research data or case study information in research, teaching or marketing.

PR.3 Build the right external partnerships

HOW TO GO ABOUT IT

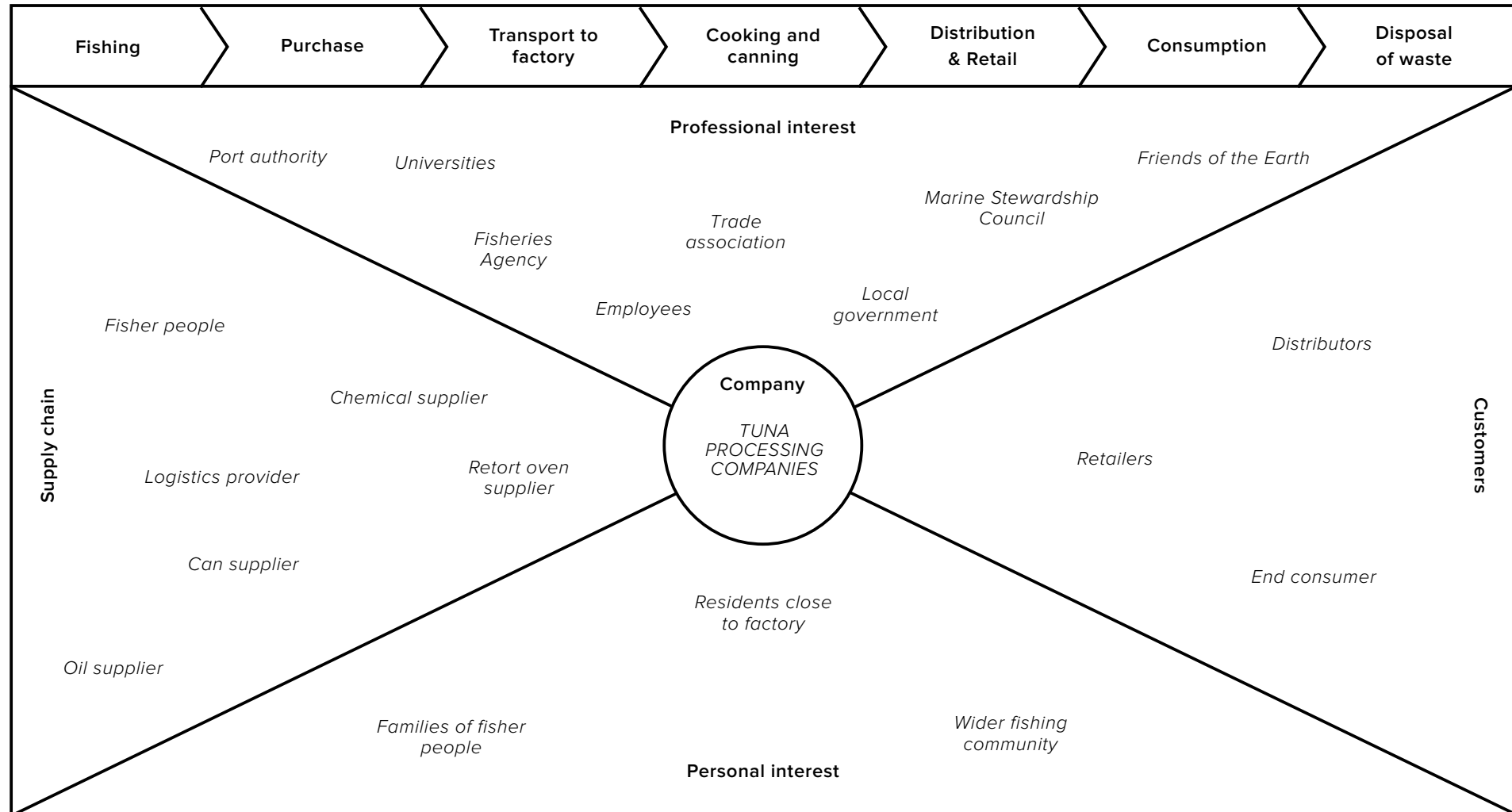
1. Use the *Life Cycle Stakeholders template* to identify the key stakeholders for your company and categorize them into the following categories:
 - **Supply chain** - Stakeholders that provide goods and services to the company
 - **Customers** - Stakeholders to whom we sell our goods and services.
 - **Professional interest** - Stakeholders whose professional activities may bring them into contact with us or have an impact on us.
 - **Personal interest** - Stakeholders who do not have a professional interest in our activities but may take a personal interest because our company has an impact on them in some way.
2. Generate ideas for how each of the stakeholders identified could potentially contribute to eco-innovation activities at the company – capture these ideas on sticky notes and place them on the *Life Cycle Stakeholders template* next to the relevant stakeholder.

Template of Life Cycle Stakeholders



PR.3 Build the right external partnerships

LEARNING CASE STUDY OF LIFE CYCLE STAKEHOLDERS



PR.3 Build the right external partnerships

BACKGROUND INFORMATION

References and resources

Trade promotion organizations:

- Asian Trade Promotion Forum. Gathering of 24 trade promotion organizations from across Asia. Available from: <http://www.atpf.org/index.html>

Stakeholder engagement and partnership initiation:

- Account Ability, United Nations Environment Programme, Stakeholder Research Associates Canada Inc (2005). The stakeholder engagement manual. Volume 2: The practitioner's handbook on stakeholder engagement. Available from: <http://www.unep.fr/shared/publications/pdf/WEBx0115xPA-SEhandbookEN.pdf>
- Stanley, C. (2013). Topic guide: engaging suppliers in sustainability [Online]. Available from: <http://www.wrap.org.uk/sites/files/wrap/Engaging%20suppliers%20in%20sustainability%20Topic%20Guide%20-%20final%20v1.pdf>

→ Further information in the Agri-food, Chemicals and Metals Supplements



STEP

Understand the value chain sustainability hotspots, opportunities and threats

ACTIVITIES

PR.4

Identify sustainability hotspots across the value chain

PR.5

Identify the general opportunities and threats across the value chain

OVERVIEW

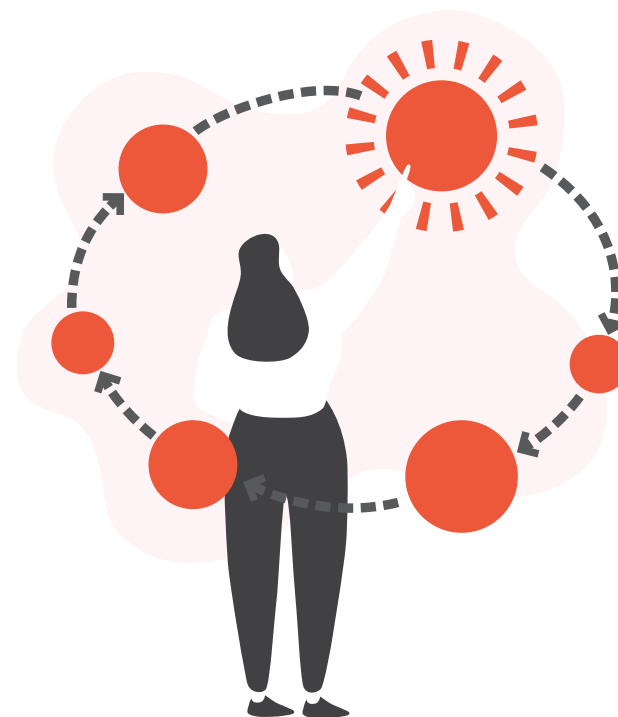
In the activity *PR.1 Evaluate potential markets* you should have applied the *Target Identification template* to help select a target market for your new eco-innovation services. Now you need to enhance your knowledge of this market in order to understand the sustainability hotspots and the main threats and opportunities faced by the market. To do this you will need to consider the wider 'value chain' that your target market is a part of.

PR.4

Identify sustainability hotspots across the value chain

Requires dialogue

To know where eco-innovation is most needed and generate the biggest improvements in overall sustainability performance, by identifying 'sustainability hotspots'.



INPUTS

- A list of specific environmental, social and economic impacts that occur across the value chain.

OUTPUTS

- Identification of the sustainability hotspots that occur across the value chain, used in the activities *PR.6 Develop a value chain vision* and *ST.6 Update the sustainability hotspots*.

PR.4 Identify sustainability hotspots across the value chain

Sustainability hotspots are the most significant impacts in the value chain or the life cycle of a product or service system and can be used to identify impact improvement opportunities and to prioritize impact reduction actions (UN Environment/SETAC, 2014). To identify sustainability hotspots we can use 'hotspot analysis', which helps to filter and distil large volumes of information to identify and prioritise hotspots for further investigation or action by industry, governments and other stakeholders. Hotspot analysis enables you to prioritise resources and actions in industry sectors, product categories or individual products that really matter by virtue of their environmental, social and ethical impact profile and /or their physical trading volumes and economic value in the economy. A common feature of hotspots analysis is the presentation of information and findings in accessible formats, including for non-technical audiences, who are often the key decision-makers in policy and business settings (UN Environment/SETAC, 2014).

Identifying sustainability hotspots is a key activity within 'Life Cycle Thinking'. Life Cycle Thinking is a mostly qualitative approach to understand how our choices influence what happens at each of the stages of the life cycle of a product or service: from raw material acquisition through manufacture, distribution, product use and disposal. This approach is needed in order for us to balance trade-offs and positively impact the economy, the environment, and society (UN Environment, 2004).

HOW TO GO ABOUT IT

Create the life cycle inventory

1. Prepare a life cycle inventory diagram that shows each of the main activities that occur in each phase of the product life cycle (Raw material extraction, Production, Transportation, Use, and End-of-life), the physical inputs to each activity (use of material, water, energy) and the outputs of each activity in terms of the 'Product outputs' (intermediary products and by-products) and 'Emissions' (emissions to air, water and soil).
2. Decide which of the activities you will include in your analysis and which you will not. Use these decisions to draw the 'Life cycle boundary' on your life cycle inventory diagram.
3. Using the life cycle inventory diagram and the life cycle boundary you have selected, fill in the first four columns of the *Life Cycle Thinking template*, which capture the key physical inputs and outputs throughout the five major life cycle stages.

Identify the life cycle impacts and sustainability hotspots

4. Using the life cycle inventory, fill in the remaining columns of the *Life Cycle Thinking template* with corresponding environmental, social and economic impacts that occur across the value chain, proceeding activity by activity. Note that the social impacts are categorised by stakeholder, as follows:
 - On workers - Examples of possible social impacts on workers include: health & safety, wages, social benefits, working hours, child labour, forced labour, discrimination, freedom of association and collective bargaining, employment relationship,

PR.4 Identify sustainability hotspots across the value chain

training and education, work-life balance, job satisfaction and engagement, and gender equality

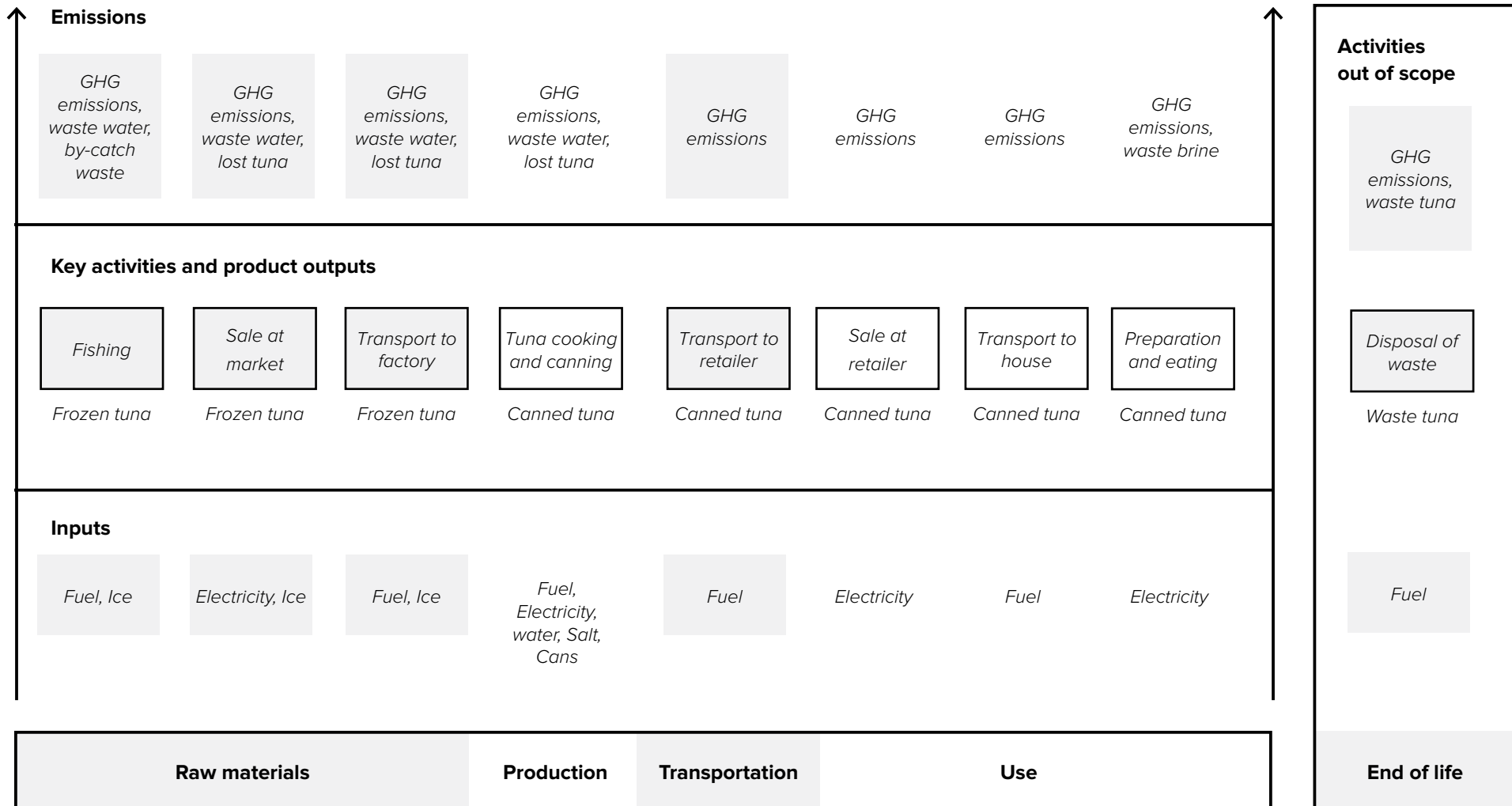
- On customers/consumers - Examples of possible social impacts on customers and consumers include: health & safety, gender equality, experienced well-being, and privacy.
 - On other stakeholders - Examples of possible social impacts on other stakeholders include: health & safety, noise, odours, access to tangible resources, local capacity building, employment, and community engagement
 - Rate each of the sustainability impacts you have identified using the scale 'Low', 'Medium' and 'High' impact. These ratings should be based on your understanding of how significant the impacts and will be, although these ratings will be quite subjective at this stage. Any impact that must be controlled to comply with local or international legislation relevant to companies in the value chain, or the conditions of a permit, should automatically be given a 'High' rating. This is indicated in the example below by the letter in brackets, where: H= High, M= Medium, L=Low. A '+' sign indicates a positive sustainability impact
5. Decide where the sustainability hotspots are by:
- Identifying cells of the Life Cycle Thinking matrix that contain several different medium or high-rated impacts.
 - Identifying activities that lead to several different medium or high-rated impacts.
6. Make a note of the sustainability hotspots you have identified.

Template of Life Cycle Inventory



PR.4 Identify sustainability hotspots across the value chain

LEARNING CASE STUDY OF LIFE CYCLE INVENTORY



PR.4 Identify sustainability hotspots across the value chain

Using the previous diagram, the first half of the *Life Cycle Thinking template* is completed (see the underlined column headings). The sustainability impacts are then listed and evaluated in the second half of the *Life Cycle Thinking template* (the rest) - as shown on the following page.

The results of *Life Cycle Thinking template* is that for the tuna processing value chain described in the case study the sustainability hotspots are:

- Fishing activity, which is linked to the medium and high impacts of tuna stock depletion, slavery-like conditions on board fishing vessels, rising cost of fresh tuna supplies, and fishermen leaving industry to seek higher wages.
- Energy intensity of the production phase, which is caused by fuel use for cold storage at factory and the high energy use in cooking process.
- Significant fish loss and waste caused by fish loss at market, damaging of tins during transportation, and tuna wasted by the consumer.

Template of Life Cycle Thinking

Phase	Activity	Inputs	Product outputs	Emissions	Environmental impacts		Social Impacts			Economic impacts
					Resource use	Ecosystem quality	On workers	On consumers	On stakeholders	Profitability

PR.4 Identify sustainability hotspots across the value chain

LEARNING CASE STUDY OF LIFE CYCLE THINKING

					Environmental impacts		Social Impacts			Economic impacts
Phase	Activity	Inputs	Product outputs	Emissions	Resource use	Ecosystem quality	On workers	On consumers	On stakeholders	Profitability
Materials	• Fishing	• Fuel (diesel) • Ice	• Frozen tuna (at dock)	• GHG emissions • Waste water • By-catch (wasted)	• Resource depletion - fossil fuels (M)	• Climate change (M) • Marine species extinction (H)	• Falling wages forcing fishers to leave industry (M) • Slavery like conditions on some fishing vessels (H)			
	• Sale at market	• Electricity (100% coal) • Ice	• Frozen tuna (at dock)	• GHG emissions • Waste water • Lost tuna	• Resource depletion - fossil fuels (L)	• Climate change (L)	• Jobs secured at market (M)		• Noise - from early morning lorry movements (L)	• Rising cost of tuna - due to dwindling stocks (H) • +Revenue to fisher people (M) • Cost of lost tuna (M)
	• Transport to factory	• Fuel (diesel) • Ice	• Frozen tuna (at factory)	• GHG emissions • Waste water • Lost tuna	• Resource depletion - fossil fuels (L)	• Climate change (L)	• Jobs secured for delivery driver (M)			• Cost of lost tuna (M)

					Environmental impacts		Social Impacts			Economic impacts
Phase	Activity	Inputs	Product outputs	Emissions	Resource use	Ecosystem quality	On workers	On consumers	On stakeholders	Profitability
Production	• Tuna cooking and canning	• Fuel (diesel) • Electricity (100% coal) • Water • Cans • Salt	• Canned tuna (at factory)	• GHG emissions • Waste water • Lost tuna	• Resource depletion - fossil fuels (H) • Water consumption (M)	• Climate change (H) • Eutrophication (M) • Eutrophication (M)	• Jobs secured at factory (M)			• Cost of lost tuna (M) • Fossil fuels depletion (M)
Transportation	• Transport to retailer	• Fuel (diesel) • Pallets	• Canned tuna (at retailer)	• GHG emissions • Lost tuna (damaged cans)	• Resource depletion - fossil fuels (L)	• Climate change (L)	• Jobs secured for delivery driver (M)		• Noise - from early morning lorry movements (L)	• Cost of lost tuna (M) • Cost of transportation (L)
Use	Sale at retailer	• Electricity (100% coal)	• Canned tuna (at retailer)	• GHG emissions	• Resource depletion - fossil fuels (L)	• Climate change (L)	• Jobs secured at retailer (M)			• Revenue to retailer (M) • Revenue to producer (M)
	Transport to house	• Fuel (petrol)	• Canned tuna (at house)	• GHG emissions	• Resource depletion - fossil fuels (L)	• Climate change (L)				
	Preparation and eating	• Electricity (100% coal)	• Waste tuna (at home)	• GHG emissions	• Resource depletion - fossil fuels (L)	• Climate change (L)		• Human health - consumption of tuna (L) • Human health risk - mercury content of tuna (M)		
End of life	Disposal of waste	• Fuel (diesel)	• Waste tuna (at landfill)	• GHG emissions	• Resource depletion - fossil fuels (L)	• Climate change (L)	• Jobs secured at waste management company (M)		• Bad odours from landfill site (L)	

PR.4 Identify sustainability hotspots across the value chain

TIPS & TRICKS

HELP TO SPOT IMPACTS

If you are struggling to identify sustainability impacts consider the following prompts:

- Where and when are the most significant costs incurred across the life cycle of the product?
- What are the most significant resources (energy, materials and water) consumed throughout the product life cycle?
- Where are resources being wasted or underutilized?
- Where are there toxic chemicals used and how are they prevented from impacting the environment or human health?
- How does the product value chain impact on local stakeholders?

- Are there some positive impacts as well as the negative?

DESK RESEARCH ACTIVITY

This activity is intended to be completed through desk research. You should not contact prospective client companies during this activity to help gather information as there will generally be other sources and making contact too early may frustrate the potential client and make them less willing to engage with you at a later stage.

KEEP IMPACTS SPECIFIC

Try to make the impacts you capture as specific and detailed as possible.

POSITIVE IMPACTS

Remember that impacts can be positive as well as negative. For example, “Jobs secured at factory” is a positive social impact that could be captured in the Production phase.

MULTIPLE IMPACTS

An activity can have multiple types of sustainability impact. In these cases list the activity and its impact in each of the relevant cells.

BACKGROUND INFORMATION

References and resources

Hotspot analysis:

- “Hotspots Analysis: mapping of existing methodologies, tools and guidance and initial recommendations for the development of global guidance” (2014). UN Environment DTIE, Paris. Available from: <http://www.lifecycleinitiative.org/wp-content/uploads/2014/12/UNEP-Hotspots-Mapping-Project-Final-Report-Phase-1.pdf>

Life Cycle Assessment:

- Joint UN Environment-SETAC Life Cycle Initiative. Available from: http://www.life_cycleinitiative.org/
- UN Environment, (2009). Guidelines for Social Life Cycle Assessment of Products. UN Environment, Paris. Available from: http://www.unep.org/publications/search/pub_details_s.asp?ID=4102

Social Impact Assessment

- Handbook for Product Social Impact Assessment Available from: <http://product-social-impact-assessment.com/>

Further resources are provided in the ‘Background information’ for the activity *PR.5 Identify the general opportunities and threats across the value chain*.

→ Also further information in the Agri-food, Chemicals and Metals Supplements

PR.5

Identify the general opportunities and threats across the value chain

Requires dialogue

Having identified sustainability-related threats and opportunities, in this activity you will try to identify other sources of threat and opportunity that are not directly linked to sustainability issues.



INPUTS

- Choice of market to be investigated, from the activity *PR.1 Evaluate potential markets*.

OUTPUTS

- A structured list of sustainability challenges and opportunities for the value chain, used in the activity *PR.6 Develop a value chain vision*.

PR.5 Identify the general opportunities and threats across the value chain

To help you identify general opportunities and threats for the value chain you can use the PESTEL framework. PESTEL is often used by a company to scan their environment for emerging issues that may influence their success and strategy. Applying PESTEL involves searching the external environment of the company for significant issues or trends related to the following headings: political, economic, social, technological, environmental and legal.

HOW TO GO ABOUT IT

PESTEL instructions

1. Try to identify issues or trends that are or could have an impact on your target value chain using the PESTEL prompts table provided on the right.
2. Capture the issues and trends you have identified in the *PESTEL template* provided.
3. Capture details of the information source or an illustrative example of the trend, as this will be useful to provide credibility to your analysis when pitching to prospective companies.
4. For each issue that you have identified estimate:
 - **Impact** – What level of impact could the issue have on the value chain? Use a scale from 1-5 where: 1= Potential to create limited change within a limited part of the value chain, and 5 = Potential to revolutionise or destroy the entire value chain.
 - **Likelihood** – How likely is it that the issue will have an impact on the value chain? Use a scale where: 1= Very unlikely, 5= Very likely.

Template of PESTEL prompts

	Definition	Prompting questions
Political		
Economic		
Social		
Technological		
Environmental		
Legal		

PR.5 Identify the general opportunities and threats across the value chain

LEARNING CASE STUDY OF PESTEL PROMPTS

	Definition	Prompting questions
Political	Includes issues such as policy context, including tax policy, labour law, environmental law, trade restrictions, tariffs, and political stability. Also relates to the governments influence in areas such as health, education, agriculture and the infrastructure of a nation.	<ul style="list-style-type: none"> • Is the government in your country implementing sustainable procurement principles? • Is it possible that a change of government could lead to a significant positive or negative shift in support for sustainability policies? • Has there been a recent disruption to value chain due to political events, industrial action, or failure of a key supplier?
Economic	Refers to the general economic situation in the value chain e.g. economic growth, interest rates, exchange rates and the inflation rate. Issues to do with market competition can also be included under the economic heading.	<ul style="list-style-type: none"> • How is the economy in your country performing? • How is the economy performing in countries served by your target value chain (in cases where there are international markets)? • Are exchange rates having an impact on profitability within the value chain (if purchasing supplies or making sales in a different currency)? • How easy is it to get loans or attract investment? • How is the competitive landscape changing? Who is winning and why?
Social	Relates to social trends, demographics and cultural aspects such as health consciousness, population growth rate, age distribution etc.	<ul style="list-style-type: none"> • How is the market changing in terms of demographics, attitudes etc.? • What is the 'industry buzz'? • What are people in the markets served by the value chain talking about and wanting? • What is the 'social buzz'? • What social issues are large companies reporting on? • What social sustainability issues are trending on social media platforms? • What social problems are people concerned about (poverty, employment conditions, HIV/AIDS, lack of equal opportunities etc.)?

PR.5 Identify the general opportunities and threats across the value chain

	Definition	Prompting questions
Technological	Includes issues such as R&D activity, automation, technology incentives and the rate of technological change within a value chain.	<ul style="list-style-type: none"> • What new technology is emerging in this market? Or in related markets? • What global technology trends might impact this market? Examples of technology trends include: The 'Internet of Things', 'Big Data' analytics, 'Additive Manufacture', 'Mass customisation' and 'Artificial intelligence' (further information about these trends can be found in the Background Information section of this activity)
Environmental	Can refer to issues such as the abundance of raw materials, eco-labelling practices, environmental policy and regulation, long-term risks from climate change (e.g. flooding, drought, sea-level rises).	<ul style="list-style-type: none"> • How is government policy supporting (or hindering) eco-innovation in your country? • What voluntary environmental standards are being implemented by leading companies in the industry?
Legal	All types of legislation that may impact the value chain such as discrimination law, consumer law, antitrust law, employment law, and health and safety law.	<ul style="list-style-type: none"> • How is legislation supporting (or hindering) eco-innovation in your country? • Are any changes to employment or health and safety law expected?

PR.5 Identify the general opportunities and threats across the value chain

- **Time scale** - When will the issue will start to have an impact on the value chain? Indicate the expected timescale using the categories of: 'Within 6 months', 'Within 2 years', or 'More than 2 years' time'.
5. Decide which of the issues are 'significant' for the value chain by:
 - Calculating the significance score, where $\text{Significance} = \text{Impact} \times \text{Probability}$.
 - Decide what score to use as the threshold for significance - 9 is suggested.
 - Review the table and highlight any issues that have a significance score greater than or equal to the significance threshold.
 6. Finally, categorise the significant issues as either 'opportunities' (issues that might have a positive impact on the value chain) or 'threats' (issues that might have a negative impact on the value chain).

Template of PESTEL

	Description	Time	Impact	Likelihood	Significance
POLITICAL					
ECONOMIC					
SOCIAL					
TECHNOLOGICAL					
ENVIROMENTAL					
LEGAL					

PR.5 Identify the general opportunities and threats across the value chain

LEARNING CASE STUDY OF PESTEL

Heading	Description of issue/trend [Source or example]	Time scale (0-6/7-24/24+ months)	Impact (1= Very low, 5= Very high)	Likelihood (1=very unlikely, 5 = certain)	Significance (Impact x Likelihood)
POLITICAL	<i>EU Common Fisheries Policy imposing limits on catch within European waters. [EU:http://ec.europa.eu/fisheries/cfp/index_en.htm]</i>	7-24 months	2	3	6
ECONOMIC	<i>International fishing companies obtaining licenses to fish in the region (who do not process their catch in the region where it is caught). [Greenpeace: http://www.greenpeace.org.uk/oceans/tuna]</i>	0-6 months	4	4	16
SOCIAL	<i>Reports of slavery-like conditions on board tuna fishing vessels, with links to human trafficking. [Environmental Justice Foundation: http://ejfoundation.org/oceans/slaveryatsea]</i>	0-6 months	3	3	9
	<i>Increasing consumer awareness of the unsustainable nature of current tuna fishing practices leading to consumer-led campaigns for improved sustainability practices within fishing and fish processing industry. [Fish Fight campaign: http://www.fishfight.net/]</i>	0-6 months	5	3	15
TECHNOLOGICAL	<i>Increasing levels of automation helping to reduce production costs. [JBT FoodTech: https://www.youtube.com/watch?v=a1QRq0IWDSQ]</i>	0-6 months	2	4	8

PR.5 Identify the general opportunities and threats across the value chain

Heading	Description of issue/trend [Source or example]	Time scale (0-6/7-24/24+ months)	Impact (1= Very low, 5= Very high)	ikelihood (1=very unlikely, 5 = certain)	Significance (Impact x Likelihood)
ENVIRONMENTAL	Concerns about overfishing and the impact of by catch on the marine eco-system associated with purse seine and long line fishing methods [FAO report: http://www.fao.org/fishery/fishtech/40/en]	0-6 months	5	4	20
	Plastic waste in oceans is accumulating in fish and causing increases in toxicity of fish products. [Montana State University: http://serc.carleton.edu/NAGTWorkshops/health/case_studies/plastics.html]	24+ months	2	3	8
LEGAL	Some countries considering news laws to protect rights and welfare workers in the fishing industry. [Slave free seas: http://slavefreeseas.org/workspace/downloads/itf-28-march-2014.pdf]	0-6 months	3	2	6

N.B. 'Significant' issues (score of 9 or more) are highlighted in red

PR.5 Identify the general opportunities and threats across the value chain

TIPS & TRICKS

OVERLAP BETWEEN HEADINGS

There is inevitably some overlap between the headings used in the PESTEL analysis. For example, a new piece of environmental regulation could be included under the 'Political', 'Environmental' and 'Legal' headings. How you classify is not important as they are only prompts. The important thing is to ensure that all relevant issues have been captured.

ADD YOUR OWN

The prompting questions provided are not exhaustive so try to think of and answer some of your own questions.

OVERLAP WITH LCT

There will also be overlap between the PESTEL analysis and the results of the *Life Cycle Thinking template*, particularly within the 'environmental' and 'social' headings. Try to focus on the topics not already captured within the *Life Cycle Thinking template*.

POLICY GUIDANCE

The accompanying publication 'Mainstreaming Policies for Eco-Innovation' (UN Environment) is a useful source of information on types of policies that are being used to stimulate eco-innovation.

BACKGROUND INFORMATION

References and resources

Answering the questions outlined above will require a variety of sources of data, including qualitative and quantitative data from formal and informal sources. Below are some suggestions for where to look for the information you need, starting with sources of qualitative data.

- **Professional networking websites** – sites with discussion forums such as LinkedIn can offer some useful insights into the industry and social buzz and the types of threats that industry professionals are concerned about. With most sites offering membership at no cost, this can be a good place to start your research.
- **Government websites** – these should provide details of current and forthcoming policy and legislation. Try to keep up to date with developments in legislation as well as priority areas and themes for government funding. Where possible, try to develop contacts within relevant parts of the government so that you are the first to know of new developments that may be relevant for your target market.
- **Conferences and seminars** – if relevant events are happening in your area, it can be worth attending, both to hear about the types of threats and opportunities being discussed and to make new contacts. Attending a conference can represent a significant investment in terms of both time and cost, so try to research the event before committing to attend. For example, is the event organized by a reputable organization? Are there any companies that you would like to meet speaking or attending the event? Can you get more information about the delegates from the event organizer? How many people attending? What are their job titles? etc.

PR.5 Identify the general opportunities and threats across the value chain

- **Informal events** – is there somewhere where you can meet relevant people from your target market on an informal basis. For example, is there a ‘Green Drinks’ initiative in your area (<http://www.greendrinks.org/>)? If not, could you start one?
- **Trade publications** – many industries have trade publications that provide information on the latest developments in research and development as well as articles on significant threats for the industry.
- **Technology blogs and open innovation platforms** – Blogs focused on technology for developing and transitional economies such as the World Bank blog (<http://blogs.worldbank.org/> - search for relevant tags such as ‘Environment’, ‘Climate change’, ‘Social development’ etc.) can provide useful information on technologies being applied in other markets around the world which might be transferrable to your country. Open innovation platforms, such as Yet2 (<http://www.yet2.com/>), are places where companies can provide details of technical problems they are trying to solve as well as novel technologies they have developed which are yet to find an application.
- **Corporate Social Responsibility (CSR) reports** – These reports provide information on the environmental and social sustainability performance of the company on a wide variety of issues, including gender equality. Many large companies now produce an annual CSR report in accordance with standards and schemes such as the Global Reporting Initiative (GRI). The GRI database (<http://database.globalreporting.org/>) contains over 15,000 reports and can be searched by sector. Part of the reporting process is to determine, using a systematic approach incorporating feedback from stakeholders, which sustainability issues are ‘material’ (important) for the company. These reports therefore represent many person-years’ worth of research into the key sustainability threats and opportunities facing the industries they represent.
- **Technical patents** – the advent of online, searchable patent database has made it much easier to find relevant patents. Free to access databases, such as Espacenet (<http://www.epo.org/searching/free/espacenet.html>) which includes over 80 million patents and patent applications, can be used to find solutions to existing problems or to monitor the research and development activities of companies that you are interested in. If the patent office in your country does not have an online patent database, you can always look at patents from relevant companies in other markets to get an understanding of trends and developments that might be useful for companies in your target market.
- **National government departments for trade and industry, trade associations, SME associations and chambers of commerce** – each of these can be interesting sources of data, although the variety and quality of data will vary significantly from one organization to the next.
- **National departments for social rights** should be able to provide data on gender equality and women’s empowerment within the country.
- **Academic and private research centres** – from the websites, email newsletters and publications of research centres you should be able to establish if there are research groups working on issues that may be relevant to your eco-innovation services. If so, you may wish to build links with key personnel at those centres so that both sides have an understanding of the others interests and competencies, which will facilitate future collaborations.

PR.5 Identify the general opportunities and threats across the value chain

Quantitative data on markets and trends can be found in a variety of places. Sources include:

- International Trade Centre (ITC) – general data on international trade. Available from: <http://www.intracen.org/>
- World Trade Organization (WTO) – general data on international trade and market trends, including interactive trade maps. Available from: http://www.wto.org/english/res_e/statis_e/statis_e.htm
- UN Comtrade Database – general data on international trade. Available from: <http://comtrade.un.org/>
- Centre for the Promotion of Imports from developing countries (CBI) – data on EU markets and trading with partners within the EU. Available from: http://www.cbi.eu/marketintel_platform
- Food and Agriculture Organization of the United Nations – data on global food prices and sustainability threats being faced by the agri-food sector. Available from: <http://www.fao.org/>
- COLEACP – information on sustainable horticulture. Available from: <http://www.coleacp.org/en>
- National government departments for trade and industry.
- Trade associations.
- Chambers of commerce and/or industry.
- Social rights associations.
- Women's rights associations.

Online patent databases:

Espacenet. Covers over 80 million patents and patent applications from around the world. Available from: <http://www.epo.org/searching/free/espacenet.html>

South African Online Patent Search. Free access to patents filed in South Africa. Available from: <http://patentsearch.cipc.co.za>

China Patent Information Center. Free access to patents filed in the People's Republic of China. Available from: <http://search.cnpat.com.cn/CPRS2010/cnSimpleSearchEn.html>

Global technology trends:


World Economic Forum (2015). The global information technology report 2015: ICTs for inclusive growth. Available from: http://www3.weforum.org/docs/WEF_Global_IT_Report_2015.pdf

McKinsey Global Institute (2013). Disruptive technologies: Advances that will transform life, business, and the global economy. Available from: <http://www.mckinsey.com/business-functions/business-technology/our-insights/disruptive-technologies>

Accenture (2016). People First: The Primacy of People in a Digital Age. Available from: <https://www.accenture.com/us-en/insight-technology-trends-2016.aspx>

United Nations Conference on Trade and Development (2015). Available from: <http://unctad.org/en/pages/publications/Technology-Innovation-Report.aspx>

Dickens, R., Kelly, M., Williams, J. R. (2013). What are the significant trends shaping technology relevant to manufacturing? Foresight, Government Office for Science. Available from: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/277164/ep6-technology-trends-relevant-to-manufacturing.pdf

 Further information in the Agri-food, Chemicals and Metals Supplements



STEP

Develop a concept for a more sustainable value chain

ACTIVITIES

PR.6

Develop a value chain vision

OVERVIEW

By this stage you should have built a better understanding of the sustainability hotspots and the significant threats and opportunities within the value chain that you are targeting. You can now use this knowledge to develop a vision of a sustainable value chain (referred to from this point onwards as the 'value chain vision').

PR.6

Develop a value chain vision

Requires dialogue

In this activity you will develop a vision of a sustainable value chain using the information you have gathered to date about the value chain.



INPUTS

- Key stakeholders, from the activity *PR.3 Build the right external partnerships*.
- Sustainability hotspots, from the activity *PR.4 Identify sustainability hotspots across the value chain*.
- General opportunities and threats, from the activity *PR.5 Identify the general opportunities and threats across the value chain*.

OUTPUTS

- A vision of a sustainable value chain, used in the activity *PR.8 Plan and implement engagement activities*.

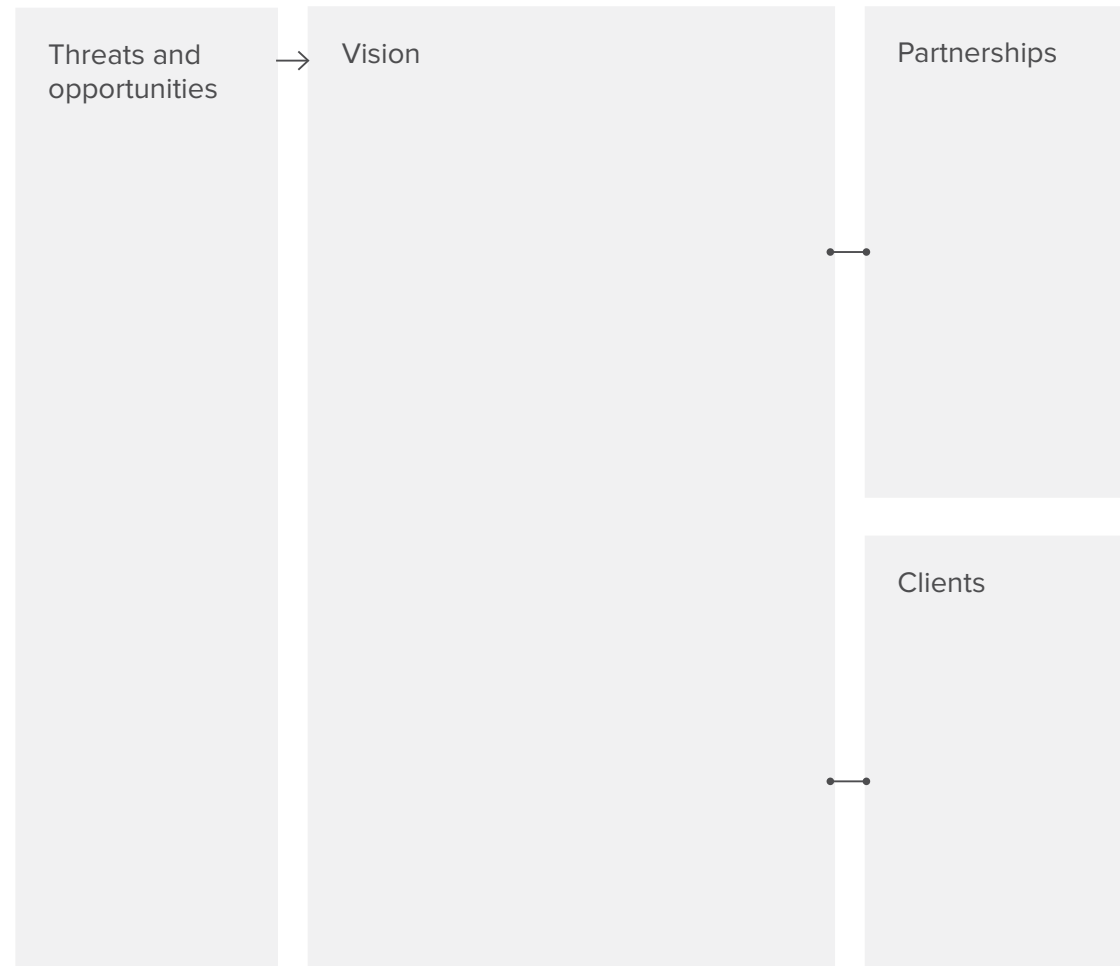
PR.6 Developing a value chain vision

The value of developing a value chain vision is that it will provide the 'big picture' that can be used to guide your activities with companies within this value chain. On a practical level it will help you to decide who you need to be working with (partnerships), and who you should target first with your services (clients). The value chain vision does not need to be detailed but should outline how the sustainability hotspots, threats and opportunities can be addressed.

HOW TO GO ABOUT IT

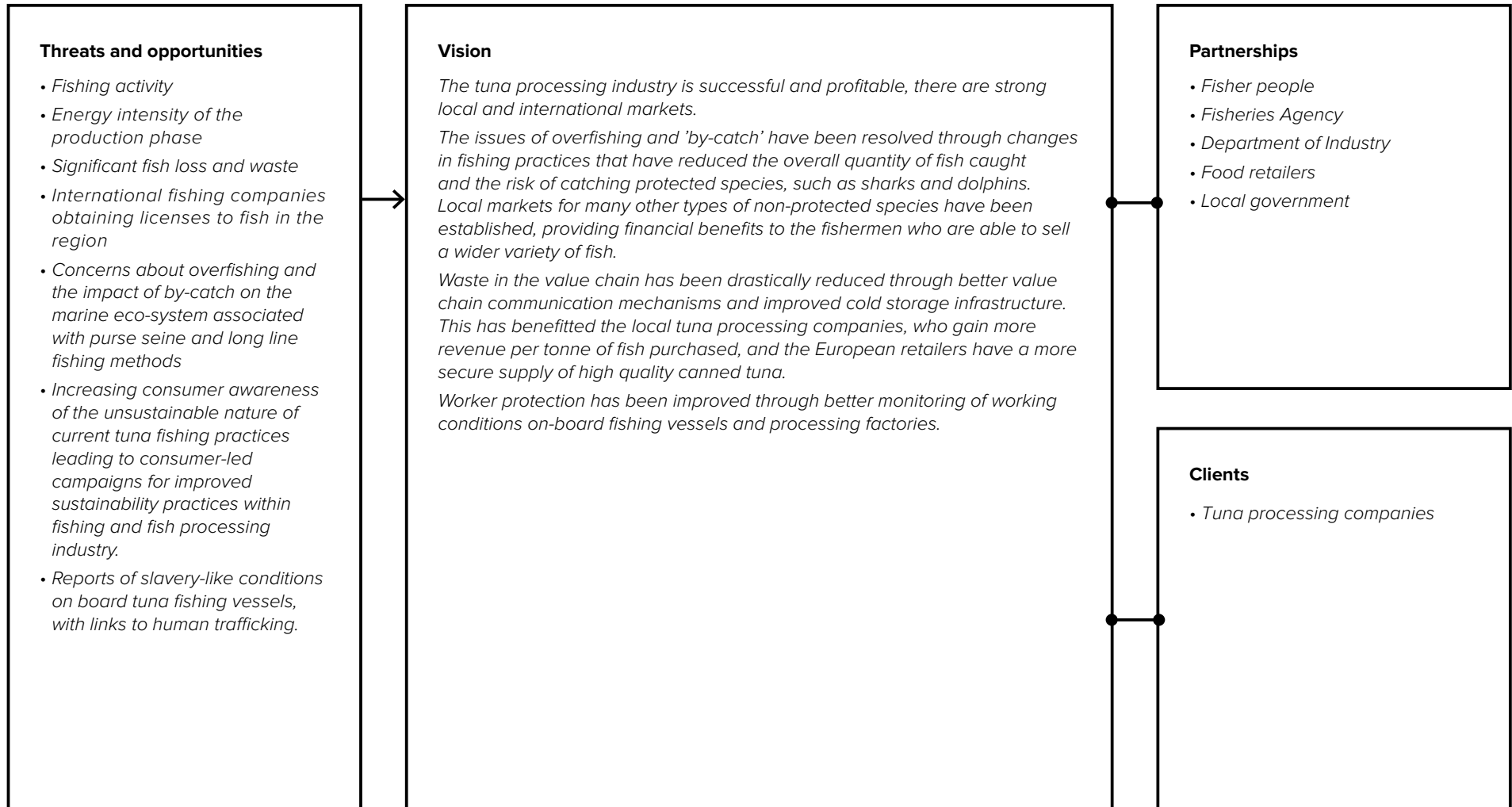
1. Review the sustainability hotspots and the significant threats and opportunities that you identified using *Life Cycle Thinking and PESTEL templates*.
2. Try to envision a situation in 5-10 years' time in which the sustainability hotspots and threats for the value chain have been resolved (or drastically reduced) and the opportunities have been realised.
3. Write a brief description of the situation that exists in this future state, mentioning each of the major threats and opportunities that have been addressed.
4. Review your draft value chain vision with colleagues before finalising.

Template of Value Chain Vision



PR.6 Developing a value chain vision

LEARNING CASE STUDY OF VALUE CHAIN VISION



PR.6 Developing a value chain vision

TIPS & TRICKS

INSPIRATION FOR VISION

To help formulate the vision you could also look at the visions for the future and long term priorities described in your country's policy documents. For example, you might find that the industrial development policy in your country place a high priority on transitioning from export of basic raw materials, to more sophisticated products/ processed goods. The RECPnet Vision Statement (see references for further details) also provides some suggestions about the types of sustainability issues that are important to address at a global level.

SHARING VISION WITH CLIENTS

The value chain vision will be useful when developing strategy options for the companies you work with later in the process. Whether or not you decide to share this vision of a sustainable value chain with your client companies is up to you. Some companies will be interested to see how their role within the 'big picture' for the value chain but others will not. Either way, it may be useful to discuss the vision you have developed with one or two sector experts that they can provide some feedback and critical review.

BACKGROUND INFORMATION

References and resources

Developing a vision for a sustainable value chain:

Davos Declaration on Promotion of Resource Efficient and Cleaner Production (RECP) in Developing and Transition Countries. Available from: https://www.unido.org/fileadmin/user_media_upgrade/What_we_do/Topics/Resource-efficient_low-carbon_production/Global_Network_Conference_on_RECP_-_Declaration.pdf

→ Further information in the Agri-food, Chemicals and Metals Supplements



STEP

Engage potential clients

ACTIVITIES

PR.7

Develop a value chain pitch

PR.8

Plan and implement engagement activities

OVERVIEW

This stage of the process is about communicating some basic information about eco-innovation and your eco-innovation services to companies in your target market to try and catch their attention and create leads that you can follow-up on. This requires having a well prepared pitch that resonates with the needs of the value chain and then presenting this pitch to relevant companies through a variety of communication channels.

PR.7

Develop a value chain pitch

Requires dialogue

The aim of this activity is build a pitch which succinctly summarises the business benefits of eco-innovation for companies in your target market and the value chain that they are part of.



INPUTS

- Sustainability hotspots, from the activity *PR.4 Identify sustainability hotspots across the value chain.*
- General opportunities and threats, from the activity *PR.5 Identify the general opportunities and threats across the value chain.*
- Value chain vision, from the activity *PR.6 Develop a value chain vision.*

OUTPUTS

- A value chain pitch document that summarises the business case for eco-innovation tailored to your target market, used in the activity *PR.8 Plan and implement engagement activities.*

PR.7 Developing a value chain pitch

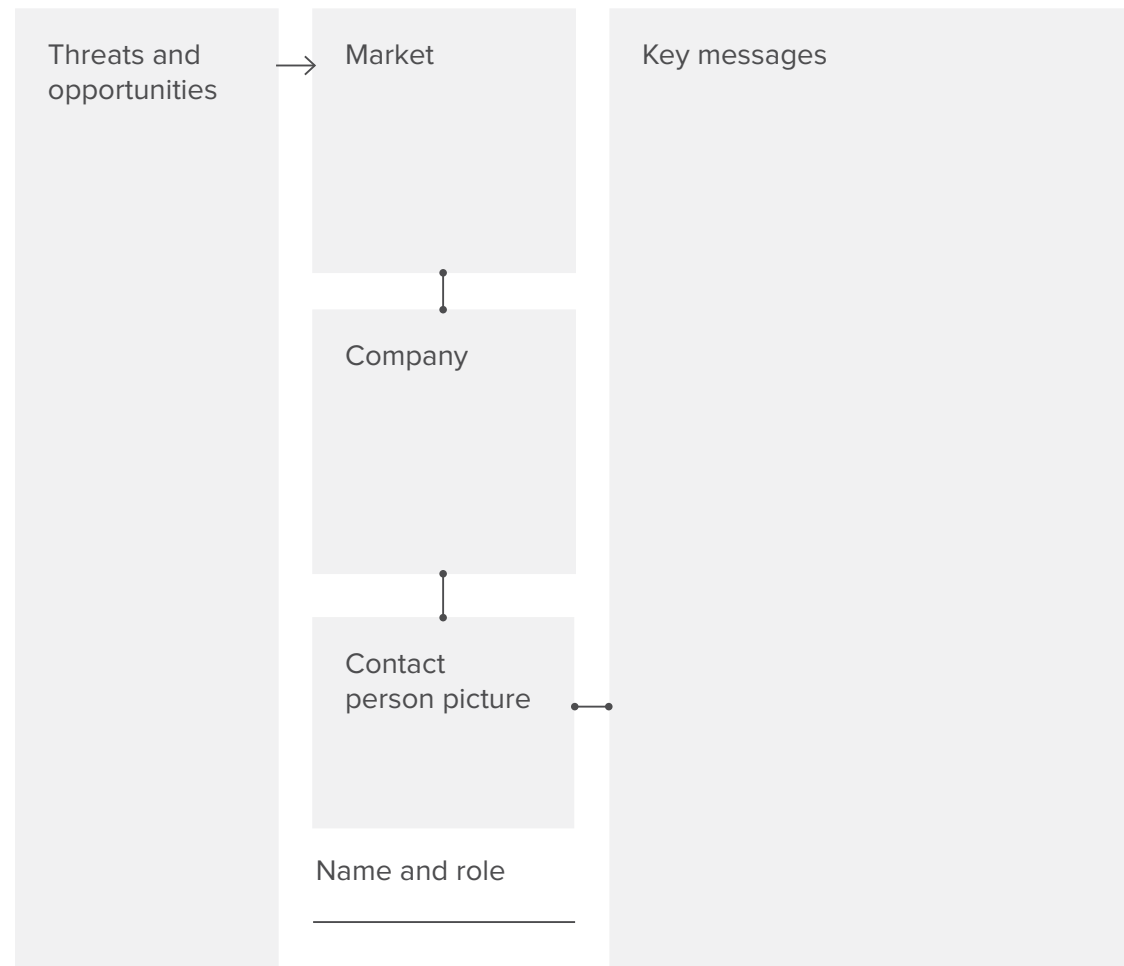
The Value Chain Pitch is a document that describes the key messages that you want to communicate to companies in your target market that will describe the potential benefits of eco-innovation and make them want to learn more about eco-innovation and the eco-innovation services that you offer. Exactly how you use the document will depend on the types of events and communication channels you use when you begin to engage companies. However, it is important to create a Value Chain Pitch document so that the key messages to the potential customer are consistent, no matter what format they are delivered or who in your team is delivering them.

Once complete, the Value Chain Pitch will be the basis for all your communication and engagement activities, whether it is preparing a presentation for a seminar, writing a white paper, or creating an eco-innovation service flyer.

HOW TO GO ABOUT IT

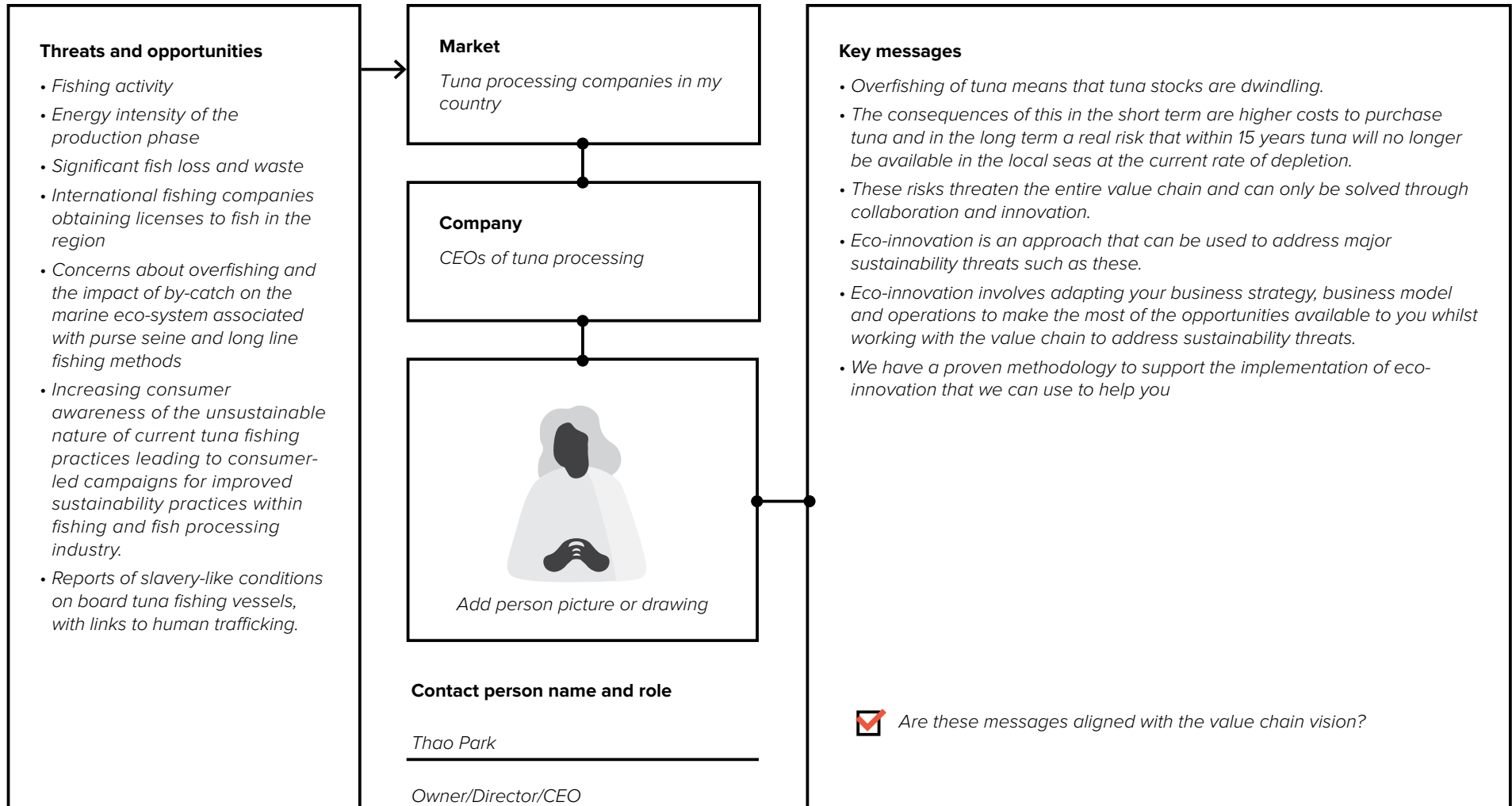
1. Define the type of organisation a particular message is for (the 'target market') and who specifically within the organisation the message is intended for (the 'target audience') before detailing the actual key messages.
2. Define what the key messages should be for your target market and audience by reviewing the sustainability hotspots and significant threats and opportunities and then describing how eco-innovation can help to address and the threats and make the most of the opportunities.
3. Repeat this process for each of the different types of target market and target audience that you want to communicate with.

Template of Value Chain Pitch



PR.7 Developing a value chain pitch

LEARNING CASE STUDY OF VALUE CHAIN PITCH



PR.7 Developing a value chain pitch

TIPS & TRICKS

SHORT TERM FOR ATTENTION

When considering the significant threats and opportunities, it may be beneficial to focus on the issues that will have an impact within two years, as these issues are more likely to catch the attention of a CEO.

INSPIRATION FOR BENEFITS

The UN Environment report on the 'Business Case for Eco-innovation' can provide some ideas for the types of benefits that companies might obtain through eco-innovation.

LONG TERM ALIGNMENT

You can also review the value chain vision you defined previously as the key messages should be aligned with this long term vision.

BACKGROUND INFORMATION

References and resources

Developing a value chain pitch:

UN Environment (2014). Business Case for Eco-innovation. UN Environment, Paris. Available from: <http://www.unep.org/resourceefficiency/Business/Eco-Innovation/TheEco-InnovationProject/TheBusinessCaseforEco-innovation/tabid/1036905/Default.aspx>

PR.8

Plan and implement engagement activities

Requires dialogue

This activity is about planning how you will begin to engage companies in your target market and get them interested in your eco-innovation services.



INPUTS

- Choice of target market, from the activity *PR.1 Evaluate potential markets*.
- Preliminary list of relevant companies in your target market. From the activity *PR.1 Evaluate potential markets*.
- Stakeholders that could help you to make initial contact with relevant companies. From the activity *PR.3 Build the right external partnerships*.

OUTPUTS

- Variety of engagement activities completed.
- Meeting scheduled with senior management representative(s) at several companies in your target market, used in the activity *PR.9 Pitch the benefits of eco-innovation to the CEO*.

PR.8 Plan and implement engagement activities

With your Value Chain Pitch created, you are now ready to begin engaging companies in your target market. This can be done in many ways. You should have already identified some relevant companies in your target value chains when completing the *Target Identification template*. You could approach relevant government agencies, trade associations and the like who may be able to offer personal introductions to the companies you have identified or give you details of other relevant companies. You might also be able to obtain some government funding to help launch your new eco-innovation services if there is a good fit with policy goals.

Clearly, there are many other ways of generating interest in eco-innovation within your target market and your understanding of the market will help to determine the most appropriate and effective option. Whichever approach you chose, the ultimate aim is to secure a meeting with the CEO of a prospective client in order to discuss the next steps and gain approval to proceed to the *SET STRATEGY* phase.

HOW TO GO ABOUT IT

1. Generate an initial list of the types of activity you could complete to start engaging companies in your target market. Some initial ideas to get you started are provided below:
 - Present an overview of eco-innovation services when visiting companies that you work with already that fall within your target markets for eco-innovation.
 - Contact the relevant trade or industrial association or Chambers of Commerce for your target market to discuss the opportunities to run joint events and co-promotion on the topic of eco-

innovation. They are often keen to find new ways of supporting their members and offering new services.

- Initiate a project to address a sector-wide challenge or opportunity. If funding for the project can be secured, this can facilitate the recruitment of industrial partners to provide further investment.
- Make use of the partnerships you have developed. If you have developed partnerships then think about what new contacts they may be able to provide. Also, how could you work together with your partners to build greater reach and impact for your marketing events?
- Organize a ‘CEO Forum’ which introduces the concept and benefits of eco-innovation to business leaders in your target market.
- Develop a market-specific presentation about the drivers and opportunities for eco-innovation within that sector market and then contact individual companies from within that target sector market to arrange a meeting to deliver this presentation.
- Contact the customers and stakeholders of a company and ask them how they rate the sustainability performance of the company. If you identify an area where the company is failing to live up to stakeholder expectations this can be useful information for the company.
- Publish a White Paper on the business benefits of eco-innovation targeted at your target market. A White Paper is a piece of marketing literature, typically around 4 to 5 pages in length, which describes a new approach or new product that can help to solve a business problem. When writing a White Paper, it is important to clearly identify the audience for the White Paper and provide suitable content and language for your target audience

PR.8 Plan and implement engagement activities

(i.e. if your intended audience is the CEO of the company the focus should be on the business benefits, capital costs etc. not the technical detail of a solution). Try to include pictures, diagrams and examples where possible to help explain and reinforce the points you are making. Some relevant content can be found in the 'Business case for eco-innovation' published by UN Environment but try to complement this with examples and arguments that are more specific to your region, country and target market. Once complete, putting your White Paper on your web page where people can download it for free in return for providing their contact details is a good way to generate leads. You can also try sending an email to existing contacts to let them know about your new eco-innovation services, including a link to the White Paper download page on your website.

2. Review the list and decide which of the ideas you will implement, taking into account factors such as:
 - Time, cost and effort to organize and implement
 - How many good quality leads (contacts within relevant companies) the activity would generate.
 - The capacity you have available to run these activities with the team you have available.
3. Generate a schedule of activities for the next 6-12 months, make sure one named person is responsible for each activity, then start organizing your first activity!

Template of Company Engagement Planning

List of potential engagement activities	Criteria	Score



List here the companies to engage with and the relevant contact person

PR.8 Plan and implement engagement activities

LEARNING CASE STUDY OF COMPANY ENGAGEMENT PLANNING

List of potential engagement activities	Time (1 to 5)	Cost (1 to 5)	Effort (1 to 5)	Score
• 5 minute pitch to existing clients when delivering existing services	3	4	5	12
• Organise a CEO forum	3	4	3	10
• Build consortium and apply for funding from Fisheries Agency under programme for 'Sustainable fishing and fish processing'	2	5	1	8
• Attend national conference on food production challenges	4	1	3	8
• Conduct a survey on sustainability challenges amongst supply chain managers at large food retailers and use results as basis for a White Paper	3	2	3	8



List here the companies to engage with and the relevant contact person

- Tasty Tuna Company – Mr Tasty
- Canned Tuna Ltd. – Ms Jones
- Fishy Supplies Ltd. – Mr Smith
- Canned Delights Inc. – Ms Delight

PR.8 Plan and implement engagement activities

Description of the Tasty Tuna Company

Note: The Tasty Tuna Company is a fictional company used to illustrate the application of the eco-innovation methodology. Tasty Tuna is a small, family-run company that specializes in the processing and canning of tuna fish products. The company was created by a fishing family in 2004 because they were unhappy with the price they were receiving for their fish. The family still own and manage the company, which now employs 40 people and processes 1000 metric tonnes of tuna per year.

The company buys its fish direct from the fishermen at the local market. The fish is taken and processed using predominantly manual processes. The canned tuna is finished with Tasty Tuna branded packaging when sold into the domestic market, but the company also offers customized packaging for large international customers.

The company has two products:

- Premium, Yellowfin canned tuna in oil – mainly sold to the export market
- Standard, Skipjack canned tuna in brine – mainly sold in the domestic market.

The majority of the company's employees are involved on the production line but there are five office staff consisting of the CEO, the Production Manager, the Sales Managers, one Buyer and one Finance Assistant.

So why would the Tasty Tuna Company be a good target for your eco-innovation services?

Below are some of the key factors that might have been used to identify the Tasty Tuna Company as a good company to target. Look out for similar characteristics when selecting the companies that you will target.

- Supported by national policy – In the country in which the Tasty Tuna Company is based, the food processing industry is supported by national policies such as the National Development Plan as the government wants to move from exporting basic raw products to higher value, processed food products.
- Availability of funding – There is funding available through the Ministry of Trade and Investment for companies that wish to increase their export sales.
- Market facing new regulation – The Fisheries Ministry is considering implementing fishing quotas due to overfishing problems.
- Growing market – The demand for tuna is growing by more than 10% per year both locally and in export markets.
- Business to consumer market that has an interest in sustainability – The company sells some of its product under its own label and an increasing number of consumers are interested in purchasing tuna that is sustainably sourced
- Market facing significant sustainability threats – The tuna fishing and processing industry is currently facing threats such as dwindling fish stocks due to overfishing, concerns about working conditions on board fishing vessels and rising fish prices due to competition from foreign processing companies. These threats and others are discussed further in later activities.
- Successful, profitable company – Despite the threats being faced the company has made healthy profits in each of the last five years. It is the market leader in the domestic market with a 55% market share.
- CEO/Owner that is keen on sustainability – The Tasty Tuna Company is a family-owned business and the owners have a

PR.8 Plan and implement engagement activities

TIPS & TRICKS

positive attitude to sustainability as they recognise that overfishing is becoming a serious problem for them and they want the company to have a good reputation in their local community and abroad. There is a section on the company's website about the actions they are taking to reduce their impact on the environment.

MAKE IT FUN

If you can incorporate some interactive game or competitive elements into you early stage interactions with a company it can prove a lot more engaging and enticing than standard approaches based on long presentations.



PR.8 Plan and implement engagement activities

BACKGROUND INFORMATION

References and resources

Writing a White Paper:

WhitePaperSource. Website featuring articles on how to write a White Paper, a forum, and downloadable audio classes Available from: <http://www.whitepapersource.com/>

Examples of White Papers available from: <http://www.thatwhitepaperguy.com/that-white-paper-guy-samples.html>

Example of an eco-design White Paper available from: <http://www.grantadesign.com/eco/ecodesign.htm>

→ Further information in the Agri-food Supplement

STEP

Gain approval from senior management to proceed

ACTIVITIES

PR.9

Pitch the benefits of eco-innovation to the CEO

OVERVIEW

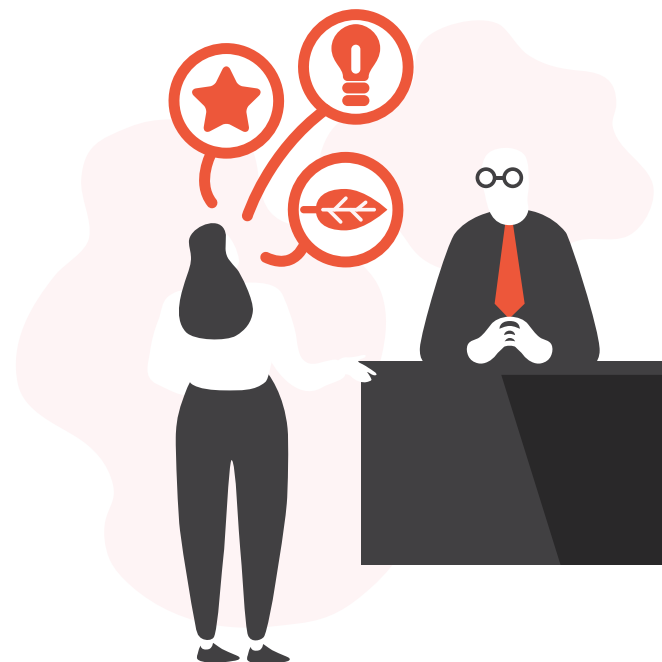
There are key points during the eco-innovation methodology where you will need to outline the arguments supporting investment from the company in implementing eco-innovation and decide how to proceed. The first of these key points is gaining approval from the CEO of at least one of your target companies to get internal access to the company.

PR.9

Pitching the benefits of eco-innovation to the CEO

Complex activity

This activity provides guidance on how to pitch your eco-innovation services to the CEO of one of your target companies.



INPUTS

- Value Chain Pitch, from the activity *PR.6 Developing a value chain pitch*.
- Meeting scheduled with senior management representative(s) at several companies in your target market, from the activity *PR.8 Planning and implement engagement activities*.

OUTPUTS

- Approval from the CEO to proceed to the next phase in the process *SET STRATEGY*. This output is not used elsewhere but it essential to allow you to proceed.

PR.9 Pitching the benefits of eco-innovation to the CEO

Before you meet with the CEO you will need to decide whether to present a pitch for funding of the complete eco-innovation implementation service or will simply be requesting permission to get internal access to the company so that you can proceed through the activities of the *SET STRATEGY* phase (which may or may not be funded depending on the approach you decide to adopt).

For the purpose of this manual it is assumed that at this stage you are requesting permission to get internal access to the company so that you can proceed through the activities of the *SET STRATEGY* phase. Below is a suggestion for the topics to include in your pitch to the CEO. Much of the content of this pitch can be based on the value chain pitch but should be made more specific to the company you are targeting and you should avoid repeating the generic content if the CEO has previously seen your value chain pitch.

HOW TO GO ABOUT IT

Prepare a pitch to the CEO based on the following outline:

- Brief introduction to your organization and the services it provides.
- Describe what eco-innovation is.
- Highlight the need for eco-innovation by describing some of the high priority threats and opportunities that you have identified.
- Discuss the potential business benefits for the company of eco-innovation – these can be based on your value chain pitch but should be tailored where possible to the specific context of the company.
- Give examples of how eco-innovation has benefitted other companies. Case studies can be found in the *Business Case for Eco-innovation* (UN Environment, 2014), but local/national/regional

examples or examples from the same industry in other countries and your own experience are always preferable.

- Emphasize that implementing eco-innovation is a long-term, strategic initiative that will require the on-going support and commitment of the senior management team if it is to be successful.
- If relevant, mention the partnerships you have formed with stakeholders that will ensure that you have access to the competencies, skills and knowledge required to deliver a comprehensive eco-innovation implementation service.
- Finish by discussing next steps.

When requesting permission to proceed there are a number of key questions that you should try to address to help the CEO make a decision (with some generic answers):

- **How will proceeding to the next stage benefit the company?** – A business strategy will be formulated that will capture the long term vision for the company as well as strategic goals. This strategy will be used throughout the rest of the process to guide the eco-innovation activities.
- **What will you do?** – Conduct a Preliminary Assessment to build a better understanding of the company and identify specific opportunities for eco-innovation across the life cycle of its products. This will involve reviewing their existing business strategy, business model and operational strengths and weaknesses. Based on the information gathered a revised business strategy that incorporates eco-innovation will be proposed for the company.

PR.9 Pitching the benefits of eco-innovation to the CEO

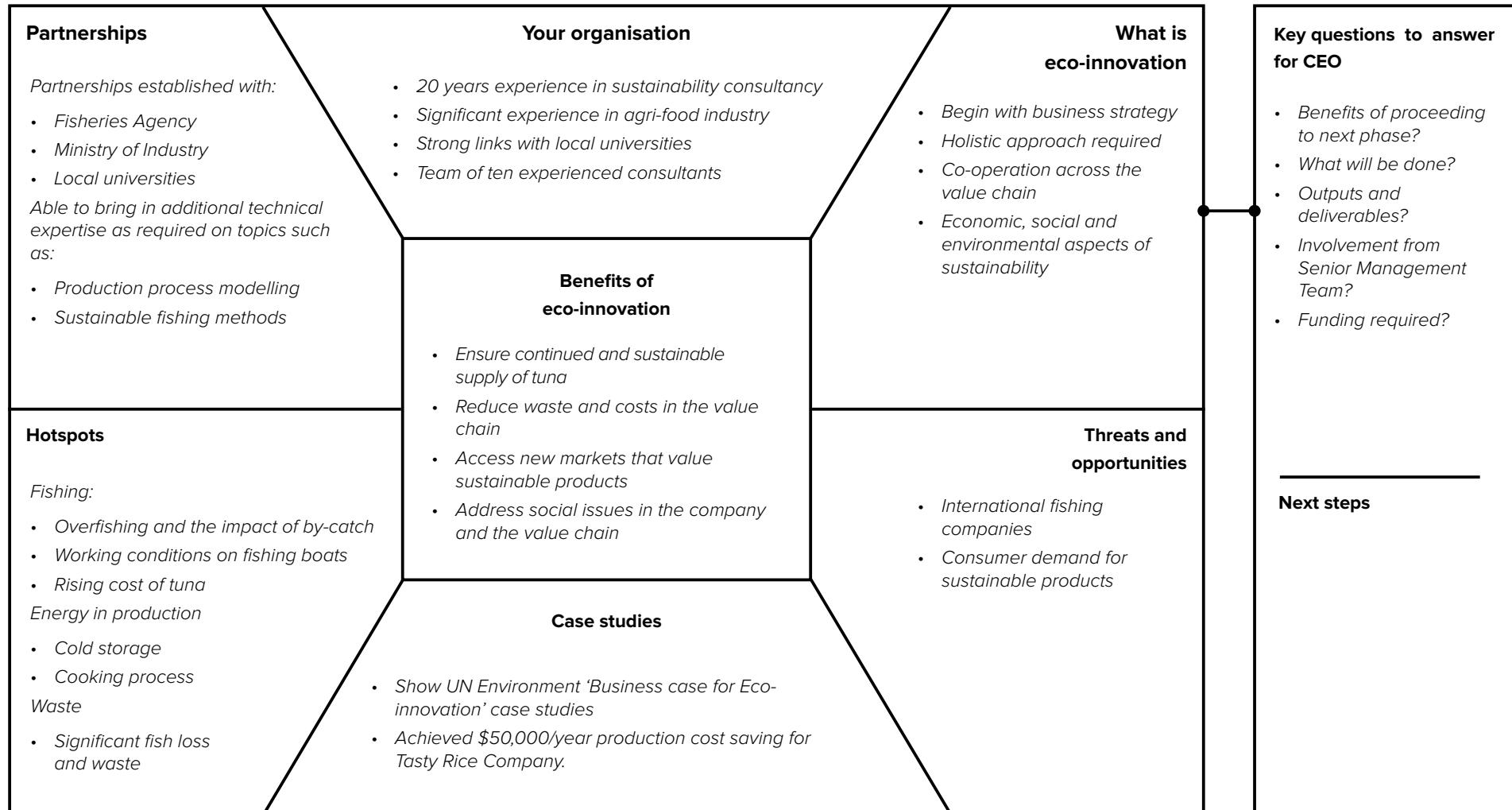
- **What will be the outputs and deliverables?** – A report that summarizes the findings from the strategy review and workshop and goes on to propose a revised business strategy for the company. In a subsequent meeting, the Service Provider will return to present the findings from the report and to discuss the support services required to enable the implementation of the strategy throughout the company.
- **What involvement from senior management and other personnel will be required?** – 1.5 hours with the CEO to review the current business strategy, one-day workshop with key personnel from across the company to help identify operational strengths and weaknesses. After the completion of the report a one-hour meeting with the Senior Management Team will be arranged to present the findings and a pitch for the implementation services.
- **Will you require funding from the company?** – No, not at this stage (see Tips & Tricks).

Template of Initial Pitch to CEO



PR.9 Pitching the benefits of eco-innovation to the CEO

LEARNING CASE STUDY OF INITIAL PITCH TO CEO



PR.9 Pitching the benefits of eco-innovation to the CEO

TIPS & TRICKS

MUST MEET CEO

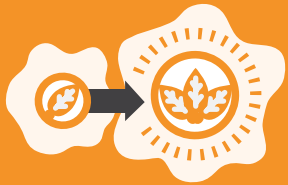
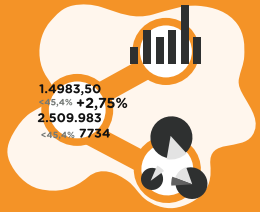
It is important that you meet with the CEO of the company at this stage (and not other members of staff, even if they are part of the senior management team) to ensure that there is interest and engagement from the very top of the company. If the CEO is not willing to meet with you, then it may be a sign that the company is not yet ready for eco-innovation.

WHEN TO CHARGE

If you believe that the company will derive significant value from the work you do during the *SET STRATEGY* phase then it will be preferable to charge for this as a service in its own right. If not, the time you spend on these activities will form part of your sales and marketing overhead.

→ Further information in the Chemicals and Metals Supplements





SET STRATEGY

The aim of the SET STRATEGY phase is to use your knowledge of the company's strengths, weaknesses, opportunities and threats to propose a new business strategy that places eco-innovation at the core of the company's business strategy to ensure progress towards a sustainable future for the company

PHASE 2 — ST

SET STRATEGY

OVERVIEW

In the SET STRATEGY phase, the aim is to build on your understanding of the generic opportunities and threats for your target market and begin to identify the specific opportunities and threats that are most relevant for the company. This is done through a Preliminary Assessment, which captures information about the current business strategy, business model and operational performance. With this information you can propose a new, eco-innovative business strategy for the company.

STEPS & ACTIVITIES

Get ready for the Preliminary Assessment

Plan my data gathering strategy
ST.1

Understand the current business strategy

Interview the CEO
ST.2

Understand the current business model

Capture the current business model
ST.3

Understand the current operational performance

Do a Walk-Through Audit
ST.4

Do a workshop/ interviews with staff
ST.5

Update the sustainability hotspots
ST.6

Analyse the information I have gathered

Do a SWOT analysis
ST.7

Define the company vision and strategic goals of the new business strategy

Develop a vision for the company
ST.8

Define the strategic goals
ST.9

Define the products, markets and selling points of the new business strategy

Generate ideas for new products, markets and selling points
ST.10

Evaluate ideas for new markets, products and selling points
ST.11

Select which ideas for new markets, products and selling points to include in the strategy proposal
ST.12

Get senior management approval for the new business strategy

Do an individual/ group review of the business strategy proposal
ST.13

Pitch the new business strategy to the CEO
ST.14

Consider key management issues for implementation
ST.15

STEP

Get ready for the preliminary assessment

ACTIVITIES

ST.1

Plan my data gathering strategy

OVERVIEW

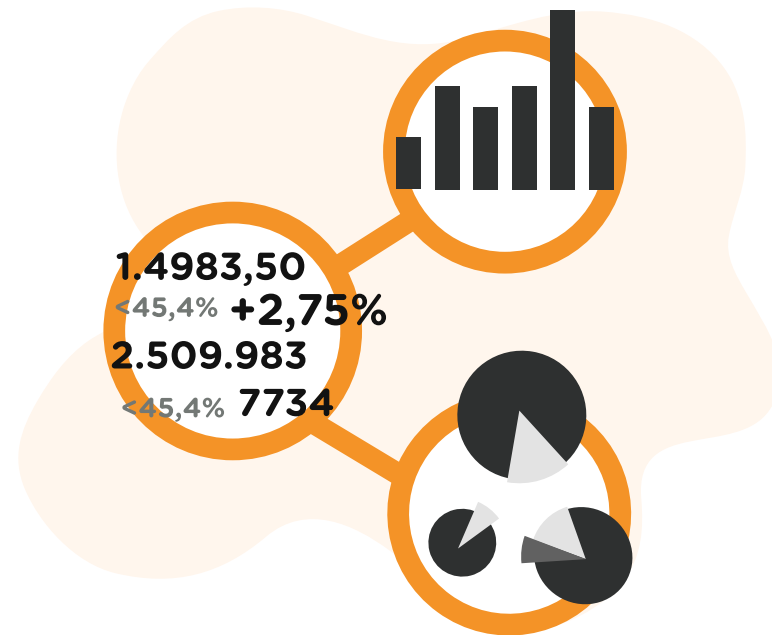
The main aim of the Preliminary Assessment is to gather the information you will need in order to propose a suitable new business strategy for the company. In particular, you will need to gather data on the current business strategy, business model and operational performance of the company as well as the specific opportunities and threats faced by the company. This step provides guidance on the types of information to focus on and suggests ways to help you gather that information.

ST.1

Plan my data gathering strategy

Complex activity

This activity helps you to plan your data collection activities for the Preliminary Assessment and also consider the option to combine this activity with the In-Depth Assessment.



INPUT

- Sustainability hotspots for the value chain from the activity *PR.4 Identify sustainability hotspots across the value chain.*

OUTPUTS

- A detailed list of the types of data you need to gather which has been reviewed and agreed with the company Focal Point. This output is not specifically used later in the process but is important to ensure effective and efficient data collection.

ST.1 Plan my data gathering strategy

A significant proportion of your time during the *SET STRATEGY* phase will be used gathering data as part of the Preliminary Assessment. There are several important questions you should consider before starting any data gathering activities to ensure that you get the information you need in a way that is fast and efficient for both you and the company. Managing the data gathering activities poorly might result in the company losing interest and abandoning their eco-innovation activities. The questions are:

Can you combine the Preliminary Assessment and In-Depth Assessment?

An important underlying assumption in the methodology is that at this stage of the process you will not be receiving any funding from the company. If this is not correct and you have been able to obtain funding from the company for this phase of activity or know that you will proceed with other phases of the methodology then you should consider performing the In-depth Assessment (which is described in the step 'Understand in more detail the performance of the company through an In-Depth Assessment') at this point as well. Performing the In-depth Assessment requires more time and effort from both you as the Service Provider and key personnel from the company but will save time overall and will lead to better quality results as you will have more data available on which to base your recommendations for strategic changes at the company.

What data do you really need to collect?

There are lots of different types of data that might be relevant but you decide beforehand which are the most important, based on factors such as the sustainability hotspots and threats and opportunities that you identified during the *PREPARE* phase. The Data Gathering The

Data Gathering Checklist can be used to complete this activity – details of which are provided in this activity.

Who within the company will help you organise data gathering activities?

You will need may need to arrange meetings and workshops with key personnel from the company during the Preliminary Assessment. To help facilitate these activities you should ask the CEO to appoint a 'Focal Point' to assist you. This person will act as your main contact within the company.

The Focal Point should ideally have a broad and deep knowledge of the company in order to be able to answer your questions or point you towards the best person within the company to speak to about a specific topic; although you may find that a more junior employee is appointed to help you. Having a Focal Point in place will be useful throughout the rest of your eco-innovation implementation activities.

Once you have answered each of these three questions you can explain your plans to the senior management team so that they understand the likely amount of time and effort required from the company during this phase.

ST.1 Plan my data gathering strategy

HOW TO GO ABOUT IT

1. Review the sustainability hotspots for the value chain then go through the list of possible data types in the Data Gathering Checklist and decide if they are necessary to collect.
2. Review the Data Gathering Checklist with the Focal Point to confirm how and when you will gather the data you require.

→ Further information in the Agri-food, Chemicals and Metals Supplements

Template of Data Gathering Strategy

Type of data	Do I need it?
	<input type="checkbox"/>
	<input type="checkbox"/>
	<input type="checkbox"/>
	<input type="checkbox"/>
	<input type="checkbox"/>
	<input type="checkbox"/>
	<input type="checkbox"/>

ST.1 Plan my data gathering strategy

LEARNING CASE STUDY OF DATA GATHERING STRATEGY

Type of data	Do I need it?
Current company vision	✓
Current strategic goals	✓
Current products, markets and selling points	✓
Current business model	✓
Main competitors and what they offer	
Flow diagram of main internal production steps	✓
Biggest contributors to production costs	✓
Biggest contributors to materials and water consumption (for company and for value chain)	
Biggest contributors to energy consumption (for company and for value chain)	✓
Biggest contributors to health & toxicity concerns (for company and for value chain)	
Biggest contributors to social impacts (for company and for value chain)	
Sales revenue data for last three years	✓
Profit and loss data for last three years	
Number of employees including breakdown by role/department	✓
Details of key suppliers	
Details of key partners and nature of partnership	✓
Details of environmental and social management system or policies in place	✓
Understanding of how the company is viewed by the local community, suppliers and customers	✓
Details of the company's policies and practices to promote innovation	
Details of facilities and resources to support product research and development	✓
Understanding of procurement policies and practices to promote sustainability	



STEP

Understand the current business strategy

ACTIVITIES

ST.2

Interview the CEO

OVERVIEW

It is essential to learn about the current business strategy of the company in order to have a better understanding of the context in which the strategic change will need to take place. The current business strategy will likely also reveal some useful insights into how the company views itself and its position in the world.

The current business strategy is captured by reviewing any formal documentation about the business strategy that exists and by conducting an interview with the CEO.

ST.2

Interview the CEO

Complex activity

In this activity you will try to build an understanding of the current company strategy by reviewing any formal strategy documentation and through an interview with the CEO.



INPUT

- Key threats and opportunities for the value chain from the activity *PR.5 Identify the general opportunities and threats across the value chain.*
- Data gathering checklist from the activity *ST.1 Plan my data gathering strategy.*

OUTPUTS

- Current business strategy used in the activity *ST.7 Do a SWOT analysis.*

ST.2 Interview the CEO

The *Business Strategy template* can be used to capture the current business strategy of the company. The main elements of the business strategy captured within the *template* are shown in Figure 6 and are explained further below.

The company vision gives a short statement about what the company is and what the company would like to become in the next 5-10 years.

The strategic goals are the 3-5 year objectives for the company that have been defined to address strategic threats or opportunities and ensure that progress is made towards the long term vision.

The business strategy must also define the markets that the company targets, the types of products and services that are offered to those markets, and how the company competes in those markets in terms of the selling points used. 'Selling points' are the features of the product and service offered by a company, or characteristics of the company itself, that would make potential customers want to buy the product from that company. The selling points describe the foundation of the competitive strategy of a company.

In Figure 6 the lines connecting the various elements of the business strategy are used to emphasise that each of the elements is connected to all of the other elements – they must be consistent and aligned with one another.

When initially capturing the business strategy of the company it may be that some elements of the business strategy have not yet been defined. Also, sustainability issues might not be part of the existing business strategy. This is not a problem as it is your job to ensure that by the end of the *SET STRATEGY* phase the company has a complete business strategy defined that does integrate sustainability considerations.

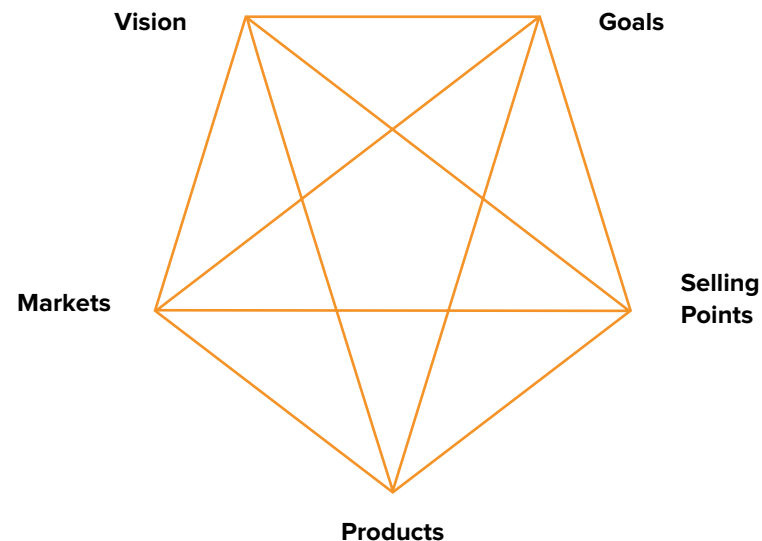


Figure 6: The main elements of a business strategy.

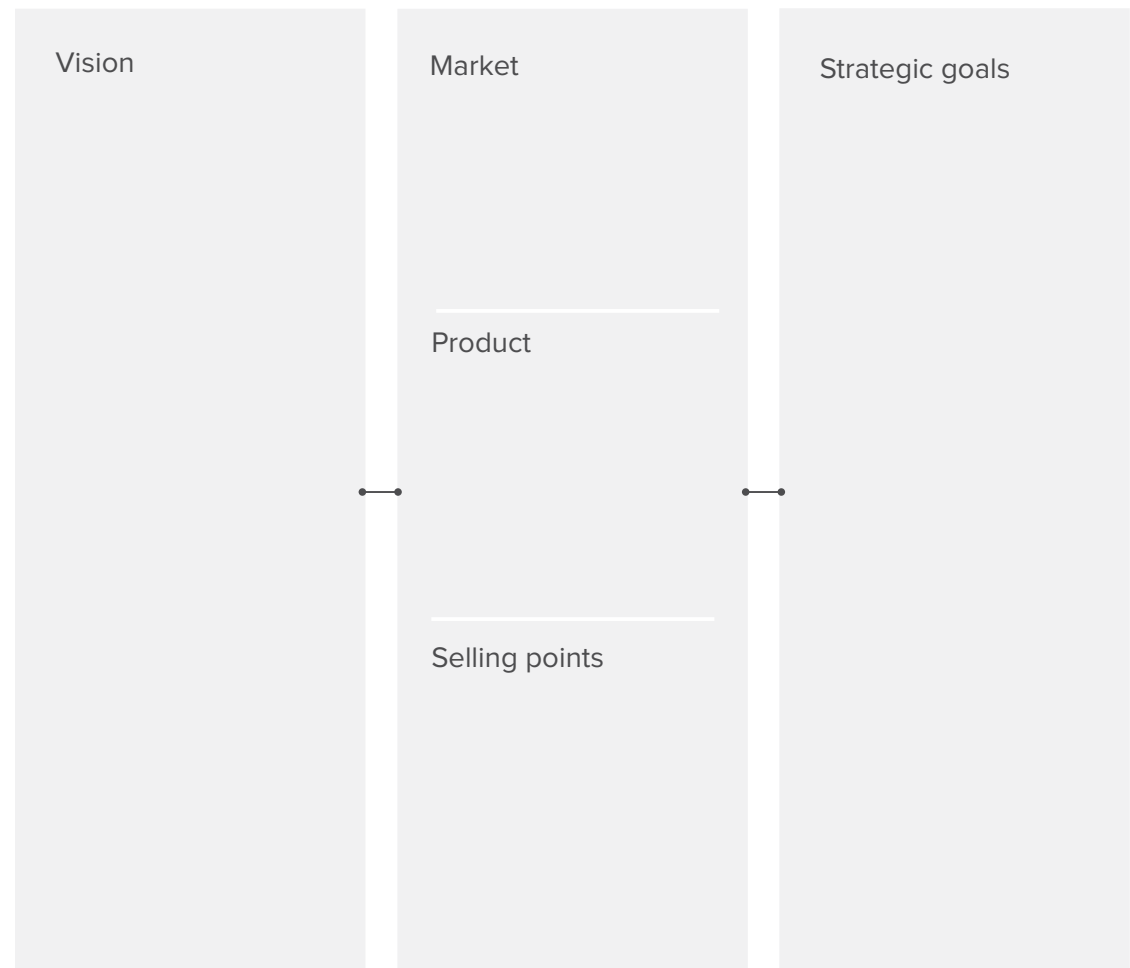
HOW TO GO ABOUT IT

1. In some companies the business strategy will be formally captured in a presentation or some kind of document e.g. a 'five-year plan'. If such a presentation or document exists, this should provide you with the majority of information that you need.
2. However, in many companies the strategy will not have been captured formally and may simply reside in the mind of the CEO. If this is the case, you will need to interview the owner/CEO to discover more about the strategy. You can use the *Business Strategy template* to guide your discussion, and capture notes. The main elements of the template are:

ST.2 Interview the CEO

- Vision - defines what a company aspires to be in the future, providing inspiration for employees and direction to inform strategic decisions.
 - Strategic goals - provides specific and tangible short-medium term targets that will help the company make progress towards its company vision.
 - Markets - provides a broad description of where and to whom the company will try to sell its products and services.
 - Products - describes what it is that the company sells, whether this is a physical product or a service.
 - Selling points - describes the characteristics of the company's products and services that it thinks will be particularly appealing for potential customers compared to the offering available from competitors - see the Tips & Tricks section for examples.
3. The interview with the CEO can also be a good opportunity to validate the desk research that you completed during the *PREPARE* phase. This can be done by presenting the sustainability hotspots, threats and opportunities that you identified for the value chain. The CEO should be able to confirm if the hotspots, threats and opportunities that you have identified are relevant to the company. This may also lead to discussions about other threats and opportunities that are more specific to the company, which you should make a note of.
 4. After the interview, you may wish to send a copy of the completed *Business Strategy template* to the CEO to check that you have understood the business strategy correctly.

Template of Business Strategy



ST.2 Interview the CEO

LEARNING CASE STUDY OF BUSINESS STRATEGY

Vision

- *No vision statement defined yet.*

Market

- *Domestic business-to-business food retail market segments worth at least US\$ 100,000*
- *Export business-to-business food wholesale market segments worth at least US\$ 200,000.*

Product

- *Canned tuna, available in several can sizes depending on the type of market.*

Selling points

- *Low cost – try to offer the cheapest cost per kg.*
- *Speed – For export markets, try to dispatch orders and deliver faster than competitors*

Strategic goals

- *To increase product sales to over \$1 million within 3 years (sales last year were \$680,000).*
- *To remain the number one canned tuna producer in the domestic market.*

ST.2 Interview the CEO

TIPS & TRICKS

ATTITUDE OF CEO

During your interview you should also be trying to build an understanding of beliefs and attitude of the CEO e.g. Do they have a personal interest in sustainability issues? What is their attitude to innovation and risk? Are they looking for quick fixes or do they want to invest in long term, fundamental changes?

TYPICAL SELLING POINTS

Here are some descriptions of commonly used selling points that might crop up in your interview with the CEO include:

LOW COST - Capability to sustain lowest overall cost or price

QUALITY - Capability to deliver highest quality products or service versus customer specifications

SPEED - Capability to provide products/services to the customer faster

SERVICE - Capability to assist consumer use of the product/service or provide direct follow-up services

INNOVATION - Capability to continually reinvent product/service and be first to market with new concepts

SUSTAINABILITY - Capability to provide products and services with enhanced life cycle sustainability properties

BACKGROUND INFORMATION

References and resources

Business strategy:

- Porter, M.E., 1980. Competitive Strategy: Techniques for analyzing industries and competitors. The Free Press, New York.
- Andrews, K.R. 1997. The Concept of Corporate Strategy. In: Foss, N.J., 1997. Resources, firms, and strategies: a reader in the resource-based perspective. Oxford University Press on Demand, p52.

→ Further information in the Agri-food, Chemicals and Metals Supplements

STEP

Understand the current business model

ACTIVITIES

ST.3

Capture the current business model

OVERVIEW

The aim of this step is to capture basic information about the current business model of the company. This is done through desk research and through a workshop with key personnel from the company. Having a good understanding of the current business model will help to inform your business strategy proposals and business model proposals later in the process.

ST.3

Capture the current business model

Complex activity

This activity provides guidance on how to capture the current business model of the company through desk research and a workshop with key personnel.



INPUT

- Good understanding of the *Business Model Canvas template*.
- Some prepared examples of a complete business model canvas.

OUTPUTS

- A completed business model canvas for the company used in the activity *ST.7 Do a SWOT analysis*.

ST.3 Capture the current business model

The term 'business model' is often interpreted in different ways. In this manual, the following definition is used:

A business model describes how a company does business. It is the translation of strategic issues, such as strategic positioning and strategic goals into a conceptual model that explicitly states how the business functions. The business model serves as a building plan that allows designing and realizing the business structure and systems that constitute the company's operational and physical form (Osterwalder et al., 2005).

Capturing the main details of the company's business model can be aided by using the Business Model Canvas (Osterwalder & Pigneur, 2010), which has quickly become a popular framework for describing a business model. The value of the Business Model Canvas is that it allows you to capture the essential elements of a business model on one sheet of paper in a way that is logical and easy to explain and discuss with others. These traits make it very useful for supporting business model innovation.

The company's business model can be captured by completing a *Business Model Canvas template* (provided in this activity). This can be done by yourself as desk research or can be done as an optional workshop involving some senior staff members, such as the Marketing Manager and the Production Manager, who, together, will have a good overview of the company. An introduction to the Business Model Canvas is provided in the background information.

HOW TO GO ABOUT IT

1. Explain the purpose of the session to the participants - to get a complete description of the company's current business model so that it can be taken into account when developing new business strategy proposals.
2. Introduce the Business Model Canvas, explaining what each building block contains and provide some examples.
3. Work block by block around the canvas asking the participants to fill in the *Business Model Canvas template*.
4. Once it is complete ask the participants to review the whole canvas and identify what they consider to be the most important strengths and weaknesses of the current business model.

ST.3 Capture the current business model

LEARNING CASE STUDY OF BUSINESS MODEL CANVAS

Key Partners <i>Fishermen</i> <i>Mechanic (for vehicle maintenance)</i> <i>Processing equipment suppliers</i>	Key Activities <i>Tuna procurement</i> <i>Tuna processing</i> <i>Distribution</i>	Value Propositions <i>High quality canned tuna with long shelf life</i>	Customer Relationships <i>Telephone-based personal customer service</i>	Customer Segments <i>Local retailers</i> <i>Wholesalers</i> <i>International supermarket chains</i>
	Key Resources <i>Experienced buyers</i> <i>Fast, efficient processing staff</i> <i>Tuna processing facility</i> <i>Fleet of vehicles</i>		Channels <i>Sales force</i>	
Cost Structure <i>Tuna procurement</i> <i>Labour</i> <i>Energy</i> <i>Vehicle fuel</i>			Revenue Streams <i>Sales of canned tuna</i>	

ST.3 Capture the current business model

TIPS & TRICKS

CAPTURE THE CANVAS

It can be useful to capture the results of applying the Business Model Canvas in an editable digital format for later review or revision. This can be done by recreating the canvas within a spreadsheet or presentation application. During the workshop it is best to use a large sheet of paper to capture the canvas so that everybody can participate freely. You can either write in the blocks directly or use sticky notes, the latter gives more freedom to move around/ remove/reuse items as the session progresses. You can still capture the results in a digital format after the workshop has finished.

PROMPTS ON CANVAS

The original canvas also provides some prompting questions, which can help to understand what information is required in each block of the canvas.

START WITH CUSTOMER'S PERSPECTIVE

It is often easier to fill in the canvas by starting with the customer perspective (everything in the right half of the canvas) and work around to the 'back end' considerations (everything in the left half).

BACKGROUND INFORMATION

What is the Business Model Canvas?

The canvas consists of nine building blocks, each of which represents a key element of the business model. All nine blocks of the template must be populated to describe a complete business model, although the relative importance of each block will vary according to the business model. Each block has a title that specifies the aspect of the business model that should be described by the user in that block. Next page shows the basic business model canvas, with numbers added to show the order in which they are explained in the text below (with definitions of each block provided by Osterwalder & Pigneur in italic font).

1. **Customer Segments:** *This building block defines the different groups of people or organizations an enterprise aims to reach and serve.* There are different types of customer segment that you might choose to address. A 'mass market' focus generally requires lower cost solutions and higher volumes of production. A 'niche market' focuses on one customer segment that has a different set of requirements to the mass market, but they may be willing to pay a price premium for a suitable solution. A niche market is often a great starting point for new companies. Finally, a 'diversified market' approach tries to address several different customer segments at the same time and requires the ability to offer customization of the solution provided.
2. **Value Proposition:** *This building block describes the bundle of products and services that create value for a specific Customer Segment.* This is the central block of the canvas and is often considered the most important aspect of a business model. In this block, we face our customer segments and ask two questions:

ST.3 Capture the current business model

“What products and services do we provide to our customers?” – this is the simple, factual description of the combination of products and services that are offered by a company. The second question is, “How do our products and services create gains for our customers or help to relieve their pains?”. To answer this question requires a good understanding of why customers buy our products and services. The value proposition must either help to create gains for the customer (e.g. a tin of tuna brings the customer gains of satisfying hunger, providing nutrition and a pleasurable taste) or help to relieve pains (e.g. car insurance reduces the customer’s financial pain if their car is damaged in an accident or stolen). The value proposition should be reviewed frequently to ensure that it remains valid and relevant within the ever-changing market conditions.

3. **Channels:** *This building block describes how a company communicates with and reaches its Customer Segments to deliver a Value Proposition.* Topics covered in this building block include communication of pre-sales information (i.e. how will the customer hear about the product and understand how it will benefit them?), purchase and delivery mechanism of the product or service (i.e. how will the customer buy the product and make sure it is delivered to them?) as well as post-sales activities (i.e. how will the customer access support/maintenance services and how will we deliver those services?). It is worth remembering that partnering with other organizations can be a fast and cost-effective way to build the complete range of channels required (e.g. distributor, retailer, maintenance organization etc.) – see the Key Partnerships block for further details.

Template of Business Model Canvas



ST.3 Capture the current business model

4. **Customer Relationships:** *This building block describes the types of relationships a company establishes with specific Customer Segments. It is important to understand what the company wants to achieve through its customer relationships and also what is expected by the customer. In a high growth market, the aim of the company may be to acquire new customers and build market share. In a mature market the focus might be on retaining existing customers. The other consideration is what the customer expects in terms of their relationship with the company. Customer segments that are very price sensitive may be happy to use self-service or automated services (e.g. Internet banking available for average bank customers) whereas if you are targeting high-end customer segments the customer may expect a higher level of human interaction to provide a more personalized service and a stronger relationship with the company (e.g. dedicated banker available for high net worth customers).*
5. **Revenue Streams:** *This building block represents the cash a company generates from each Customer Segment (costs must be subtracted from revenues to create earnings). Here, the company needs to decide if they will make one-off sales of a physical product, or lease that product, or ask customers to pay for their usage of the product? Such decisions need to be based on a good understanding of exactly what it is that the customer values about your product or service and what they are willing to pay for it. Personnel involved in sales and marketing should be able to provide good customer insight on this type of issue, but market research may be required when dealing with new products or significant innovations within existing products.*
6. **Key Resources:** *This building block describes the most important assets required to make a business model work. This can refer to the basic raw materials used to make product, the people employed by the company that are important to its success, or financial resources that enable the company to invest in research and development. Intellectual resources, such as patents and trademarks, can also be very important as these can be used to protect your business model from replication by competitors.*
7. **Key Activities:** *This building block describes the most important thing a company must do to make its business model work. This could be the development of new products, production processes, problem solving or even the creation of a platform or network.*
8. **Key Partnerships:** *This building block describes the network of suppliers and partners that make a business model work. For a partnership to be successful, all parties have to see a clear business benefit for participating and have incentives to ensure they will deliver their element of the partnership arrangement. Reasons for pursuing partnerships include: working with a reseller or distributor to enter new geographical markets; partnering with a company in a related market to provide a more integrated service for the customer (e.g. hotel operator partnering with a taxi company to offer pre-booked airport transfers for hotel customers); collaborating with a university research centre to get access to new technology and intellectual property etc.*
9. **Cost Structure:** *This building block describes all costs incurred to operate a business model. Costs may be 'fixed', which are independent of the number of products sold or services delivered (e.g. rent and salaries), or 'variable', whereby the costs increase*

ST.3 Capture the current business model

with the volume of products and services delivered (e.g. production process energy costs, raw material costs etc.). It is worth noting in this block any 'economies of scale' benefits that the business model offers (e.g. bulk discount on large orders of raw materials).

References and resources

Business Model Canvas:

- Osterwalder, A., & Pigneur, Y. (2010). Business model generation: a handbook for visionaries, game changers, and challengers. Wiley, London.
- The Business Model Canvas can be downloaded here: http://www.businessmodelgeneration.com/downloads/business_model_canvas_poster.pdf
- Example of the Business Model Canvas being used to review the business model of Nespresso, available from: <http://hbr.org/web/2013/05/why-the-lean-start-up-changes-everything/sketch-out-your-hypothesis>

→ Further information in the Agri-food, Chemicals and Metals Supplements



STEP

Understand the current operational performance

ACTIVITIES

ST.4

Do a Walk-Through Audit

ST.6

Update the sustainability hotspots

ST.5

Do a workshop/ interviews with staff

OVERVIEW

There are three activities that you can complete to help build a better understanding of the operational activity: the Walk-Through Audit, interviews with staff or a workshop with staff, and update the sustainability hotspots by using the *Life Cycle Thinking template*.

The overall aim is to gather data on the operational strengths and weaknesses of the company so that they can be taken into account in the strategic analysis and the development of new business strategy proposals.

ST.4

Do a Walk-Through Audit

Requires dialogue

This activity will help you to better understand the operational activities of the company and identify some strengths and weaknesses through a tour of the main facilities.



INPUT

- Data Gathering Checklist from the activity *ST.1 Plan my data gathering strategy.*

OUTPUTS

- At least five examples of both 'strength' and 'weakness' factors within the operational performance of the company. This output is used in the activity: *ST.7 Do a SWOT analysis.*

ST.4 Do a Walk-Through Audit

A good starting point for your data gathering about the current operational performance of the company is a Walk-Through Audit of the company's operations guided by the Focal Point member of staff. Suggestions for the things to look for and questions to ask your tour guide are provided in the *Walk-Through Audit Guide template*.

HOW TO GO ABOUT IT

1. Before the tour, read through the Walk-through Audit guide provided and add some specific questions of your own that you would like to have answered.
2. During the tour, use the guide to prompt discussions and gather additional information.
3. After the tour, write down in the *Walk-Through Audit Guide template*:
 - Key observations.
 - At least five strengths within the operational performance of the company.
 - At least five weaknesses within the operational performance of the company.

→ Further information in the Agri-food, Chemicals and Metals Supplements

Template of Walk-through Audit Guide

Key discovery questions		Page 2	
Getting started on tour	Production — main processes	Production — goods out	Design & Engineering
Production — goods in	Purchasing	Sales & Marketing	Management

ST.4 Do a Walk-Through Audit

Template of Walk-through Audit Results

Key observations			
General aspects	Production — goods in	Production — main processes	Production — goods out
Sales & Marketing	Design & Engineering	Purchasing	Management
Operational Strengths		Operational Weaknesses	



ST.4 Do a Walk-Through Audit

LEARNING CASE STUDY OF WALK-THROUGH AUDIT PROMPTS

Getting started on the tour

- Ask to be shown round the production facilities in a logical flow, from 'Goods in', round each step of the processing, through to 'Goods out'.
 - How many people work for the company?
 - What is the gender balance in the workforce?
 - What was the turnover of the company last year?
 - Is the company growing (revenue and staff numbers)?
- What other questions could be also relevant to your context?

- *What area of company operations is the biggest challenge at the moment?*

Production - Goods in

- What are the main types of delivery you receive?
 - Do you have a quality control system to inspect goods as they arrive?
 - Do you ever have problems with poor quality goods?
- What other questions could be also relevant to your context?

- Is there much tuna lost between market and factory?
- Where is tuna stored before processing? Cold storage facility?

Production – Main processes

- Capturing a simple schematic diagram of the main process steps as you tour the production facilities can help to ensure you fully understand the complete process and identify any process steps you may have not been shown.
 - Look for instances of waste (materials, energy, water, time)
 - Which of the production process steps use the most materials/energy/water/chemicals?
 - Which parts of the production process are the most problematic?
 - What are the main contributors to production costs?
- What other questions could be also relevant to your context?

- *How many worker injuries in the last 12 months?*
- *What happens to the tuna dark meat, bones, guts etc?*
- *Who supervises the production processes?*

Purchasing

- Who are the most important suppliers for the company?
 - Are there any problems with these suppliers at the moment?
 - Is sustainability performance a consideration in your purchasing decisions?
- What other questions could be also relevant to your context?

- *How is tuna sourced?*
- *Any concerns about the price or availability of tuna?*

ST.4 Do a Walk-Through Audit

Production - Goods out

- What happens to the product between leaving here and arriving at the end user?
- What means of transport are used?
- Does the company have its own distribution system or does it rely on a third party provider?

What other questions could be also relevant to your context?

- *Is there much product loss between factory and retailer?*
- *What is the greatest distance covered on a delivery run?*
- *Do the lorries back-haul?*

Sales & Marketing

- Which are the most important product lines and markets for the company?
- How are the key product lines performing at the moment?
- Who are the most important customers within those markets?
- How do you market and sell your products?

What other questions could be also relevant to your context?

- *Does the product have 'Dolphin Friendly' certification?*
- *How is the mix of B2B and B2C products handled?*

Design & Engineering

- Do you design your own products or manufacture to your customer's specification?
- Do you have Research & Development facilities on-site?
- Do you take sustainability issues into account when designing new products?

What other questions could be also relevant to your context?

- *Any experience of innovation in can/packaging design?*
- *How is engineering maintenance managed?*

Management

- Who in the company is responsible for managing sustainability issues?
- Do you operate an environmental management system?
- What is the gender balance within the Senior Management Team?
- What policies do you have in place to raise awareness of gender issues within the workforce and promote gender equality?
- Are there ways in which staff can raise concerns about health and safety issues or general working conditions?
- How is the company viewed by the local community?
- What has been the most significant innovation in the company in the last 5 years? Who was involved in that?

What other questions could be also relevant to your context?

- *Any metrics in place to assess sustainability performance?*
- *What actions are you currently taking to address the company's sustainability impacts?*

ST.4 Do a Walk-Through Audit

LEARNING CASE STUDY OF WALK-THROUGH AUDIT RESULTS

Key observations

General aspects

- Not collecting any data on materials waste or energy usage despite rising cost of tuna and significant energy use

Sales & Marketing

- Sales and marketing team good at developing novel, well-targeted promotions to increase sales

Production — goods in

- Some fish not usable when it arrives at factory due to lack of refrigeration in transit
- Only small sample of fish is checked before accepting new deliveries
- Nearby residents have complained about the noise from early morning deliveries

Design & Engineering

- No internal capacity for packaging material innovation
- One maintenance engineer – production delays if equipment fails and she is not available.

Production — main processes

- Some fish lost after cooking due to incorrect cooking process
- Well-optimised manual processing of tuna thanks to skilled, loyal workforce
- Majority (85%) of production staff are female
- Production Manager due to retire soon

Purchasing

- Cost of tuna rising steadily
- Experienced purchasing staff – have good relationship with fisherpeople.

Production — goods out

- Occasional delivery delays due to poor logistics management
- Poor palletisation and packaging sometimes leads to complaints from retail customers about damaged tins

Management

- No females in senior management team
- Good communication between management and operational staff
- Already measuring and monitoring a range of performance metrics

Operational Strengths

1. Well-optimised manual processing of tuna thanks to skilled, loyal workforce
2. Effective, innovative and adaptable sales and marketing team
3. Good communication between management and operational staff
4. Experienced purchasing staff – have good relationship with fisherpeople
5. Already measuring and monitoring a range of performance metrics

Operational Weaknesses

1. Production Manager due to retire in one year
2. No internal capacity for packaging material innovation
3. Loss of fish and product between point of delivery and arrival at customer
4. No females in Senior Management Team
5. Not collecting any data on materials waste or energy usage

ST.5

Do a workshop/ interviews with staff

Complex activity

This activity uses interviews or a workshop with staff from the company to get their input on the operational strengths and weaknesses of the company.



INPUT

- Data Gathering Checklist from the activity *ST.1 Plan my data gathering strategy.*
- Operational strengths and weaknesses identified from the activity *ST.4 Do a Walk-Through Audit.*

OUTPUTS

- At least five strengths and five weaknesses within the operational performance of the company (if any of these were previously highlighted from the Walk-Through Audit try to further your understanding of them through the interviews). This output is used in the activities: *ST.6 Update the sustainability hotspots* and *ST.7 Do a SWOT analysis.*

ST.5 Do a workshop/interviews with staff

The next step in your data gathering activity is to follow-up on issues highlighted by the Walk-Through Audit and investigate new areas of operational performance that might be relevant to the eco-innovation activities. This can either be done through interviews with individual employees or through a workshop. Conducting a workshop is optional as it may not always be possible to arrange this type of session due to time and practical constraints. The benefits of a workshop over individual interviews is that a workshop can be more time efficient for you and can help to build interest and engagement from staff. The benefit of individual interviews over a workshop is that you avoid the risk of one person dominating the session and you may be able to go into more detail on interesting topics.

HOW TO GO ABOUT IT

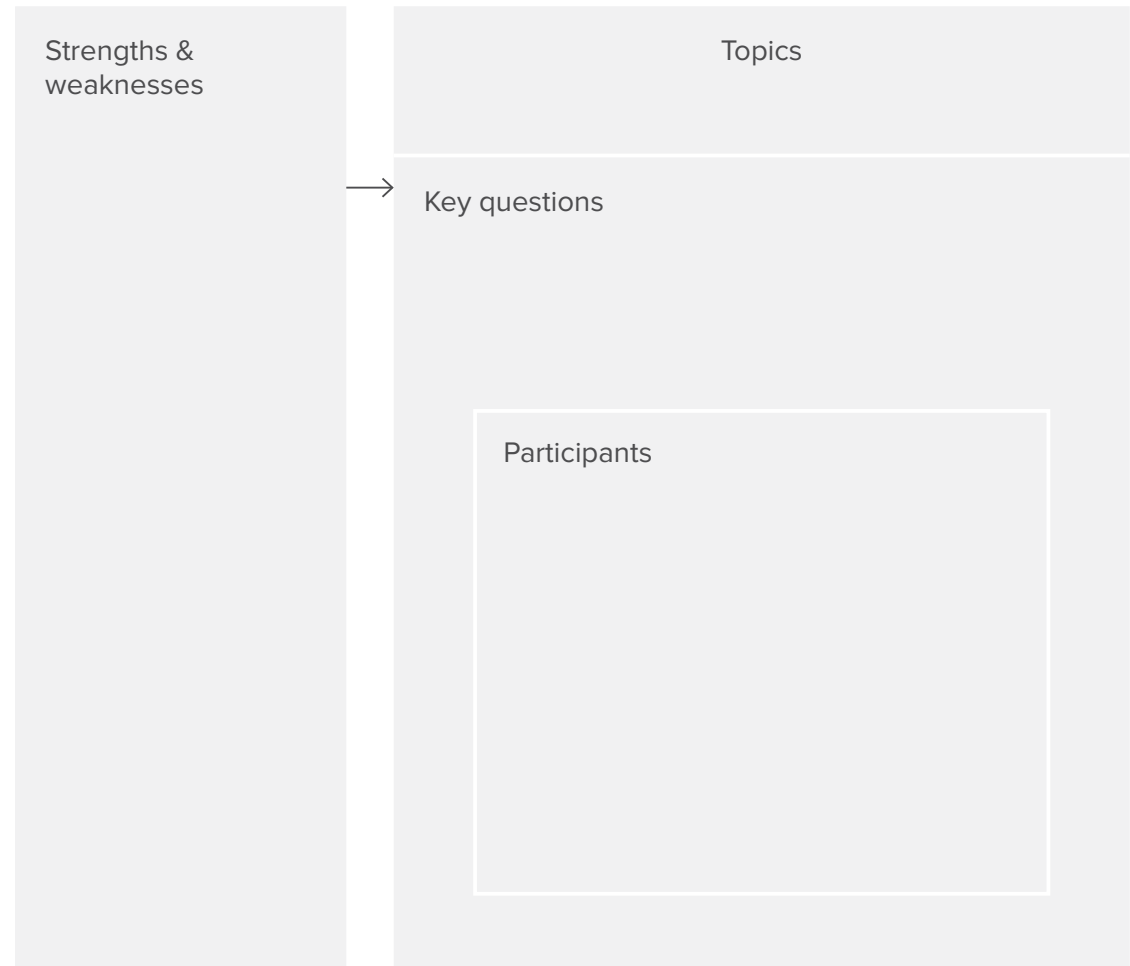
1. Whether you are conducting an individual interview or a workshop, you should introduce the session by explaining that the aim of the workshop is to find out about the strengths and weaknesses of the company that might be relevant for the eco-innovation activities.
2. Topics to cover in the interviews/workshops include: innovation and product development, sustainability performance, suppliers and partners, competition, marketing and communication, management. The types of questions you ask during an interview/workshop will need to be adapted taking into account the knowledge and experience of the participants of the session. Below are some examples of the types of question you could ask:
 - How important is innovation for the company?
 - What policies or procedures does the company have in place to ensure that good ideas from staff can be implemented?

- Which processes that occur in the factory have the biggest environmental impact?
- Which processes that occur in the factory cost the most?
- How is the company performing in terms of social issues such as worker health and safety, equal opportunities, fair pay, working conditions, and having a positive impact on society?
 - Is the company certified against (or does it comply with) any sustainability standards or international conventions?
- What partnerships does the company have with other organisations?
 - What is the nature of the partnerships?
 - How does those partnerships benefit your company?
- When negotiating with suppliers does the company just focus on getting the lowest price possible or are other factors taken into consideration?
 - If so, what other factors?
- In what ways are products and services offered by your company better than those of competitors?
 - Who are the biggest competitors your company faces?
 - Why would customers select your company's products and services over a competitor's?
 - In what ways are those competitors better than your company?
- Are you receiving pressure from your customers or other stakeholders to improve the environmental performance and quality of your products or operations?

ST.5 Do a workshop/interviews with staff

- If so, what specific issues are they interested in (e.g. energy consumption in use phase, compliance with hazardous substance regulations, gender equality)?
 - What types of activities does the company do to communicate with customers or other people outside the company?
 - Does the company have a clear strategy that is communicated to all staff?
 - If so, what are the main elements of that strategy?
 - Which three words best describe the company today?
 - What are the company's biggest strengths and weaknesses?
3. Once you have completed the interviews or workshop, you should identify at least five strengths and five weaknesses for the company based on what you have heard. Where possible, follow-up with participants to gather some relevant data related to the strengths and weaknesses that you have identified.

Template of Operational Performance Review



ST.5 Do a workshop/interviews with staff

LEARNING CASE STUDY OF OPERATIONAL PERFORMANCE REVIEW

Strengths and weaknesses

- Well-optimised manual processing of tuna thanks to skilled, loyal workforce
- Effective, innovative and adaptable sales and marketing team.
- Production Manager due to retire in one year.
- No internal capacity for packaging material innovation.



Innovation and product development – Sustainability performance – Management – Suppliers and partners – Competition – Marketing and communication

Key questions

- Does the company have a clear strategy that is communicated to all staff?
- What are the company's biggest strengths and weaknesses?
- How important is innovation for the company?
- What experience does the company have of developing new products?
- What partnerships does the company have with other organisations?
- Which processes that occur in the factory have the biggest environmental impact?
- Which processes cost the most?
- How is the company performing in terms of social issues?
- Who are the biggest competitors your company faces?
- What types of activities does the company do to communicate with customers or other people outside the company?
- In what ways are those competitors better than your company?

Participants

- 1 x Purchasing staff
- 2x Production staff
- 1 x Marketing manager
- 1 x Sales person

Are all those questions aligned with the Data Gathering Template?

ST.5 Do a workshop/interviews with staff

TIPS & TRICKS

INPUT FROM ACROSS THE COMPANY

If conducting a workshop, try to involve personnel from across the different operational areas of the company (design, production, marketing etc.). The participation of the CEO or senior management is not required (if they would like to attend this should not be discouraged). Aim for between 4 and 10 participants in the workshop from the company. The ideal group size will depend on the company, but in general – fewer than 4 can result in limited discussion and ideas and, conversely, more than 10 participants can make it difficult to remain focused (and will be very expensive for the company). If conducting individual interviews, try to interview

at least three members of staff and select those participants from across the different operational areas of the company (design, production, marketing etc.)

GENDER BALANCED INPUT

Whether conducting interviews or a workshop make sure to involve a representative balance of male and female participants and try to find participants that have a good understanding of gender equality issues. If staff members do not have a good understanding of gender equality issues then consider offering training on these issues - further sources of information on gender equality issues are provided in the references.

BACKGROUND INFORMATION

References and resources

Gender equality and gender issues:

- UN Women, 2014. World Survey on Gender Equality and Sustainable Development. Available from: http://www.unwomen.org/~media/headquarters/attachments/sections/library/publications/2014/unwomen_surveyreport_advance_16oct.pdf
- Global Gender Office, 2013. Environment and Gender Index (EGI). Available from: <http://genderandenvironment.org/egi/>
- UN Environment, 2016. Global Gender and Environment Outlook 2016 Available from: <http://web.unep.org/ggeo>.

→ Further information in the Metals Supplement

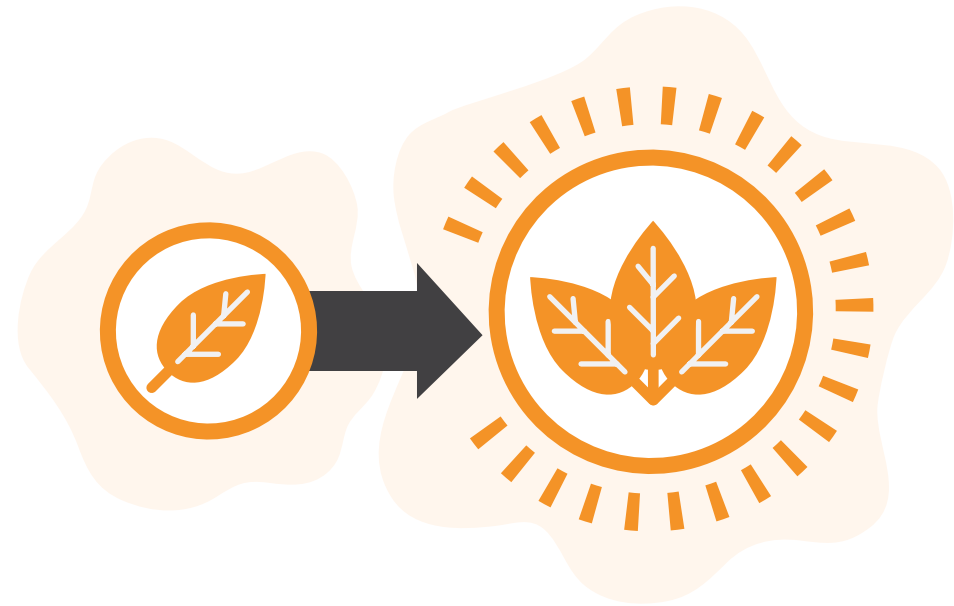


ST.6

Update the sustainability hotspots

Requires dialogue

This activity involves taking the analysis of the sustainability impacts and hotspots identified for the market and updating it with the company-specific impacts you have identified



INPUT

- List of specific environmental, social and economic impacts that occur across the value chain from the activity *PR.4 Identify sustainability hotspots across the value chain.*

OUTPUTS

- An updated, company-specific list of sustainability impacts with hotspots identified used for the activity *ST.7 Do a SWOT analysis.*

ST.6 Update the sustainability hotspots

An important part of understanding the operational performance of the company is to gather data about the life cycle sustainability impacts of the products the company offers and update the sustainability hotspots that you identified during the *PREPARE* phase. These data should be captured by updating the *Life Cycle Thinking template* already completed in the *PREPARE* phase for the value chain. This can either be done as an add-on activity to the workshop with staff described in the previous activity or can be done by the Service Provider alone. Either way, the aim is to identify any sustainability impacts and hotspots that were not identified during the analysis of the value chain sustainability hotspots.

HOW TO GO ABOUT IT

N.B. These instructions assume that the activity will be completed as part of the optional workshop with staff during the Preliminary Assessment. It can also be completed as an individual activity following a similar process.

1. Prior to the workshop you need to prepare a copy of the *Life Cycle Thinking template* on a large sheet of paper (a standard A1 size flipchart sheet is best as it provides sufficient space for a small group to work with). You will also need a large space to draw on, preferably a large whiteboard.
2. Introduce the exercise to the participants by explaining that a key aspect of eco-innovation involves considering the sustainability impacts of a product across its lifecycle. Explain that this exercise is intended to capture the main sustainability issues that occur across the product lifecycle.

Create the life cycle inventory

Ask the participants to help you draw a *Life Cycle Inventory template*, starting with the main manufacturing process steps that occur within the company's factory. For each process step make sure that you indicate what the inputs (materials, water and energy), product outputs (useful products and 'wastes'), and emissions (to air, soil and water) are.

3. Once you have completed the *Life Cycle Inventory template* for the activities that take place within the factory, try to extend the template forwards and backwards across the value chain by asking questions such as:
 - What happens to the products once they leave the factory?
 - Where does the customer buy the product from?
 - How does the product get from the factory to the customer?
 - What happens during the use of the product?
 - What happens to the product once the customer has finished using it?
 - Where do the raw materials come from?
 - What processes do the raw materials go through before arriving at your factory?
4. Use the *Life Cycle Inventory template* you have created to begin populating the first four columns of the *Life Cycle Thinking template*.

Identify the life cycle impacts and sustainability hotspots

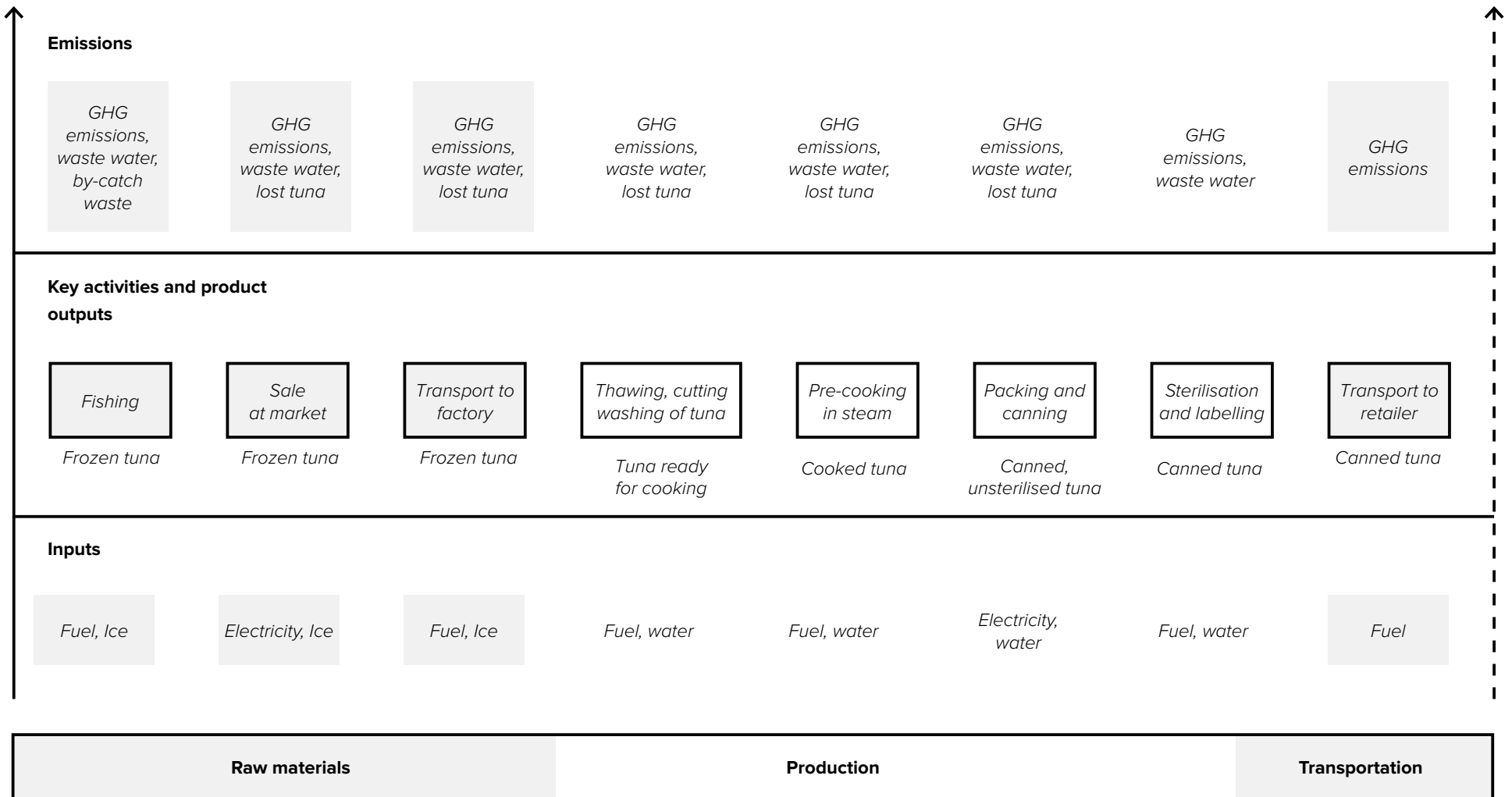
5. Ask the participants to provide examples of specific environmental, social and economic impacts that are associated with the activities and emissions at each stage of the product life cycle.

ST.6 Update the sustainability hotspots

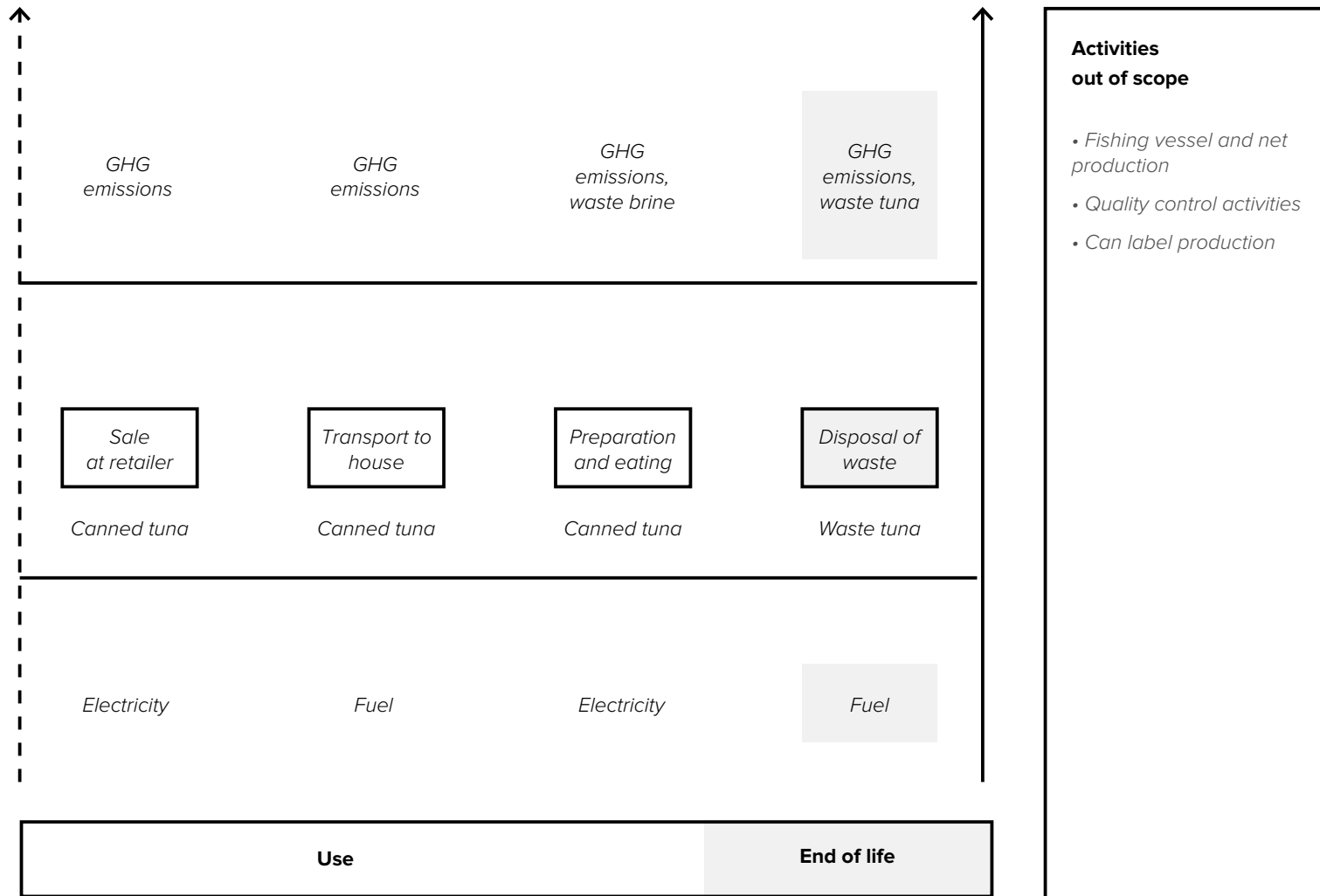
6. Get the participants to make a note of the issues they suggest on a sticky note and place them in the relevant cell of the *Life Cycle Thinking template*.
7. Ask participants to rate each of the sustainability impacts using the scale 'Low', 'Medium' and 'High' impact. Tell the participants that any impact that must be controlled to comply with legislation or the conditions of a permit should automatically be given a 'High' rating. This is indicated in the example below by the letter in brackets, where: H= High, M= Medium, L=Low. A '+' sign indicates a positive sustainability impact
8. Ask the participants to decide where the sustainability hotspots are by:
 - Identifying cells of the Life Cycle Thinking matrix that contain several different medium or high-rated impacts.
 - Identifying activities or processes that lead to several different medium or high-rated impacts.
 - Encourage the participants to identify at least two sustainability hotspots that occur outside of the company, elsewhere in the value chain.
9. After the workshop combine the sustainability hotspots identified from the Life Cycle Thinking workshop with the hotspots identified for the value chain during the *PREPARE* phase.
10. Once you have identified the sustainability hotspots it can be worth revisiting the output of the *Life Cycle Stakeholders template* as this may provide some ideas for who might help the company to address the identified hotspots.

ST.6 Update the sustainability hotspots

LEARNING CASE STUDY OF LIFE CYCLE INVENTORY



ST.6 Update the sustainability hotspots



ST.6 Update the sustainability hotspots

LEARNING CASE STUDY OF LIFE CYCLE THINKING

					Environmental impacts		Social Impacts			Economic impacts
Phase	Activity	Inputs	Product outputs	Emissions	Resource use	Ecosystem quality	On workers	On consumers	On stakeholders	Profitability
Materials	• Fishing	• Fuel (diesel) • Ice	• Frozen tuna (at dock)	• GHG emissions • Waste water • By-catch (wasted)	• Resource depletion - fossil fuels (M)	• Climate change (M) • Marine species extinction (H)	• Falling wages forcing fishers to leave industry (M) • Slavery like conditions on some fishing vessels (H)			
	• Sale at market	• Electricity (100% coal) • Ice	• Frozen tuna (at dock)	• GHG emissions • Waste water • Lost tuna	• Resource depletion - fossil fuels (L)	• Climate change (L)	• Jobs secured at market (M)		• Noise - from early morning lorry movements (L)	• Rising cost of tuna - due to dwindling stocks (H) • +Revenue to fisher people (M) • Cost of lost tuna (M)
	• Transport to factory	• Fuel (diesel) • Ice	• Frozen tuna (at factory)	• GHG emissions • Waste water • Lost tuna	• Resource depletion - fossil fuels (L)	• Climate change (L)	• Jobs secured for delivery driver (M)			• Cost of lost tuna (M)

ST.6 Update the sustainability hotspots

					Environmental impacts		Social Impacts			Economic impacts
Phase	Activity	Inputs	Product outputs	Emissions	Resource use	Ecosystem quality	On workers	On consumers	On stakeholders	Profitability
Production	• Tuna thawing, cutting and washing	• Fuel (diesel) Water	• Tuna ready for cooking	• GHG emissions Waste water Lost tuna	• Resource depletion - fossil fuels (L) Water consumption (M)	• Climate change (L) Eutrophication (M)	• Jobs secured at factory (M)			• Cost of lost tuna (M)
	• Pre-cooking in steam	• Fuel (diesel) Water	• Cooked tuna	• GHG emissions Waste water Lost tuna	• Resource depletion - fossil fuels (H) Water consumption (L)	• Climate change (H) Eutrophication (L)	• Jobs secured at factory (M)			• Cost of lost tuna (M)
	• Packing and canning	• Electricity (100% coal) Water Salt Cans"	• Canned tuna (at factory)	• GHG emissions Waste water Lost tuna	• Resource depletion - fossil fuels (L) Water consumption (M)	• Climate change (L) Eutrophication (L)	• Jobs secured at factory (M)			• Cost of lost tuna (M)
	• Sterilisation and labelling	• Fuel (diesel) Water		• GHG emissions Waste water	• Resource depletion - fossil fuels (H) Water consumption (M)	• Climate change (H)	• Jobs secured at factory (M)			

ST.6 Update the sustainability hotspots

					Environmental impacts		Social Impacts			Economic impacts
Phase	Activity	Inputs	Product outputs	Emissions	Resource use	Ecosystem quality	On workers	On consumers	On stakeholders	Profitability
Transportation	• Transport to retailer	• Fuel (diesel) • Pallets	• Canned tuna (at retailer)	• GHG emissions • Lost tuna (damaged cans)	• Resource depletion - fossil fuels (L)	• Climate change (L)	• Jobs secured for delivery driver (M)		• Noise - from early morning lorry movements (L)	• Cost of lost tuna (M) • Cost of transportation (L)
Use	• Sale at retailer	• Electricity (100% coal)	• Canned tuna (at retailer)	• GHG emissions	• Resource depletion - fossil fuels (L)	• Climate change (L)	• Jobs secured at retailer (M)			• Revenue to retailer (M) • Revenue to producer (M)
Use	Transport to house	• Fuel (petrol)	• Canned tuna (at house)	• GHG emissions	• Resource depletion - fossil fuels (L)	• Climate change (L)				
	Preparation and eating	• Electricity (100% coal)	• Waste tuna (at home)	• GHG emissions	• Resource depletion - fossil fuels (L)	• Climate change (L)		• Human health - consumption of tuna (L) • Human health risk - mercury content of tuna (M)		
End of life	Disposal of waste	• Fuel (diesel)	• Waste tuna (at landfill)	• GHG emissions	• Resource depletion - fossil fuels (L)	• Climate change (L)	• Jobs secured at waste management company (M)		• Bad odours from landfill site (L)	

ST.6 Update the sustainability hotspots

In the table below, the sustainability hotspots for the Tasty Tuna Company are listed along with examples of stakeholders and ideas for how that stakeholder could help to address the relevant hotspot. Note that the hotspot concerning 'Lack of women in management roles at the company' was identified from the workshop with staff. This was given high importance because the company is reliant on their female production workers and they are not happy with the current situation as there appears to be no route to promotion for female staff.

Sustainability hotspot	Stakeholder and how they could help
Fishing activity	Fisher people - transition to more sustainable fishing methods.
	Fisheries Agency - create quota's for tuna fishing to avoid stock depletion.
Energy intensity of the production phase	Retort oven supplier - provide training and maintenance services to ensure ovens are operated at optimum efficiency.
Significant fish loss and waste	Local government - Provide funding for cold-storage facilities
	Retailer - Create consumer education programs about ways to reduce food waste.
Lack of women in management roles at the company	Trade association - Provide training to senior management teams about the importance and benefits of implementing gender equality policies.

ST.6 Update the sustainability hotspots

TIPS & TRICKS

HELP TO SPOT IMPACTS

If you are struggling to identify relevant issues, consider the following prompts:

- Where and when are the most significant costs incurred across the life cycle of the product?
- What are the most significant resources (energy, materials and water) consumed throughout the product life cycle?
- Where are resources being wasted or underutilized?
- Where are there toxic chemicals used and how are they prevented from impacting the environment or human health?
- How does the product value chain impact on local stakeholders?
- Are there some positive impacts as well as the negative?

- Which stakeholders benefit from the product, and which are negatively impacted? – see the results of the *Life Cycle Stakeholders template* to help you with this.

PAPER WHITEBOARD

If you do not have a whiteboard available several A1 flipchart sheets stuck next to each other onto a wall can also work.

MULTIPLE IMPACTS

Where an issue sits across multiple cells, create copies of the note and place one in each of the relevant cells.

KEEP IMPACTS SPECIFIC

Try to make the impacts you capture as specific and detailed as possible.

POSITIVE IMPACTS

Remember that impacts can be positive as well as negative. For example, “Jobs secured at factory” is a positive social impact that could be captured in the Production phase.

ST.6 Update the sustainability hotspots

BACKGROUND INFORMATION

References and resources

Hotspot analysis:

- UN Environment (2014). Hotspots Analysis: mapping of existing methodologies, tools and guidance and initial recommendations for the development of global guidance. UN Environment DTIE, Paris. Available from: <http://www.lifecycleinitiative.org/wp-content/uploads/2014/12/UNEP-Hotspots-Mapping-Project-Final-Report-Phase-1.pdf>

Life Cycle Assessment:

- Joint UN Environment-SETAC Life Cycle Initiative. Available from: <http://www.lifecycleinitiative.org/>
- UN Environment, (2009). Guidelines for Social Life Cycle Assessment of Products. UN Environment, Paris. Available from: http://www.unep.fr/shared/publications/pdf/DTIx1164xPA-guidelines_sLCA.pdf

→ Further information in the Agri-food and Metals Supplements



STEP

Analyse the information I have gathered

ACTIVITIES

ST.7

Do a SWOT analysis

OVERVIEW

Within this step you will analyse all of the information you have gathered about the company so far through a SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis. When applied as part of the eco-innovation methodology a SWOT matrix helps to separate out 'internal' vs 'external' factors and 'helpful' vs 'harmful' factors that will influence the ability of the company to become more sustainable.

ST.7

Do a SWOT analysis

Requires dialogue

This activity provides guidance on how to perform a strategic analysis of the company using the data you have gathered during the Preliminary Assessment and the SWOT template.



INPUT

- General opportunities and threats from activity *PR.5 Identify the general opportunities and threats across the value chain.*
- Strategic opportunities and threats from the activity *ST.2 Interview the CEO.*
- Strengths and weaknesses of the company from the activity *ST.4 Do a Walk-Through Audit,* and *ST.5 Do a workshop/interviews with staff.*
- An updated, company-specific list of sustainability impacts with hotspots from the activity *ST.6 Update the sustainability hotspots.*
- Key stakeholders from the activity *PR.3 Build the right external partnerships.*

OUTPUTS

- Categorized set of strategic factors to support strategy development. This output is used in the activities: *ST.8 Develop a vision for the company.* and *ST.9 Define the strategic goals.*

ST.7 Do a SWOT analysis

The starting point for most attempts at strategic analysis is a SWOT matrix. It is useful in helping to make sense of the large amount of data you have gathered so far. It does this by categorising the issues that have been identified into the four categories of SWOT.

Once you have completed the SWOT categorization, you may find that you have a lot of issues listed. If this is the case then you should filter out any issues that appear to be significantly less important compared to the rest. The final output of the SWOT analysis is a list of the high priority threats, opportunities, strengths and weaknesses - these will be used in the strategy development.

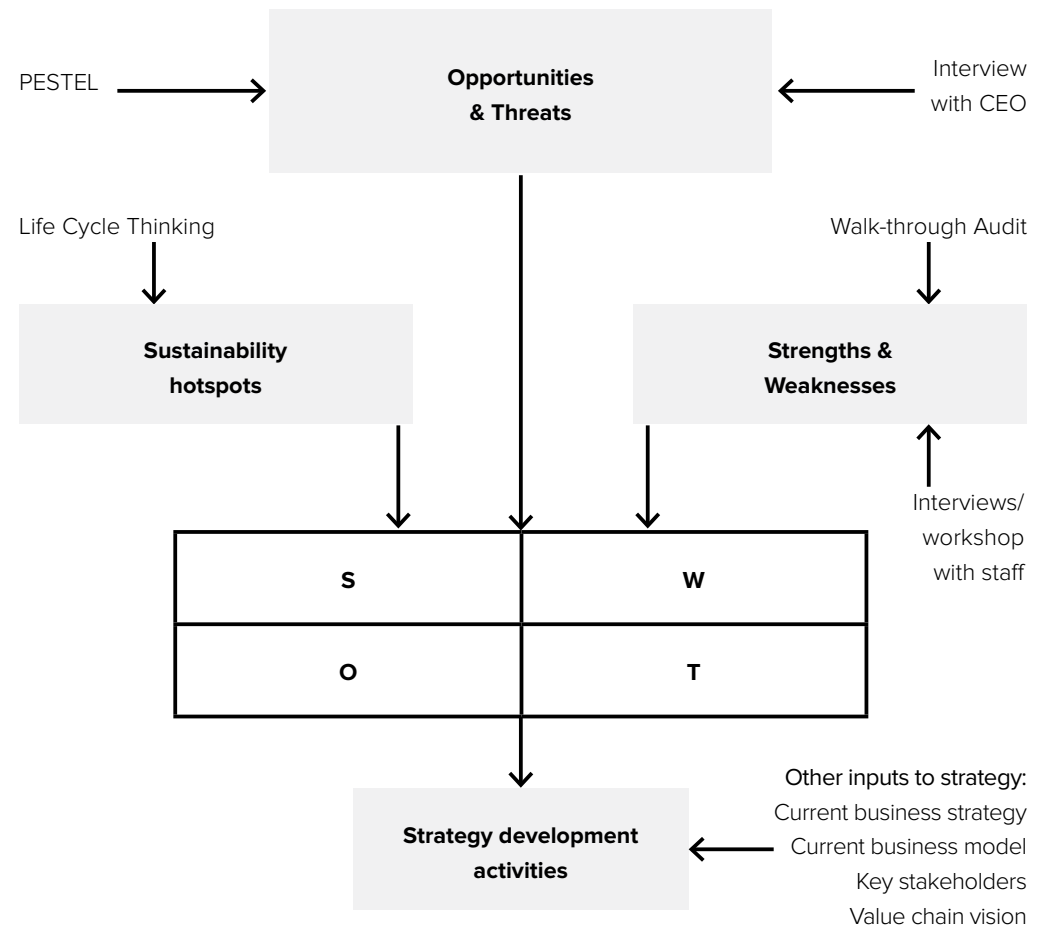


Figure 7. Data sources and process for the SWOT analysis.

ST.7 Do a SWOT analysis

HOW TO GO ABOUT IT

1. Begin by gathering together the following sources of information:
 - Current business strategy (from the interview with the CEO)
 - Current business model (from the business model workshop or desk research)
 - Sustainability hotspots (from the *Life Cycle Thinking template*)
 - Significant opportunities and threats (from the PESTEL analysis and the interview with the CEO)
 - Strengths and weaknesses (from the Walk-through Audit and interviews/workshops with staff)
 - Key stakeholders (from the *Life Cycle Stakeholders template*)
2. Write a bullet point on a sticky note to summarise each of the sustainability hotspots, opportunities, threats, strengths and weaknesses.
3. Place the sticky notes in the appropriate cell of the SWOT template - an example for the Tasty Tuna Company is provided below. Note that sustainability hotspots can be classified as strengths, weaknesses, opportunities or threats depending on the nature of the hotspot.
4. If you find that you have a lot of issues listed (more than 20) you should filter out any issues that appear to be significantly less important compared to the rest.

The final output of the SWOT analysis is a list of the high priority threats, opportunities, strengths and weaknesses.

Template of SWOT

	Helpful to becoming more sustainable	Harmful to becoming more sustainable
Internal origin (attributes of the company)	STRENGTHS	WEAKNESSES
External origin (attributes of the environment)	OPPORTUNITIES	THREATS

ST.7 Do a SWOT analysis

LEARNING CASE STUDY OF SWOT

	Helpful - to becoming more sustainable	Harmful - to becoming more sustainable
Internal origin (attributes of the company)	STRENGTHS <ul style="list-style-type: none"> • Well-optimized manual processing of tuna thanks to skilled, loyal workforce. • Effective, innovative and adaptable sales and marketing team. 	WEAKNESSES <ul style="list-style-type: none"> • No internal capacity for packaging material innovation. • Low profit margins mean little financial capital for investment. • Production Manager due to retire in one year. • Lots of female workers but none in Senior Management Team.
External origin (attributes of the environment)	OPPORTUNITIES <ul style="list-style-type: none"> • Some markets interested in sustainably sourced fish. • Good relationship with fishermen could be used to encourage more sustainable fishing methods. 	THREATS <ul style="list-style-type: none"> • Significant fish loss and waste between point of catch and point of consumption. • Over-fishing and marine eco-system damage becoming an internationally important issue. • Unsustainable fishing methods causing tuna stock depletion. • Competition from rival tuna processors driving down profit margins. • Reports of slavery-like conditions on board some tuna fishing vessels that belong to our suppliers. • Rumours that new policy will ban certain unsustainable fishing methods.

ST.7 Do a SWOT analysis

TIPS & TRICKS

FOCUS ON SYNTHESIS


As you apply the SWOT analysis procedure it may be possible to identify innovation ideas that would enable the company to address the threats or to capitalize on the opportunities highlighted. However, the aim of this activity is simply to process the data into a more usable summary, which will be helpful when defining the business strategy for the company.

BIG TEMPLATE

Print the *SWOT template* on at least A3 size paper to give you enough room for all the sticky notes.

CREATE A REPORT

You should write up a short report (no more than 10 pages) summarising the data collection and analysis from the Preliminary Assessment, including the SWOT analysis. Ask the CEO and Senior Management Team for feedback, particularly on the SWOT analysis. If you have missed an important issue, or if they do not agree with your conclusions, your efforts in defining a new business strategy will likely take you in the wrong direction.

 Further information in the Agri-food, Chemicals and Metals Supplements

STEP

Define the company vision and strategic goals of the new business strategy

ACTIVITIES

ST.8

Developing the company vision

ST.9

Define the strategic goals

OVERVIEW

Based on the SWOT analysis and your general understanding of the COMPANY and the value chain, you can now begin to generate ideas for the business strategy. Begin with the goals and vision as these elements define what the company is to become in the future and will help to define the rest of the business strategy.

It is important that the company vision and strategic goals are aligned and coherent with one another. It can therefore be a good idea to work on these two elements of the business strategy in parallel.

ST.8

Develop a vision for the company

Requires dialogue

This activity guides you through the process of defining a vision for the company that is aligned with the value chain vision and the high priority strategic factors previously defined.



INPUT

- List of key stakeholders from the activity *PR.3 Build the right external partnerships*.
- A vision of a sustainable value chain from the activity *PR.6 Develop a value chain vision*.
- Categorized set of strategic factors to support strategy development from the activity *ST.7 Do a SWOT analysis*.

OUTPUTS

- A short description of what the company is like in a more sustainable future used in the activities *ST.9 Define the strategic goals* and *ST.10 Generate ideas for new products, markets and selling points*.

ST.8 Develop a vision for the company

The aim of the company vision is to define what a company aspires to be in the future, providing inspiration for employees and direction to inform strategic decisions. The company vision 'zooms in' on the part of the value chain vision that is relevant for the company and succinctly describes what that the company will look like in a sustainable future.

HOW TO GO ABOUT IT

To develop the company vision you should:

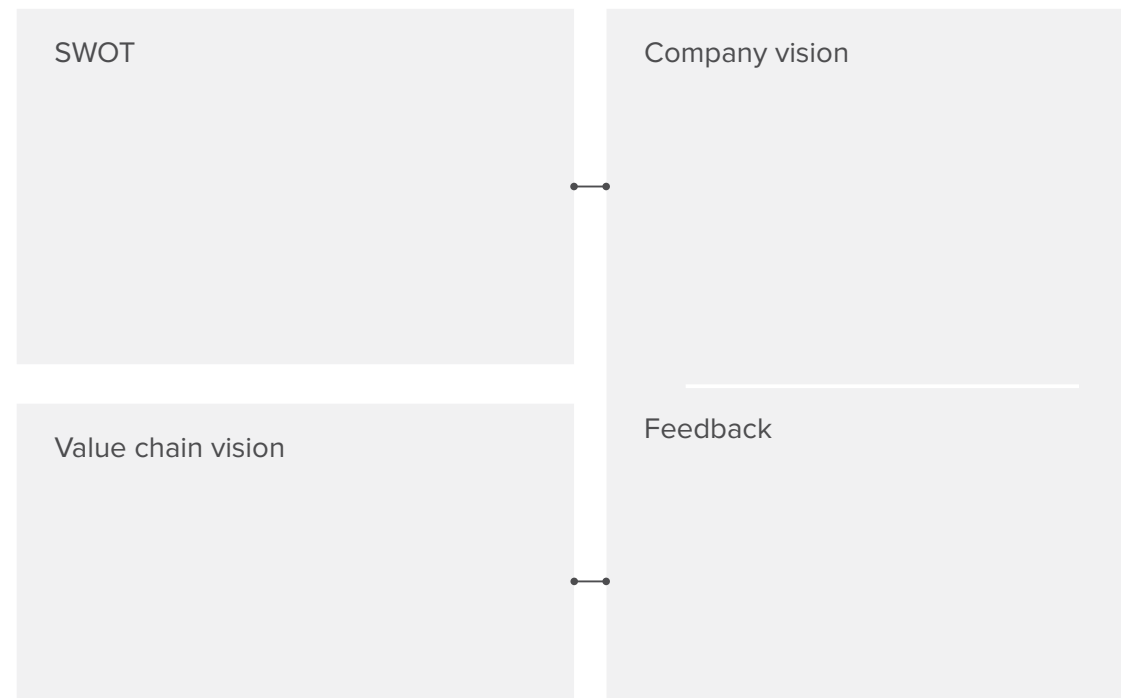
1. Review the prioritised points from the SWOT analysis.
2. Review the value chain vision and think about the role played by the company in this vision.
3. Select a time frame 3-10 years in the future in which to set the company vision.
4. Write a first draft of the company vision from this future perspective. You can use the following questions to inspire you:
 - What are the sustainability hotspots that the company has helped to address?
 - How is the company performing from a commercial perspective (growth, profitability, market position)?
 - How do customers feel about the company?
 - What are the first things that other people outside the company think of when they hear the company name?
 - Why are employees proud to work for the company?
5. Review and re-draft this company vision description then share it with your colleagues and ask for feedback. Is it clear? Is it

ambitious and inspiring? Is it relevant for the company? Is it too prescriptive or too vague?

6. Revise the company vision based on the feedback and then include the final version in the *Company Vision template*.

→ Further information in the Agri-food, Chemicals and Metals Supplements

Template of Company Vision



ST.8 Develop a vision for the company

LEARNING CASE STUDY OF COMPANY VISION

SWOT

- Fishing activity a hotspot
- Energy intensity of the production phase
- Significant fish loss and waste
- International fishing
- Overfishing and by-catch
- Increasing consumer awareness about sustainability
- Slavery-like conditions on board tuna fishing vessels

Company vision

Tasty Tuna is the leading producer in the region of processed fish and seafood products, providing tasty, nutritious food to millions of people in a sustainable way.

We work closely with the fishing community to ensure a steady supply of sustainably sourced fish and seafood. We make the most of what the sea offers to create innovative, varied and tasty products that our customers love.

We strive to treat our staff, suppliers and partners fairly and cooperate to build a profitable and sustainable value chain.

Value chain vision

- Local and international markets
- Overfishing and by-catch issues addressed
- Local markets for non-protected fish species
- Waste drastically reduced in value chain
- Communication improved in value chain
- Worker protection on fishing vessels improved

Feedback



ST.9

Define the strategic goals

Requires dialogue

This activity guides you through the process of defining strategic goals for the company that are aligned with the value chain vision and the high priority strategic factors.



INPUT

- List of key stakeholders from the activity *PR.3 Build the right external partnerships.*
- A vision of a sustainable value chain from the activity *PR.6 Develop a value chain vision.*
- Categorized set of strategic factors to support strategy development from the activity *ST.7 Do a SWOT analysis.*

OUTPUTS

- A set of strategic goals that address the high priority strategic factors used in the activity *ST.10 Generate ideas for new products, markets and selling points.*

ST.9 Define the strategic goals

The purpose of defining strategic goals is to provide specific and tangible short-medium term targets that will help the company make progress towards its company vision. The activity makes use of the *TOWS template*, which complements the SWOT analysis that was completed previously. For the formulation of strategic goals, a *Company Vision template* is used.

HOW TO GO ABOUT IT

To develop the strategic goals you should:

1. Take the strengths, weaknesses, opportunities and threats from the SWOT analysis and list each one in the appropriate cell of the *TOWS template*
2. Select one of the sustainability hotspots and generate ideas for how it could be eliminated (if it is a negative impact), or enhanced (if it is a positive impact) by considering combinations of strategic issues – starting with ‘Strength-Opportunity’ combinations.
3. Do the same for ‘Strength-Threat’, ‘Weakness-Opportunity’, ‘Weakness-Threat’ combinations.
4. Select the most promising idea for how to eliminate/enhance the sustainability hotspot and then use this as the foundation to formulate a strategic goal for this hotspot that describes:
 - Which sustainability hotspot is addressed
 - What the desired change or improvement is
 - How you will know when the goal has been achieved
 - The date by which the goal will be achieved.

A template that follows this formula for creating strategic goals is provided in the *Company Vision template*.

5. Repeat this process for each of the sustainability hotspots until you have strategic goals defined for all of them.
6. Once you have created a goal for each of the hotspots see if there are any other high priority issues from the SWOT analysis that have not been addressed. If there are, create additional goals to address these other issues as you think necessary.
7. Check if there are any pre-existing strategic goals that are still consistent with the new company vision and other strategic goals – include them if they are.

Template of TOWS

	Strengths	Weaknesses
Opportunities		
Threats		

ST.9 Define the strategic goals

8. Review the list of strategic goals you have created to check the following:
 - Do the goals focus on outputs?
 - If you showed the goals to anybody in the company would they understand them without additional explanation?
 - Is there a combination of both short-term goals (typically 1-2 years) and long-term goals (3-5 years)?
 - Are there fewer than eight goals? Any more than this will become bewildering and dilute their value.
 - Are the goals consistent with the company vision?
 - If the company achieves all of the goals would it have made significant progress towards the company vision? Or is something else required?
9. Once you have reviewed and revised the strategic goals make sure you have recorded them all in the *Company Vision template*.



ST.9 Define the strategic goals

LEARNING CASE STUDY OF TOWS

	<p>STRENGTHS</p> <ul style="list-style-type: none"> • Well-optimized manual processing of tuna thanks to skilled, loyal workforce. • Effective, innovative and adaptable sales and marketing team. 	<p>WEAKNESSES</p> <ul style="list-style-type: none"> • No internal capacity for packaging material innovation. • Low profit margins mean little financial capital for investment. • Lots of female workers but none in Senior Management Team.
<p>OPPORTUNITIES</p> <ul style="list-style-type: none"> • Some markets interested in sustainably sourced fish. • Good relationship with fishermen could be used to encourage more sustainable fishing methods. 	<p>STRENGTHS-OPPORTUNITIES strategy ideas</p> <ul style="list-style-type: none"> • Use sustainability as a selling point, focusing on sustainable sourcing and low carbon footprint (thanks to manual processing) • Offer tuna processing as a service to fishermen who want to sell their own canned tuna 	<p>WEAKNESSES-OPPORTUNITIES strategy ideas</p> <ul style="list-style-type: none"> • Charge a premium price for the sustainable product to increase margins • Invest profits in collaboration with packaging supplier to create more sustainable packaging • Create a new Senior Management role focused on sustainability and encourage applications from females • Improve the working conditions of the company's employees (who are mainly women and the spouses of fishermen) by creating family-friendly policies
<p>THREATS</p> <ul style="list-style-type: none"> • Significant fish loss and waste between point of catch and point of consumption. • Unsustainable fishing methods causing tuna stock depletion. • Competition from rival tuna processors driving down profit margins. • Reports of slavery-like conditions on board some tuna fishing vessels that belong to our suppliers. 	<p>STRENGTHS-THREATS strategy ideas</p> <ul style="list-style-type: none"> • Get marketing team to create an education campaign targeting key points of the value chain where losses occur • Get sales team to engage retail customers to support value chain collaboration to address over-fishing and working conditions on fishing vessels. • Diversify into other types of fish, particularly ones that are not overfished and that require more manual processing. 	<p>WEAKNESSES-THREATS strategy ideas</p> <ul style="list-style-type: none"> • Headhunt the production manager from one of the rival tuna processors in the region • Hire a new production manager with significant experience of value chain waste reduction • Stop selling tuna and start selling canned seafood instead (crab, mussels, squid etc).

ST.9 Define the strategic goals

LEARNING CASE STUDY OF STRATEGIC GOALS

STRATEGIC GOAL #1	
What hotspot or other SWOT issue does the goal help to address?	<i>Significant fish loss and waste between point of catch and point of consumption.</i>
What is the desired change?	<i>Reduce fish and product loss between point of fish purchase (fish market) and arrival at retailer by 30%.</i>
How will you know if the goal has been achieved?	<i>Using the metric: weight of fish purchased per net kg of product sold. Benchmark value will be established and will then calculate the average value of this metric each month using fish purchase invoices and product sales data.</i>
When will the change be achieved?	<i>Within three years</i>
Final formulation of the goal:	<i>We will reduce fish and product loss between point of fish purchase (fish market) and arrival at retailer by 30% within three years.</i>

STRATEGIC GOAL #2	
What hotspot or other SWOT issue does the goal help to address?	<i>Some markets interested in sustainably sourced fish. Unsustainable fishing methods causing tuna stock depletion. Good relationship with fishermen could be used to encourage more sustainable fishing methods.</i>
What is the desired change?	<i>Share of total sales from 'sustainable' product lines to be at least 30%</i>
How will you know if the goal has been achieved?	<i>Define criteria for what is considered a 'sustainable' product line. Track sales of sustainable product lines as a percentage of total sales. Goal achieved when sales of sustainable products lines exceeds 30% of total sales for two financial quarters in a row.</i>
When will the change be achieved?	<i>Within three years</i>
Final formulation of the goal:	<i>At least 30% of our total sales will come from 'sustainable' product lines within three years.</i>

ST.9 Define the strategic goals

STRATEGIC GOAL #3	
What hotspot or other SWOT issue does the goal help to address?	<i>Reports of slavery-like conditions on board some tuna fishing vessels that belong to our suppliers. Good relationship with fishermen could be used to encourage more sustainable fishing methods.</i>
What is the desired change?	<i>Support the creation of 20 fishing jobs in boats operating sustainable fishing practices.</i>
How will you know if the goal has been achieved?	<i>Supplier survey will be used to establish baseline data for number of fishing jobs currently supported and number of boats operating sustainable fishing practices. Survey will be repeated once per year and number of sustainable fishing jobs supported compared with baseline.</i>
When will the change be achieved?	<i>Within two years</i>
Final formulation of the goal:	<i>We will support local fishing companies that use sustainable fishing methods to create at least 20 fishing jobs.</i>

STRATEGIC GOAL #4	
What hotspot or other SWOT issue does the goal help to address?	<i>Unsustainable fishing methods causing tuna stock depletion. Competition from rival tuna processors driving down profit margins.</i>
What is the desired change?	<i>Diversify into other fish and seafood products that do not rely on tuna and generate at least 50% of total sales revenue from 'non-tuna' products.</i>
How will you know if the goal has been achieved?	<i>Track sales of 'non-tuna' product lines as a percentage of total sales. Goal achieved when sales of 'non-tuna' products lines exceeds 30% of total sales for two financial quarters in a row.</i>
When will the change be achieved?	<i>Within five years</i>
Final formulation of the goal:	<i>At least half of total sales revenue will come from products that do not include tuna within five years.</i>

ST.9 Define the strategic goals

STRATEGIC GOAL #5	
What hotspot or other SWOT issue does the goal help to address?	<i>Competition from rival tuna processors driving down profit margins. (Pre-existing strategic goal)</i>
What is the desired change?	<i>Increase total product sales to over \$1 million.</i>
How will you know if the goal has been achieved?	<i>Track sales value for each financial year. Goal achieved when annual sales exceed \$1 million.</i>
When will the change be achieved?	<i>Within five years</i>
Final formulation of the goal:	<i>We will increase total product sales to over \$1 million within five years.</i>

STRATEGIC GOAL #6	
What hotspot or other SWOT issue does the goal help to address?	<i>Lots of female workers but none in Senior Management Team. Good relationship with fishermen could be used to encourage more sustainable fishing methods.</i>
What is the desired change?	<i>Reduce employee turnover rates by 20% and facilitate at least two female employees to gain senior management positions by introducing a 'family friendly working' policy that will improve working conditions for staff with families.</i>
How will you know if the goal has been achieved?	<i>Track employee turnover rates and number of women in senior management positions. Goal achieved when employee turnover reduced by 20% over a 12 month period compared to current rate and at least two females within the Senior Management Team.</i>
When will the change be achieved?	<i>Within three years.</i>
Final formulation of the goal:	<i>We will reduce employee turnover rates by 20% and facilitate at least two female employees to gain senior management positions by introducing a 'family friendly working' policy that will improve working conditions for staff with families within three years.</i>

ST.9 Define the strategic goals

TIPS & TRICKS

AVOID PRESCRIPTIVE GOALS

When formulating goals try to avoid including anything that describes how the goal will be achieved as this will limit the opportunities for innovation.

→ Further information in the Agri-food, Chemicals and Metals Supplements





STEP

Define the products, markets and selling points of the new business strategy

ACTIVITIES

ST.10

Generate ideas for new products, markets and selling points

ST.11

Evaluate ideas for new markets, products and selling points

ST.12

Select which ideas for new markets, products and selling points to include in the strategy proposal

OVERVIEW

The aim of this step is to decide how the markets, products and selling points need to change to achieve the strategic goals and be aligned with the company vision. This involves three activities:

1. Generating ideas for new markets, products and selling points.
2. Evaluating those ideas in terms of their benefits and risks.
3. Selecting which changes to include in the new strategy proposal.

The output of this step is an updated set of markets, products and selling points.

ST.10

Generate ideas for new products, markets and selling points

Requires dialogue

The aim of this activity is to generate ideas for how to align the company's products, markets and selling points with the new company vision and goals.



INPUT

- Company vision from the activity *ST.8 Develop a vision for the company.*
- Strategic goals from the activity: *ST.9 Define the strategic goals.*

OUTPUTS

- Ideas for new products, markets and selling points used in the activity *ST.11 Evaluate ideas for new markets, products and selling points.*

ST.10 Generate ideas for new products, markets and selling points

In this activity you should try to generate a wide variety of ideas for new markets, products and selling points. In the next activity you will evaluate the ideas and filter out unsuitable ideas so try not to prematurely filter ideas at this stage.

HOW TO GO ABOUT IT

To generate ideas for new markets, products and selling points you should:

1. Review the strategic goals, company vision and the details of the current markets, products and selling points.
2. Consider the following questions:
 - Are the markets, products and selling points aligned with the company vision?
 - Can the strategic goals be achieved with the current set of markets, products and selling points?
3. It is unlikely that the answer to both of these questions is 'yes' so you will need to generate ideas for changes that could be made to markets, products and selling points. The following tips can help you to do this:
 - Identify which existing markets are most important to achieving the company's goals and vision – what new products could be sold to these markets?
 - Identify which existing products are most important to achieving the company's goals and vision – what new markets could these products be sold into?
 - Identify which of the selling points currently used is most important to achieving the company's goals and vision – how

could this selling point be enhanced further or used more widely by the company?

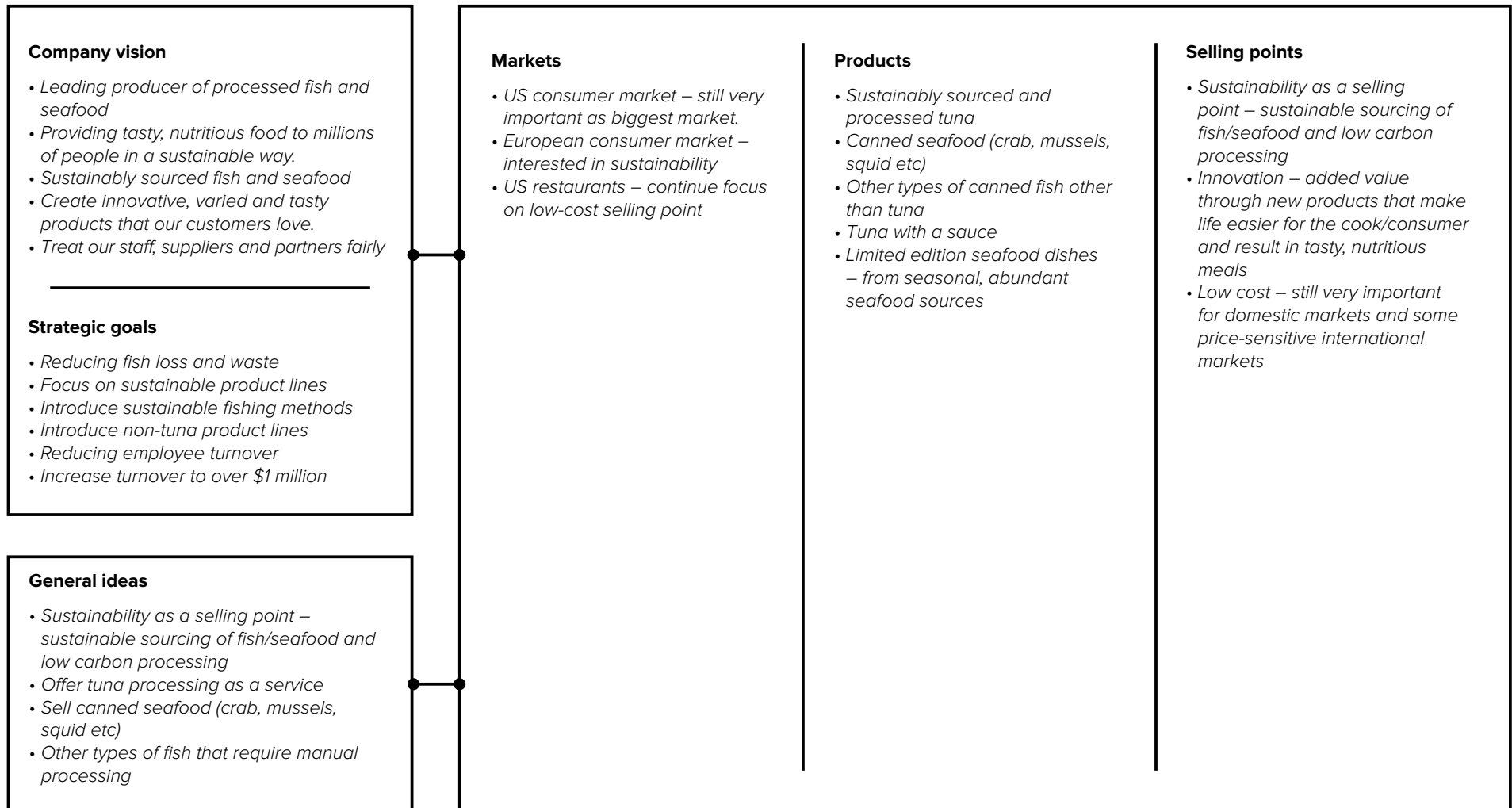
- Are there high priority opportunities from the SWOT analysis that could be taken up with some combination of new products, markets and selling points?
 - Are there ideas from the TOWS analysis for new markets, products or selling points?
 - Are there markets, products or selling points that are not aligned with the company's goals or vision that should be eliminated? If so, what would be the timescale for doing this?
4. Once you have generated at least five ideas for new markets, products and selling points, you can proceed to the next activity of evaluating the ideas

Template of Products, Markets and Selling Points



ST.10 Generate ideas for new products, markets and selling points

LEARNING CASE STUDY OF PRODUCTS, MARKETS & SELLING POINTS



ST.10 Generate ideas for new products, markets and selling points

BACKGROUND INFORMATION

References and resources

Market segmentation and size:

- Schade, C. (2009). TAM, SAM, SOM – Market evaluations easily explained [Online]. Available from: <http://tamsamsom.blogspot.co.uk/2009/03/tam-sam-som.html>
- Market segmentation [Online]. Available from: http://en.wikipedia.org/wiki/Market_segmentation
- Bournemouth University. Market segmentation [Online] Available from: <http://media3.bournemouth.ac.uk/marketing/07segmentation/04strategies.html>

→ Further information in the Chemicals and Metals Supplements

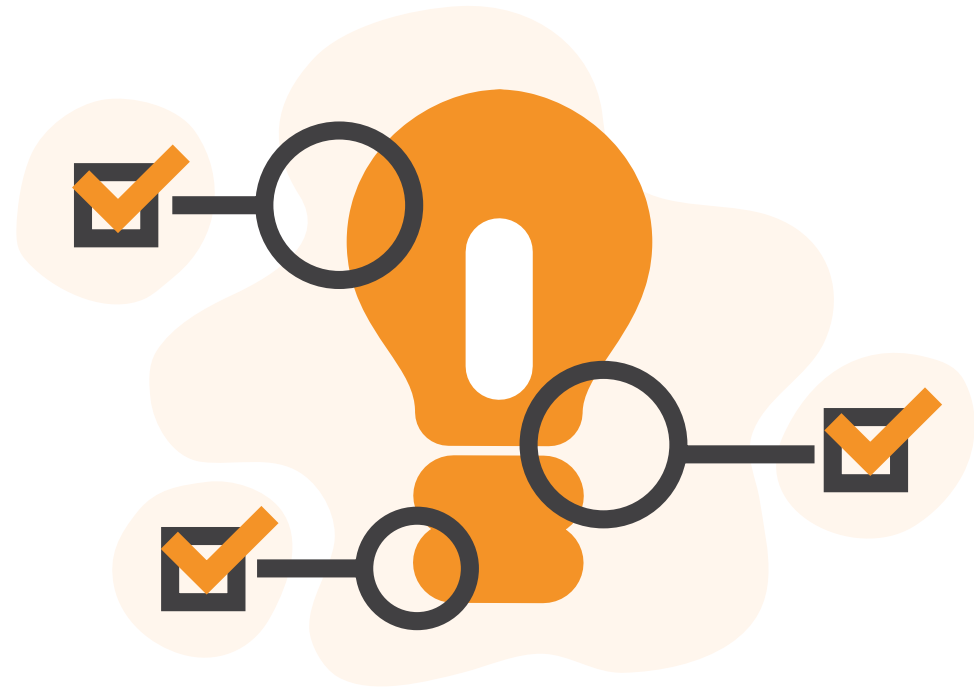


ST.11

Evaluate ideas for new markets, products and selling points

Requires dialogue

The aim of this activity is to evaluate in a systematic manner the ideas previously generated for new markets, products and selling points.



INPUT

- Ideas for new products, markets and selling points from the activity *ST.10 Generate ideas for new products, markets and selling points.*

OUTPUTS

- An initial estimate of the risks and benefits associated with each new combination of product, market and selling point. This output is used in the activity *ST.12 Select which ideas for new markets, products and selling points to include in the strategy proposal.*

ST.11 Evaluate ideas for new markets, products and selling points

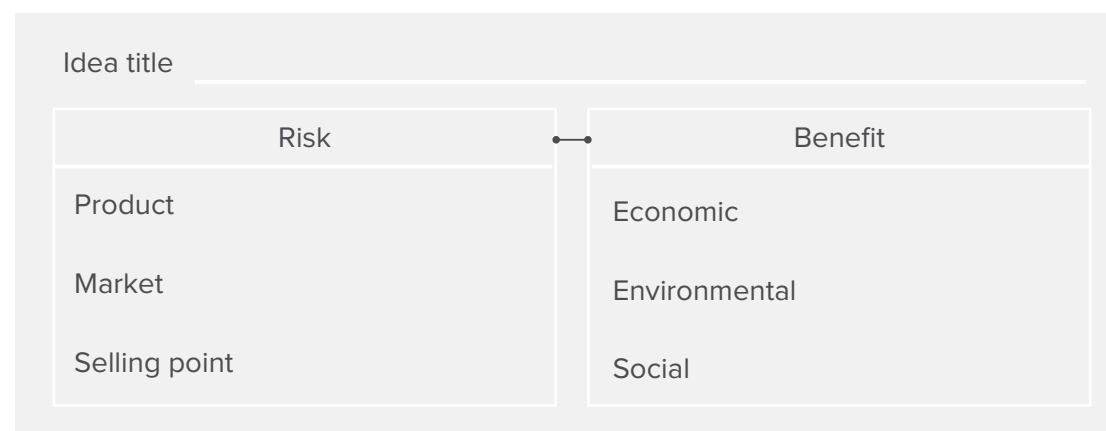
The evaluation of the ideas you have generated for new markets, products and selling points should be completed using the *Strategy Idea Evaluation template*. The template helps you to assess the potential benefits and risks of each of the ideas. The potential benefits are measured in terms of the economic, environmental and social benefits that they will bring and how these will contribute to achieving the strategic goals. Note that the benefits are generally rough estimates at this stage as, unless you have been able to collect some relevant data during the In-Depth Assessment, there is typically not enough information available to make more precise estimates. The risks are evaluated by considering if the product, market or selling point are new – the newer elements there are the higher the risk.

HOW TO GO ABOUT IT

1. Select one of the ideas you have generated for a new product, market or selling point. The first step is to define the specific combination of a market, a product and a selling point. For example, if it is an idea for a new product, decide if it would be sold into an existing market using an existing selling point. If it would, continue directly to step 2. Otherwise decide what market it would be sold into and what selling point would be used before proceeding to step 2. Similarly, for a new market idea you must first define the product and selling point; and for a new selling point idea you must define the product and market.
2. Enter the details of the market, product and selling point you have defined in the Risk Evaluation section of the *Strategy Idea Evaluation template*.

3. For the risk evaluation, simply state if the market, product and selling point are new or based on an existing one. Where something is new, give it a score of 1 and if it is based on the existing situation give it a score of 0. Add up each of the scores to get a rating, where a total of 0 is 'Low', 1 is 'Medium', 2 is 'High' and 3 is 'Very High'.
4. For the benefits evaluation, you will need to do some basic research to estimate the economic, environmental and social benefits of the idea. The benefits should be quantified where possible, keeping in mind that these will be very approximate figures at this stage.
5. Identify which of the strategic goals the benefits will contribute to. If an idea does not contribute to any of the strategic goals then it should be eliminated from further consideration.
6. Repeat this process for each of the ideas generated until you have evaluated all of them.

Template of Strategy Idea Evaluation



ST.11 Evaluate ideas for new markets, products and selling points

LEARNING CASE STUDY OF STRATEGY IDEA EVALUATION

Idea title Use sustainability as a selling point for existing products

RISKS				BENEFITS		
Type of risk	Description	Existing or new?	Risk score	Type of benefit	Description	Fit with goals
Product	<i>Tinned tuna - 200g</i>	<i>Existing</i>	<i>0</i>	Economic	<i>Estimated total available market of \$4 million in 2016 and growing at 5% per year</i>	<i>Share of total sales from 'sustainable' product lines to be at least 30% within 3 years</i>
Market	<i>European consumers with strong interest in sustainability</i>	<i>New</i>	<i>1</i>	Environmental	<i>300 tonnes of tuna purchased each year by Tasty Tuna will be sustainably sourced</i>	<i>Reduce fishing of immature tuna and fishing within tuna breeding grounds by 90% within 3 years</i>
Selling point	<i>Sustainability (sustainable sourcing and low carbon footprint)</i>	<i>New</i>	<i>1</i>	Social	<i>Will create around 10 new fishing jobs due to change to less intensive fishing methods</i>	<i>Support the creation of 20 fishing jobs in boats operating sustainable fishing practices within 2 years</i>
			Total			
			Risk rating	<i>High</i>		

ST.11 Evaluate ideas for new markets, products and selling points

TIPS & TRICKS

ESTIMATION OF BENEFITS

The potential benefits you estimate will be very approximate at this stage but they can be improved as you define the idea more precisely later in the process.

→ Further information in the Agri-food, Chemicals and Metals Supplements

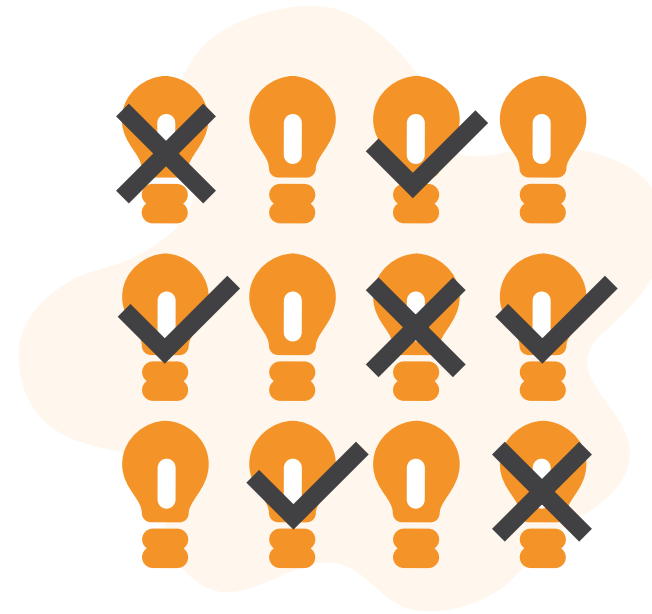


ST.12

Select which ideas for new markets, products and selling points to include in the strategy proposal

Requires dialogue

The aim of this activity is to decide which ideas for new markets, products and selling points to include in the strategy proposal.



INPUT

- An initial estimate of the risks and benefits associated with each new combination of product, market and selling point. This comes from the activity *ST.11 Evaluate ideas for new markets, products and selling points*.

OUTPUTS

- A completed set of new markets, products and selling points to include in the strategy proposal. This output is used in the activity *ST.13 Do an individual/group review of the business strategy proposal*.

ST.12 Select which ideas to include in the strategy proposal

Having completed the benefits and risk evaluation for each of the new ideas for products, markets and selling points the final step is to decide which ideas to include in the strategy proposal. This decision requires you to consider a wide range of factors in order to come up with a set of products, markets and selling points that are aligned with the company vision and goals, offer maximum benefits to the company without undue risk and work well together.

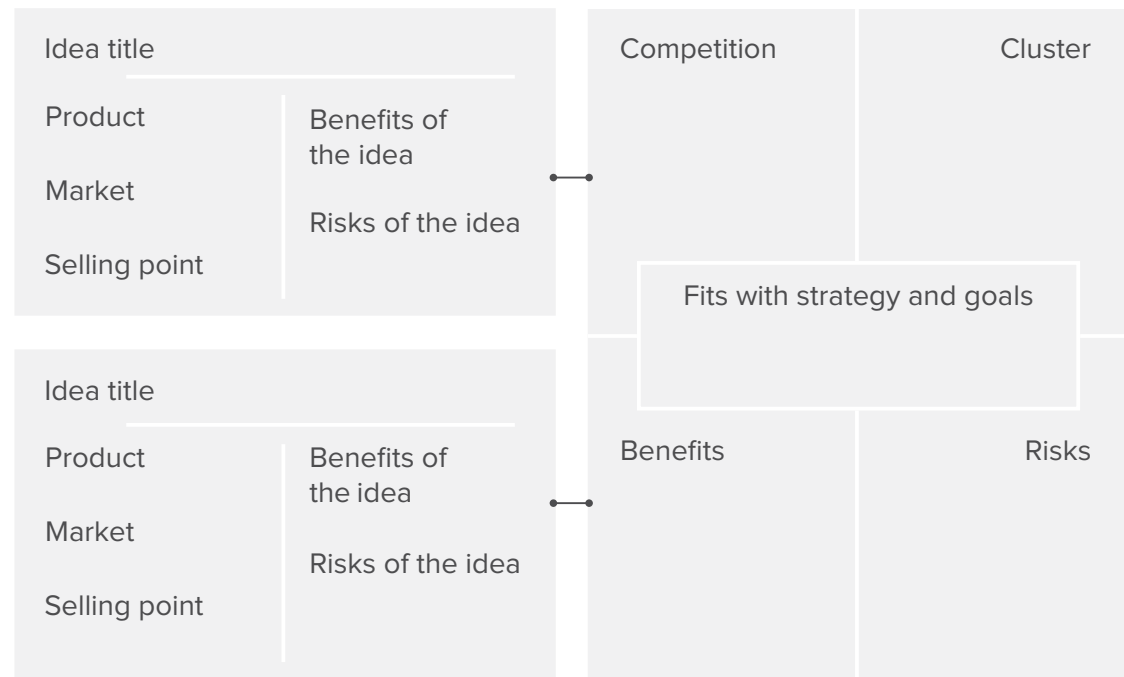
HOW TO GO ABOUT IT

1. Consider the company vision and goals
 - Which ideas will help to make the most progress towards achieving the goals and realising the vision?
2. Compare the benefits of each of the ideas for new markets, products and selling points
 - Which ideas offer benefits that will help to achieve the strategic goals?
 - Which ones offer the greatest benefits?
3. Compare the risks of each the new ideas
 - Which ideas have the lowest risk?
4. Investigate competition
 - Try to avoid markets with more competitors
 - Where competition is inevitable, do you have a different selling point compared to the competitors?
5. Look for clusters of ideas that work well together
 - For instance, several ideas may require 'sustainability' as a

new selling point or focus on a particular new market and so would be a good cluster of ideas to implement together

- Try to avoid selling adding selling points that conflict with other selling points e.g. difficult to implement 'low cost' and 'quality' or 'innovation' at the same time.
- Try to avoid too many new selling points as it requires significant time and resource new implement just one new selling point.

Template of Strategy Proposal Development



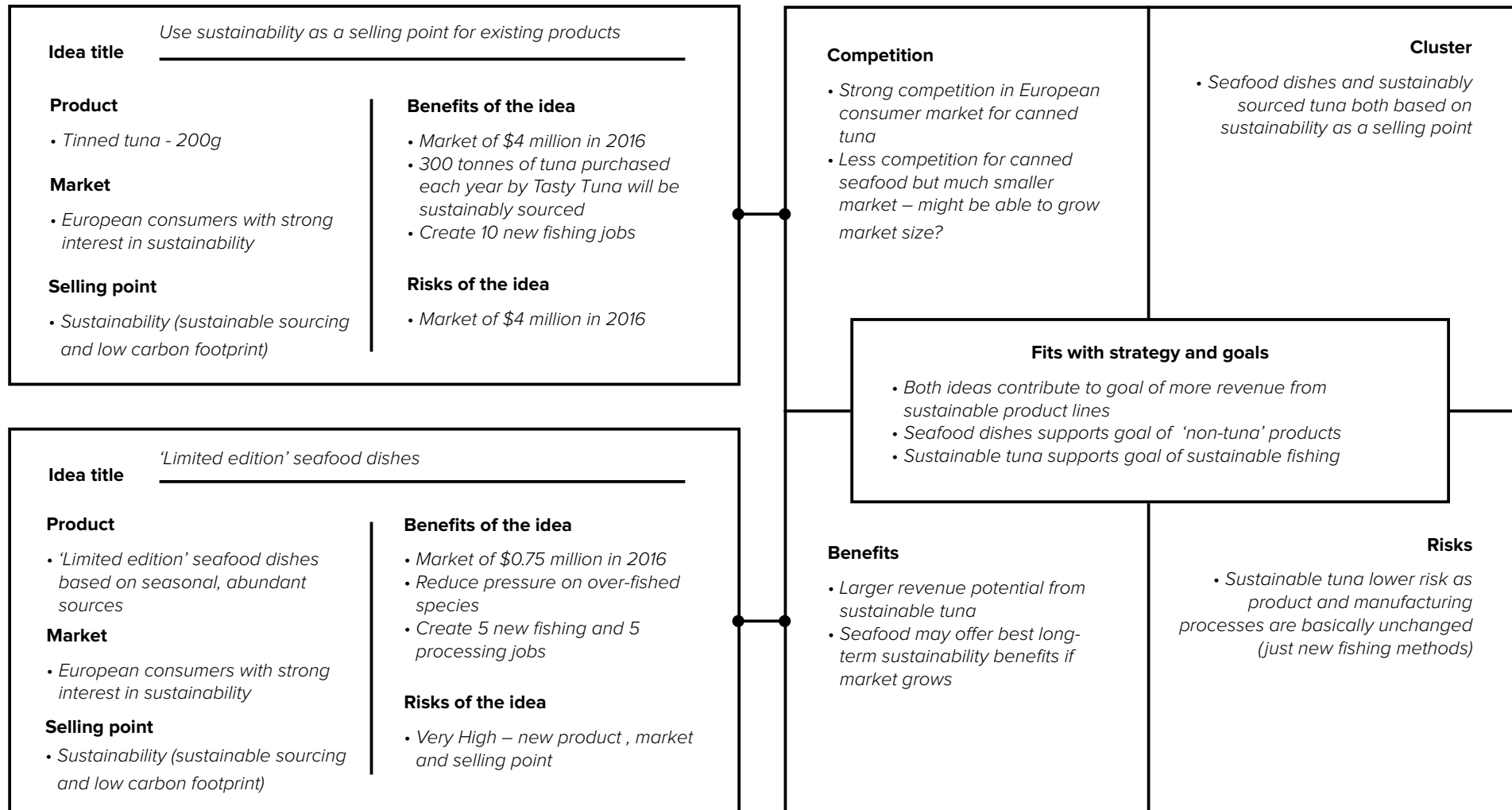
ST.12 Select which ideas to include in the strategy proposal

6. Once you have provisionally selected the new markets, products and selling points update them in the Business Strategy template then check the consistency and internal logic of the choices and the fit with existing ideas of the strategy.
 - If there are inconsistencies, you may need to further modify or eliminate some of the ideas until you have a consistent approach.
 - Be careful if modifying or eliminating existing markets, products or selling points as this could cause a lot of short term disruption for the company and may be unpopular with staff and/or management.



ST.12 Select which ideas to include in the strategy proposal

LEARNING CASE STUDY OF STRATEGY PROPOSAL DEVELOPMENT



ST.12 Select which ideas to include in the strategy proposal

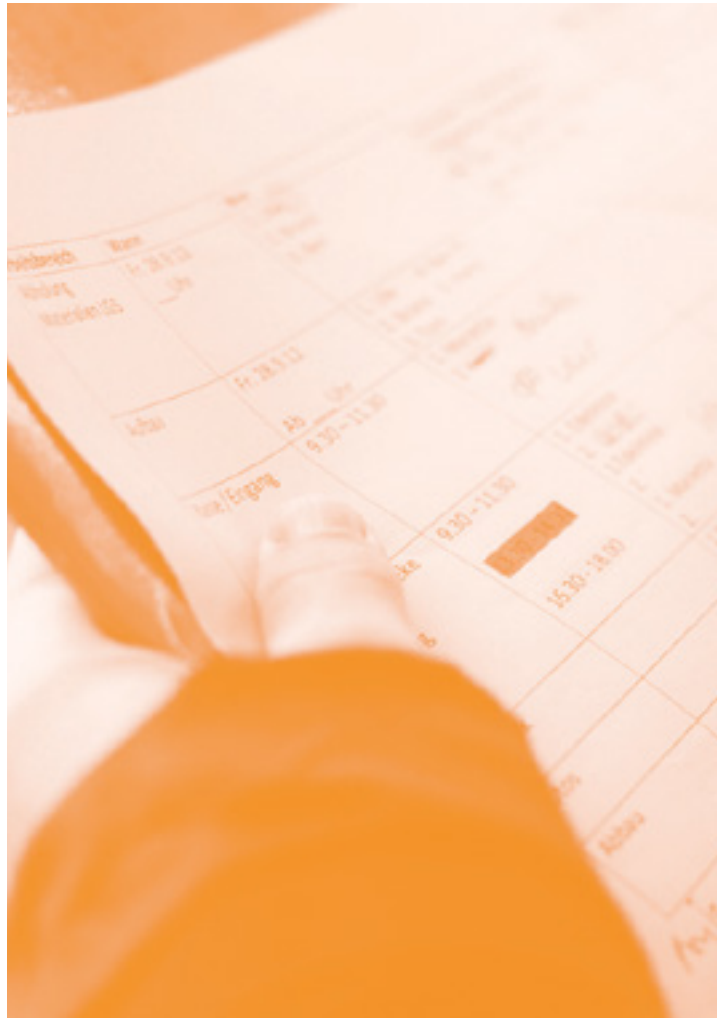
TIPS & TRICKS

AVOID TOO MANY SELLING POINTS

Try to avoid too many new selling points as it requires significant time and resource new implement just one new selling point.

BE CAREFUL WHAT YOU ELIMINATE

Be careful if modifying or eliminating existing markets, products or selling points as this could cause a lot of short term disruption for the company and may be unpopular with staff and/or management.



STEP

Get senior management approval for the new business strategy

ACTIVITIES

ST.13

Do an individual/group review of the business strategy proposal

ST.14

Pitch the new business strategy to the CEO

ST.15

Consider key management issues for implementation

OVERVIEW

The aim of this step is to get senior management approval for the new business strategy. To help prepare for this pitch you should first bring together all the elements of the business strategy that you have been working on to perform a final review and make any necessary changes. You can then prepare and deliver your pitch of the new business strategy to the CEO. Once you get approval to proceed, you can start to put in place some measures to facilitate the management of the eco-innovation implementation process.

ST.13

Do an individual/
group review
of the business
strategy proposal

Requires dialogue

The aim of this activity is to review the business strategy that has been developed through the preceding activities.



INPUT

- New company vision from the activity *ST.8 Develop a vision for the company.*
- New strategic goals from the activity: *ST.9 Define the strategic goals.*
- New markets, products and selling points along with the evaluation information from the activity: *ST.12 Select which ideas for new markets, products and selling points to include in the strategy proposal.*

OUTPUTS

- New business strategy proposal used in the activity: *ST.14 Pitch the new business strategy to the CEO.*

ST.13 Do an individual/group review of the business strategy proposal

Having developed the business strategy element by element it is important to take a step back and review the business strategy as a whole so that you can identify and inconsistencies or problems and reflect on whether it is the best option for the company.

HOW TO GO ABOUT IT

1. Decide if you will perform the review by yourself or with some of your colleagues in a workshop session.
2. If you do involve some colleagues you should start by presenting some additional information to help your them understand how you have arrived at the strategy proposal, such as:
 - The SWOT analysis and the points that were given a high priority from this.
 - The ideas generated using the *TOWS template*.
 - The 'original' and 'proposed' versions of the *Business Strategy template* to highlight the changes that have been made to the strategy.
3. Whether you perform the review with colleagues or not, key questions to ask include:
 - Are the goals and vision aligned and consistent?
 - Are the changes proposed to the markets, products and selling points consistent with the vision and goals?
 - Do the goals sound ambitious but achievable within the timescales proposed?
 - If you were the CEO of this company, what concerns would you have about this strategy?

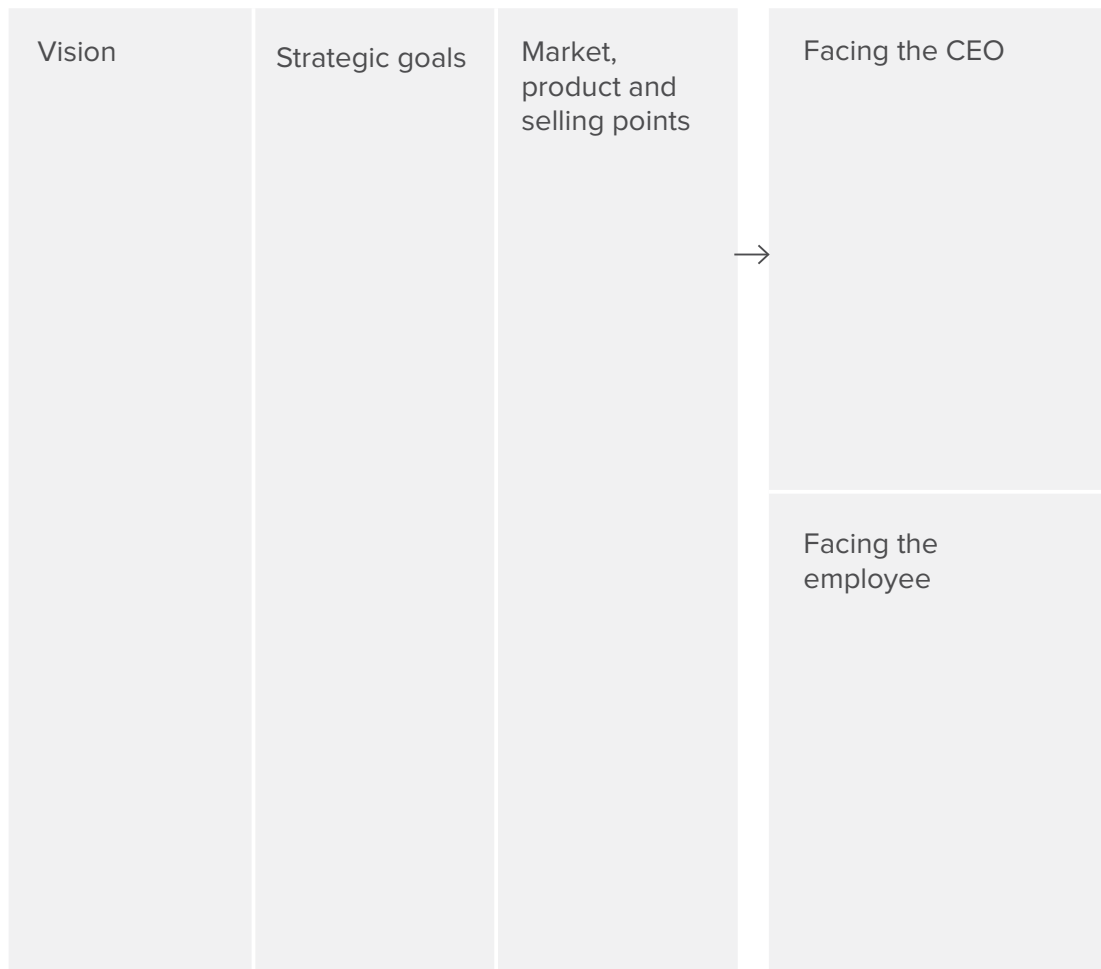
- If you were an employee at the company, what concerns would you have about this strategy?
 - What could be done to improve this strategy?
4. After the review you may need to make small changes to the vision, goals, markets, products or selling points or even go back to some of the earlier activities if significant concerns are identified. Once you are happy with the overall business strategy proposal you can proceed to the next step, which is pitching the strategy proposal to the company.

Template of Business Strategy



ST.13 Do an individual/group review of the business strategy proposal

Template of Business Strategy Review



ST.13 Do an individual/group review of the business strategy proposal

LEARNING CASE STUDY OF BUSINESS STRATEGY

Vision

Tasty Tuna is the leading producer in the region of processed fish and seafood products, providing tasty, nutritious food to millions of people in a sustainable way.

We work closely with the fishing community to ensure a steady supply of sustainably sourced fish and seafood. We make the most of what the sea offers to create innovative, varied and tasty products that our customers love.

We strive to treat our staff, suppliers and partners fairly and cooperate to build a profitable and sustainable value chain.

Market

Domestic restaurants/cafes

Domestic consumers

Restaurants/cafes in neighbouring countries

United States consumers

United States restaurants/cafes

European consumers

Product

Tinned tuna - large tins for caterers

Tinned tuna - small tins for consumers

Tuna with a sauce

Limited edition seafood dishes using whatever seafood is abundant at the time

Selling points

SPEED

INNOVATION

SUSTAINABILITY

Strategic goals

- *We will reduce fish and product loss between point of fish purchase (fish market) and arrival at retailer by 30% within three years.*
- *At least 30% of our total sales will come from 'sustainable' product lines within three years.*
- *We will support local fishing companies that use sustainable fishing methods to create at least 20 fishing jobs.*
- *At least half of total sales revenue will come from products that do not include tuna within five years.*
- *We will increase total product sales to over \$1 million within three years.*
- *We will reduce employee turnover rates by 20% and facilitate at least two female employees to gain senior management positions by introducing a 'family friendly working' policy that will improve working conditions for staff with families within three years.*

ST.13 Do an individual/group review of the business strategy proposal

LEARNING CASE STUDY OF BUSINESS STRATEGY REVIEW

Vision

- Vision informally discussed with fisherpeople and retailers and received a positive response.
- All aspects of the vision linked to at least one strategic goal.

Strategic goals

- Total product sales goal was pre-existing but still ambitious
- Fish loss goal good to stretch operational performance
- Changing working practices of fisherpeople will be very challenging but they recognise the need for change – extend timeframe to three years?
- Informal discussions about family friendly policies and the need for females in senior management have been positively received by operational staff
- Could add a further goal in the future to clarify how we will collaborate with retailers and other value chain partners (highest priority is fisherpeople for now).

Market, product and selling points

- Diversification of product range will be very challenging and will impact the whole company
- Several different selling points to fulfil – low cost, innovation and sustainability. Can all this be done at once?

Facing the CEO

- Risk of new market and new product failure
- How much will it cost to implement changes?
- How will changes be funded?

Facing the employee

- Will there be any job losses?
- If we process less tuna will I still get the same wages and hours?



ST.14

Pitch the new business strategy to the CEO

Complex activity

The aim of this activity is to prepare and deliver a pitch to the CEO that explains the new business strategy proposal and the potential benefits for the company.



INPUT

- New business strategy proposal from the activity *ST.13 Do an individual/group review of the business strategy proposal.*

OUTPUTS

- Completed pitch of new business strategy.
- Decision from the CEO as to how to proceed.

These outputs are used in the activity *ST.15 Consider key management issues for implementation.*

ST.14 Pitch the new business strategy to the CEO

The final activity in the *SET STRATEGY* phase is to pitch the new business strategy that you have developed to the CEO and Senior Management Team along with a proposal for your eco-innovation services to enable the implementation of this strategy.

The first part of the pitch should focus on the new business strategy proposal and the process used to develop it. The second part of the pitch should outline the support services to implement eco-innovation that you can offer to facilitate the implementation of the proposed strategy. A suggested outline for the pitch is provided in the box below.

HOW TO GO ABOUT IT

Key points for pitching the new business strategy

1. Begin by explaining that the new business strategy that you are about to describe is a proposal and that the next phases of the methodology will define how the strategy could be implemented and will validate the benefits and risks of the strategy.
2. Also explain that adopting the new business strategy does not necessarily mean entirely abandoning the previous business strategy.
3. Provide a brief overview of the process you have followed during the *SET STRATEGY* phase to generate the strategy proposal.
4. Present the sustainability hotspots and the results of the SWOT analysis. Start with the sustainability hotspots (negative impacts) and the Threats so that the management team can see the risks of continuing with a 'business as usual' approach.

5. Introduce the company vision statement and the associated strategic goals and show how they address the sustainability hotspots and high priority SWOT issues.
6. Introduce the new markets, products and selling points and identify the potential risks and benefits of these using the results from the *Strategy Idea Evaluation template*.
7. Explain that it is not possible to estimate the overall cost of implementing the new strategy but that this will be a deliverable from the *SET BUSINESS MODEL* phase.

Template of Business Strategy Pitch



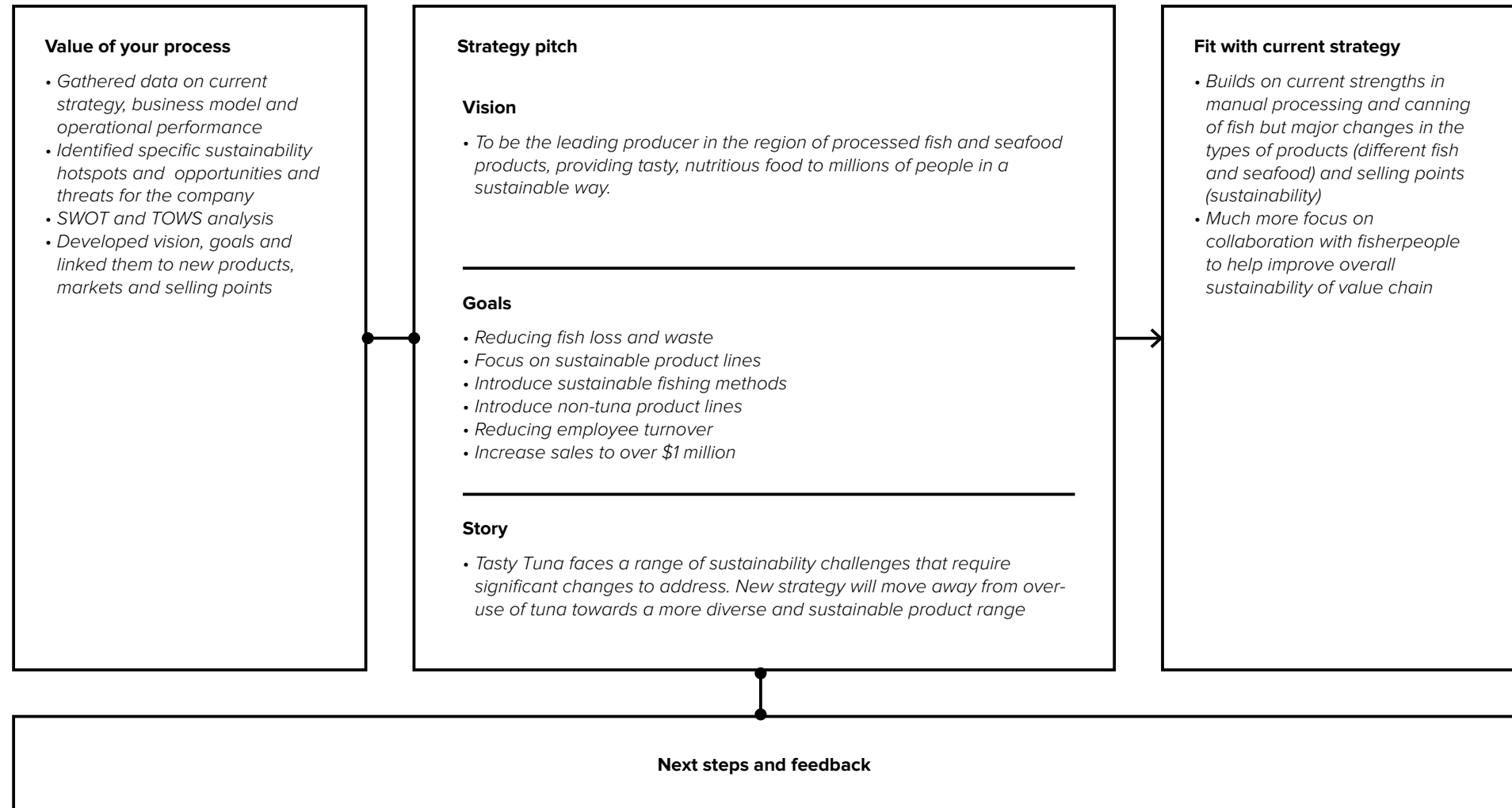
ST.14 Pitch the new business strategy to the CEO

8. Provide an overview of the next phases in the eco-innovation methodology, including:
 - The main activities of each phase along with their deliverables.
 - The resources required and the likely timescales (showing the time from their staff and from you).
9. Conclude by asking for a decision (or a timescale for a decision) on how to proceed. The possible options are:
 - Agree to proceed – next step is to plan an In-depth Assessment activity to gather more quantified data about the company to support the business model innovation process.
 - Request for more information – next step is to gather the information requested and arrange another review meeting to present the information.
 - Pause – There may be many reasons why the company might not feel ready to proceed. Try to determine exactly what it is about their current situation that is making them reluctant to proceed and identify ways that you could help.
 - Abandon – if the company decide that eco-innovation is not a suitable approach for their organization, try to establish what the main problems are from their perspective.



ST.14 Pitch the new business strategy to the CEO

LEARNING CASE STUDY OF BUSINESS STRATEGY PITCH



ST.14 Pitch the new business strategy to the CEO

TIPS & TRICKS

SIGN A CONTRACT

Once you receive approval to proceed, you should organize a contract (if you have not already done so) that captures the detail of the services you will provide along with confirmation of the cost of these services.





ST.15

Consider key management issues for implementation

Requires dialogue

The aim of this activity is to start putting in place some management practices that can facilitate the implementation of eco-innovation within the company.



INPUT

- Approval from the CEO to proceed with the eco-innovation implementation activities from the activity *ST.14 Pitch the new business strategy to the CEO*.

OUTPUTS

Management practices and culture that will support the eco-innovation implementation activities. These outputs are not specifically used elsewhere in the process but are important to ensure the success of the eco-innovation implementation activities.

ST.15 Consider key management issues for implementation

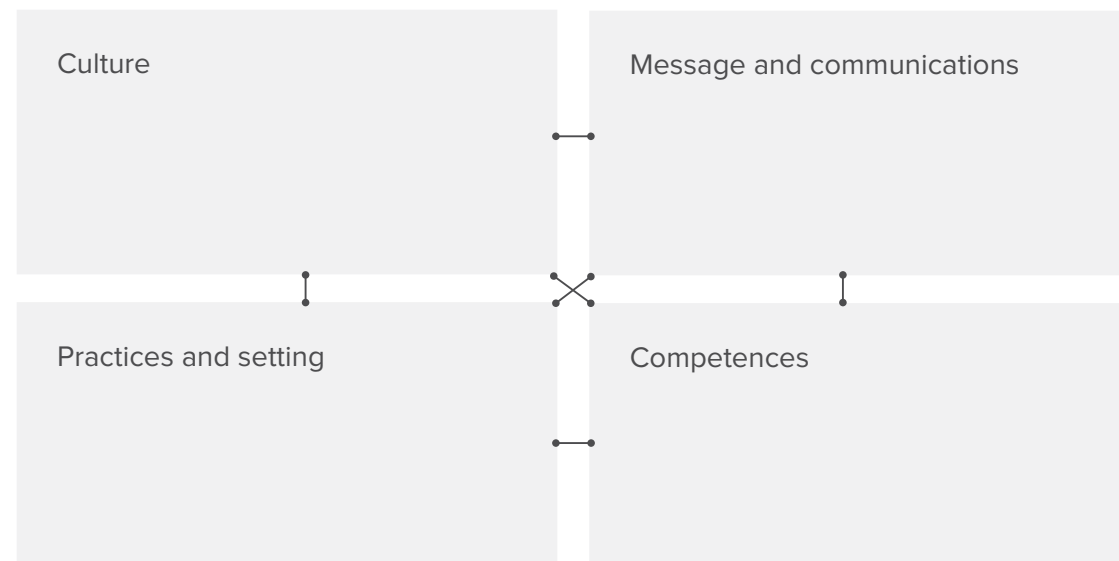
This activity is different to the others in that it is an on-going process that aims to make the management practices, company culture, and ways of working more conducive to the implementation of eco-innovation. Below a number of management practices are suggested that can help with this.

HOW TO GO ABOUT IT

- *Embedding eco-innovation into the company culture* – When trying to implement major changes within a company, such as introducing eco-innovation, having a supportive company culture can greatly ease and accelerate the implementation of the changes. Conversely, a company culture that is resistant to eco-innovation can make it extremely difficult to make any progress. ‘Change management’ is the field of research that provides support to practitioners who are implementing change within a company so if you are not familiar with this topic then see the ‘Background information’ of this activity for further guidance.
- *Managing eco-innovation research and development alongside routine operations* – Research suggests that trying to manage radical innovation activities, such as eco-innovation, alongside the routine, day-to-day operations of a company can be challenging. For staff working on eco-innovation activities there is often a conflict between the responsibilities they have for day-to-day operations and the contributions they are expected to make to the eco-innovation activities.
- This has led to suggestions that eco-innovation should be separated from the day-to-day operations of the company. However, this is often not practical in small companies, and

may also mean that the outputs of a research project are not supported or adopted within the rest of the organization. Finding the right solution to this conflict will depend on the specific situation. A compromise solution may be to ask staff working on the project for eco-innovation to dedicate specific days of the week to their eco-innovation activities. The key is then ensuring that this is enforced, both by the staff and by their colleagues. Other simple measures such as having separate email addresses for people for when they are working on eco-innovation activities, and even a separate desk or work area, can all help to maintain the separation between eco-innovation and routine activities.

Template of Management Issues



ST.15 Consider key management issues for implementation

- *Making use of opportunities for internal communication* – It is important to think about the message that is communicated to employees about the company's plans and objectives for implementing eco-innovation. In all cases, it is important that the Senior Management Team is seen to support eco-innovation. Company newsletters, bulletin boards and general meetings are all opportunities for senior management to explain why the company has chosen to implement eco-innovation and the likely benefit for the company and for employees. Internal communication can also be used to address specific concerns or problems. Remember also, that internal communication should be a two-way flow, so try to identify opportunities for employees to express their views, concerns and ideas throughout the process.
- *Enhance the sustainability knowledge and skills of the workforce* – eco-innovation requires a variety of knowledge and skills such as life cycle thinking, product environmental assessment, green marketing, awareness of gender issues and gender equality etc. These skills and knowledge may not be present in the existing workforce. As the Service Provider you will often be required to fill these knowledge and skill gaps for the company in the short term, but this is not a scalable, long-term solution. You should therefore try to work with the company to identify where knowledge and skill gaps exist and develop a plan for addressing these gaps. In certain circumstances this may require the recruitment of new staff that possess those skills, but training of existing employees will generally be the more cost-effective and efficient approach.
- *Empowering employees through a flat organizational structure* – a number of companies have found that restructuring the management hierarchy and at the same time encouraging employees to be more autonomous and pro-active in managing their own performance can lead to improved productivity, innovation and employee satisfaction. This approach is built on the assumptions that most employees: want to be part of a successful company; understand how they can contribute to that success; and have the right knowledge and expertise to do their job effectively. If this is correct, then allowing employees to take responsibility for their work results in better performance, whilst also reducing the need for managers who may frustrate their subordinates by 'interfering' or being overly prescriptive in their guidance. One example of this approach is Google, who, amongst other policies aimed at empowerment, allow the employees to spend 20% of their time on projects that they consider interesting or potential valuable (He, 2013). In another example, the computer games developer, Valve, has created a completely flat organizational structure, with no managers other than the CEO. The employee handbook describes how the company operates without the presence of managers (Valve, 2012). Whilst neither of these examples may be directly transferrable to the context within the company, they do provide some inspiration for how a company can reorganize itself to ensure that it gets the best from its employees and allows them to make full use of their innovation potential – an important issue for eco-innovation.

ST.15 Consider key management issues for implementation

LEARNING CASE STUDY OF MANAGEMENT ISSUES

Culture

- Cultural split between operational staff (predominantly female) and Senior Management Team (all male) may make implementation of family-friendly policies more challenging
- Do not yet have a culture of innovation
- Could run a workshop involving operational staff and Senior Management Team to discuss the current culture of the company and identify ways to improve the culture for innovation

Message and communications

- Operational staff need to understand what the new business strategy is, why the change was needed and why 'business as usual' would have eventually led to the collapse of the company
- Need this message to be communicated by CEO and have opportunity to ask questions
- Could ask CEO to present new strategy to company in one meeting and then offer follow-up meetings in small groups to those who would like to discuss it further

Practices and setting

- Create an eco-innovation noticeboard to explain the current activities being worked on and the results achieved
- Provide staff working on eco-innovation projects with a badge or different colour uniform to wear when they are working on a research project so that colleagues know not to disturb them with 'normal' tasks.
- Ask for volunteers to become 'eco-innovation champions' within the company who will participate in projects and help communicate activities and results to colleagues

Competences

- Provide training to key staff on how to facilitate brainstorming sessions to support the introduction of a culture of innovation
- Provide 'eco-innovation champions' with basic training on sustainability and the eco-innovation process so that they can understand the process and aims.

ST.15 Consider key management issues for implementation

BACKGROUND INFORMATION

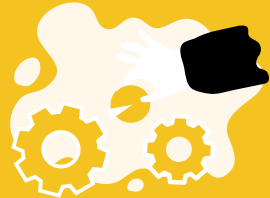
References and resources

Management considerations:

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SET BUSINESS MODEL

Defining a new business model
to deliver the business strategy

PHASE 3 — BM

SET BUSINESS MODEL

OVERVIEW

The SET BUSINESS MODEL phase is about developing a business model that is aligned with the strategy that has been defined and the strengths and weakness of the company. The process of business model innovation consists of three main steps:

- In-Depth Assessment - Quantitative and qualitative data is collected about the operational performance of the company and its current business model to identify (or quantify) the key strengths and weaknesses.
- Idea generation – Business model options are generated via either the 'Top-down' or 'Bottom-up' route. The Top-down route begins by looking at the big picture of the business model and looking for ideas by drawing inspiration from common patterns of business model innovation. The challenge is then to understand what operational-level changes would be required to implement the big picture ideas. Conversely, the Bottom-up route begins by generating ideas for innovations at the operational level that address specific threats and opportunities. It then requires you to think about how the business model would need to be adapted to accommodate and maximize the benefits from those operational-level innovations.
- Evaluation and selection – Each of the business model options generated are evaluated in terms of benefits, costs and risks with respect to environmental, social and economic factors. This information is used to select the best business model to take forward for implementation.

STEPS & ACTIVITIES

Understand in more detail the performance of the company through an In-Depth Assessment

Update the data gathering strategy
BM.1

Gather additional data on the business model
BM.2

Gather additional data on operational performance
BM.3

Generating business model concepts at the big picture level

Generate business model concepts at the big picture level
BM.4

Generating ideas at the individual building block level

Generate ideas for the customer segments block
BM.5

Generate marketing ideas for the value proposition block
BM.6

Generate technical ideas for the value proposition block
BM.7

Generate ideas for the channels block
BM.8

Generate ideas
for the customer
relationships block
BM.9

Generate ideas
for the revenue
streams block
BM.10

Generate ideas for the
key resources block
BM.11

Generate ideas for
the key activities
block
BM.12

Generate ideas
for the key
partnerships block
BM.13

Generate ideas for
the cost structure
block
BM.14

Evaluate the business model
concepts and select one to
pitch

Evaluate the benefits
BM.15

Evaluate the costs
BM.16

Evaluate the risks
BM.17

Integrate all the
evaluations and
make the final
selection
BM.18

Get senior management
approval for the new business
model

Pitch the new
business model to
the CEO
BM.19

STEP

Understand in more detail the performance of the company through an In-Depth Assessment

ACTIVITIES

BM.1

Update the data gathering strategy

BM.2

Gather additional data on the business model

BM.3

Gather additional data on operational performance

OVERVIEW

The In-depth Assessment helps to refine your understanding of the operational strengths and weaknesses of the company by gathering quantified performance data within key operational areas. These data are used as inputs to the business model innovation activities and will also enable better estimates of the benefits, costs and risks of the ideas you generate. These data can also be used to capture the baseline performance of the company against key sustainability metrics - see the sector supplements for further guidance on this topic.

BM.1

Update the data gathering strategy

Requires dialogue

The aim of this activity is to plan your data gathering activities to ensure that you get the data you need for the In-depth Assessment in an efficient manner.



INPUTS

- Data Gathering Strategy used during the Preliminary Assessment from the activity ST.1
Plan my data gathering strategy.

OUTPUTS

- A detailed list of the types of data you need to gather that has been reviewed and agreed with the company focal point.

This output is not specifically used later in the process but is important to ensure effective and efficient data collection.

BM.1 Update the data gathering strategy

Collecting detailed, quantitative data can be very time consuming so it is important to carefully consider which types of data you will collect during the In-Depth Assessment. By focusing on the most important topics highlighted from the *SET STRATEGY* phase you can reduce the time you spend on gathering data and avoid wasted effort.

HOW TO GO ABOUT IT

1. Remind yourself of the data you have already collected - the Data Gathering Checklist used during the Preliminary Assessment should provide a good summary of this.
2. Review the new business strategy and try to identify areas in which more detailed data or information is required. In particular focus on:
 - The topics covered within the strategic goals
 - The sustainability hotspots for the company
 - Any new markets proposed in the new business strategy
3. Go through the list of possible data types mentioned in the *Data Gathering Update template* for activities *BM.2 Gather additional data on the business model* and *BM.3 Gather additional data on operational performance* then decide which of them you will collect during the In-Depth Assessment.
4. Add the list of new data to be gathered to your original Data Gathering Checklist, making sure to clearly identify which data types have already been collected and which are the new data to be collected.
5. Review the *Data Gathering Checklist* with the focal point to confirm how and when you will gather the data you require.

Template of Data Gathering Update



BM.1 Update the data gathering strategy

LEARNING CASE STUDY OF DATA GATHERING UPDATE

Business strategy

- *New product: tuna in sauce*
- *New selling point: Sustainability*
- *Support sustainable fishing*



New data

- *Validate market interest for tuna in sauce product*
- *Validate market interest in sustainable products*
- *Willingness of fisherpeople to engage on sustainable fishing*



Type of data	Do I need it?
Current company vision	✓
Current strategic goals	✓
Current products, markets and selling points	✓
Current business model	✓
Main competitors and what they offer	
Flow diagram of main internal production steps	✓
Biggest contributors to production costs	✓
Biggest contributors to materials and water consumption (for company and for value chain)	
Biggest contributors to energy consumption (for company and for value chain)	✓
Biggest contributors to health & toxicity concerns (for company and for value chain)	
Biggest contributors to social impacts (for company and for value chain)	
Sales revenue data for last three years	✓
Profit and loss data for last three years	
Number of employees including breakdown by role/department	✓
Details of key suppliers	
Details of key partners and nature of partnership	✓
Details of environmental and social management system or policies in place	✓
Understanding of how the company is viewed by the local community, suppliers and customers	✓
Details of the company's policies and practices to promote innovation	
Details of facilities and resources to support product research and development	✓
Understanding of procurement policies and practices to promote sustainability	

BM.1 Update the data gathering strategy

TIPS & TRICKS

FOCUSED DATA COLLECTION

Try to be focused, conservative and realistic when selecting which data you will collect. If you are not sure if you will need a certain type of data then do not collect it initially. If later in the phase it turns out that you do need that data you can always come back and collect it at that time.

CONTACT KEY PEOPLE EARLY ON

Collecting the information necessary to complete the In-Depth Assessment will likely require input from personnel throughout the company so it is important to identify the people you will need to speak with early in this phase and begin scheduling meetings or phone calls with those people.

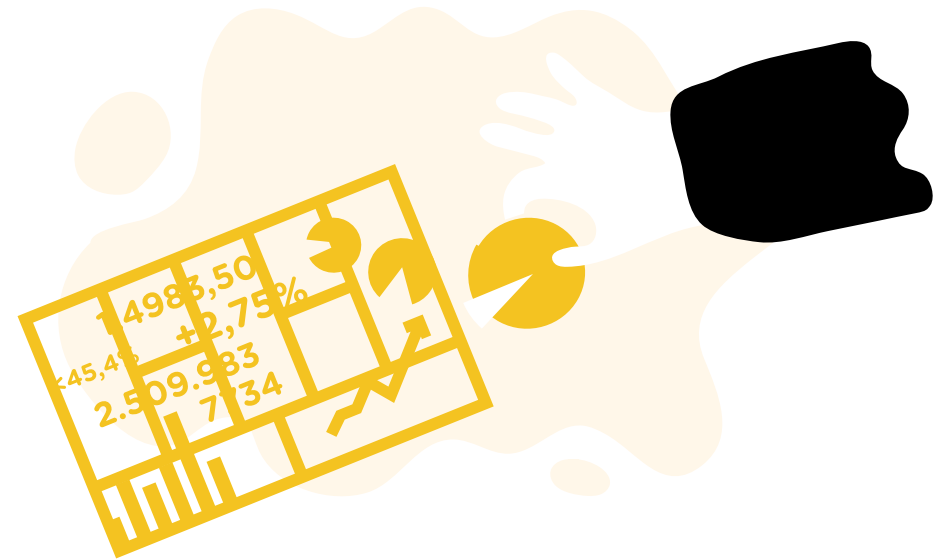


BM.2

Gather additional data on the business model

Complex activity

The aim of this activity is to gather detailed and quantified data about key areas of the business model to support the business model innovation and evaluation activities.



INPUTS

- Business model data from Preliminary Assessment from activity *ST.3 Capture the current business model*.
- Data Gathering Checklist from activity *BM.1 Update the data gathering strategy*.

OUTPUTS

- Detailed and quantified data concerning key areas of the business model used throughout the rest of the *SET BUSINESS MODEL* phase.

BM.2 Gather additional data on the business model

In this activity you will collect detailed and, where possible, quantified data about the business model of the company. You should already have captured some basic information about the company's business model during the Preliminary Assessment. This activity provides the data required to validate the hotspots previously identified and evaluate the potential benefits, costs and risks of business model ideas in a more quantified and rigorous manner.

Examples of the types of data or questions you need to answer concerning the business model of the company are provided below, using the Business Model Canvas building block headings.

HOW TO GO ABOUT IT

1. Refer back to the *Data Gathering Update template* to remind yourself of which types of data mentioned in the templates you need to gather.
2. Create a more detailed plan of how and when you will collect the different data types and review this with the Focal Point.
3. Once you have completed the data collection activities you should analyse the data and begin to prepare the results of your analysis in a short report. Wait until you have completed the *BM.3 Gather additional data on operational performance* to integrate the results of that activity before presenting the report to the company.

Customer Segments

- What is the approximate size of the market that the company sells its products to?
 - What is the company's share of this market?
 - Is this market growing or declining? By what percentage per year?
 - What factors might drive growth in the current markets in the future?

- Remember to investigate new markets specified in the business strategy.
- Why would customers choose the products of the company over those of a competitor?
- What government policy, legislation or standards are currently influencing the main Customer Segments the company operates in?
 - Is this likely to change in the future?
 - If so, how?

Template of Business Model Canvas



BM.2 Gather additional data on the business model

- Are customers concerned about the environmental or social impacts of the company's products or operations?
 - If so, which impacts and why?
 - What action(s) have they requested?
- Do customers perceive the company to have any positive social or environmental impacts?
 - If so, what are they?
- What new technologies are influencing the main Customer Segments the company operates in?
- What cultural or demographic changes are occurring in the main Customer Segments the company operates in?
- Does the company cater to the different needs of male and female customer segments?
- What other Customer Segments could the company target?

Value Proposition

- What is the customer need that the product satisfies?
- What level of influence does the company have over the products it sells? (100% control/in-house design vs manufactures according to customer specification).
- What research and development capacity does the company have to support the development of new products?
- Has the company implemented a Design for Sustainability process?
- What are the main environmental and social impacts of the company's products across their lifecycle (based on results of Life Cycle Thinking data collection)?

- In what phase do these main impacts occur?
- What influence does the company have over these impacts?

Channels

- How do potential customers become aware of the company's products?
- What are the main sources of pre-sales information the company provides to potential customers?
- How do customers purchase products from the company?
- How are products delivered to the customer (based on results of Life Cycle Thinking data collection)?
- What after-sales support is provided by the company to the customer and how is this provided?

Customer Relationships

- How does the company manage the relationships it has with each of its Customer Segments?
- Are there any customer communities that the company is, or should be, interacting with?

Revenue Streams

- What are the main revenue streams for the company (based on results of Life Cycle Thinking data collection)?
- What is the margin on current product sales?
- How stable are revenue streams?
 - Stable throughout the year?
 - Vary from season to season in a predictable manner?
 - Vary in an unpredictable way?

BM.2 Gather additional data on the business model

Key Resources

- What intellectual resources are important to the company? E.g. patents, production process know-how etc.
- What human resources are important to the company? E.g. Experienced fish buyers, skilful production operatives etc.
- Is the company able to access funds available for investment?
 - If so, is this existing capital or a loan?
 - How much is available?
 - What is the cost of capital?

Key Activities

- Is the company collecting and using data to analyse the performance of its production processes in terms of:
 - Energy consumption
 - Water consumption
 - Resource efficiency
 - Waste management
 - Management of chemicals
 - Health and safety
- Has the company implemented a Resource Efficient and Cleaner Production process or Environmental Management System (EMS)? Or any other environmental measures or projects?
- Has the company implemented a Health and Safety management system?
- What steps has the company taken to promote good worker health, worker well-being and industrial relations?

- Does the company make use of new technology to help monitor, analyse and improve the performance of its production processes?
- How does the efficiency and cost-effectiveness of the company's production processes compare with competitors or industry benchmarks?
- Does the company take environmental or social sustainability considerations into account in procurement activities?
- Does the company make use of new technology to improve the performance of its operations?

Key Partnerships

- How many suppliers does the company deal with?
- What influence does the company have with its suppliers (on price, ways of working etc.)?
- What actions has the company taken to improve the sustainability performance of its suppliers?
- What other partners does the company work with?
 - What does the company gain from working with these partners?
 - What new partners could the company work with?
- Are stakeholders concerned about the environmental or social impacts of the company's products or operations?
 - If so, which impacts and why?
 - What action(s) have they requested?
- Do stakeholders perceive the company to have any positive social or environmental impacts?
 - If so, what are they?

BM.2 Gather additional data on the business model

Cost Structure

- What are the main sources of cost for the company (based on results of Life Cycle Thinking data collection)? (e.g. staff wages, material costs, energy bills, rent etc.)
- Is the cost structure dominated by fixed or variable costs?
- What economies of scale or scope benefits does the company achieve?

Management considerations

- Does the company have culture that supports innovation?
- What experience does the company have of managing radical innovation projects?
- What is it that the company does that is difficult for competitors to replicate?
- In what areas do competitors have a competitive advantage over the company?



BM.2 Gather additional data on the business model

TIPS & TRICKS

BE SELECTIVE

You do not need to collect data for every topic mentioned in the *Business Model Canvas template*, just the important ones for the company. Refer back to the Data Gathering Checklist to remind yourself of which data types are important. You can be flexible and make changes to the list of data types to be gathered if you think that the priorities have changed.

BACKGROUND INFORMATION

References and resources

Business Model Canvas:

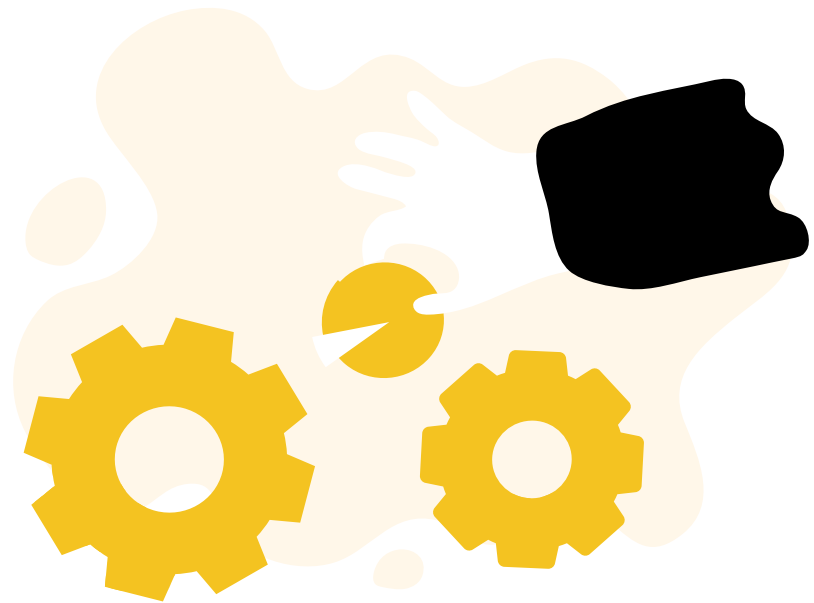
- Osterwalder, A., & Pigneur, Y. (2010). *Business model generation: a handbook for visionaries, game changers, and challengers*. Wiley, London.
- The Business Model Canvas can be downloaded here: http://www.businessmodelgeneration.com/downloads/business_model_canvas_poster.pdf
- Example of the Business Model Canvas being used to review the business model of Nespresso, available from: <http://hbr.org/web/2013/05/why-the-lean-start-up-changes-everything/sketch-out-your-hypothesis>
- Strategyzer software – subscriptions are available to buy here: <http://www.businessmodelgeneration.com/toolbox>

BM.3

Gather additional data on operational performance

Complex activity

The aim of this activity is to gather detailed and quantified data about key areas of the company's operational performance to support the business model innovation and evaluation activities.



INPUTS

- Operational strengths and weaknesses identified during the step Preliminary Assessment from the activity *ST.7 Do a SWOT analysis*.
- Data Gathering Checklist from the activity *BM.1 Update the data gathering strategy*

OUTPUTS

- Detailed and quantified data concerning key areas of the business model used throughout the rest of the *SET BUSINESS MODEL* phase.

BM.3 Gather additional data on operational performance

In this activity you will collect detailed and, where possible, quantified data about the operational performance of the company. You should already have captured some basic information about the company's operational performance during the Preliminary Assessment. This activity provides the data required to validate the hotspots previously identified and evaluate the potential benefits, costs and risks of business model ideas in a more quantified and rigorous manner.

Examples of the types of data or questions you need to answer concerning the operational performance of the company are provided below, using a simplified version of the *Life Cycle Thinking template*.

HOW TO GO ABOUT IT

1. Refer back to the *Data Gathering Update template* to remind yourself of which of the types of data mentioned in the templates you need to gather.
2. The simplified *Life Cycle Thinking template* provided here gives suggestions for the types of operational performance data that you might want to collect. Use this in combination with the Data Gathering Checklist to select the types of data you will collect.
3. Create a more detailed plan of how and when you will collect the different data types and review this with the Focal Point.
4. Once you have completed the data collection activities you should analyse the data and prepare the results of your analysis in a short report - integrating the results of the *BM.2 Gather additional data on the business model* activity. You can present this the report to the company as an intermediary deliverable to help maintain the interest and engagement as you get ready to start generating alternative business model concepts.

Template of Life Cycle Thinking

	Environmental impacts	Social Impacts	Economic impacts
Materials			
Production			
Transportation			
Use			
End of life			

BM.3 Gather additional data on operational performance

LEARNING CASE STUDY OF LIFE CYCLE THINKING

	Environmental impacts	Social Impacts	Economic impacts
Materials	<ul style="list-style-type: none"> • Inventory of materials purchased including quantities • Data on energy consumption for production and delivery of materials. 	<p>Do materials suppliers have:</p> <ul style="list-style-type: none"> • Health & Safety management system in operation? • Chemical management system in operation? • Policy on child labour? • Policy on equal opportunities and discrimination? • Policy on working hours? • Can suppliers demonstrate compliance with relevant health, safety and chemical regulations or standards? • Are jobs in the supply chain permanent, full-time and secure? • What are the prospects for job creation? 	<ul style="list-style-type: none"> • Cost of materials purchased.
Production	<ul style="list-style-type: none"> • Inventory of material waste in production including quantities. • Water consumption data. • Production energy consumption with breakdown by process. • Energy consumption in heating/cooling and lighting of production facilities and offices. • Emissions governed by permits or regulations? 	<p>Does company have:</p> <ul style="list-style-type: none"> • Health & Safety management system in operation? • Chemical management system in operation? • Policy on child labour? • Policy on gender awareness, gender equality and discrimination? • Policy on working hours? • Staff development and training? 	<ul style="list-style-type: none"> • Cost of waste and emissions. • Cost of energy use in production. • Cost of social impacts.

	Environmental impacts	Social Impacts	Economic impacts
Production		<ul style="list-style-type: none"> • Is company compliant with relevant health, safety and chemical regulations or standards? • Any complaints from local community regarding noise and pollution from production operations? • Are jobs in the company permanent, full-time and secure? • What are the prospects for job creation? • What barriers exist for women or men who want to work for the company? 	
Transportation	<ul style="list-style-type: none"> • Inventory of packaging materials including quantities. • Inventory of product waste during transportation including quantities. • Data on energy consumed in warehouse (lighting, refrigeration) • Data on fuel consumption for product transportation. 	<ul style="list-style-type: none"> • Guidance for workers on safe handling of product. • Complaints from local community regarding noise and pollution from transportation operations? • Are jobs in the logistics provider permanent, full-time and secure? • What are the prospects for job creation? 	<ul style="list-style-type: none"> • Cost of warehouse operation. • Cost of transportation operations. • Product sales revenues including breakdown by product line.
Use	<ul style="list-style-type: none"> • Data on energy consumed retail location (lighting, refrigeration). • Data on energy consumption of product during use phase. • Availability of guidance for user on energy-efficient use of product? 	<ul style="list-style-type: none"> • Guidance for user on safe use of product. • Evidence of social benefits of use of product? E.g. job creation, improved health etc. 	<ul style="list-style-type: none"> • Revenues from maintenance services or consumables. • What are the prospects for job creation in maintenance, support and service?
End of life	<ul style="list-style-type: none"> • Data on typical end of life fate for product. • Data on energy consumption of product during end of life phase. 	<ul style="list-style-type: none"> • Guidance for user/workers on safe product disposal practices. • Risk of hazardous waste emissions from end of life product? • Complaints from local community regarding pollution from end of life disposal? • What are the prospects for job creation in recycling and reverse logistics? 	<ul style="list-style-type: none"> • Cost of end of life processing. • Revenues from end of life processing.

BM.3 Gather additional data on operational performance

BACKGROUND INFORMATION

To measure life cycle environmental impacts in a rigorous and scientific manner generally requires tools such as 'Life Cycle Assessment' (LCA) and 'Social Life Cycle Assessment' (SLCA). LCA and SLCA are both major topics in their own right and is not the aim of this manual to provide a comprehensive introduction to this field. Further information on UN Environment activities to support the application of LCA can be found at the Life Cycle Initiative website – see the references below for further details. Similarly, for details of SLCA approaches see the UN Environment publication 'Guidelines for Social Life Cycle Assessment of Products'. One issue to keep in mind is that conducting a detailed LCA conforming to international standards such as ISO 14040:2006 generally requires a significant investment of time and money (upwards of US\$10,000 and 6 person-months). Also, eco-innovation ideas can be very difficult to evaluate using conventional LCA or SLCA approaches as the necessary input data is often very imprecise or simply not available. For these reasons, you may decide to use simplified approaches to understanding the life cycle sustainability impacts of a product, such as the 'hotspot analysis' introduced in the activity 'PR.4 Identify sustainability hotspots across the value chain'.

These simpler approaches allow you to evaluate sustainability impacts such as resource consumption and waste without performing a full LCA. You will have identified sustainability hotspots using the *Life Cycle Thinking template* as part of the Preliminary Assessment. At this stage you should begin to gather data to quantify these hotspots by interviewing key mid-level managers. For example, the procurement manager should know the amount of raw materials, water, electricity and fuel consumed per year and per production line. The sales and marketing manager will have data on the volume of

product sales. The production manager will know about production losses (scrap and waste). With these data it is possible to generate a reasonable, quantified estimate of the scale of a sustainability hotspot without performing an LCA. Tracking improvements in sustainability performance will also be easier if quantified data can be obtained.

References and resources

Life Cycle Assessment:

- Joint UN Environment-SETAC Life Cycle Initiative. Available from: http://www.life_cycleinitiative.org/
- UN Environment, (2009). Guidelines for Social Life Cycle Assessment of Products. UN Environment, Paris. Available from: http://www.unep.fr/shared/publications/pdf/DTIx1164xPA-guidelines_sLCA.pdf

→ Further information in the Agri-food, Chemicals and Metals Supplements

STEP

Generate business model concepts at the big picture level

ACTIVITIES

BM.4

Generate business model concepts at the big picture level.

OVERVIEW

When developing business model ideas it is likely that there will need to be some iteration to ensure that the business model remains aligned with the business strategy and at the same time is consistent with the reality of the company's operational performance.

For instance, you may find that the range of products and services defined in the strategy do not all neatly fit within a single business model. If this is the case, you may need to go back to the *SET STRATEGY* phase and redefine the strategy. Alternatively, the company may be able to operate several business models simultaneously - but only if all the business models clearly contribute to the business strategy.

BM.4

Generate business model concepts at the big picture level

Complex activity

The aim of this activity is to generate a number of business model concepts at the 'big picture' level.



INPUTS

- New business strategy from the activity *ST.14 Pitch the new business strategy to the CEO.*
- Results of In-Depth Assessmen from the activities *BM.2 Gather additional data on the business model* and *BM.3 Gather additional data on operational performance.*
- Ideas for individual building blocks - if taking a 'Bottom-up' approach from the step *Generating ideas at the individual building block level.*

OUTPUTS

- At least three alternative business model concepts. This output is used in the activity: Throughout the step: *Generating ideas at the individual building block level* – if taking a 'Top-down' approach. Throughout the step: *Evaluate the business model concepts and select one to pitch.*

BM.4 Generate business model concepts at the big picture level

The aim of this activity is to develop a number of business model concepts that are internally consistent and help to maximize the environmental, social and economic sustainability of the company.

HOW TO GO ABOUT IT

The starting point for generating ideas depends on the overall approach you are taking - 'Top-down' or 'Bottom-up'. Instructions for both approaches are provided below.

If you are taking a 'Top-down' approach to business model innovation

1. Start by deciding if there any blocks of the current business model canvas that you do not want to change due to particular constraints. For instance, if the company has recently made a large investment in a new production line, they are not likely to want to change that at this point. Alternatively, it could be that the company has a unique strength that is hard to replicate and should therefore be retained in the new business model, such as a strong brand or a competency in mass customization. With the relevant building blocks 'frozen', you can focus on the opportunities for innovation in the remaining building blocks.
2. If you are struggling to generate novel ideas, try introducing some of the 'business model patterns' described in the Background information which can be used as inspiration.
3. Once you have completed one business model repeat the process until you have at least three alternative business model concepts.

If you are taking a 'Bottom-up' approach:

1. You should already have some ideas for operational level innovations that could help to eliminate/enhance a sustainability hotspot. Start by filling in the relevant block of the canvas based on the operational level idea that you have.
2. Try to complete the rest of the canvas in a way that is consistent with the change you have made in the first block.
3. Once you have completed one business model repeat the process until you have at least three alternative business model concepts.

BM.4 Generate business model concepts at the big picture level

LEARNING CASE STUDY OF BUSINESS MODEL CANVAS

Key Partners	Key Activities <i>Secure the supply of tuna they need.</i> <i>Good accounting systems</i>	Value Propositions <i>A tuna processing, canning, distribution and sales service for fishermen (i.e. instead of buying fish from the fishermen the Tasty Tuna Company sells services to the fishermen)</i>	Customer Relationships <i>Both sides want to maximize the retail value of the canned fish</i> <i>Encourage the fishermen to adopt more sustainable fishing practices</i> <i>Membership network for fishermen</i>	Customer Segments <i>The fishermen</i>
	Key Resources		Channels <i>A new peer to peer marketing channel as fishermen would recruit other fishermen to participate in the network in order to gain economies of scale benefits</i>	
Cost Structure			Revenue Streams <i>Service fees from fishermen for canning, distribution and sales</i> <i>Annual fee to become part of a member network of fishermen</i>	

BM.4 Generate business model concepts at the big picture level

The learning case study provides an example of an alternative business model option for the Tasty Tuna Company. This particular business model option aims to contribute to each of the strategic goals previously defined. Efficient tuna processing, canning, distribution and selling are all key strengths of the company that were considered important to retain in the new business model.

The new business model was inspired by the 'Product as a service' business model pattern – see the Background information. This led to the idea to change value proposition of the company to providing a tuna processing, canning, distribution and sale service for fishermen. Instead of the company paying the fishermen for their tuna, the fishermen would pay the Tasty Tuna Company to process their fish on their behalf. The fishermen could then sell the canned tuna to the retailers themselves or they could pay a higher service fee and allow the Tasty Tuna Company to take care of the marketing, sales and distribution activities. This would offer the fishermen the chance to gain access to the higher profits from selling the finished product rather than just their unprocessed fish.

From the Tasty Tuna Company perspective, changing their target customer segment from retailers to the fishermen could help in a number of ways. In particular, it would change the relationship with the fishermen from one where each side had conflicting aims (e.g. fishermen want to sell their tuna at high price whereas Tasty Tuna wants to buy tuna at low price), to a win-win situation where both sides want to maximize the retail value of the canned fish. There would also be a closer relationship between Tasty Tuna and the fishermen because of the increased interaction required in this type of service compared to the simple sales transaction that occurs between the two parties in the current business model. This stronger

relationship could be used to encourage the fishermen to adopt more sustainable fishing practices if it could be shown that this would lead to greater profitability for the fishermen in the long term.

The scope of 'sustainable fishing practices' might include:

- Adopting pole and line gear instead of purse seine or long line gear.
- Eliminating the use of Fish Aggregation Devices (FADs).
- Only fishing on healthy stocks of tuna.
- Taking measures to reduce discards and fish loss between catch and delivery to the factory.
- Adopting workers' rights policies.

This combination of measures would help to ensure a much more sustainable and secure supply of fish for the Tasty Tuna Company and would address many of the company's sustainability goals. This business model would also avoid the need to compete with rival tuna processors at the fish markets to secure the supply of tuna they need. Finally, by focussing on niche markets that are willing to pay a premium for sustainably sourced fish, the company would hopefully increase profit margins (for Tasty Tuna and the fishermen) and become the market leader in the chosen markets.

Other changes to the business model proposal would be necessary to support this central idea. For example, the tuna processing service would only be offered to fishermen that paid an annual fee to become part of a member network (change to Revenue Streams block). This membership fee would create a further incentive for the fishermen to continue dealing with the Tasty Tuna Company rather than one of its competitors and would provide recurring revenue for the company. This member network could also be the basis for a new peer to

BM.4 Generate business model concepts at the big picture level

peer sales channel as fishermen would recruit other fishermen to participate in the network in order to gain economies of scale benefits (change to Channels block). Good accounting systems would be required in order to ensure that the fishermen get paid the correct amount for the tuna that has been processed, distributed and sold by the company (change to Key Activities block).

A final point to note is that this business model is an example of when a radical business model idea results in a change in the business strategy. In this case, the change is that market would be fishermen, rather than the end consumers and retailers/wholesalers that are specific in the new business strategy. This change in strategy would need to be highlighted and approved by the senior management team before proceeding with this business model.



BM.4 Generate business model concepts at the big picture level

BACKGROUND INFORMATION

Business model patterns

By analysing a large number of real-life, successful business models it is often possible to identify common patterns (Osterwalder & Pigneur, 2010). These patterns can be used to inspire ideas for business model innovations for your company. Below some business model patterns that are relevant for eco-innovation are provided, along with examples of companies that have implemented those patterns (although it is not possible to say if these companies are ‘eco-innovative’ without knowing more about how they are embedding sustainability into their business strategy and operational activities).

The first five business model patterns come are based on the principles of the ‘Circular Economy’. A Circular Economy is an alternative to a traditional linear economy (make, use, dispose) in which we keep resources in use for as long as possible, extract the maximum value from them whilst in use, then recover and regenerate products and materials at the end of each service life (WRAP, 2015). The patterns, shown in Figure 8, were identified from an extensive analysis of more than 120 case studies (Accenture, 2014).

Pattern 1: Circular supplies

Business models that replace the linear approach (take-make-dispose) by circular approaches based on the consumption of renewable, recyclable or biodegradable resource inputs and/or employ closed loop approaches in the manufacturing processes. Circular supplies models are especially relevant for companies dealing with scarce commodities and companies major environmental impacts based on resources consumption (Accenture, 2014).

Business Models

Circular Supplies

Resource Recovery

Product Life Extension

Sharing Platforms

Product as a Service

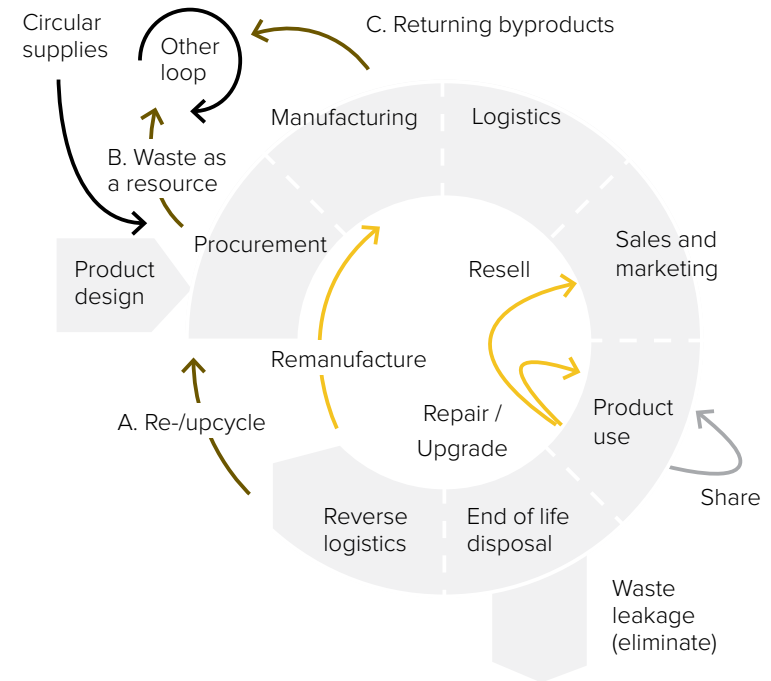


Figure 8: Examples of business model patterns based on Circular Economy principles (Accenture, 2014).

Example: Ghana Bamboo Bikes (Sustainia, 2015)

The bikes currently available in Ghana are often of poor quality and unsuitable for local needs. In response, this solution empowers people in rural areas with the technology they need to make durable

BM.4 Generate business model concepts at the big picture level

bikes out of Ghana's abundant bamboo resources. Communities manufacture affordable bicycles and frames, providing employment where few economic opportunities are available. The bicycles are then sold both locally and abroad. The bikes can withstand rough terrain and inclement weather, and are designed to allow for local maintenance and repairs. Moreover, the design can easily be modified to accommodate different needs, such as carrying farm loads, passengers, water, or health workers' kits.

Main sustainability benefits:

- **Environmental:** Bamboo is a more sustainable material than traditional bike materials. Bamboo bike production waste is used to manufacture charcoal briquettes to reduce indoor air pollution and conserve forests.
- **Social:** In addition to creating new job opportunities, bicycles provide users with greater access to essential services, such as water, food and health facilities.
- **Economic:** Bike users are able to transport more goods quicker and over longer distances. This results in more time available for work or selling products.

Pattern 2: Resource recovery

Business models that employ new technologies and capabilities to recover and reuse resource outputs through closed loop recycling, industrial symbiosis and upcycling. Resource recovery models are especially relevant for companies that generates large quantities of by-products during their manufacturing processes and/or have access to products at their end-of-life for reprocessing and closing the loop (Accenture, 2014).

Example: Diseclar (Sustainia, 2015)

According to the World Bank, Latin American and the Caribbean countries generate around 160 million tons of waste per day, but just 3% of it gets recycled. To help solve this problem, Colombia-based Diseclar has developed a manufacturing process that turns this waste into furniture suitable for indoor and outdoor use. By combining non-degradable plastic waste and agro-industrial waste, such as sugar cane pulp, coffee and rice chaff, the company created a sustainable product that looks and feels like solid wood, without the need for timber. In their first year of production, Diseclar plans to recycle 300,000 kg of plastic and 192,000 kg of agro-industrial waste, creating 300 recycling jobs in the process.

Main sustainability benefits:

- **Environmental:** According to Diseclar, their system reduces energy consumption by 85% compared to new material production.
- **Social:** Diseclar provides waste management training at collection centres and engages communities to raise awareness about recycling.
- **Economic:** Aside from creating jobs for local recyclers, Diseclar saves consumers money by offering a product with a longer life than traditional wooden furniture.

Pattern 3: Product life extension

Business model based on the extension of the lifetime of products and assets by employing strategies such as remanufacturing, refurbishment, repairing, upgrading or re-marketing. Life extension models are especially relevant for capital-intensive B2B segments or high-value B2C products (Accenture, 2014).

BM.4 Generate business model concepts at the big picture level

Example: Nudie Jeans (Sustainia, 2015)

Nudie Jeans launched a repair service in 20 of its stores worldwide as part of the company's "Eco-Cycle" program, which aims to extend the life-cycle of jeans. Nudie Jeans' repair service provides customers the opportunity to return well-worn jeans to the stores for repair, for free, as many times as they like. In addition to offering free repairs, the Eco-Cycle program allows worn Nudie Jeans to be exchanged for a 20% discount off the next pair. Returned pairs are either refurbished or recycled for special projects such as limited edition rag rugs and camper seats.

Main sustainability benefits:

- **Environmental:** The Eco-Cycle program reduces waste, saves energy, and reduces the consumption of raw materials and water.
- **Social:** Since 2013 Nudie Jeans has paid a 'living wage' to all workers involved in the production of Nudie Jeans' T-shirts at their supplier in India.
- **Economic:** Nudie Jeans' prices are similar to other well-known jeans brands. Because of the repair service, Nudie Jeans last longer than other brands, giving the jeans a competitive edge on the market.

Pattern 4: Sharing platforms

Business models that enables the sharing of products and assets that would otherwise have a low ownership or use rate. Sharing platforms models are especially relevant for companies that are looking to maximize the use of the products, enhance productivity and value creation (Accenture, 2014).

Example: Vigga.us (Sustainia, 2015)

With a subscription at Vigga.us, parents receive regular packages of children's clothing to replace items as they become too small. For a monthly fee of \$52, Vigga.us provides 20 pieces of organic clothing in the child's correct size. Clothing is returned to Vigga.us when it becomes too small, and larger items are delivered. Returned clothing undergoes a quality inspection and is washed before delivery to another child. According to Vigga.us the leasing model has the potential of reducing a Danish child's textile waste by 70% to 80% by directing outgrown clothing to new customers and collaborating with a company that recycles the worn out clothing to produce new garments.

Main sustainability benefits:

- **Environmental:** After five years in business, Vigga.us will have saved at least 320,000 kg of chemicals and more than 112 million litres of water.
- **Social:** This solution provides sustainable kids' wear, free of harmful chemicals, which are produced under proper conditions.
- **Economic:** A Danish family can save up to \$2,100 the first year of parenting by subscribing to Vigga.us instead of buying the baby clothes from new.

Pattern 5: Product as a service

Business models that create value by a combination of products and services, turning incentives for product durability and upgradability upside down, shifting them from volume to performance. Product as a service models are especially relevant for companies that develop products with high value, high Total Cost of Ownership (TCO), and expertise on product operation, maintenance and reuse (Accenture,

BM.4 Generate business model concepts at the big picture level

2014). 'Chemical leasing' is a business model that has been gaining popularity in the chemicals sector. This is because most customers do not want to buy chemicals, or have the hassle of handling and managing them, they just want the useful function provided by chemicals. For example, 'part cleaning' is a chemical leasing service that is replacing the conventional sales of solvents. Further details and examples of chemical leasing are presented in the Chemicals Sector Supplement.

Example: SOIL (Sustainia, 2015)

Through SOIL's social business design, customers rent a household "EkoLakay" toilet for a monthly fee of approximately \$5 per home. SOIL sanitation workers visit each household to collect toilet waste each week and deliver a fresh supply of carbon material which is used for "flushing" composting toilets. Hundreds of households subscribe to the service, with more signing up daily. The collected waste is then transported to the SOIL composting waste treatment facility where it is transformed into rich, organic, agricultural-grade compost through a carefully monitored process. Revenue from monthly toilet user fees, waste treatment fees, and sale of compost supports ongoing business development costs.

Main sustainability benefits:

- **Environmental:** Safe management of human waste prevents pollution while restoring ecosystems.
- **Social:** Safe sanitation reduces risk of diarrheal disease, which is the second leading cause of death among children under five years old globally.
- **Economic:** SOIL reports that it has sold approximately 75,000

gallons of compost to date, creating livelihood opportunities throughout the ecological sanitation cycle.

Pattern 6: Multi-sided platform

This type of business models relies on having at least two distinct customer segments that provide a mutual benefit in some way, which would not exist without both parties. Examples include eBay (buyers + sellers), Visa (shoppers + shopkeepers), and Google (users + content providers).

Example: MLouma

MLouma (www.mlouma.com) is a platform, accessible via the Internet, SMS and a call centre, which connects farmers directly to green grocers throughout Senegal. By allowing farmers to market and sell their goods in real-time to hundreds of small grocers, both sides are able to achieve higher profits by cutting out the many intermediaries that existing in the conventional value chain.

Main sustainability benefits:

- **Environmental:** Direct transportation from the farmer to the grocer reduces fuel consumption due to transportation and storage whilst reducing the number of steps in the logistics chains helps to reduce product losses.
- **Social:** Farmers have greater control over their business and no longer need to rely on large intermediary companies.
- **Economic:** Farmers and green grocers achieve higher profits. Farming jobs are more secure due to the increased profits that can be achieved.

BM.4 Generate business model concepts at the big picture level

Spending some time thinking about how these patterns could be applied to the company's business model can be a useful way of identifying radically different approaches to delivering a profitable and sustainable business model.

References and resources

Business model patterns:

- Osterwalder, A., & Pigneur, Y. (2010). Business model generation: a handbook for visionaries, game changers, and challengers. Wiley, London.

The Circular Economy:

- Accenture (2014). Circular Advantage Innovative Business Models and Technologies to Create Value in a World without Limits to Growth [Online]. Available from: <https://www.accenture.com/gb-en/insight-circular-advantage-innovative-business-models-value-growth>
- WRAP (2015). Economic Growth Potential of More Circular Economies [Online]. Available from: <http://www.wrap.org.uk/content/economic-growth-potential-more-circular-economies>

Sustainable business model case studies:

- Sustainia (2015). SUSTAINIA100 2015 [Online]. Available from: http://sustainia.me/resources/publications/4th_Sustainia100_2015.pdf

→ Further information in the Agri-food, Chemicals and Metals Supplements



STEP

Generating ideas at the individual building block level

ACTIVITIES

You do not need to complete all of the activities in this step. You should select and complete the activities that correspond to the blocks of the business model canvas that are linked to the strategic goals, sustainability hotspots or high priority threats, opportunities, strengths and weaknesses from the SWOT analysis.

OVERVIEW

If you are taking the 'Top-down' approach to business model innovation, start by identifying the building blocks that will require significant innovation at the operational level to implement the big picture ideas you have generated and focus on those.

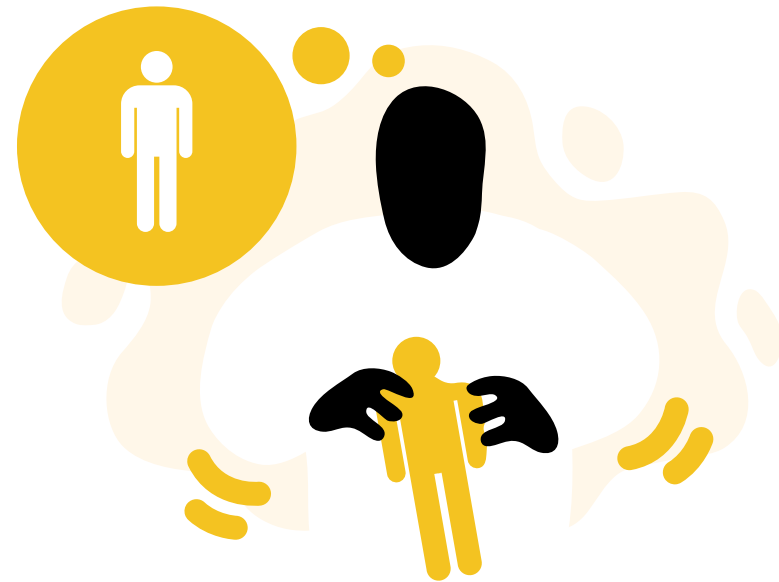
If you are taking a 'Bottom-up' approach, start by selecting one of the strategic goals and then generate ideas for the 2-3 blocks of the business model canvas that will need to change the most to achieve that goal. Repeat this for the other strategic goals before returning to the activity *BM.4 Generate business model concepts at the big picture level*. Whichever route you take, repeat the process until you have at least three complete business model options.

BM.5

Generate ideas for the customer segments block

Requires dialogue

This activity aims to generate ideas for how to address hotspots or strategic changes related to the customer segments block.



INPUTS

- Hotspots or strategic changes related to the customer segments block from the activities *ST.7 Do a SWOT analysis*, *BM.2 Gather additional data on the business model*, and *BM.3 Gather additional data on operational performance*.

OUTPUTS

- Specific ideas for how to change the customer segments block to address the hotspots or strategic changes, used in the activities *BM.4 Generate business model concepts at the big picture level* - if taking a 'Bottom-up' approach, *BM.15 Evaluate the benefits*, and *BM.16 Evaluate the costs* and *BM.17 Evaluate the risks*.

BM.5 Generate ideas for the customer segments block

Two fundamental questions need to be considered with respect to customer segments:

- Which customer segment(s) should we target with our products and services?
- What are the needs and requirements of our target customer segments?

The choice of target customer segments should have already been made when defining the business strategy, so you do not need to consider this further at this stage.

The ability to identify and articulate the detailed customer requirements for your chosen customer segments is a fundamental challenge for any form of innovation. For small companies embarking on eco-innovation it is particularly important, as a poorly defined set of customer requirements can lead to an expensive market failure – which they cannot afford.

To build a better understanding of the needs and requirements of your customer segments you have to engage your customers, typically through some form of market research. Figure 8 provides some suggestions for ways in which you might engage the company's customers, rated according to the cost and effort required to perform them, and their ability to generate customer insight.

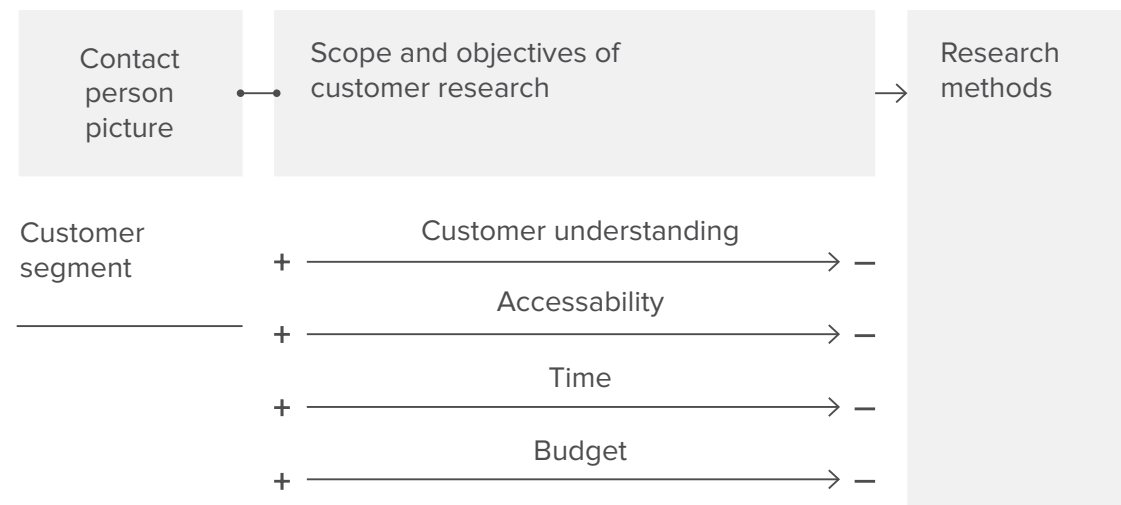
HOW TO GO ABOUT IT

1. Using the *Customer research template*, define the scope and specific objectives of this activity by deciding what it is you want to find out about the needs and requirements of the target customer segments. If there are entirely new customer segments proposed

in the new business strategy then you will need to an extensive investigation of their requirements. If it is a new selling point to be used for an existing customer segment then your research in this activity can be more focused.

2. Based on the scope and objectives, decide which market research technique is most appropriate. Figure 8, below, provides a summary of some of the most common market research techniques and can help you to make this choice.
3. Plan and implement the market research activity you have selected.
4. Write-up your analysis of the results and main findings - these will be used in the *Evaluate the business model concepts and select one to pitch* step.

Template of Customer Research



BM.5 Generate ideas for the customer segments block

LEARNING CASE STUDY OF CUSTOMER RESEARCH



Customer segment

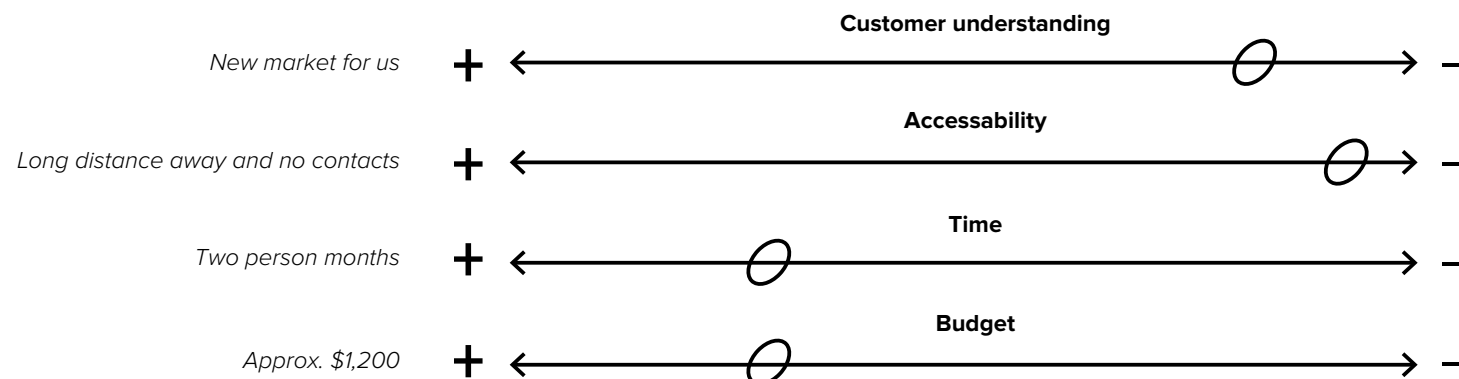
European consumers

Scope and objectives of customer research

- Aim of this research is to answer the following questions for the European consumer market:
 - Are sustainability issues an important consideration in the purchasing behaviour of European consumers?
 - If so, which sustainability issues are most important?
- Are European consumers willing to pay a price premium for products that perform better in terms of the most important sustainability issues?
- What is the most popular size of tuna can purchased in this market?
- What is the most popular fill in this market (oil, brine or sauce?)
- Which European retailers sell the largest volume of canned tuna?
- Do the largest European retailers have sustainable procurement policies or expect certain sustainability certifications?

Research methods

- Desk research – may be able to find general data on European consumer attitudes to sustainability and more detailed market data through Internet research.
- Telephone interviews with large retailers – as a prospective supplier they may be willing to share market information with us.
- Web survey – will need to get email contacts for potential customers. Partner with large retailer to get this?



BM.5 Generate ideas for the customer segments block

TIPS & TRICKS

ENGAGE END USERS

If the company's direct customer is not the final customer, or 'end user', in the value chain (e.g. one of the Tasty Tuna Company's customer segments is large international food retailers, but these customers are not the end user of the product), it may be worth also trying to engage the 'end user'. Their views and feedback can have a significant influence on the success of eco-innovation implementation activities and the willingness of the rest of the value chain to engage in those activities.

GENDER-SPECIFIC NEEDS

If the company operates in 'Business to Consumer' (B2C) markets it is important to consider the different needs and requirements that women and men might have for the product or service. You can ensure that these different needs are identified by including a balance of men and women in customer engagement and insight gathering activities (unless the product is exclusively used by one gender).

→ Further information in the Agri-food, Chemicals and Metals Supplements



BM.5 Generate ideas for the customer segments block

BACKGROUND INFORMATION

Table 2. Examples of customer engagement and insights gathering techniques

Technique	Effort Environmental impacts	Cost	Ability to generate customer insight	Description
Customer site visit	Moderate	Low- Moderate	Moderate- Good	The advantages of a site visit are that you get to see the customer in their normal environment, which can help to ensure better quality feedback. An example of a site visit for a business customer for the Tasty Tuna Company might be going to see the warehouse facilities of a large distributor. The equivalent research activity for a private consumer for the Tasty Tuna Company might be interviewing shoppers in a supermarket. It would be beneficial to find out how the private consumer uses the product when at home, it is quiet unlikely to be invited to their house to watch them preparing their lunch. When dealing with business customers it can be worth asking for a tour of the customer site as this can provide a lot of useful and often unexpected insights into the customer’s business and how they work. The disadvantage of site visits is that the customer may be distracted by their day-to-day responsibilities. When arranging a customer visit, it is important to emphasize that it is not a sales visit as this may help you to secure a visit (and customers are often pleased that suppliers are keen to visit them even when they are not trying to sell them something).
Electro- nic/postal survey Electronic/ postal survey	Moderate	Low	Low- moderate	A survey requires the respondent to answer a series of pre-defined questions. The fact that there is no live interaction with the customer has advantages and disadvantages. The main advantage is that it is very scalable – the survey can be sent to hundreds of customers with little effort (although response rates of 10-20% are common for market research). The disadvantage is that they are inflexible, with little or no opportunity for participants to provide context to their answers,

BM.5 Generate ideas for the customer segments block

Technique	Effort Environmental impacts	Cost	Ability to generate customer insight	Description
				and can be open to misinterpretation – of the questions by the participant, and of the responses by the researcher. The questions need to be very clear and well written to minimize the likelihood for misinterpretation. Questions should be reviewed and piloted before conducting the main survey if possible. A good application of surveys is to validate insights gathered from other sources. For example, if a telephone interview suggested that a customer views eco-innovation as a good way to manage business risk, this idea could be validated by including a specific question on this topic in a survey.
Focus groups	High	High	Moderate-Good	Focus groups typically involve 8-12 customers participating in a group discussion led by a facilitator. The advantage of focus groups is that the highly interactive discussion can help to uncover unexpected insights. The main disadvantage is that they can be both time-consuming and expensive to arrange. They are often used to learn about the initial reactions of a specific customer segment to a new product or service idea. It is important to ensure that participants are recruited from the specific customer segment being targeted and that an experienced facilitator is employed to run the session.
Telephone interviews	Low-medium	Low	Moderate	Telephone interviews can be a cheap and efficient way to get information from customers. However, it can be difficult to share ideas without visual aids, and it is not possible to pick-up on non-verbal feedback from the participant. Telephone interviews can be useful for learning about a customer's general interest in sustainability and can be used as a stepping stone to gaining greater engagement from the customer.

BM.6

Generate marketing ideas for the value proposition block

Complex activity

This activity aims to generate ideas to address hotspots or strategic changes in the value proposition block, making use of the People, Profit, Planet template.



INPUTS

- Hotspots or strategic changes related to the customer segments block from the activities *ST.7 Value Proposition block*, *BM.2 Gather additional data on the business model*, and *BM.3 Gather additional data on operational performance*.

OUTPUTS

- Specific ideas for how to change the Customer Segments block to address the hotspots or strategic changes, used in the activities *BM.4 Generate business model concepts at the big picture level* - if taking a 'Bottom-up' approach, *BM.15 Evaluate the benefits*, and *BM.16 Evaluate the costs* and *BM.17 Evaluate the risks*.

BM.6 Generate marketing ideas for the value proposition block

The value proposition describes both the tangible products and services that the company provides to its customers and also the benefits or ‘pain relief’ that those products contribute. These two elements of the value proposition are broadly defined by the ‘products’ and ‘selling points’ described in the business strategy proposal. Nonetheless, there is always scope for innovation in defining the details of the value proposition.

When part of an eco-innovation activity, it is important that Life Cycle Thinking is embedded in new value proposition ideas. This will enable the development of new value propositions that offer improved sustainability performance across the life cycle. Life Cycle Thinking is an approach that helps to understand how our choices influence what happens at each of the stages of the life cycle of a product. There are two key activities involved in Life Cycle Thinking:

Developing an understanding of the main contributors to the overall environmental, social and economic impacts of a product across its life cycle, from raw material extraction through to disposal at end of life.

Taking action to reduce negative sustainability impacts and enhance positive sustainability impacts.

The first of these aspects should have been addressed through the In-Depth Assessment. Here the focus is on generating ideas to improve sustainability performance. Two approaches are available to help with this. The first is the *People, Profit, Planet template* which focuses on defining the right balance of requirements between the various stakeholders of the product. The second is the 9 Windows on the World approach, which focuses more on identifying the root cause of sustainability challenges and is described further in the next activity.

Generating ideas for the value proposition block using the *People, Profit, Planet template* can be done by yourself or as a small workshop. If you decide to run the activity as a workshop it can be helpful if you have company representatives from the design, marketing or sales functions as they will have a good understanding of the end users’ needs and requirements. The instructions below describe how to apply the *People, Profit, Planet template* as a workshop activity.

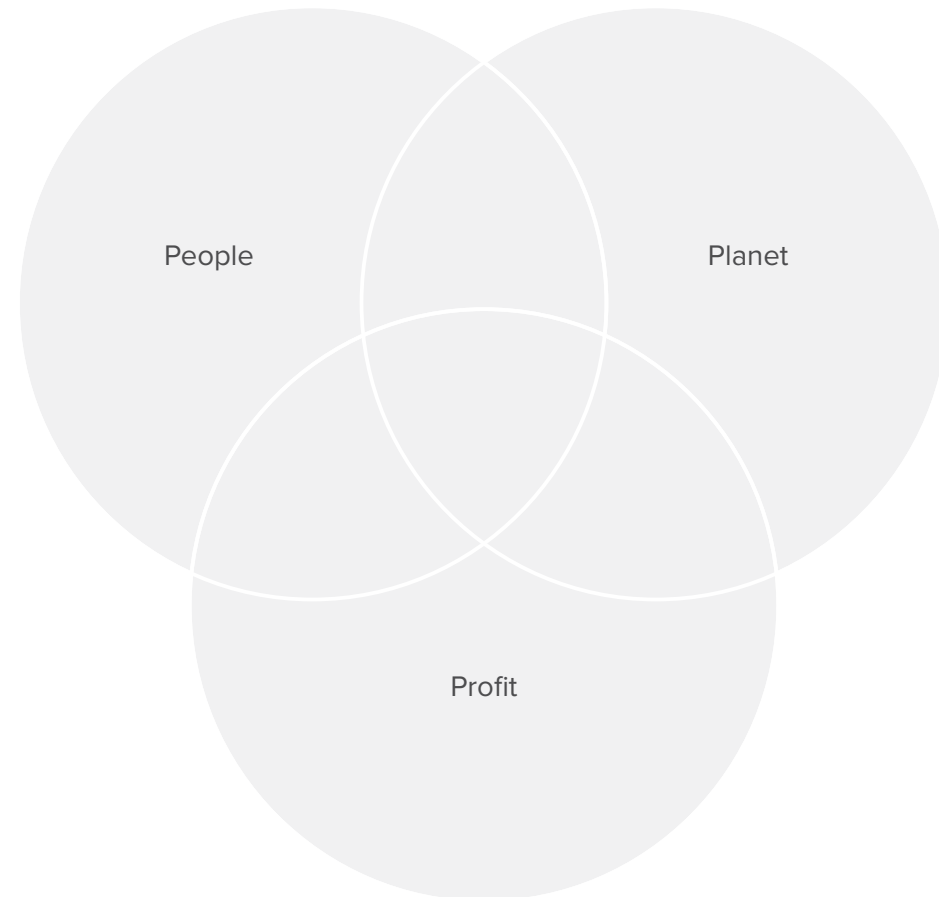
HOW TO GO ABOUT IT

1. Introduce the session by explaining that the *People Planet Profit (PPP) template* is used to identify opportunities for product innovation that will result in benefits for ‘people’ (i.e. the customer or society), ‘planet’ (i.e. the natural environment), and ‘profit’ (i.e. the manufacturer).
2. For an existing product or service, list the main requirements on sticky notes – one requirement per sticky note.
3. Draw three very large overlapping circles on an A1 flipchart sheet or whiteboard and label them ‘People’, ‘Planet’ and ‘Profit’, as per the example below.
4. Ask the participants to position the sticky notes they have created on the *PPP template* according to which of the three stakeholders the fulfilment of that requirement will benefit. Requirements that benefit all three stakeholders are placed in the centre of the template and are referred to here as ‘tri-synergies’.

BM.6 Generate marketing ideas for the value proposition block

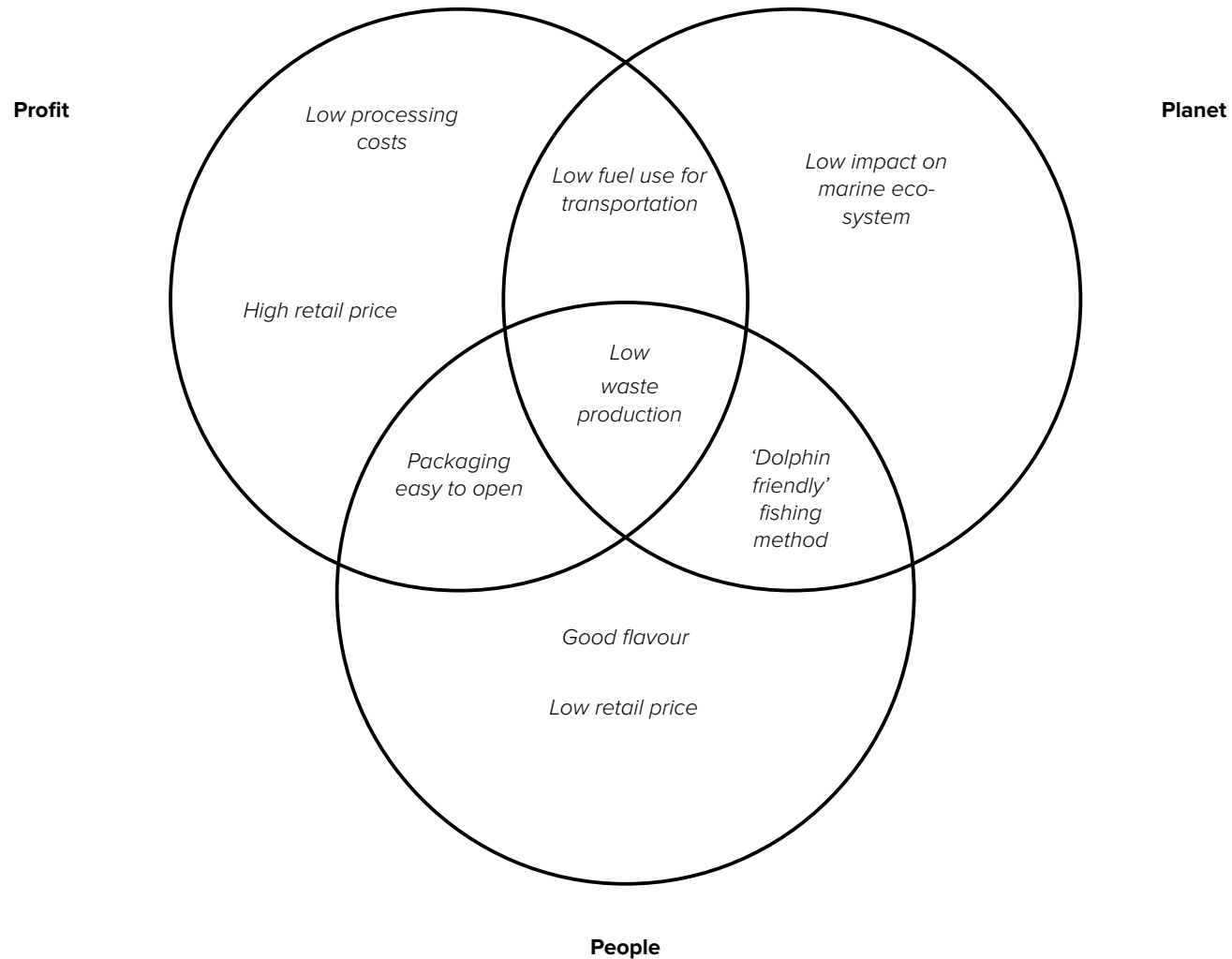
5. Once all the requirements have been placed on the template, try to generate new eco-innovation product and marketing ideas by considering:
 - Have existing tri-synergies been fully exploited?
 - What could you change to create new tri-synergies?
 - Where are the major conflicts?
6. Setting a target for the number of ideas generated in a time-limited period can help to expand the range of ideas suggested e.g. “Generate 20 ideas in 20 minutes”.
7. End the session by asking the participants to decide on what they believe to be the top three ideas from the session that should be considered for implementation.

Template of People, Planet, Profit



BM.6 Generate marketing ideas for the value proposition block

LEARNING CASE STUDY OF PEOPLE, PLANET, PROFIT



BM.6 Generate marketing ideas for the value proposition block

TIPS & TRICKS

HELP WITH TECHNOLOGY

To support the development of a new value proposition you may identify a need for some amount of new technology (including expertise in the use and maintenance of that technology). This new technology may need to be developed in-house, but can also be acquired through other means (e.g. licensing, open innovation, technology transfer etc.). Further advice on how you as a Service Provider can support the company throughout all the stages of acquiring the technology they need to deliver their eco-innovation is provided in the report 'Technologies for Eco-innovation' (UN Environment, 2016).

SHIFTING IMPACTS BETWEEN SUSTAINABILITY ASPECTS

Take care to avoid implementing solutions that enhance environmental sustainability while worsening the social aspect - similar to the previous point, it is important to check that when making aspects to one aspect of sustainability that performance in other dimensions is not create new problems in other sustainability dimensions (i.e. more environmentally sustainable products that come with a price premium and so become too expensive for poor, female-headed households).

IGNORE EXISTING SOLUTIONS

Generating ideas for new eco-innovative product concepts can be challenging as the tendency will be to try to optimize the existing solution. Unfortunately, this type of small refinement of an existing product is unlikely to yield the radical improvement in sustainability performance that is the aim of eco-innovation. To help with this issue, structured idea generation tools that encourage more radical thinking can be used.

GENDER-BALANCED WORKSHOP

If you organise a workshop try to ensure that you have a gender balanced group of staff to participate in the session.

SHIFTING IMPACTS ACROSS LIFE CYCLE

Take care to avoid implementing solutions that simply shift the sustainability impacts from one phase of the product life cycle to another – before implementing a solution it is important to consider if the total life cycle negative impacts have been reduced. This check can be performed quickly using the *Life Cycle Thinking*, or more thoroughly using Life Cycle Assessment.

CONSIDER HIGHER SYSTEMS LEVELS

When you encounter a problem, the natural response is to try and tackle the problem at the level at which you experience it. However, reformulating a problem to consider the wider system in which the problem occurs can give much greater scope for innovation, leading to better solutions. For instance, instead of trying to reduce the energy and water consumption of a domestic washing machine, could you investigate the possibility of a community laundry service?

BM.6 Generate marketing ideas for the value proposition block

FOCUS ON SUSTAINABILITY HOTSPOTS

When generating ideas for ways to reduce the sustainability impacts of a product it can be very easy to become side-tracked into tackling issues that do not have a major sustainability impact. To ensure that the ideas that you generate deliver the maximum benefit in terms of reducing sustainability impacts, it is important that you take the sustainability hotspots previously identified as the starting point for your idea generation activity.

ENHANCE POSITIVE SUSTAINABILITY IMPACTS

It is important not to forget that many products have some positive sustainability impacts. The Tasty Tuna Company is providing healthy, nutritious food to lots of people for example. Enhancing these positive impacts is just as important as reducing negative impacts, but is an issue that is often overlooked.

BACKGROUND INFORMATION

References and resources

People, Planet, Profit Diagram:

- O'Hare, J. (2010). Eco-innovation tools for the early stages: an industry-based investigation of tool customization and introduction. PhD thesis, University of Bath, UK.

Value proposition idea development and testing:

- Osterwalder, A., Pigneur, Y., Bernarda, G., & Smith, A. (2014). Value proposition design: how to create products and services customers want. John Wiley & Sons.

Technology issues:

- UN Environment (2016). Technologies for Eco-innovation. UN Environment Economy Division, Paris

→ Further information in the Agri-food, Chemicals and Metals Supplements

BM.7

Generate technical ideas for the value proposition block

Complex activity

This activity aims to generate ideas to address hotspots or strategic changes in the value proposition block, making use of the 9 Windows on the World template.



INPUTS

- Hotspots or strategic changes related to the customer segments block from the activities *ST.7 Do a SWOT analysis*, *BM.2 Gather additional data on the business model*, and *BM.3 Gather additional data on operational performance*.

OUTPUTS

- Specific ideas for how to change the customer segments block to address the hotspots or strategic changes, used in the activities *BM.4 Generate business model concepts at the big picture level* - if taking a 'Bottom-up' approach, *BM.15 Evaluate the benefits*, and *BM.16 Evaluate the costs* and *BM.17 Evaluate the risks*.

BM.7 Generate technical ideas for the value proposition block

Generating technical ideas for the value proposition block using the *9 Windows on the World template* can be done by yourself or as a small workshop. If you decide to run the activity as a workshop it can be helpful if you have company representatives from the design and manufacturing functions as they will have a good understanding of the technical possibilities for the product. The instructions below describe how to apply the *9 Windows on the World template* as a workshop activity.

HOW TO GO ABOUT IT

Problem analysis

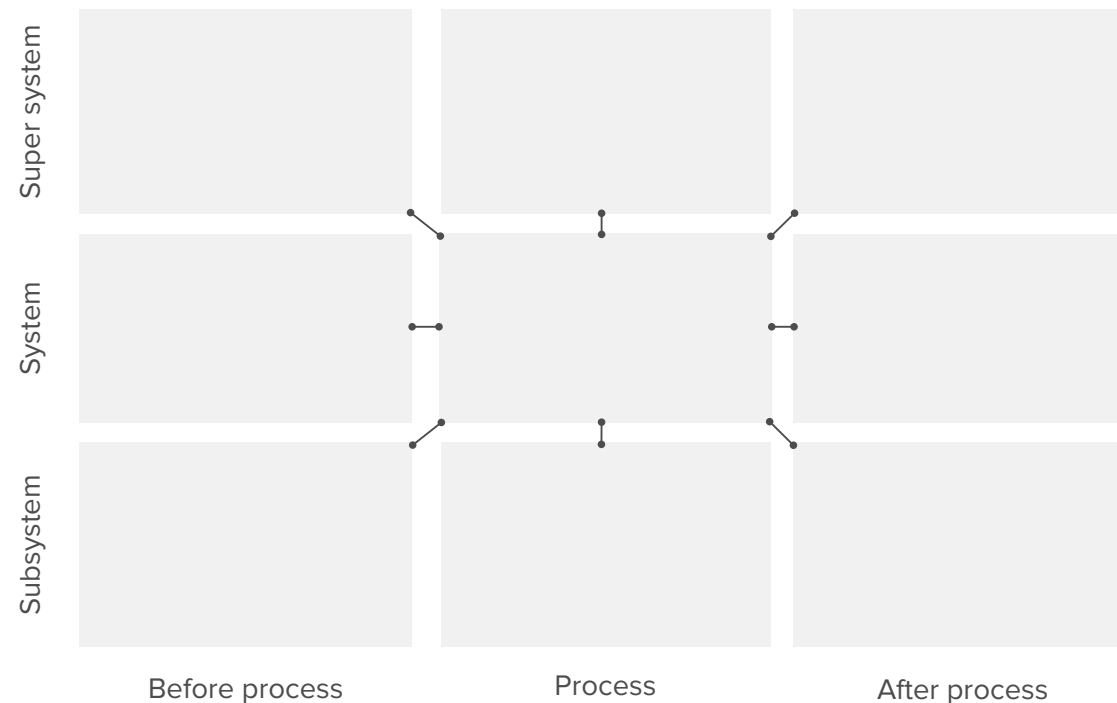
1. Prior to the workshop you need to prepare a worksheet to capture the responses. A standard A1 size flipchart sheet is best as it provides sufficient space for a small group to work with. The worksheet needs to be split into nine 'windows', with titles as shown in the template.
2. Ask the group to write a statement describing a sustainability hotspot in the centre window i.e. "High energy use in tuna cooking".
3. Ask the group to define time and system axes – What is the subsystem and super-system of the system you are considering? What time scales are you considering?
4. Keeping in mind the definitions of the horizontal and vertical axes, fill-in the eight remaining windows with processes, functions or behaviours that contribute to the central problem – these are known as 'contributing issues'.

Idea generation

5. Select two to three contributing issues and write them on a separate sheet.

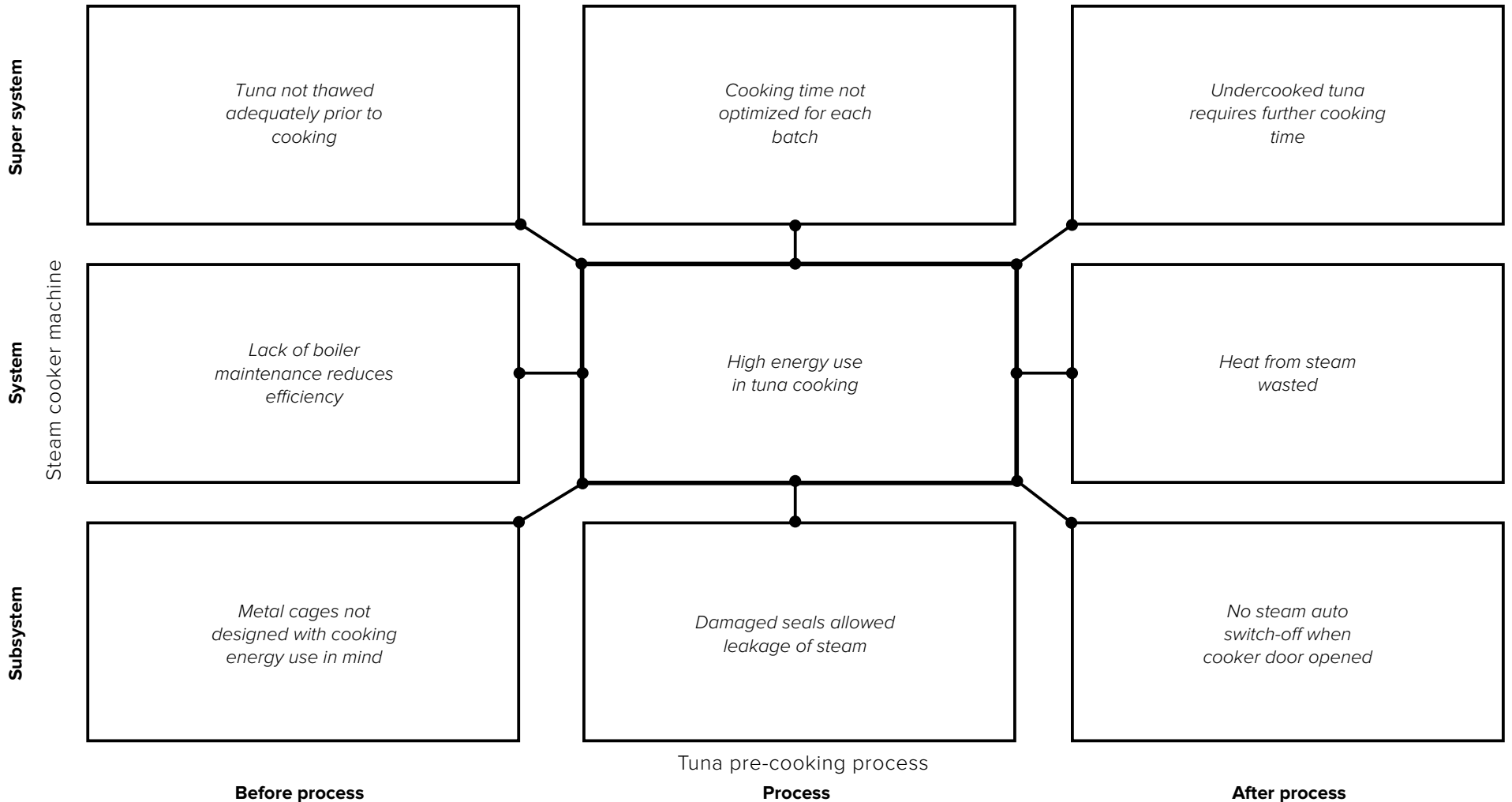
6. Brainstorm solution concepts to address the contributing issues you have identified.
7. Setting a target for the number of ideas generated in a time-limited period can help to expand the range of ideas suggested e.g. "Generate 20 ideas in 20 minutes".
8. Ask the group to select their three best ideas to take forward for evaluation

Template of 9 Windows on the World



BM.7 Generate technical ideas for the value proposition block

LEARNING CASE STUDY OF 9 WINDOWS ON THE WORLD



BM.7 Generate technical ideas for the value proposition block

TIPS & TRICKS

GENDER-BALANCED WORKSHOP

If you organise a workshop, try to ensure that you have a gender balanced group of staff to participate in the session.

MORE TIPS & TRICKS

See also the Tips & Tricks for the activity 'Generating ideas for the value proposition block using the *People, planet, profit template*, which provide some additional points to consider relevant to this activity.

BUILD CAPACITY IN SUSTAINABLE DESIGN

The use of the *People, Planet, Profit and 9 Windows templates* will help to support your initial search for eco-innovative product ideas and value propositions. In future iterations of eco-innovation activity with the company, you should consider the possibility of building capacity within the company in topics such as Life Cycle Thinking and eco-design so that the company can begin to develop their own product ideas. One of the key parts of this type of capacity building activity will be the implementation of a suitable New Product Development process in which sustainability impacts are considered from the very earliest stages. It is particularly important

that these aspects are considered during the early stages of New Product Development, as it is widely claimed that up to 80% of a product's environmental impacts are determined during these early stages. Further information on Life Cycle Thinking and implementing this type of approach within New Product Development activities is provided in the UN Environment publication 'Design for Sustainability' manual and the DTU guide to 'Environmental improvement through product development'.

BM.7 Generate technical ideas for the value proposition block

BACKGROUND INFORMATION

References and resources

9 Windows on the World:

- O'Hare, J. (2010). Eco-innovation tools for the early stages: an industry-based investigation of tool customization and introduction. PhD thesis, University of Bath, UK.

Value proposition idea development and testing:

- Osterwalder, A., Pigneur, Y., Bernarda, G., & Smith, A. (2014). Value proposition design: how to create products and services customers want. John Wiley & Sons.

Design for Sustainability and Cleaner Production:

- UNIDO-UN Environment (2010). Promoting Resource Efficiency in SMEs resource kit (PRE-SME). Available from: <http://tinyurl.com/njkutdm>
- McAloone, T. C., Bey N. (2009). Environmental improvement through product development – a guide. Danish Environmental Protection Agency. Available from: <http://wwwx.dtu.dk/upload/institutter/mek/kp/mpu-elektronisk-uk.pdf>
- Crul, M.R.M, Diehl, J.C., (2007). Design for Sustainability: A Practical Approach for Developing Economies. Paris, UN Environment DTIE. Available from: www.d4s-de.org

→ Further information in the Agri-food and Metals Supplements



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All good
 [Signature]

Adnan

1. Mike, Luke, Bonnie
2. Luke - are you Italian?
 - Adnan - remaining budget
 - Mike - something about staging our land
3. hard work of Luke, ... the energy and ... change
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5. ... energy exposure
6. ... strategy - very demanding
7. I want to ... new experiments
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- 9.
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The content of the meeting should matter to the attendees.

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Adnan

- Lego, Marlin, J.J
- kept about language/interactions very times
- bring a few obj or personal objects to meet

Marlin

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Marlin

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BM.8

Generate ideas for the channels block

Requires dialogue

This activity aims to generate ideas for how to address hotspots or strategic changes related to the channels block.



INPUTS

- Hotspots or strategic changes related to the channels block from the activities *ST.7 Do a SWOT analysis*, *BM.2 Gather additional data on the business model*, and *BM.3 Gather additional data on operational performance*.

OUTPUTS

- Specific ideas for how to change the channels block to address the hotspots or strategic changes, used in the activities *BM.4 Generate business model concepts at the big picture level* - if taking a 'Bottom-up' approach, *BM.15 Evaluate the benefits*, and *BM.16 Evaluate the costs* and *BM.17 Evaluate the risks*.

BM.8 Generate ideas for the channels block

The Channels building block describes how a company communicates with and reaches its Customer Segments to deliver a Value Proposition. From an eco-innovation perspective, we can distinguish three aspects of the Channels building block where there may be scope for sustainability gains. These are marketing, sales and delivery. The instructions below provide guidance on key issues to consider within each of the three aspects.

HOW TO GO ABOUT IT

Marketing

The marketing function plays an important role in deciding how to market and sell the product. This is particularly important for eco-innovation because product marketing benefits can often be a key part of the business case for eco-innovation, through eco-labelling for example. However, capitalizing on these potential benefits can be tricky due to the challenge of quantifying sustainability benefits and the proliferation of eco-labels and green marketing claims, which have led to consumer scepticism in some markets. Also, making green marketing claims will often require a significant investment of time and money in order to demonstrate conformity with the requirements of an eco-label or to perform a detailed Life Cycle Assessment in order to obtain an Environmental Product Declaration. It is therefore important to establish the likely costs and benefits of pursuing green marketing claims before committing to specific marketing activities and campaigns.

Key questions to discuss with the company to support innovation in marketing are:

- Are your customers interested in sustainability performance? Or are they simply interested in the potential financial or functional benefits of eco-innovative products such as reduced energy consumption?
- If claims are made about the sustainability benefits of our products, can we back them up with solid (preferably quantitative) evidence?
- Are there recognized eco-labels or sustainability standards that are relevant for our markets?

Template of Channels Ideas



BM.8 Generate ideas for the channels block

- What are our competitors saying about the sustainability performance of their products?
- Would there be business benefits from communicating our sustainability message to other stakeholders such as possible financiers, local governments or environmental lobby groups?

It is critical whenever making marketing claims about the environmental performance of a product to avoid 'greenwash' – confusing or misleading claims that attempt to highlight certain environmental aspects of a product whilst glossing over less flattering aspects. A variety of good sources of information now exists about eco-labels and the requirements for making a green marketing claim. These include the ITC Standards Map for eco-labels, an ISO standard (ISO 14020:2000) on 'Environmental labels and declarations' as well as information specifically on how to avoid greenwash. These documents, and other sources of information that provide guidance on making green marketing claims listed in the 'Background information', can help you to avoid the mistake of greenwashing.

Sales

For most manufacturing companies the sales activity will not make a significant contribution to the company's overall sustainability impact. It can of course have a significant impact in terms of the economic and social sustainability of the company. The main issue to consider is the opportunities for partnerships to build new sales channels in order to access markets that were previously inaccessible. For example, the Tasty Tuna Company could partner with charities that promote sustainable fishing, such as the Marine Conservation Society, in order to gain introductions to large retailers in Europe that are interested in sourcing more sustainable fish products.

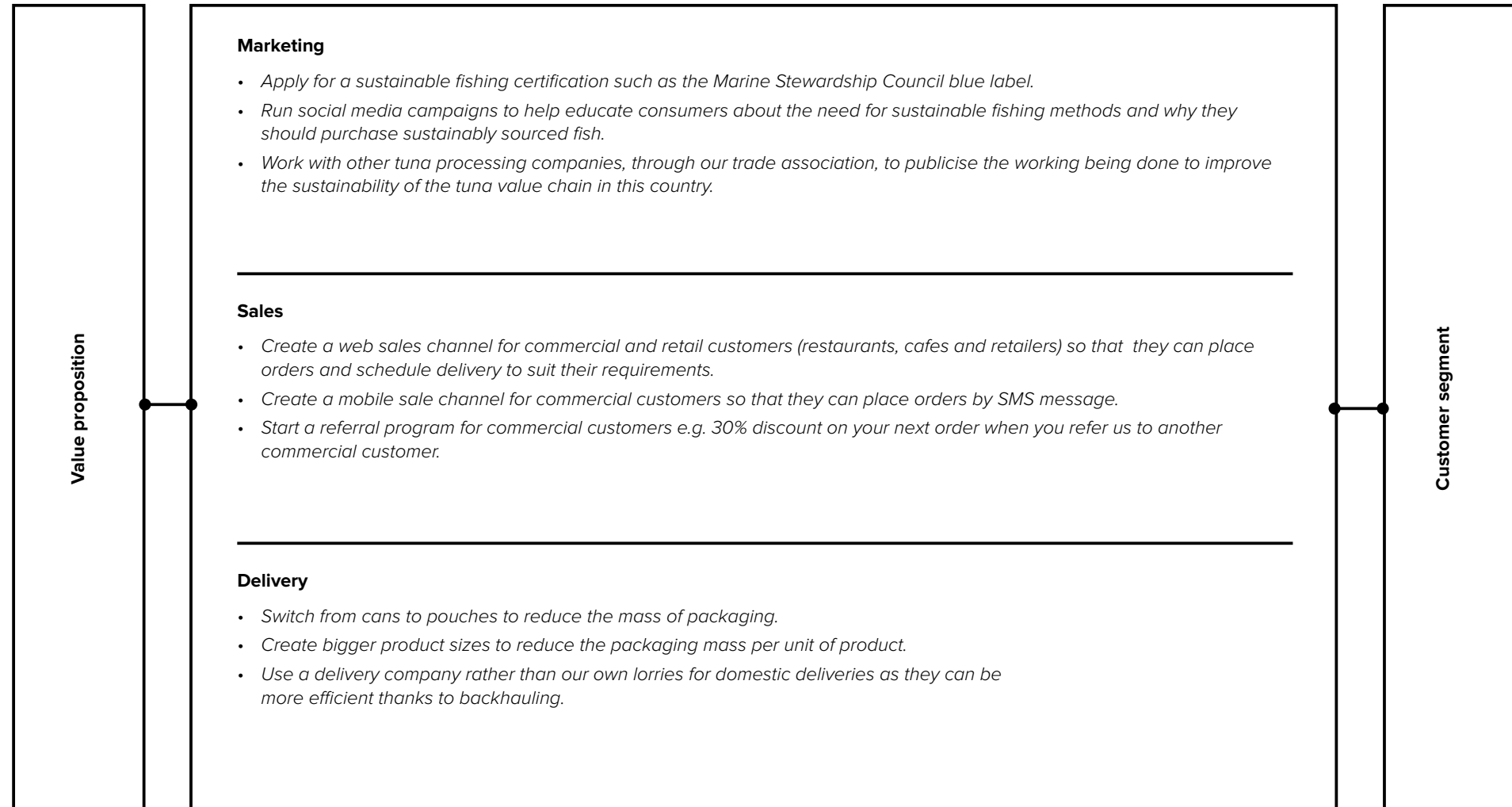
Delivery

The delivery of physical goods can have a significant environmental impact and economic cost. These issues are often particularly important for relatively low value, high volume products such as food or construction materials. Opportunities for innovation may exist in the following areas:

- *Packaging* – Reducing the mass of packaging reduces resource consumption and fuel consumed in transportation. The design of tertiary packaging for reuse vs single use (and recycling) is often a significant issue to be considered. A good example of packaging innovation for sustainability is provided by the Eco2Distrib case study described in the publication *The Business Case for Eco-innovation* (UN Environment, 2014).
- *Warehouse impacts* – Heating or cooling systems and lighting at warehouse facilities can be a major source of energy use with significant scope for improvement.
- *Logistics optimization* – Effective scheduling can reduce the distance that goods are transported leading to fuel savings. Opportunities for back-hauling, whereby the vehicle that has delivered a load from A to B is used to transport a different load back from B to A should also be investigated.
- *Product damage in transportation* – Product damage or loss during transportation is sometimes accepted as a necessary overhead, but this need not be the case. Causes might include poor packaging, poor handling or poor temperature control (particularly for food products).

BM.8 Generate ideas for the channels block

LEARNING CASE STUDY OF CHANNELS IDEAS



BM.8 Generate ideas for the channels block

BACKGROUND INFORMATION

References and resources

- Green Marketing, Eco-labels and Greenwashing:
- DEFRA, (2011). Green Claims Guidance [Online]. Available from: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69301/pb13453-green-claims-guidance.pdf
- ISO 14020:2000 Environmental labels and declarations – general principles. Available from: http://www.iso.org/iso/catalogue_detail?csnumber=34425
- Marine Conservation Society. <https://www.mcsuk.org/>
- The Seven Sins (of greenwashing) (2013). UL Environment. Available from: <http://sinsofgreenwashing.org/findings/the-seven-sins/>
- International Trade Centre (2015). Standards Map: Comparative analysis and review of voluntary standards. International Trade Centre. Available from: <http://www.standardstmap.org/>

Business case for eco-innovation:

- UN Environment (2014). The Business Case for Eco-innovation. Paris, UN Environment DTIE.

→ Further information in the Agri-food, Chemicals and Metals Supplements





BM.9

Generate ideas for the customer relationships block

Requires dialogue

This activity aims to generate ideas for how to address hotspots or strategic changes related to the customer relationships block.



INPUTS

- Hotspots or strategic changes related to the customer relationships block from the activities *ST.7 Do a SWOT analysis*, *BM.2 Gather additional data on the business model*, and *BM.3 Gather additional data on operational performance*.

OUTPUTS

- Specific ideas for how to change the customer relationships block to address the hotspots or strategic changes, used in the activities *BM.4 Generate business model concepts at the big picture level* - if taking a 'Bottom-up' approach, *BM.15 Evaluate the benefits*, and *BM.16 Evaluate the costs* and *BM.17 Evaluate the risks*.

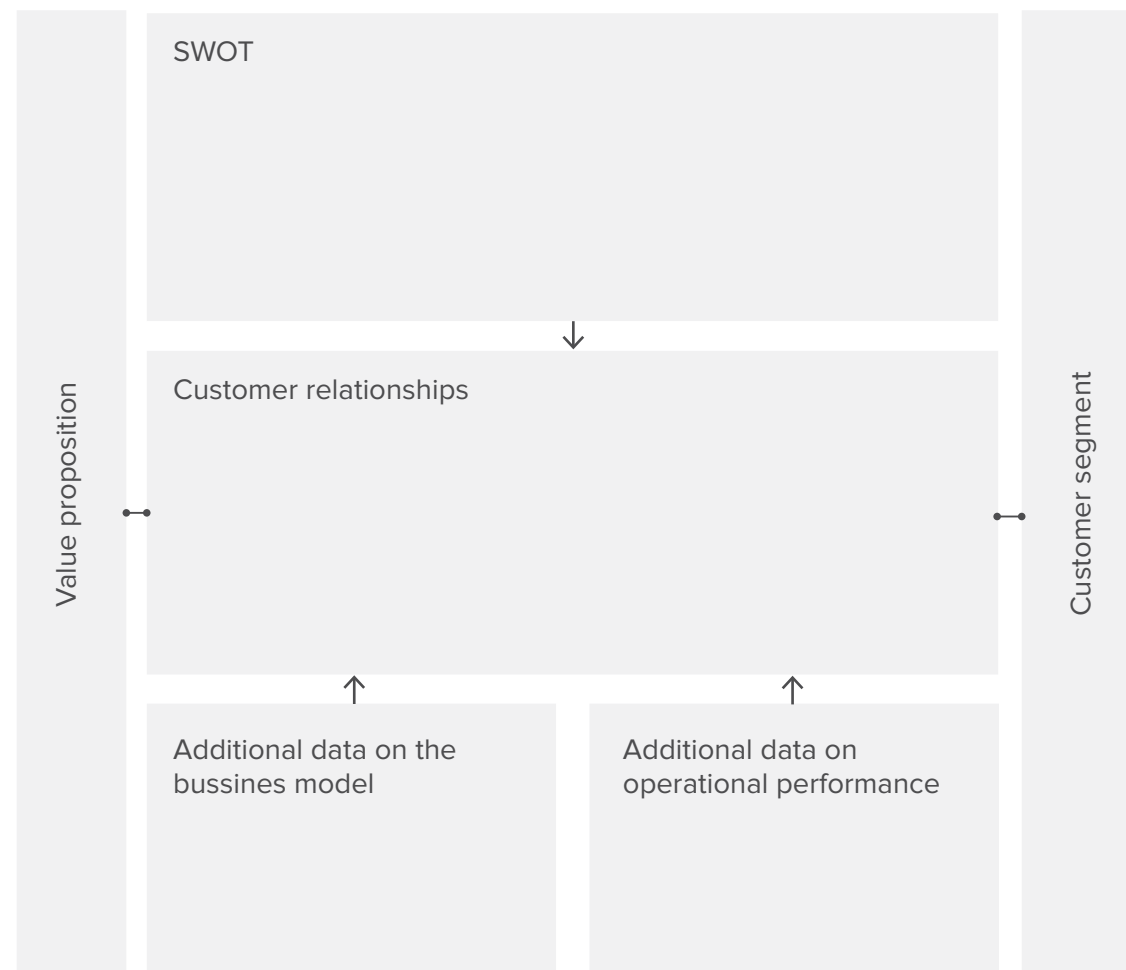
BM.9 Generate ideas for the customer relationships block

Eco-innovation offers a variety of opportunities to enhance the relationship between the company and the customer. These are often linked to changes to the value proposition which can provide an increased frequency and quality of contact points with the customer. The activity instructions below provide some examples of ways that customer relationships can be enhanced through eco-innovation.

HOW TO GO ABOUT IT

- A 'product/service system' business model requires the customer to pay for an on-going service (for the use of a product), instead of a one-off transaction to purchase the product. This provides many more opportunities to engage with the user to offer new services and gather feedback. For example, the machinery supplier to the Tasty Tuna Company might offer a product/service system for its steam boiler equipment that would involve the Tasty Tuna Company paying a fee for each tonne of tuna cooked using the equipment instead of purchasing the equipment itself. This would allow the supplier to offer other added value services such as maintenance and energy use optimization services.
- A product take-back scheme for end of life products may require the customer to contact the company to arrange the collection and recycling of the product. This provides an opportunity to gather feedback on the customer's level of satisfaction and perhaps offer the customer a discount on a new model.
- A longer term engagement with customers can be encouraged through the creation of a 'customer sustainability board', particularly when dealing with business-to-business customers. This board can be formed from a small group of motivated

Template of Customer Relationship Ideas



BM.9 Generate ideas for the customer relationships block

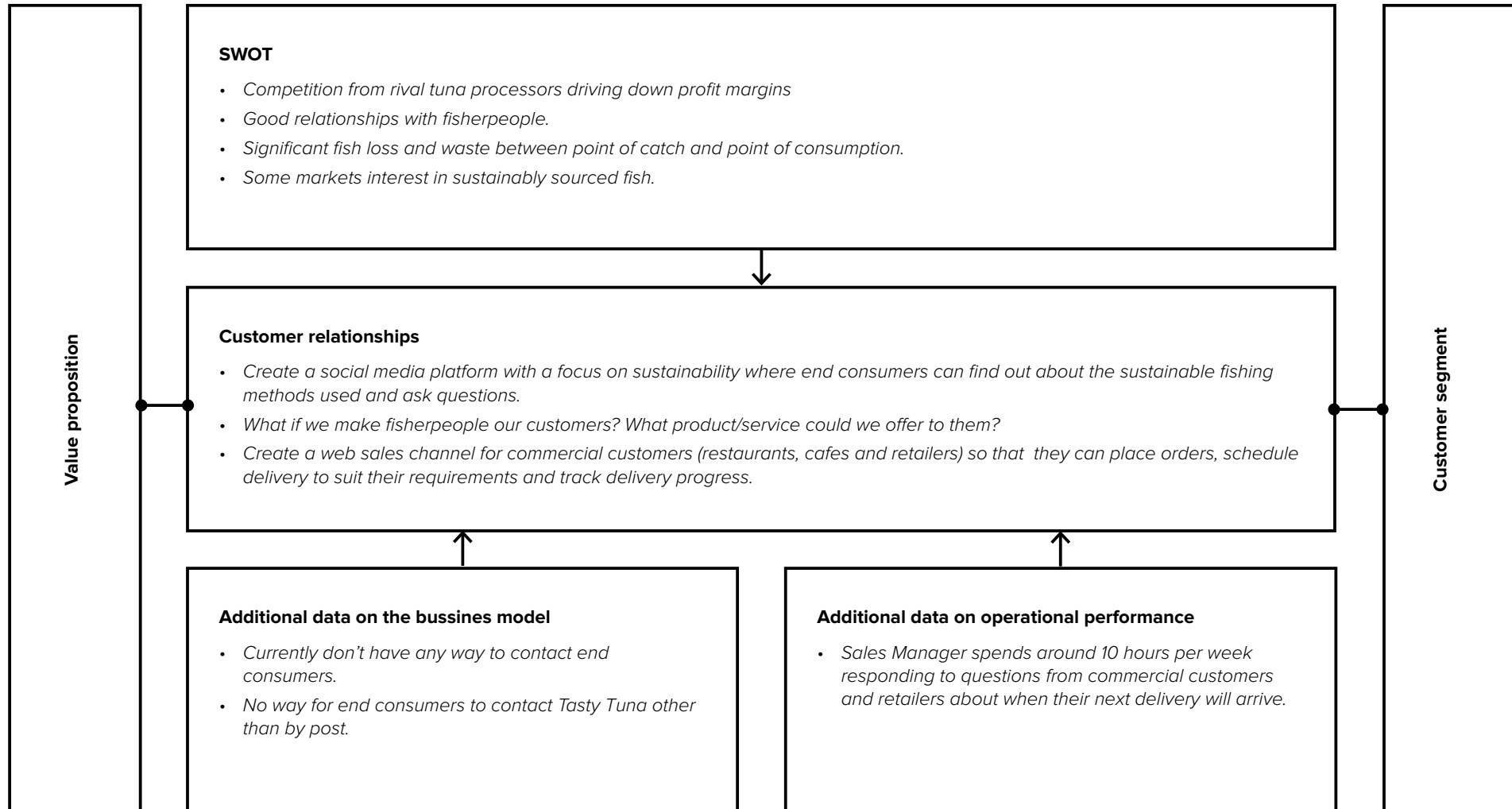
customers that have some interest in supporting the company to improve their sustainability performance. The customers selected to participate in the board should have gender expertise or should be provided with training on gender equality issues. Gender equality should be part of the standing agenda for the meetings. The board should meet once or twice per year to find out about the activities the company is undertaking to improve its sustainability performance and provide feedback and suggestions for how the company could improve its performance. This type of external review can be very helpful in ensuring that the eco-innovation activities of the company are aligned with the interests of the customer and stay on track during the long process of implementation.

→ Further information in the Agri-food, Chemicals and Metals Supplements



BM.9 Generate ideas for the customer relationships block

LEARNING CASE STUDY OF CUSTOMER RELATIONSHIP IDEAS



BM.10

Generate ideas for the revenue streams block

Requires dialogue

This activity aims to generate ideas for how to address hotspots or strategic changes related to the revenue streams block.



INPUTS

- Hotspots or strategic changes related to the revenue streams block from the activities *ST.7 Do a SWOT analysis*, *BM.2 Gather additional data on the business model*, and *BM.3 Gather additional data on operational performance*.

OUTPUTS

- Specific ideas for how to change the revenue streams block to address the hotspots or strategic changes, used in the activities *BM.4 Generate business model concepts at the big picture level* - if taking a 'Bottom-up' approach, *BM.15 Evaluate the benefits*, and *BM.16 Evaluate the costs* and *BM.17 Evaluate the risks*.

BM.10 Generate ideas for the revenue streams block

Innovation in the revenue streams building block will generally be closely linked to innovations in the value proposition block - changing one of these will affect the other. One of the key trends in business model innovation has been the interest in switching from transaction revenues (customer pays for a product in a one-off payment) to recurring revenues (customer makes regular payment or subscription for continued usage of the product or for additional services). Notable examples include:

- *Office printers* – Where the customer now has the option to pay a monthly subscription for the use of the machine instead of purchasing it outright. The subscription fee includes maintenance and service costs and varies depending on the number of pages they print.
- *Jet engines* – Where the customer pays for the number of hours that the engine is flying and the engine manufacturer takes responsibility for maintenance and servicing.
- *Digital music* – Where the customer can have unlimited access to a vast collection of songs and albums to listen to for as long as they remain subscribed to the service.
- *Chemical leasing* – Where, for example, the customer might pay for the service of ‘part cleaning’, rather than for the number of litres of solvent used in the cleaning process.
- Many of these business model innovations have significant customer benefits (e.g. reduced capital expenditure requirements, wider choice, greater flexibility etc.), but such business models can also have significant sustainability benefits, as well as offering a competitive advantage for the manufacturer.

- Sustainability benefits can arise from the fact that the recurring revenue streams in this type of business model often relate to the use of a product or its servicing and maintenance. An increase in revenue for the manufacturer is no longer tightly coupled to the consumption of more resources to produce new products. This can help to encourage efficient use of the product or prolong its useful lifetime and creates an incentive for manufacturers to support the customer in gaining maximum value from each physical product. Social benefits can also occur through the creation of new jobs in repair, maintenance and customer support roles that are required to deliver the new services. The Company should ensure that both women and men benefit from these new job opportunities.

HOW TO GO ABOUT IT

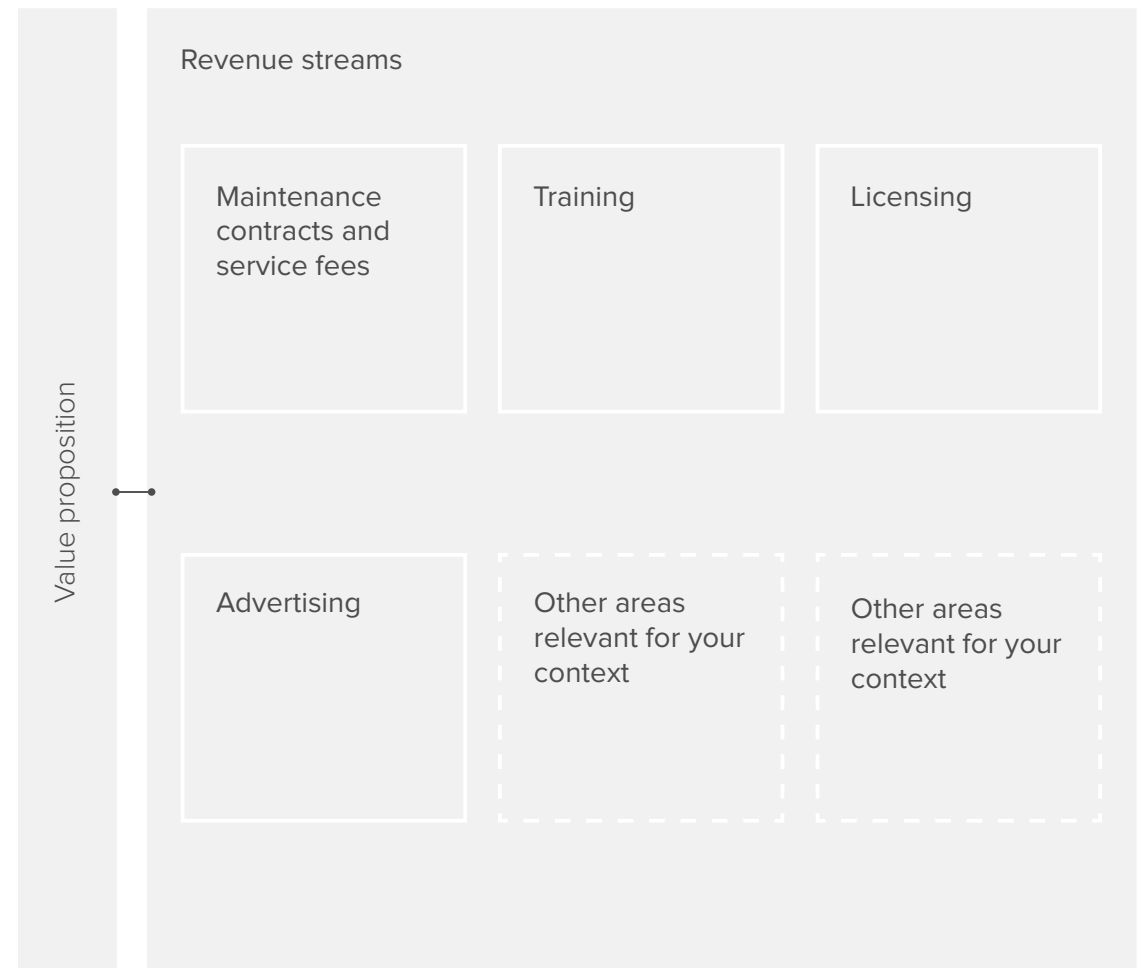
When considering the options for new revenue streams for the company, there are a number of common areas to consider:

- *Maintenance contracts and service fees* – performing regular maintenance and service operations can help to ensure optimal performance of a product and that it will reach its design lifetime. As the manufacturer of the product, the Company should have the right skills and knowledge to offer this service (although being able to deliver these services cost-effectively to the customer is likely to involve a new set of threats and so requires careful consideration and planning).
- *Training* – helping the customer to get the most value out of their product by providing training courses can lead to higher customer satisfaction and at the same time can provide a useful revenue stream for the company.

BM.10 Generate ideas for the revenue streams block

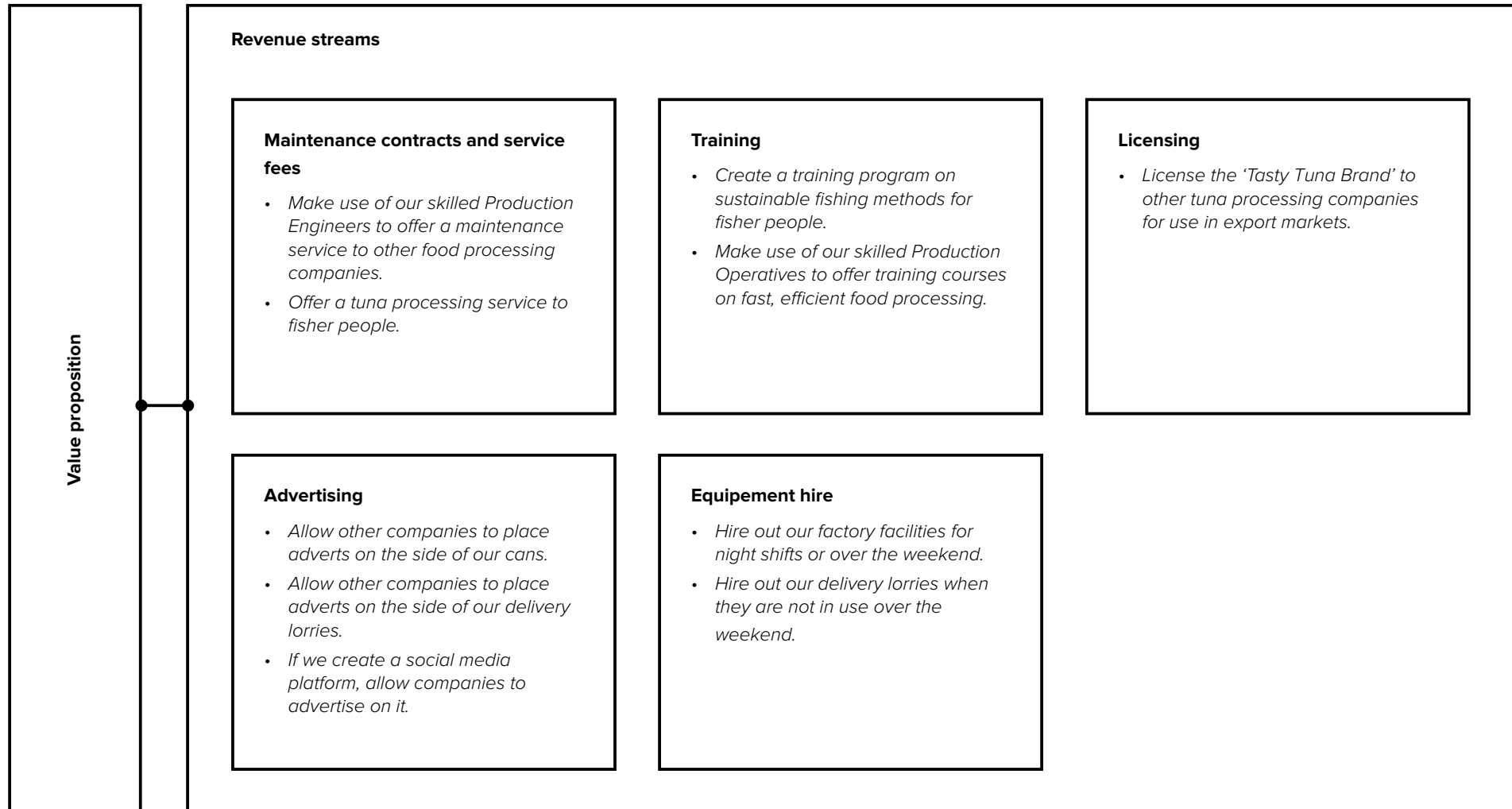
- *Licensing* – for companies that hold significant intellectual property, the option to license the use of that intellectual property to a third party can be a low effort way to generate new revenue streams. Careful consideration must be given to the strategic implications of licensing partnerships. For instance, could it lead to new competition within the company's core customer segments? Could it involve a loss of control of the brand leading to loss of brand value?
- *Advertising* – the communications channels that the company has built with their customers can be valuable to third parties if they can be used for advertising. This is the foundation of the 'multi-sided platform' business models discussed in the activity *BM.4 Generate business model concepts at the big picture level*. Again, careful consideration needs to be given to the impact of advertising on the overall business to avoid unintended consequences. For example, will the presence of adverts annoy or alienate the company's target customer segments?

Template of Revenue Streams Ideas



BM.10 Generate ideas for the revenue streams block

LEARNING CASE STUDY REVENUE STREAMS IDEAS



BM.10 Generate ideas for the revenue streams block

TIPS & TRICKS

PRICING STRATEGY FOR ECO-INNOVATIONS

The main challenge of pricing from an eco-innovation perspective is that if you intend to develop a new or significantly different value proposition it can be difficult to get the right pricing strategy. Deciding on a price and pricing strategy for a product is a topic discussed extensively in other literature (e.g. Gregson, 2007), but one tip that is useful when dealing with business to business customers is to ask them how they would make the business case to their management team for purchasing the product. By getting a better understanding of the potential cost savings or increased revenue the customer is likely to benefit

from, you can make a more accurate estimate at the price that will be acceptable to them. Similarly, if dealing with business to consumer products you can try asking the consumer what they would be willing to pay for the product. When performing this type of market research make sure to consult both rich and poor, women and men consumers.

BACKGROUND INFORMATION

References and resources

Pricing Strategies:

- Gregson, A., (2007). Pricing strategies for small business. Vancouver, Self-Counsel Press.

→ Further information in the Agri-food, Chemicals and Metals Supplements

BM.11

Generate ideas for the key resources block

Requires dialogue

This activity aims to generate ideas for how to address hotspots or strategic changes related to the key resources block.



INPUTS

- Hotspots or strategic changes related to the key resources block from the activities *ST.7 Do a SWOT analysis*, *BM.2 Gather additional data on the business model*, and *BM.3 Gather additional data on operational performance*.

OUTPUTS

- Specific ideas for how to change the key resources block to address the hotspots or strategic changes, used in the activities *BM.4 Generate business model concepts at the big picture level* - if taking a 'Bottom-up' approach, *BM.15 Evaluate the benefits*, and *BM.16 Evaluate the costs* and *BM.17 Evaluate the risks*.

BM.11 Generate ideas for the key resources block

The In-depth Assessment should have identified the key resources for the company, including physical, intellectual, human and financial resources. Below some guiding questions are provided to help you to identify opportunities for innovation in the key resources block.

HOW TO GO ABOUT IT

To identify opportunities for innovation in the key resources block ask questions such as:

- *Do the key resources the company possess offer a competitive advantage?* For example, a workforce that is skilled at tuna loining would provide the Tasty Tuna Company with the advantage of reduced time and fish loss in the loining process.
- *If the workforce is a key resource, are equal opportunities available for both women and men?* For example, many of the production workforce at the Tasty Tuna Company are women but do they have the opportunity to rise through the company to a position on the Senior Management Team?
- *How can the resources be exploited more effectively to enhance the competitive advantage?* For example, a key resource of the Tasty Tuna Company is the tuna processing factory and equipment (retort ovens, filling and canning lines, quality control lab etc.) but perhaps it is only operational for 12 hours per day and 5 days per week. What could be done to increase the utilisation of this expensive equipment towards a full 24 hours per day and 7 days per week?
- *Is there a risk that the key resource may not be available in the future?* For example, the Tasty Tuna Company is extremely

dependent on a supply of fresh tuna as a key resource. This supply is under threat due to overfishing.

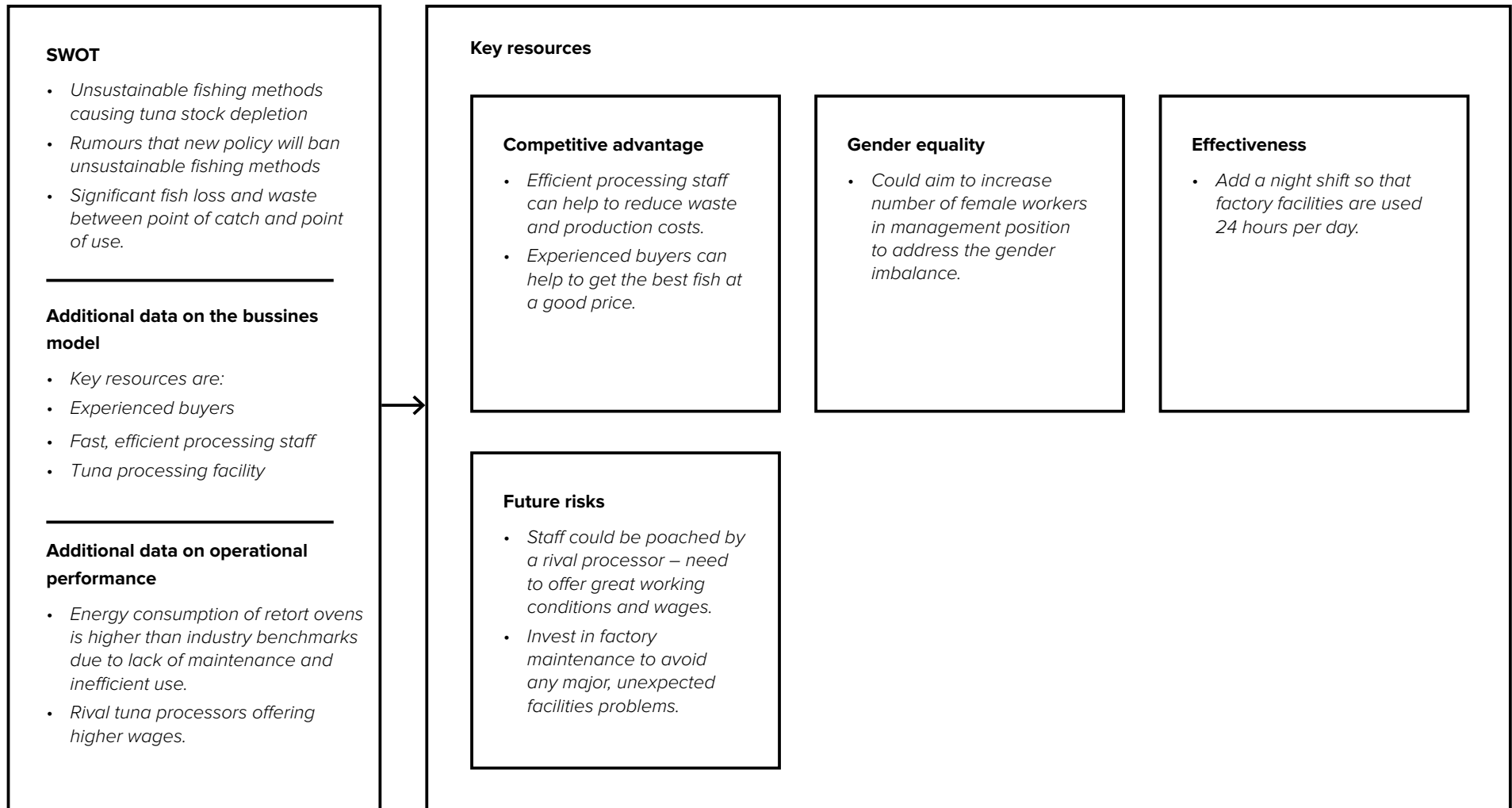
- *How can this risk be reduced or mitigated?* One way to mitigate this risk would be to lobby the local government to create and enforce fishing quotas. This would offer an environmental benefit by protecting the fish stocks, whilst also providing a more secure future for the company and the local fishermen.

Template of Key Resources Ideas



BM.11 Generate ideas for the key resources block

LEARNING CASE STUDY KEY RESOURCES IDEAS



BM.11 Generate ideas for the key resources block

TIPS & TRICKS

BUILD CAPACITY IN SOCIAL SUSTAINABILITY

An interesting area to explore in future iterations of the eco-innovation activities with the company is staff development and training. As mentioned previously, training on topics such as Life Cycle Thinking or Cleaner Production can be a very good way to support the development of future eco-innovations. Social sustainability aspects should also be covered in training and participants should be gender balanced. This type of training may not be appropriate as a first project as it can take some time for the benefits of training in eco-innovation topics to be realized and should therefore be more of a long term objective.

→ Further information in the Agri-food, Chemicals and Metals Supplements



BM.12

Generate ideas for the key activities block

Requires dialogue

This activity aims to generate ideas for how to address hotspots or strategic changes related to the key activities block.



INPUTS

- Hotspots or strategic changes related to the key resources block from the activities *ST.7 Do a SWOT analysis, BM.2 Gather additional data on the business model, and BM.3 Gather additional data on operational performance.*

OUTPUTS

- Specific ideas for how to change the key resources block to address the hotspots or strategic changes, used in the activities *BM.4 Generate business model concepts at the big picture level - if taking a 'Bottom-up' approach, BM.15 Evaluate the benefits, and BM.16 Evaluate the costs and BM.17 Evaluate the risks.*

BM.12 Generate ideas for the key activities block

Beyond the development of new value propositions (dealt with in the activities *BM.6 Generate marketing ideas for the value proposition block* and *BM.7 Generate technical ideas for the value proposition block*) the key activity of most relevance for eco-innovation is production processes, since production can be a major contributor to the life cycle sustainability impacts of a product. Many readers will already have significant experience of Resource Efficiency and Cleaner Production, therefore the aim of this activity is to introduce some templates and considerations which may offer fresh insights and ideas for both the Service Provider and the Company.

A good starting point for improving the sustainability performance of production processes is with conventional material flow and energy analyses. Some amount of Input Output Analysis data on energy, water and material flows should have been gathered as part of the In-Depth Assessment, but it may be necessary to enhance these data with further data at the level of individual production processes in order to obtain a more detailed breakdown. This type of analysis can be useful to identify and quantify the major flows that occur during the production processes and the sources of waste and emissions. Detailed guidance on how to perform material flow and energy analyses is provided in the UN Environment ‘Promoting Resource Efficiency in SMEs resource kit’ (PRE-SME).

Once you have identified the most significant material, energy and monetary flows and any specific problems within the production system you can use these data to focus your efforts in searching for ways to reduce the environmental, social and economic impacts of these flows. To help generate innovation ideas systematic approaches such as the *9 Windows on the World* template can be employed.

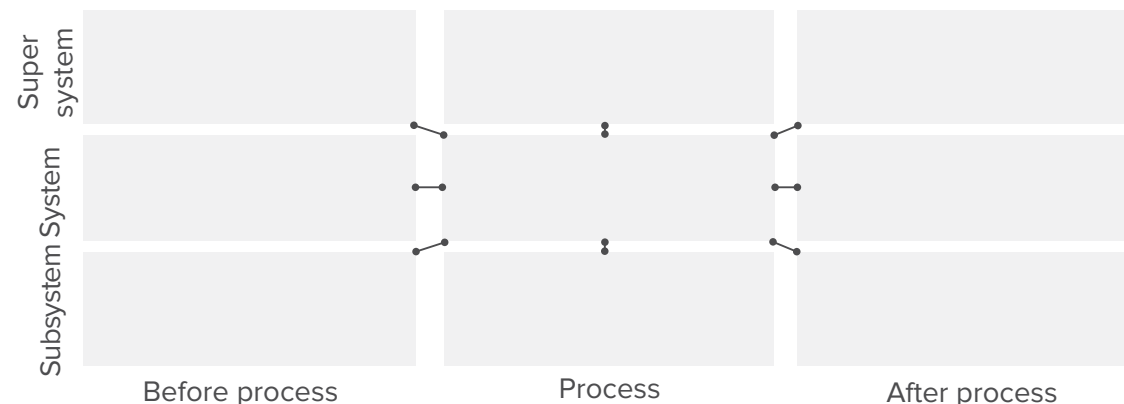
HOW TO GO ABOUT IT

See the 9 Windows on the World instructions within the activity *BM.7 Generating technical ideas for block the value proposition*.

- *Is there a risk that the key resource may not be available in the future?* For example, the Tasty Tuna Company is extremely dependent on a supply of fresh tuna as a key resource. This supply is under threat due to overfishing.
- *How can this risk be reduced or mitigated?* One way to mitigate this risk would be to lobby the local government to create and enforce fishing quotas. This would offer an environmental benefit by protecting the fish stocks, whilst also providing a more secure future for the company and the local fishermen.

➔ Further information in the Agri-food, Chemicals and Metals Supplements

Template of 9 Windows on the World

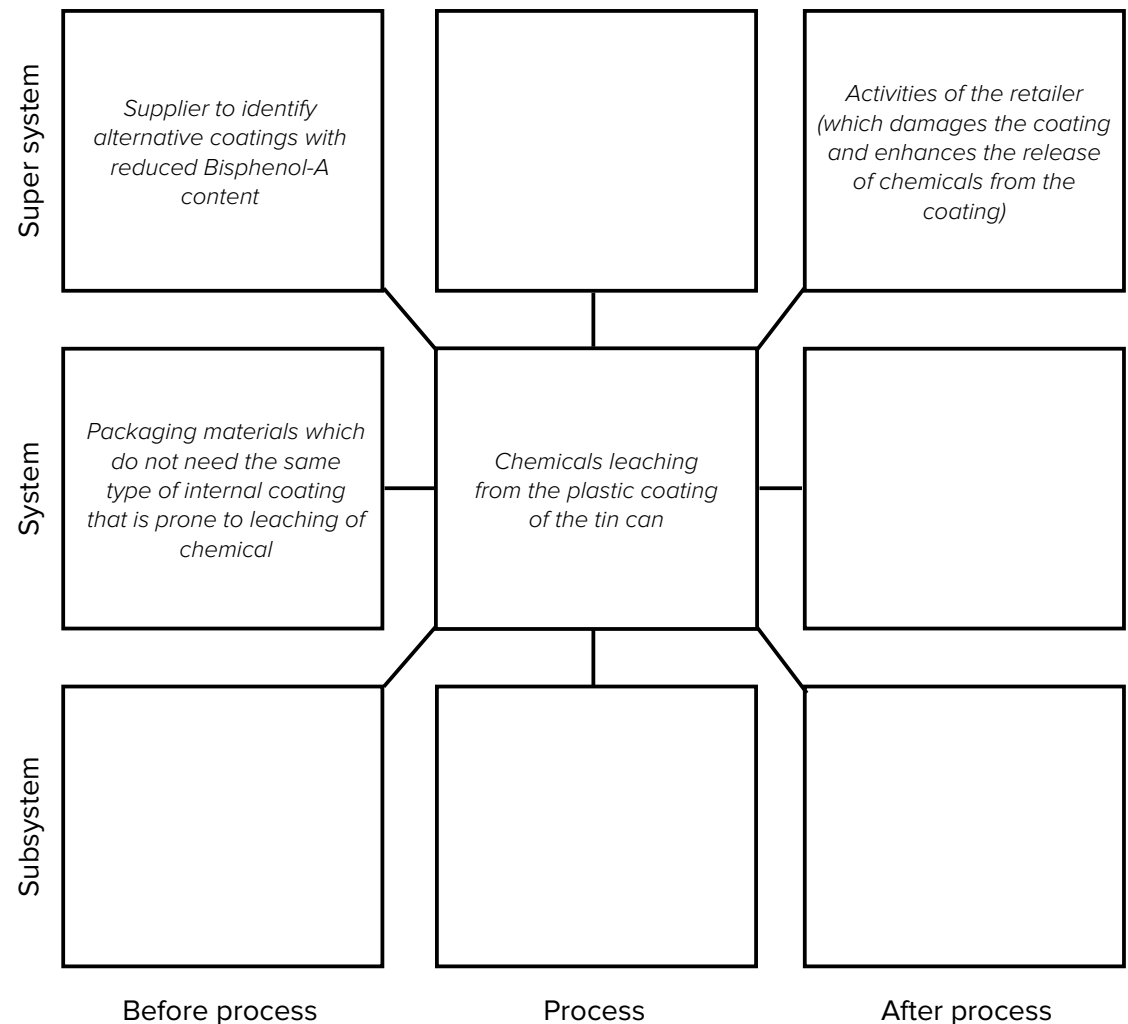


BM.12 Generate ideas for the key activities block

LEARNING CASE STUDY OF 9 WINDOWS ON THE WORLD

One of the key principles of the 9 *Windows on the World* template is extending the scope of the problem. In some instances, this may mean looking beyond the production processes that take place within the company, into the wider value chain. For example, if The Tasty Tuna Company would like to address the problem of chemicals leaching from the plastic coating of the tin can they could ask their can supplier to identify alternative coatings with reduced Bisphenol-A content. Taking a wider systems perspective, they could also investigate their distribution operations and the activities of the retailer to understand why tins get dented (which damages the coating and enhances the release of chemicals from the coating). Alternatively, they could commission a local technical university to investigate alternative packaging materials such as foil/plastic laminate pouches, which do not need the same type of internal coating that is prone to leaching of chemicals.

These examples demonstrate why it can be useful to try to engage suppliers, customers and other partners in the search for opportunities for eco-innovation within production processes. The *BM.13 Generating ideas for the key partnerships block* activity provides further advice on this topic.



BM.13

Generate ideas for the key partnership block

Requires dialogue

This activity aims to generate ideas for how to address hotspots or strategic changes related to the key activities block.



INPUTS

- Hotspots or strategic changes related to the key resources block from the activities *ST.7 Do a SWOT analysis, BM.2 Gather additional data on the business model, and BM.3 Gather additional data on operational performance.*

OUTPUTS

- Specific ideas for how to change the key resources block to address the hotspots or strategic changes, used in the activities *BM.4 Generate business model concepts at the big picture level - if taking a 'Bottom-up' approach, BM.15 Evaluate the benefits, and BM.16 Evaluate the costs and BM.17 Evaluate the risks.*

BM.13 Generate ideas for the key partnerships block

In the activity 'PR.3 Build the right external partnerships', the need for you as a Service Provider to develop general partnerships in order to be able to provide a comprehensive eco-innovation service to the company was discussed. At this stage, the focus is on the specific types of partnership that the company can develop to support their eco-innovation activities. Here the focus is on partnerships with suppliers.

Suppliers, of both physical goods and services, often have a very direct contribution to the sustainability performance of a company's products. In recent years there has been an increase in instances of sustainability requirements being passed down through a supply chain. In some cases this may be part of a sustainable procurement policy initiated by one or more of the higher level customers due to growing consumer demand, resource constraints or legislation, such as restricted substances regulations as well as perceived benefits from sustainability. To encourage eco-innovation it is not enough to simply pass on customer requirements. More wide ranging discussions between the company and their suppliers need to take place so that both sides can contribute their knowledge and insight to identify opportunities for improvement.

The willingness of suppliers to engage in eco-innovation activities will be highly dependent on the context. For instance, a small company purchasing materials from a large multi-national will likely struggle to get engagement from that supplier, because they represent a very small fraction of the supplier's revenue stream and often there will be intermediary distributors between the company and the multi-national supplier. There are a variety of other challenges that you may encounter when trying to engage value chain partners in eco-innovation activities. Guidance on how to develop partnerships and overcome these challenges is provided in the template.

HOW TO GO ABOUT IT

Initial engagement

1. The first challenge is to identify potentially relevant partners, decide which organisations to target first, and make initial contact with a suitable person within that organisation. Strategies to help with this include:
 - Perform a stakeholder mapping and develop an engagement strategy for the different types of partner.
 - Begin by engaging large companies that may have more influence over the supply chain.
 - Identify the partners that are already pro-actively addressing sustainability issues.
 - Work with trade associations, small business associations, free economic zones or eco-industrial parks that can help you to engage large groups of companies that are facing a common sustainability challenge. Where trade associations do not exist, encourage the formation of ad-hoc consortia or business clubs to tackle specific issues.
 - Dedicate time and effort to developing your personal network of contacts in the industry.

Developing the collaboration

2. Next you need to convince the potential partner of the business case for proceeding with the partnership by talking to their Senior Management Team. Strategies to help with this include:
 - Take time to think about and clearly articulate the business case for collaboration from the perspective of the partner.

BM.13 Generate ideas for the key partnerships block

- Build up a collection of successful case studies of value chain collaboration that demonstrate the business benefits.
- Try to understand the sustainability threats faced by your partners and generate ideas for solutions that create a win-win scenario.
- Organize a seminar where companies facing a common challenge can discuss ideas how to overcome those threats.
 - Start with small-scale, low investment collaborations with a new partner. Success on small projects can lead to the trust and confidence required for larger projects.
 - Make sure intellectual property is protected on all sides by signing a mutual non-disclosure agreement.
 - Offer training to buyers throughout the value chain to help them understand the importance and benefits of engaging in sustainability initiatives and making sustainability issues part of their buying criteria.

Implementation

3. Finally, you need to support the implementation of the partnership and help overcome challenges such as: differences in priorities; lack of trust and transparency; different ways of working; and cultural differences. Strategies to help with this include:
 - Make sure that the aims and objectives of the collaboration from all sides are clearly expressed from the start. This will help to ensure alignment of priorities.
 - Take time to learn more about the organizations you collaborate with and the key personnel you are working with to help build a better understanding of their viewpoint, culture, ways of working etc.

- Make sure that key technical details of a proposed solution are clearly captured using a 'requirements specification'. Guidance on how to write an effective requirements specification is provided in the activity *BR.3 Define and prioritise the requirements of the first project*.

Sources of further information on supplier engagement and managing raw materials supply risks are provided in the Background Information section of this activity.

Template of Partnerships Ideas



BM.13 Generate ideas for the key partnerships block

LEARNING CASE STUDY OF KEY PARTNERSHIPS IDEAS

Key partnerships for sustainability hotspots

Pressure to ensure that the local tuna stocks are not overfished, and that what fishing that does take place has minimum impact on the marine ecosystem by limiting by-catch and physical damage to the environment.

Partners

Fishing community

Main benefits of the partnership

Higher sales revenues for their tuna and the company will support this by targeting large international retailers with strong sustainable procurement policies if they transition to more sustainable fishing methods.

Challenges to partnership

- *Lack of knowledge and trust on alternative types of fishing method and quota that would be considered sustainable*

Strategies to overcome them

- *Targeting large international retailers with strong sustainable procurement policies.*
- *Support from a third party, such as the local fisheries agency, to provide guidance to the fishermen*

Value proposition

BM.13 Generate ideas for the key partnerships block

TIPS & TRICKS

HELP WITH TECHNOLOGY

Further advice on how to engage value chain partners in eco-innovation activities that have a strong technology focus is provided in the publication 'Technologies for Eco-innovation' (UN Environment, 2016).

ENGAGE SUPPLIERS ON SOCIAL SUSTAINABILITY

Discussions with suppliers about eco-innovation can be a great opportunity to discuss ways in which social sustainability performance can be improved across the value chain, including improving gender equality in the value chain (i.e. women are dramatically underrepresented in technology value chains).

BACKGROUND INFORMATION

References and resources

Technology issues:

- UN Environment (2016). Technologies for Eco-innovation. UN Environment DTIE, Paris.

Stakeholder engagement and partnership initiation:

- Account Ability, United Nations Environment Programme, Stakeholder Research Associates Canada Inc (2005). The stakeholder engagement manual. Volume 2: The practitioner's handbook on stakeholder engagement. Available from: <http://www.unep.fr/shared/publications/pdf/WEBx0115xPA-SEhandbookEN.pdf>
- Stanley, C. (2013). Topic guide: engaging suppliers in sustainability [Online]. Available from: <http://www.wrap.org.uk/sites/files/wrap/Engaging%20suppliers%20in%20sustainability%20Topic%20Guide%20-%20final%20v1.pdf>

→ Further information in the Agri-food, Chemicals and Metals Supplements



BM.14

Generate ideas for the cost structure block

Requires dialogue

This activity aims to generate ideas for how to address hotspots or strategic changes related to the cost structure block.



INPUTS

- Hotspots or strategic changes related to the key resources block from the activities *ST.7 Do a SWOT analysis*, *BM.2 Gather additional data on the business model*, and *BM.3 Gather additional data on operational performance*.

OUTPUTS

- Specific ideas for how to change the key resources block to address the hotspots or strategic changes, used in the activities *BM.4 Generate business model concepts at the big picture level* - if taking a 'Bottom-up' approach, *BM.15 Evaluate the benefits*, and *BM.16 Evaluate the costs* and *BM.17 Evaluate the risks*.

BM.14 Generate ideas for the cost structure block

All companies want to reduce costs, but the need to understand and reduce the costs associated with operating a business model is more important for some models than others. 'Value-driven' companies focus on providing a high quality value proposition in return for a premium price and can therefore afford to spend more in order to generate higher revenues. Luxury hotels are a good example of a value-driven business model. At the other end of the spectrum are 'cost-driven' business models, such as 'low cost airlines'. Most companies will fall somewhere between these two extremes.

HOW TO GO ABOUT IT

For cost-driven companies, you should explore ways to reduce operating costs. Resource efficiency projects can be a good starting point for this.

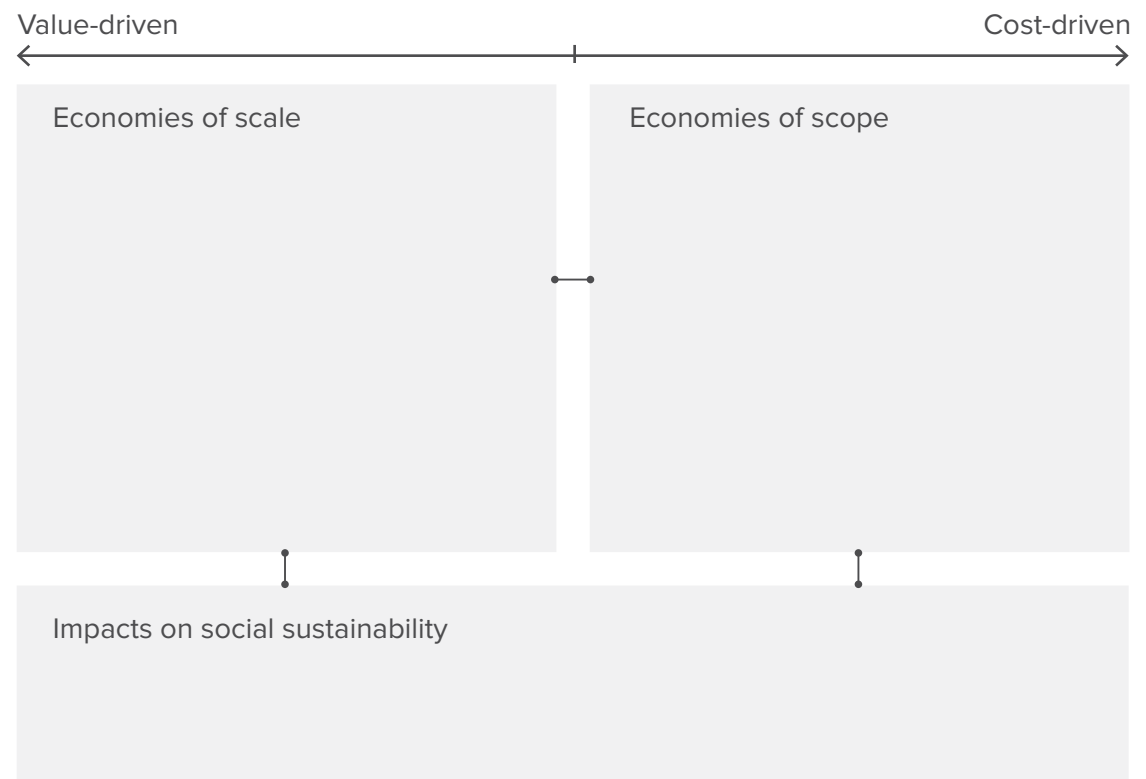
It is also important to look for new 'economies of scale' or 'economies of scope' benefits that could be developed. Economies of scale benefits are reductions in the cost per unit of production that occur as the number of products produced increases for a single type of product i.e. through 'bulk purchase' discounts from suppliers. Economies of scope benefits relate to reductions in the cost per unit of production that occur as the number of products produced increases across two or more product lines i.e. one marketing team can support multiple product lines without a significant increase in cost.

Care must be taken when discussing the potential economies of scale or scope benefits to also consider the potential negative social sustainability impacts. For instance, increasing and intensifying production by adding a 'night shift' to the production schedule could have negative consequences for employees who may be required

to work unsociable hours and for local residents if it means noisy delivery lorries arriving and departing during the night.

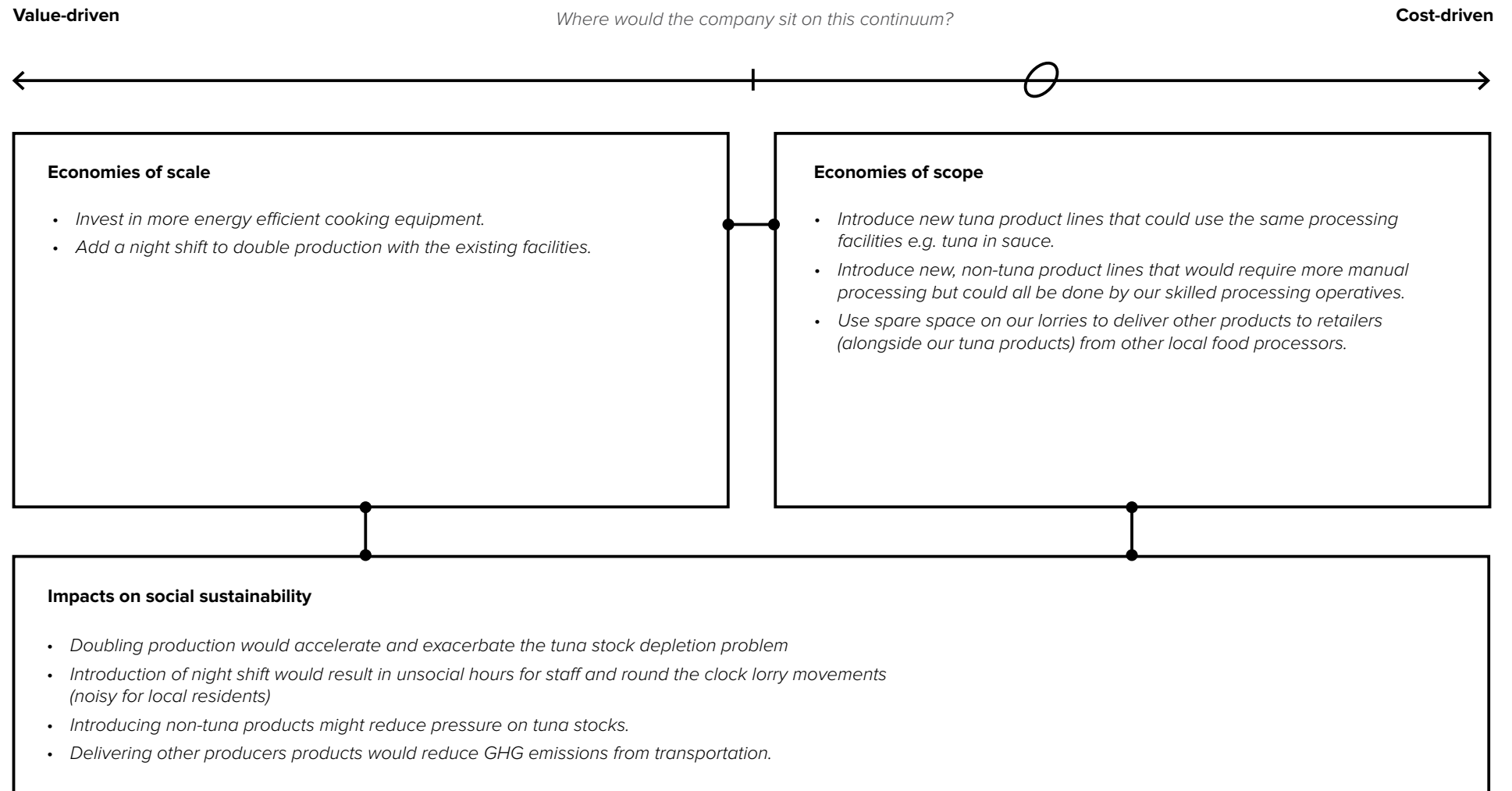
→ Further information in the Agri-food, Chemicals and Metals Supplements

Template of Cost Structure Ideas



BM.14 Generate ideas for the cost structure block

LEARNING CASE STUDY OF COST STRUCTURE IDEAS



STEP

Evaluate the business model concepts and select one to pitch

ACTIVITIES

BM.15

Evaluate the benefits

BM.16

Evaluate the costs

BM.17

Evaluate the risks

BM.18

Integrate all the evaluations and make the final selection

OVERVIEW

In this step you should work with the Focal Point and other relevant company employees to evaluate the business model options you have generated and select which one to pitch. The basic criteria to consider during the evaluation process are:

- What are the potential benefits (economic, environmental and social)?
- What are the likely costs involved in implementing this business model in terms of investment of time, money and effort?
- What are the risks involved?

BM.15

Evaluate the benefits

Requires dialogue

The aim of this activity is to capture (and quantify) the benefits of each of the business model concepts in a systematic manner using the Life Cycle Thinking template.



INPUTS

- Complete business model concepts, from the activity *BM.4 Generate business model concepts at the big picture level*.
- Data from In-Depth Assessment, from the activities *BM.2 Gather additional data on the business model*, and *BM.3 Gather additional data on operational performance*.

OUTPUTS

- An assessment of the business benefits of the business model concepts, used in the activity *BM.18 Integrate all the evaluations and make the final selection*.

BM.15 Evaluate the benefits

The potential benefits of each business model option should be captured using a simplified version of the *Life Cycle Thinking template*. Within this template, the benefits in terms of the six sustainability metrics can be detailed for each phase of the life cycle. The objective is to assess the benefits in each cell of the matrix, providing some quantification of these benefits where possible.

HOW TO GO ABOUT IT

1. Take one of the business model concept you have generated and remind yourself of the sustainability hotspots or strategic threats and opportunities the concept helps to address.
2. List the benefits relative to the current business model in the relevant cell of the simplified *Life Cycle Thinking template*. It can be easier to work through one life cycle phase at a time starting with the 'Raw materials' phase.
3. Once you have listed the benefits for the first business model concept, repeat the process for the remaining business model concepts.

→ Further information in the Agri-food, Chemicals and Metals Supplements

Template of Life Cycle Business Benefits

	Environmental impacts	Social Impacts	Economic impacts
Materials			
Production			
Transportation			
Use			
End of life			

BM.15 Evaluate the benefits

LEARNING CASE STUDY OF LIFE CYCLE BUSINESS BENEFITS

	Environmental impacts	Social Impacts	Economic impacts
Materials	<ul style="list-style-type: none"> Fishermen have incentive to transition to sustainable fishing methods as they will directly benefit through higher prices for their finished product. 	<ul style="list-style-type: none"> Fishermen's cooperative can be utilized to improve working conditions on boats. More secure and well-paid jobs for fishermen by distributing profits more evenly. 	<ul style="list-style-type: none"> Profits isolated to some extent from fluctuations in wholesale cost of tuna.
Production	<ul style="list-style-type: none"> Member network fees can be used to invest in energy and cost saving measures. 	<ul style="list-style-type: none"> Recurring revenues and higher profit margins will improve job security for our staff. 	<ul style="list-style-type: none"> Recurring revenue of €50,000 if 100 fishermen join member network at €500/year. Gross profit of €160,000 per year (based on 500 tonnes of tuna sold).
Transportation			
Use			<ul style="list-style-type: none"> Expect to achieve 10% price premium for sustainably sourced fish by targeting responsible retailers.
End of life			

	UTIL to becoming more sustainable	PERJUDICIAL to becoming more sustainable
Origen interno (atributos de la empresa)	FORTALEZAS <ul style="list-style-type: none"> • Recurso humano calificado: Técnico y de ingeniería. • Flexibilidad y apertura ante nuevas ideas. - Calidad y durabilidad - Clientes fieles y buena reparación. - Adaptación a otros servicios. - Contar con certificación 	DEBILIDADES <ul style="list-style-type: none"> • Capacidad limitada en planta. • Limitado recursos financieros para la investigación y PML. • Limitado acceso al mercado exterior. - Automatización. - Utilizar servicio de zeros - Espacio limitado. - No liquidez - No stock (materials, productos)
Origen externo (atributos del ambiente)	OPORTUNIDADES <ul style="list-style-type: none"> • Diseño y practicidad de producto (personalizado al gusto del cliente sin afectar las condiciones de calidad y seguridad). - Gobierno - Alzas colegio, servicio reparación, servicio pintado y refinado. (Volvo). 	AMENAZAS <ul style="list-style-type: none"> • Precios de la competencia vs. calidad • No existe gestión de residuos en disposición final • Coyuntura política - Competencia china, mala, cajas plásticas. - Gov. buys cheap & dont pay.

FOR

- Comunicación directa cliente
- Productos personalizados.
- Garantía 1 año
- Entregan a tiempo.

DEB

- Pref Manejo ambiental y social.

BM.16

Evaluate the costs

Requires dialogue

The aim of this activity is to capture (and quantify) the costs of implementing each of the business model concepts in a systematic manner using the Business Model Canvas template.



INPUTS

- Complete business model concepts, from the activity *BM.4 Generate business model concepts at the big picture level*.
- Data from In-Depth Assessment, from the activity *BM.2 Gather additional data on the business model*, and the activity: *BM.3 Gather additional data on operational performance*.

OUTPUTS

- An assessment of the implementation costs of the business model concepts, used in the activity *BM.18 Integrate all the evaluations and make the final selection*.

BM.16 Evaluate the costs

When considering the costs involved in implementing a business model it is worth considering two aspects. First, there are the monetary costs, which you should attempt to list and estimate. The level of detail and precision in these figures may be quite low at this stage but you should aim to assess the approximate costs of major items that will require an initial investment by the company, such as:


- labour costs in designing new products or processes
- labour and material costs for prototyping the new solution
- purchasing new production equipment or facilities
- employing new staff (sales, marketing, research or production)
- training staff in new procedures

The second aspect to consider is the effort required to implement the new business model. This is important to consider because some business model options may simply require too much effort to implement. Also, if you have a choice between two business model options that are identical in terms of likely benefits, risks and economic costs, the deciding factor would be the effort to implement them.

Understanding the effort required to implement a new business model requires an understanding of the gap between how the company performs today and how it needs to perform to successfully implement the business model, across all areas of the company. Identifying these performance gaps can be done systematically by reviewing each of the Business Model Canvas building blocks and identifying issues where the new business model requires the company to operate in a way that is new or different.

HOW TO GO ABOUT IT

1. Review the Business Model Canvas for one of the business model concepts. Start by look at block of the canvas and compare the list of points in that block with the list of points in the same block of the current business model.
2. Give each point in that block a separate rating using the following scale:
 - - A key activity, capability, channel or resource required for the new business model is not present or is significantly below the performance required.
 - A key activity, capability, channel or resource required for the new business model is present but is below the performance required.
 - + A key activity, capability, channel or resource required for the new business model is present and meets the performance required.No symbol against a point means that no change is required.
3. Do the same for each of the remaining eight blocks of the canvas until you have rated the entire business model.
4. Repeat the process for the remaining business model concepts.

 Further information in the Agri-food, Chemicals and Metals Supplements

BM.16 Evaluate the costs

LEARNING CASE STUDY OF BUSINESS MODEL CANVAS

<p>Key Partners</p> <p>Fishermen + Mechanic (for vehicle maintenance) +</p>	<p>Key Activities</p> <p>Tuna processing + Distribution + Accounting -</p>	<p>Value Propositions</p> <p>Tuna processing and canning service Distribution and sale service Higher margins for fishermen from selling finished canned product rather than raw tuna fish</p>	<p>Customer Relationships</p> <p>Telephone-based personal customer service Membership network --</p>	<p>Customer Segments</p> <p>The fishermen</p>
<p>Key Resources</p> <p>Fast, efficient processing staff + Tuna processing facility + Fleet of vehicles +</p>			<p>Channels</p> <p>Sales force Peer to peer member recruitment --</p>	
<p>Cost Structure</p> <p>Labour Energy Vehicle fuel Economies of scale benefits from processing higher volumes of tuna</p>			<p>Revenue Streams</p> <p>Annual membership fee Sales of tuna processing service Sales of distribution and sales service</p>	



BM.17

Evaluate the risks

Requires dialogue

The aim of this activity is to capture the risks of implementing each of the business model concepts in a systematic manner and suggest how the risks could be managed.



INPUTS

- Complete business model concepts, from the activity *BM.4 Generate business model concepts at the big picture level*.
- Data from In-Depth Assessment, from the activity *BM.2 Gather additional data on the business model*, and the activity: *BM.3 Gather additional data on operational performance*.

OUTPUTS

- An assessment of the implementation risks of the business model concepts, used in the activity *BM.18 Integrate all the evaluations and make the final selection*.

BM.17 Evaluate the risks

An important part of the role of the Service Provider is to provide the company with the motivation and confidence to make bold choices to make rapid progress towards a more sustainable future. However, this should not be based on uncalculated risks. Therefore, it is important to ensure that actions are being taken to identify and manage all possible risks. For this task, a Risk Register can be used to structure an exercise to become aware of all related risks and define potential corrective actions, where necessary. Risks can be identified through a combination of prior experience, the company's own scepticism, and by conducting a brainstorming session. Instructions on how to conduct this type of session are provided below.

In terms of mitigating risks, one of the activities you can do is to test out some of the assumptions that appear in the business model options. One of the most important building blocks to test is the Value Proposition block as if your target customer groups do not value your product or service the business model will fail. For example, if the Tasty Tuna Company wanted to test the assumption that fishermen would be willing to pay for a tuna processing and distribution service they could perform interviews with several of the fishermen that are currently their suppliers to discuss this idea. This activity would require some time and effort to implement, but it is far better to make this small investment at this stage, then commit to a whole scale change in business model only to find that your assumptions were incorrect.

HOW TO GO ABOUT IT

Preparation

1. Identify a group of insightful and experienced people from the company, who have prior experience of projects within the company, both from a technology and a commercial viewpoint.
2. Together with the group, gather a gross list of risks connected to the project upon which you are working. This list can be generated from a combination of sources, such as prior experience, own scepticism, or the result of a structured brainstorm.

Applying the Risk Register template

3. Take the *Risk Register template* and begin filling in the fields – one row per identified risk. An explanation of each field in the template is provided below and is accompanied by an example.
 - *Risk code*: This simply helps the project manager to keep track of each risk and creates a reference to check performance against.
 - *Risk name*: The risk is described in this field – only one risk per entry.
 - *Risk category*: A category list can be defined, so as to facilitate an easy organization of the risks for the company. The categories could relate to the product life cycle, company departments, or a complete other set of categories.
 - *Probability (1-3)*: Enter a simple score, showing 1 for a low likelihood of the risk materializing into an actual problem, 3 for a high likelihood.

BM.17 Evaluate the risks

- *Impact (1-3)*: Evaluate the potential negative impact on the project and/or company, from 1 to low negative impact to 3, for high negative impact.
- *Risk score*: Multiply the probability score with the impact score, to attain a risk score. This score should help the company to prioritize their efforts.
- *Mitigation*: Write here a consideration of how which measures could (and probably will) be taken to stop the risk from materializing.
- *Contingency*: Prepare for worst-case by preparing a contingency plan, in case the risk does manifest itself as an actual problem.
- *Action date*: Record when it is decided to take action
- *Action by*: Record who is responsible for mitigating each risk.

Template of Risk Register

Risk Register for _____

Risk code and name	Impact description	Probability (1-3)	Impact (1-3)	Risk score	Mitigation	Contingency	Action date	Action by

BM.17 Evaluate the risks

LEARNING CASE STUDY OF RISK REGISTER

Risk Register for Tasty Tuna Company - Cooperative business model proposal								
Risk code and name	Impact description	Probability (1-3)	Impact (1-3)	Risk score	Mitigation	Contingency	Action date	Action by
<p><i>Risk 01</i></p> <p><i>Tuna caught illegally</i></p>	<ul style="list-style-type: none"> • <i>Product removed from market.</i> • <i>Loss of reputation</i> • <i>Fine of imprisonment</i> • <i>Loss of key suppliers</i> 	3	3	9	<p><i>Work with licensed fishing companies and ask to see evidence of quota compliance.</i></p>	<p><i>Work with a variety of fishing companies, at least for first 2 years</i></p>	14/01/15	Mr. Tasty
<p><i>Risk 02</i></p> <p><i>Fisherman not willing to join cooperative</i></p>	<ul style="list-style-type: none"> • <i>Loss of revenue</i> • <i>Loss of key suppliers</i> 	1	3	3	<p><i>Hold meeting with senior fishermen to explain risk of business as usual approach and benefits of cooperative model.</i></p>	<p><i>Continue to offer current transactional business model during transition period to maintain revenue if uptakes is slow.</i></p>	22/02/15	Mrs. Tuna

BM.17 Evaluate the risks

Risk Register for Tasty Tuna Company - Cooperative business model proposal								
Risk code and name	Impact description	Probability (1-3)	Impact (1-3)	Risk score	Mitigation	Contingency	Action date	Action by
Risk 03 Customer rejects product	<ul style="list-style-type: none"> Poor product sales 	2	3	6	Carefully planned marketing campaign	Prepare a list of FAQ's and answer all possible questions from customer's well in advance	23/06/15	Mr. Tasty
Risk 04 Customer misunderstands the project as green-washing	<ul style="list-style-type: none"> Poor product sales Loss of reputation 	2	3	6	Consider creating a parallel brand for the product, so as not to confuse or endanger the existing brand.	Be prepared with detailed environmental product declarations beforehand	14/06/15	Mrs. Tuna

BM.17 Evaluate the risks

TIPS & TRICKS

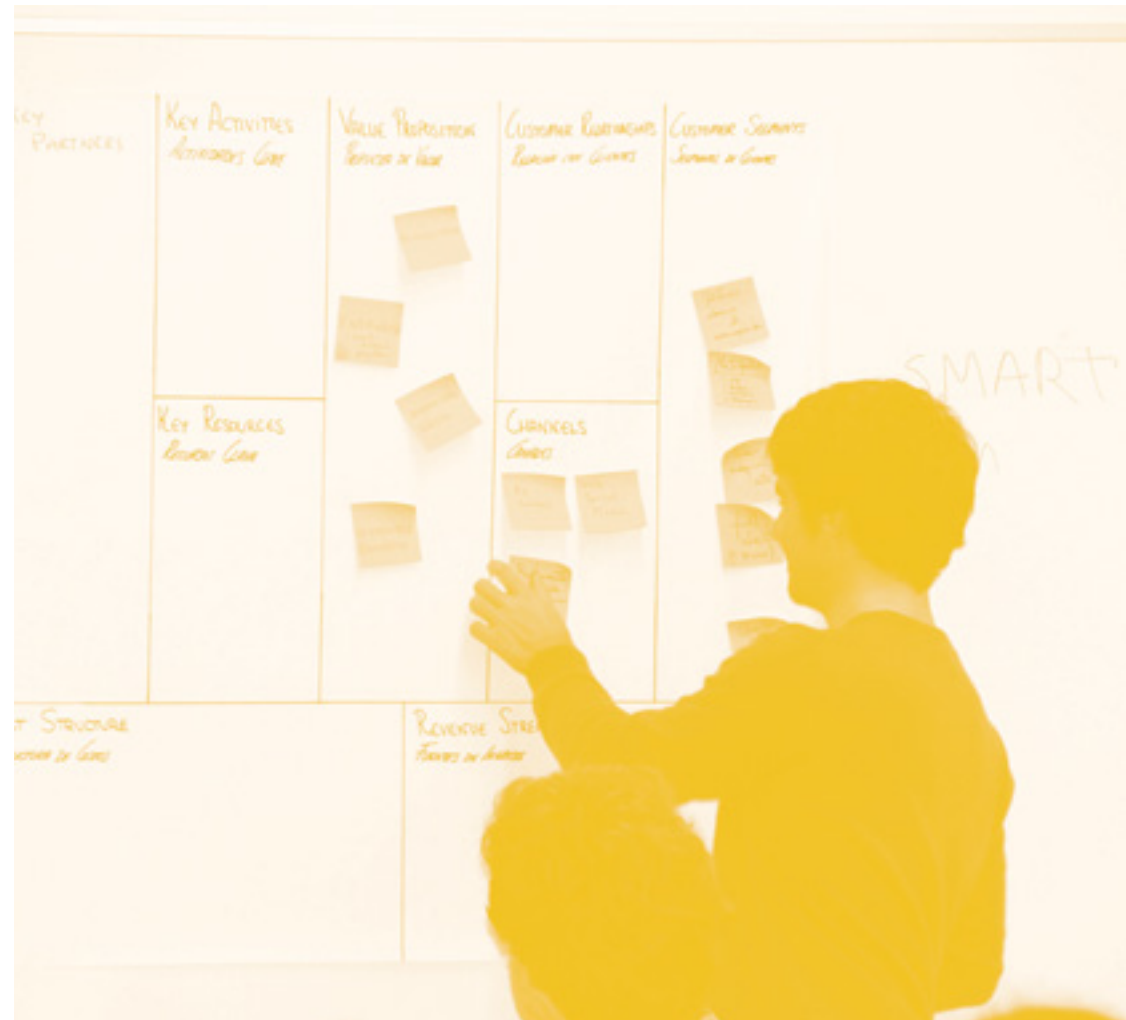
CONSIDER BUSINESS AS USUAL RISKS

A good starting point for such a brainstorming activity is to review the risks the company will face if it continues with the current business model. This can be a useful reminder for senior management of the drivers for change.

CONSIDER GENDER DISCRIMINATION RISKS

Failure to take action to improve gender equality and eliminate gender discrimination is a business risk that is often overlooked but can have important consequences including a disenfranchised workforce and even legal action against the company in some cases.

→ Further information in the Agri-food, Chemicals and Metals Supplements



BM.18

Integrate all the evaluations and make the final selection

Requires dialogue

This activity helps to select a new business model by providing a summary of key evaluation metrics for all the business model options being considered.



INPUTS

- An assessment of the business benefits of the business model concepts from the activity *BM.15 Evaluate the benefits.*
- An assessment of the implementation costs of the business model concepts from the activity *BM.16 Evaluate the costs.*
- An assessment of the implementation risks of the business model concepts from the activity *BM.11 Evaluate the risks.*

OUTPUTS

- A relative scoring of each of the business model options against a variety of indicators that show the benefits, costs and risks of implementing each of the new business model options.
- A recommendation as to which of the business model concepts you think the company should pursue used in the activity *BM.19 Pitch the new business model to the CEO.*

BM.18 Integrate all the evaluations and make the final selection

To enable the selection of the best business model option, it can be useful to provide a summary of the evaluation you have performed using the *Business Model Evaluation template*. The template brings together in one document information on each of the key metrics for evaluating the business model options.

Whilst the matrix provides a useful summary, it is important that the senior management team also familiarize themselves with the detailed data that you have gathered and collated in compiling the matrix so that they can provide rigorous critical review and come to an informed decision. You should therefore circulate this information to the Senior Management Team well in advance of organizing the meeting to decide on the best business model option.

HOW TO GO ABOUT IT

1. Begin by scoring the benefits of each of the business model options, relative to the current situation, using the following scoring scale:
 - 0 – Option is more than 100% worse than the current situation.
 - 1 – Option worse is than the current situation.
 - 2 – Option is broadly the same as the current situation.
 - 3 – Option is better than the current situation.
 - 4 – Option is more than 50% better than the current situation.
 - 5 – Option is more than 75% better than the current situation.
2. Using the results of the Risk Register, assess the long term risk using the same scoring scale as described in point 1, then assess the implementation risk on a scale of high, medium or low;

were 'high' risk would mean a high probability of failure in the implementation of the new business model and serious negative consequences of failure.

3. For the cost indicators, use any data you have compiled on the investment costs to state an estimate of the upfront capital investment required to implement the new business model. Use the results of the implementation effort evaluation to score the implementation effort on a scale of high, medium or low; were 'high' effort would mean a significant proportion of company personnel involved in the implementation over an extended period of time.
4. Once you have completed the matrix decide which of the business model options you will pitch the CEO in the next step.

Template of Business Model Evaluation

	Metric	Current situation	Option 1	Option 2	Option 3
Benefits					
Risks					
Costs					

BM.18 Integrate all the evaluations and make the final selection

LEARNING CASE STUDY OF BUSINESS MODEL EVALUATION

	Metric	Current situation	Option 1	Option 2	Option 3
Benefits	<i>Resource use</i>	2	3	5	3
	<i>Ecosystem quality</i>	2	4	4	3
	<i>Human health and toxicity</i>	2	2	1	2
	<i>Other social issues</i>	2	2	2	3
	<i>Profitability</i>	2	3	4	3
	<i>Job creation and security</i>	2	1	2	2
Risks	<i>Long term risk (after mitigation actions and successful implementation)</i>	2	4	4	3
	<i>Implementation risk (High/Medium/Low)</i>	<i>(None)</i>	<i>Medium</i>	<i>High</i>	<i>Low</i>
Costs	<i>Upfront capital investment (state cost estimate)</i>	<i>(None)</i>	€ 15,000	€ 74,000	€ 3,000
	<i>Implementation effort (High/Medium/Low)</i>	<i>(None)</i>	<i>Medium</i>	<i>High</i>	<i>Low</i>

BM.18 Integrate all the evaluations and make the final selection

BACKGROUND INFORMATION

References and resources

Testing and validating business model ideas:

- Kastle, T. (2011). How to test a business model like a scientist. [Online] Available from <http://timkastle.org/blog/2011/03/how-to-test-a-business-model-like-a-scientist/>
- Osterwalder, A., & Pigneur, Y. (2010). Business model generation: a handbook for visionaries, game changers, and challengers. Wiley, London.

→ Further information in the Agri-food, Chemicals and Metals Supplements





STEP

Get senior management approval for the new business model

ACTIVITIES

BM.19

Pitch the new business model to the CEO

OVERVIEW

The final activity in this phase is to pitch the new business model proposal to the CEO and the Senior Management Team.

The final decision to proceed with implementing the new business model may take some time and may require you to revise some of the details or perform further testing of assumptions. Throughout the decision-making process, it is important that you provide encouragement to guide the company towards a more profitable and sustainable business model.

BM.19

Pitch the new business model to the CEO

Complex activity

The aim of this activity is to pitch the new business model to the CEO and the Senior Management Team and get their approval to proceed to the ROADMAP phase.



INPUTS

- A relative scoring of each of the business model options and a recommendation as to which of the business model concepts you think the company should pursue, from the activity *BM.18 Integrate all the evaluations and make the final selection.*

OUTPUTS

- Completed pitch of the new business model concept.
- Decision from the CEO as to how to proceed.

These outputs are not used elsewhere but are necessary to allow you to proceed to the *BUILD ROADMAP* phase.

BM.19 Pitch the new business model to the CEO

Pitching the new business model will involve presenting a lot of information. This information should be provided to the CEO and the Senior Management Team well in advance of the pitch meeting so that they have time to review it and prepare questions. Guidance on what to include in your pitch is provided below.

HOW TO GO ABOUT IT

Key points to present in your business model pitch include:

- The business model options you have developed, including details of the operational level ideas that will support the implementation of the business model.
- The main economic, social and environmental benefits of each option.
- The economic costs in terms of the major initial investments required.
- The effort required to implement each business model option, presented using the Business Model Canvas and the rating scale described in the previous activity.
- The main risks associated with each option, including details of any experiments you have done to validate key assumptions.
- A summary covering all of the above which you can provide by showing the completed *Business Model Pitch template*.

→ Further information in the Metals Supplement

Template of Business Model Pitch

Business model name

Business model in a nutshell

Effort

Operations

Benefits

Costs

BM.19 Pitch the new business model to the CEO

LEARNING CASE STUDY OF BUSINESS MODEL PITCH

Business model name

Sustainable fish processing service for

fisherpeople

Business model in a nutshell

Instead of purchasing, processing and selling fish

we will offer a fish processing service targeted at

fisherpeople. Will use the enhanced relationship with

fisherpeople to ensure continued access to fish and

to encourage sustainable fishing practices.

Effort

- Create a membership network for fisherpeople
- Establish new peer-to-peer sales channel
- Introduce an enhanced accounting system

Operations

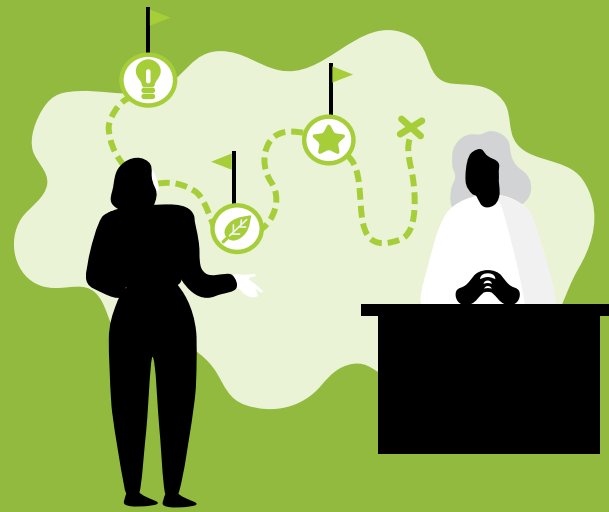
- Fisherpeople will have to pay an annual subscription to access the membership network
- Will then charge a set price per tonne of fish processed
- Fisherpeople retain ownership of fish and once processed can sell themselves or pay an additional fee for distribution, marketing and sales service
- Membership fees would be invested in energy saving and waste reduction measures - this would be reflected in lower processing costs in future years
- Membership fees would also support introduction of sustainable fishing practices through training, creation of a code of conduct, auditing etc. This would cover working conditions on fishing boats
- Peer-to-peer sales would involve fisher people encouraging their peers to join the membership network
- Greatly enhance accounting system would be required to manage sales, subscriptions, and payments to fisherpeople (when using the additional distribution, marketing and sales service)

Benefits

- Estimated gross profit of \$160,000 per year once fully implemented
- Enhances security of supply of fish for processing
- Incentive for fisherpeople to transition to sustainable fishing methods and improve working conditions on boats
- Member network fees can be invested in energy saving and waste reduction measures

Costs

- \$5,000 to establish membership network
- \$3,000 to establish peer-to-peer sales channel
- \$7,000 to introduce new accounting system



BUILD ROADMAP

Defining a new business model
to deliver the business strategy

PHASE 4 — BR

BUILD ROADMAP

OVERVIEW

The BUILD ROADMAP phase starts with a workshop activity that takes your innovation ideas and assembles them into a roadmap of projects that will enable the company to implement its chosen business model and achieve its strategic sustainability goals. The scope and requirements of the first project are then defined in more detail as this will help to convince both the company and its partners in the value chain that the eco-innovation roadmap defined will lead them to a successful and sustainable future.

The term 'innovation idea' is used to refer to the operational level ideas for new products, manufacturing technologies, marketing strategies and so on, that were generated during the SET BUSINESS MODEL phase. The term 'project for eco-innovation' is used to refer to a set of activities with a defined goal, scope and budget that is intended to implement an innovation idea or some part of a large innovation idea or a number of small innovation ideas.

STEPS & ACTIVITIES

Build a roadmap for eco-innovation implementation

Prepare for the roadmapping workshop

BR.1

Do a roadmapping workshop with input from value chain partners

BR.2

Define and prioritise the requirements of the first project

BR.3

Get senior management approval for the implementation roadmap

Pitch the implementation roadmap to the CEO

BR.4



STEP

Build a roadmap for eco-innovation implementation

ACTIVITIES

BR.1

Prepare for the roadmapping workshop

BR.2

Carrying out a roadmapping workshop with input from value chain partners

BR.3

Define and prioritise the requirements of the first project

OVERVIEW

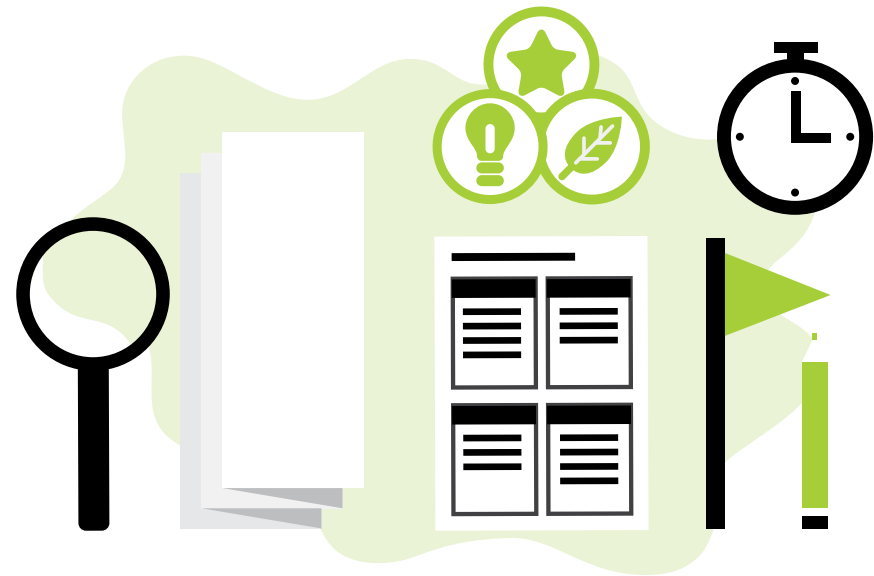
The first activity is to prepare for a roadmapping workshop by summarising the main benefits, costs and risks of each of the operational level innovation ideas that appear in the new business model. This information is then used in a roadmapping workshop to generate a roadmap detailing how the company will transition to its desired new business model and achieve its goals through a series of projects for eco-innovation. The third activity involves defining the technical requirements for the first project.

BR.1

Prepare for the roadmapping workshop

Requires dialogue

This activity will help to create a Roadmap Development Matrix, which summarises the benefits, costs and risks of the key innovation ideas and is required for the roadmapping workshop.



INPUTS

- The new business model selected for implementation from the activity *BM.19 Pitch the new business model to the CEO*.
- Details of the innovation ideas that are required for the new business model. This comes from the relevant activities of the step *Generating ideas at the individual building block level*.

OUTPUTS

- Key details of the innovation ideas to be implemented captured within a Roadmap Development Matrix used in the activity *BR.2: Do a roadmapping workshop with input from value chain partners*.

BR.1 Prepare for the roadmapping workshop

For your chosen business model, you should have a number of innovation ideas outlined that will be necessary to complete in order to implement the business model.

HOW TO GO ABOUT IT

1. Select one of the innovation ideas from the new business model and fill out a row within the *Roadmap Development Matrix template* against the following headings:

- Innovation idea title: Descriptive title for the innovation idea.
- Benefits: Brief description of the business benefits that can be realized once this innovation has been implemented (e.g. cost saving, comply with legislative requirement, increase product sales, improved market understanding etc.). Some innovation ideas may not deliver any immediate business benefit as they are a stepping stone towards the implementation of the complete business model.
- Capital investment: Upfront financial investment required to complete the innovation.
- Implementation effort and cost: Estimate of the person months of work required to implement the innovation idea and multiply by the average monthly salary to get an approximate labour cost.
- Approximate total cost and payback period: Add the capital cost and labour cost to get a total cost. Divide the total cost by the monthly cost savings or increased revenue due to the innovation to calculate the payback period in months.
- Implementation risk: The probability of the innovation failing and the impact of such a failure on the company.

- Scheduling considerations: Prerequisites for the innovation idea, the availability of personnel or partners, and any external deadlines (e.g. new legislation compliance deadline) should be captured in this column.
2. Repeat the process until all of the innovation ideas are represented by a row of *Roadmap Development Matrix template*

→ Further information in the Agri-foods, Chemicals and Metals Supplements

Template of Roadmap Development Matrix

Innovation idea title	Benefits	Capital investment	Implementation effort	Approx total cost	Implementation risk	Scheduling considerations
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BR.1 Prepare for the roadmapping workshop

LEARNING CASE STUDY OF ROADMAP DEVELOPMENT MATRIX

Innovation idea title	Benefits	Capital investment	Implementation effort (and labour cost)	Approx total cost and payback period	Implementation risk (High/Medium/Low)	Scheduling considerations
• Family friendly working policy	• Reduced staff turnover and reduced training costs (approx. \$5,000/year)	• \$0	• 3 person months (\$600)	• \$1,200 3 months	• Low	• Changes to employment contracts require a 3 month consultation period.
• Reduce fish loss in factory	• Immediate cost saving (approx. \$24,000/year)	• \$16,500	• 6 person months (\$1,200)	• \$17,700 9 months	• Medium	• None
• Marketing campaign to launch sustainably sourced fish product	• Increased product sales (approx. \$20,000 this year)	• \$21,000	• 8 person months (\$1,600)	• \$22,600 13.5 months	• Medium	• Need to complete all sustainable fishing projects first.
• Establish sustainable fishing cooperative	• Stepping stone to sustainable fishing	• \$4,000	• 6 person months over 24 months (\$1,200)	• \$5,200 N/A	• High	• None
• Sustainable fishing – Eliminate purse seine and long line gear	• Stepping stone to sustainable fishing	• \$15,000	• 4 person months over 12 months (\$800)	• \$15,800 N/A	• Medium	• Need to establish sustainably fishing cooperative first.
• Sustainable fishing – Eliminate Fish Aggregation Devices	• Stepping stone to sustainable fishing	• \$500	• 4 person months over 12 months (\$800)	• \$1,300 N/A	• Low	• Need to establish sustainably fishing cooperative first.
• Sustainable fishing – Introduce quota	• Stepping stone to sustainable fishing	• \$4,000	• 8 person months over 18 months (\$1,600)	• \$5,600 N/A	• High	• Need to establish sustainably fishing cooperative first.
• Introduce seafood dishes	• New product line will generate additional revenue (approx. \$40,000 profit in year 1)	• \$75,000	• 24 person months (\$4,800)	• \$79,800 24 months	• High	• Need to agree timescales with cooperative fishermen

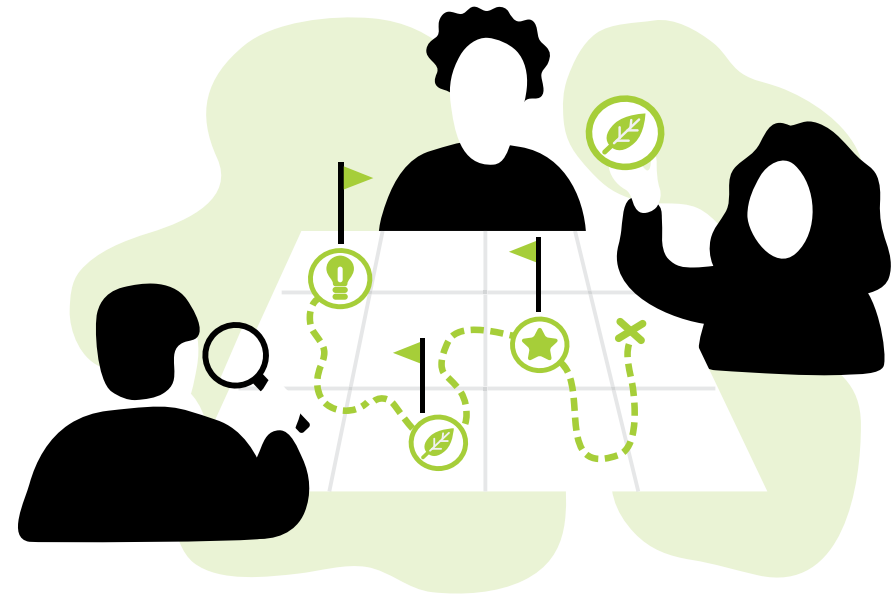


BR.2

Do a roadmapping workshop with input from value chain partners

Complex activity

The aim of this activity is to develop a roadmap that will enable the company to implement the new business model and achieve the strategic goals.



INPUTS

- *Roadmap Development Matrix template* from the activity *BR.1 Prepare for the roadmapping workshop*.
- The new business model selected for implementation from the activity *BM.19 Pitch the new business model to the CEO*.
- Understanding of who are the key value chain partners and stakeholders for the company from the activity *PR.3 Build the right external partnerships*.

OUTPUTS

- Roadmap for eco-innovation implementation used in the activity *BR.3 Define and prioritise the requirements of the first project*.

BR.2 Do a roadmapping workshop with input from value chain partners

There are two important considerations for the roadmapping workshop. The first is how to obtain input from key value chain partners and stakeholders because many innovation ideas will rely on the involvement of external stakeholders or value chain partners. Refer back to the *Life Cycle Stakeholders template* you completed in *PR.3 Build the right external partnerships*, to remind yourself of who the key stakeholders may be. One option is to complete an internal roadmapping workshop first and then invite the key stakeholders and partners to provide their feedback and input within a separate meeting. Alternatively, where an idea is particularly important to the overall roadmap, you may wish to hold a meeting with the partners first to discuss the scope and possible timing of a project and then hold the internal roadmapping workshop at a later date (refer back to the activity *PR.3 Build the right external partnerships* for advice on how to engage potential partners for eco-innovation). Whichever method you apply for gathering input from value chain partners, the roadmap is not complete until the relevant sections have been reviewed and approved by the partners that will be involved in its implementation – which can be a substantial task.

The second important consideration for the roadmapping workshop is how to organize the innovation ideas into ‘projects for eco-innovation’. Some innovation ideas may be very large and require several person-years of effort to implement. This type of innovation idea will be easier to implement and manage if it is split into several smaller projects. Conversely, some innovation ideas may be very small and easy to implement. It might therefore make sense to group together several of these small innovation ideas to form a single project. When performing this breaking-up of large innovation ideas and grouping together of small innovation ideas, you should aim

to end up with projects that are between 1 month and 12 months in duration. Projects shorter than 1 month may not be very productive once the management overhead for setting up and closing down the project are taken into account. For projects longer than 12 months maintaining the motivation of the staff and tracking progress can become difficult.

HOW TO GO ABOUT IT

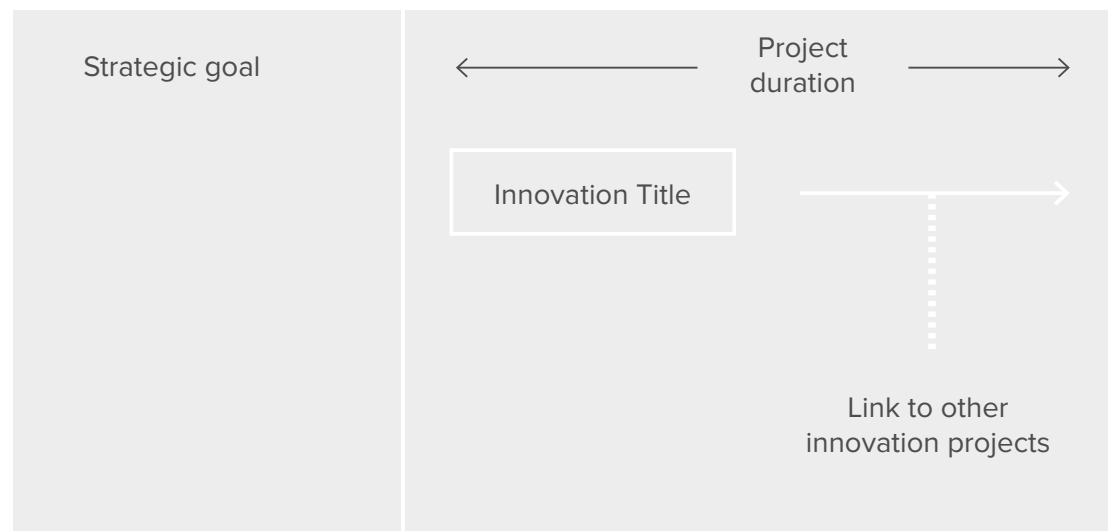
1. Review the *Roadmap Development Matrix template* if it contains some very large innovation ideas (that will require over 12 months to implement) try to break these up into a series of smaller projects of 1-12 months’ duration. Similarly, if the roadmap contains some very small innovation ideas, try to group these into a single project of at least one month’s duration.
2. Once you have split/grouped the innovation ideas into reasonable sized projects for eco-innovation, the next step is to create a logical sequence in which to tackle the projects, keeping in mind the following considerations:
 - Start by analyzing the pre-requisites for each project for eco-innovation, as these are often non-negotiable.
 - Projects that are low cost, have a short payback period and are low risk are the ideal starting points for companies that are new to eco-innovation.
 - However, after the first couple of projects it is important to start some of the more challenging, long-term projects otherwise they might never be completed.
 - Projects implementing innovation ideas that impact on the ‘customer facing’ (right) half of the business model canvas may

BR.2 Do a roadmapping workshop with input from value chain partners

be considered inherently higher risk than those that impact on the 'back end' (left) half of the canvas.

- Where a project for eco-innovation will require input from specialist personnel or external partners, the availability of the necessary personnel/partner may dictate when the innovation is implemented.
 - Do any of the strategic goals have a short timeline for completion? If so, the projects for eco-innovation linked to that goal will need to be prioritized for early implementation in the roadmap.
3. Use the logical sequence you have developed for the projects to build a roadmap diagram which shows the relationship between strategic goals and projects as well as the sequencing and estimated duration of each project for eco-innovation, following the example provided below.
 4. Make sure that you have clearly defined the scope for each project on the roadmap and captured any significant details of exclusions from the scope. In particular, make sure that the scope of the first project on the roadmap has been agreed and recorded - further advice on defining the scope of the first project is provided in the next activity.
 5. Organize a meeting to discuss the roadmap with each of the value chain partners that will be involved in one or more project for eco-innovation. Use the meeting to confirm that the scope, timing and deliverables for the projects they are involved in and check that they are still willing and able to participate in the eco-innovation activities.

Template of Roadmap



BR.2 Do a roadmapping workshop with input from value chain partners

LEARNING CASE STUDY OF ROADMAP

Strategic goal	Time
Reduce employee turnover rates by 20% and facilitate at least two female employees to gain senior management positions within three years.	
Reduce fish and product loss between point of fish purchase (fish market) and arrival at retailer by 30% within three years.	
Support local fishing companies that use sustainable fishing methods to create at least 20 fishing jobs within two years.	
At least 30% of our total sales will come from 'sustainable' product lines within three years.	
At least half of total sales revenue will come from products that do not include tuna within five years.	
Increase total product sales to over \$1 million within five years	
	<p style="text-align: center;">Year 1 Year 2 Year 3 Year 4 Year 5</p>

BR.2 Do a roadmapping workshop with input from value chain partners

TIPS & TRICKS

INVOLVE THE CEO

It is of critical importance to involve representatives from the Senior Management Team, and particularly the CEO, in the roadmapping workshop as the w of the workshop will determine the scope of the first project for eco-innovation to be worked on, which will need to be fully supported by the Senior Management Team.

IDENTIFY QUICK WINS

It is worth trying to specifically identify some 'quick win' projects, which are projects that require very little financial input or time from the company but can provide some immediate benefits. For example, sometimes a simple change in working practices - like switching off machinery overnight and at weekends - is all that is required to save significant energy or waste in production processes and delivers immediate cost savings. If you can find some, including 'quick win' projects early on in the roadmap is a good way to build support for the longer, more complex projects that will come later in the roadmap.

INVOLVE PARTNERS EARLY ON

Remember that value-chain cooperation is often the key to success in eco-innovation implementation so try to engage potential partners as early as possible and ensure that you understand their challenges and interests so that the projects for eco-innovation can be shaped to deliver benefits for all the partners involved and build a more sustainable value chain.

→ Further information in the Agri-foods, Chemicals and Metals Supplements

(17)
Sustainable
Development
Goals (SDG's)

BR.3

Define and prioritise the requirements of the first project

Requires dialogue

The aim of this activity is to define and prioritise the requirements for the first project for eco-innovation from the roadmap.



INPUTS

- Roadmap for eco-innovation implementation from the activity *BR.2 Do a roadmapping workshop with input from value chain partners.*
- Details of the innovation ideas to be implemented within the first project for eco-innovation. This comes from the relevant activities of the step *Generating ideas at the individual building block level*, and the activity *BR.2 Do a roadmapping workshop with input from value chain partners.*

OUTPUTS

- Systematically captured set of requirements for the first project for eco-innovation used in the activity *IM.1 Create a project plan.*

BR.3 Define and prioritise the requirements of the first project

A 'requirement' is a singular, documented physical and functional need that a particular design, product or process must be able to perform. The level of detail concerning the technical requirements for the innovation ideas that were captured during the *SET BUSINESS MODEL* phase was sufficient to estimate the likely sustainability benefits and investment costs, but at this stage it is necessary to provide a complete set of technical requirements that can be used to guide the development process. Note that for simplicity it is assumed that the first project for eco-innovation involves just one innovation idea.

The *Requirements Specification template* is used to capture the decisions about the technical requirements of the innovation in hand. The purpose of the requirements specification is to define the basic characteristics and properties of the innovation idea in a structured and solution-neutral format. It can also be a helpful communication tool for use with any value chain partners involved in the project to ensure that expectations for the project are aligned. Value chain partners involved in the project should therefore have an opportunity to review and provide feedback on the Requirements Specification before finalization.

Filling in the *Requirements Specification template* is carried out in a structured manner, typically following the life cycle of the innovation that is being developed. The template includes a column for prioritization of the requirements. There are a number of good reasons to create and maintain a prioritized list of requirements such as:

- Prioritization can be used to adjust the scope of the project.
- The initial prioritization can also be used to help plan the work schedule

Guidance on how to complete the *Requirements Specification template* is provided below. This activity can be completed by yourself or with input from relevant members of staff from the company if available to assist you.

HOW TO GO ABOUT IT

1. Work through the life cycle of the emerging project to identify key areas where requirements need to be defined. Record each area for focus in a list.
2. Take the *Requirements Specification template* and begin filling in the fields – one row per key area identified. The fields of the template are as follows:
 - **Number or code:** This simply helps the project manager to keep track of each requirement and creates a reference to check performance against.
 - **Mandatory requirement:** This field is where the requirement is described. Take care to fill in the requirements by stating “what” but not “how” each requirement should perform. Describing the “what” sets a measurable target for the project, whereas describing “how” (even though tempting) may limit the solution space and cut out valuable innovation opportunities.
 - **Comments:** This field leaves room for members of the project to remind themselves of reasons for including the requirement, general questions about the technological elements of the solution, recommendations from other colleagues or similar projects, etc.
 - **Priority:** This field helps to communicate the relative importance of various parameters of the solution.

BR.3 Define and prioritise the requirements of the first project

M - MUST have this.

S - SHOULD have this if at all possible.

C - COULD have this if it does not affect anything else.

W - WON'T have this time but would like in the future

- **Review date:** This field helps to keep track of the date for review of each parameter.
- **Reviewed/Approved:** This field allows for the assigned reviewer and/or approver to sign off each requirement, which must be completed prior to starting work on that requirement.

Template of Requirements Specification

Requirement specification for:					
Number or code	Requirement	Comments	Priority (MSCW)	Review date	Reviewed / Approved

BR.3 Define and prioritise the requirements of the first project

LEARNING CASE STUDY OF REQUIREMENTS SPECIFICATION

Requirements specification for: <i>Tasty Tuna Company - Water usage reduction project 01</i>					
Number or code	Requirement	Comments	Priority (MSCW)	Review date	Reviewed / Approved
Req01	<i>Reduce water consumption in thawing process to 3m³ per tonne of processed fish</i>	<i>Lorenzo method of thawing proven to achieve this level of water saving performance.</i>	S	01/02/15	Mr. Tasty
Req02	<i>Eliminate water usage in filleting operation.</i>	<i>'Filleting' includes all processes from end of thawing to start of canning process.</i>	M	31/03/15	Mrs. Tuna
Req03	<i>Capture >80% of solid organic waste from filleting operation for reprocessing.</i>	<i>Market has been identified for use of entrails and fish scraps in fishmeal products.</i>	S	15/06/15	Mr. Tasty
Req04	<i>Compatible with product output of at least 275kg/hour</i>		M	14/02/15	Mrs. Tuna
Req05	<i>Cleaning requirement of less than 0.5 person hours per 8 hour shift.</i>	<i>Relates to the cleaning of the water saving equipment installed (if any), not the cleaning of the fish product.</i>	S	01/02/15	Mrs. Tuna
Req06	<i>Maintenance requirement of less than 0.5 person hours per week.</i>	<i>Maintenance to be undertaken by unskilled operative.</i>	M	14/02/15	Mr. Tasty

BR.3 Define and prioritise the requirements of the first project

TIPS & TRICKS

HELP WITH TECHNOLOGY

If the innovation idea that will be tackled during the project involves a significant technology element then it will be useful to read the accompanying publication 'Technologies for Eco-innovation' (UN Environment, 2016), which provides guidance on technology development and technology transfer for eco-innovation.

KEEP PRIORITIES FOCUSED

When prioritising the requirements, it is important to be disciplined and avoid making every requirement a 'must'. Keep in mind that there may be deadlines for the development and implementation of the innovation idea and it is usually better to deliver on time with a limited set of requirements fulfilled than late with more requirements fulfilled.

UPDATE PRIORITIES REGULARLY

Once the project has started, the requirement prioritization should be regularly updated.

BACKGROUND INFORMATION

References and resources:

- MoSCoW method: Coley, P. 2012. 'MoSCoW Prioritization' [Online]. Available from: <http://www.coleyconsulting.co.uk/moscow.htm>
- UN Environment (2016). Technologies for Eco-innovation. UN Environment DTIE, Paris

→ Further information in the Agri-foods, Chemicals and Metals Supplements

STEP

Get senior management approval for the implementation roadmap

ACTIVITIES

BR.4

Pitch the implementation roadmap to the CEO

OVERVIEW

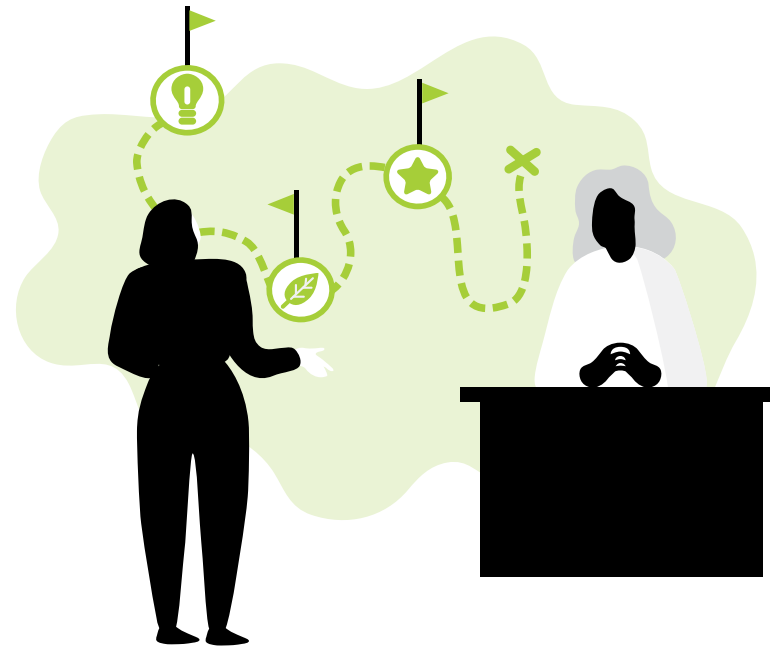
With the roadmap generated, you now have a complete plan for what the company's eco-innovative future could look like and how it could be achieved. This is therefore the time to seek the Senior Management Team's final approval to start the implementation activities.

BR.4

Pitch the implementation roadmap to the CEO

Complex activity

The aim of this activity is to pitch the complete business strategy, business model and roadmap to the CEO and gain approval to start on the IMPLEMENT phase.



INPUTS

- New business strategy from the activity *ST.14 Pitch the new business strategy to the CEO.*
- New business model from the activity *BM.19 Pitch the new business model to the CEO.*
- Roadmap for eco-innovation implementation from the activity *BR.2 Do a roadmapping workshop with input from value chain partners.*

OUTPUTS

- Decision from the CEO as to how to proceed. This output is not used elsewhere but is necessary to allow you to proceed to the *IMPLEMENT* phase.

BR.4 Pitch the implementation roadmap to the CEO

This pitch provides a summary of all the key outputs to date and provides the CEO and Senior Management Team a chance to review the whole plan for eco-innovation at the company covering the business strategy, the business model and the roadmap of projects through which the strategy and business model will be implemented. A suggested structure for the pitch is provided below.

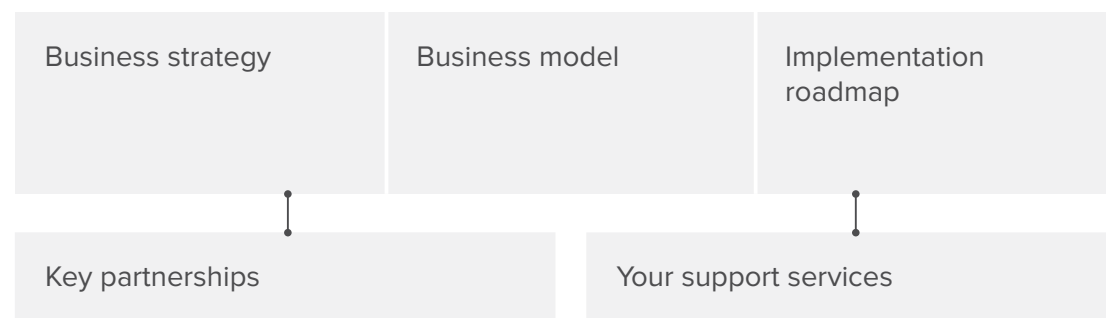
HOW TO GO ABOUT IT

- Begin by providing a brief reminder of the business strategy and business model.
- Describe the benefits of implementing the proposed strategy and business model, providing as much detail as you can about the economic, environmental and social benefits. You might also want to remind the senior management team of the risks of taking a business as usual approach by highlighting some of the sustainability hotspots and the threat they pose to the company.
- Provide an overview of the roadmap for implementation that you have generated.
- Describe in more detail some of the early projects on the roadmap, including the likely costs and payback period if available.
- Introduce the value chain partners that will be involved in the implementation activities and how you both benefit from the partnership. If you have already met with the partner describe the level of agreement you have reached concerning how the project will work.
- Finish by providing an overview of the on-going services that you can offer to support the implementation activities.

The output of the meeting is likely to be one of the following decisions:

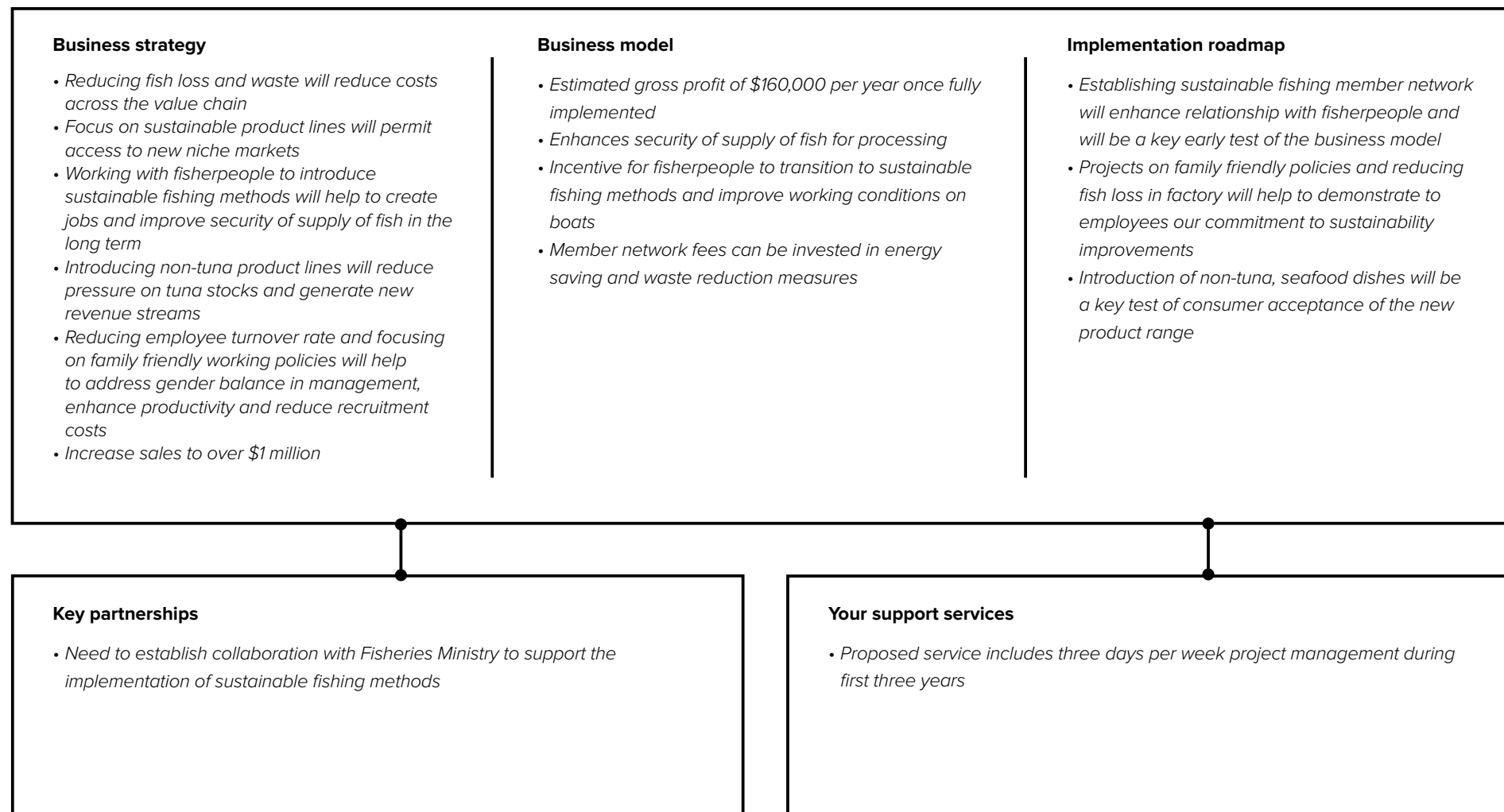
- Agree to proceed – Well done! Proceed to the *IMPLEMENTATION* phase.
- Request for more information – if there are unanswered queries following the presentation you may be required to go back to some of the earlier steps to fill in missing details or identify evidence in support of key assumptions. It is important to agree a timescale for the next review in order to avoid the project stalling.
- Pause – there may be many reasons why the company might not feel ready to proceed with the project. Try to determine exactly what it is about their current situation that is making them reluctant to proceed. Try to identify ways that you can help the company to get to a position where they would be ready to begin the project.
- Abandon – at this stage it is unlikely the company will abandon eco-innovation entirely but it may be that another idea is now preferred. Try to investigate what has caused this change of preference before deciding how to proceed.

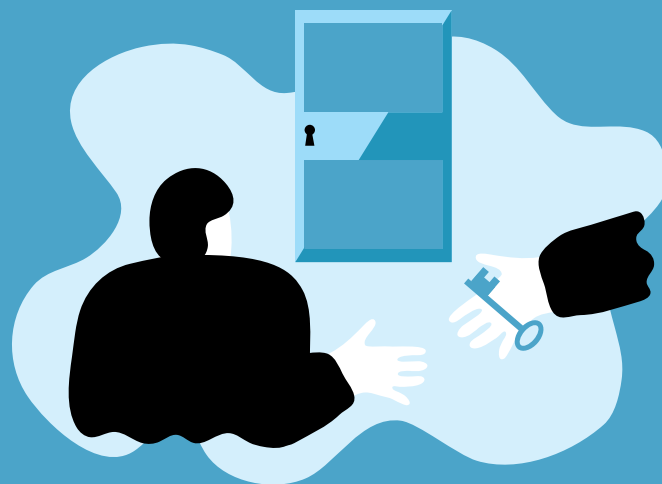
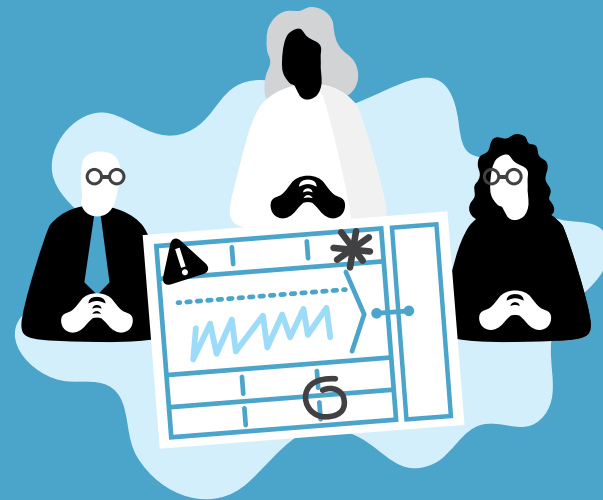
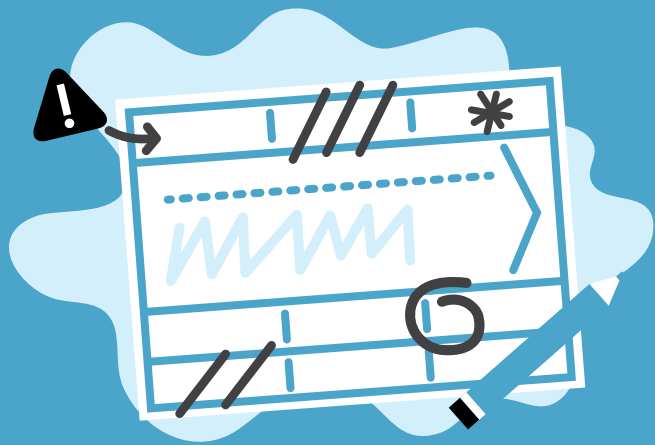
Template of Roadmap Pitch



BR.4 Pitch the implementation roadmap to the CEO

LEARNING CASE STUDY ROADMAP PITCH





IMPLEMENT

Implementing the first project for eco-innovation that will help to realise the new business strategy and business model

PHASE 5 — IM

IMPLEMENT

OVERVIEW

The IMPLEMENT phase is focused on planning and delivering the first project for eco-innovation based on the roadmap. Although you may have significant experience of project management, there are some aspects of a project for eco-innovation that might be new for you, or need to be managed in a different way to a conventional project. The steps and activities in this phase provide advice on managing the key aspects of a project for eco-innovation.

STEPS & ACTIVITIES

Create a project plan and get it approved

Create a project plan **IM.1**

Present the project plan to the Senior Management Team
IM.2

Support the implementation activities

Provide guidance and solve problems **IM.3**



STEP

Create a project plan and get it approved

ACTIVITIES

IM.1

Create a project plan

IM.2

Present the project
plan to the Senior
Management Team

OVERVIEW

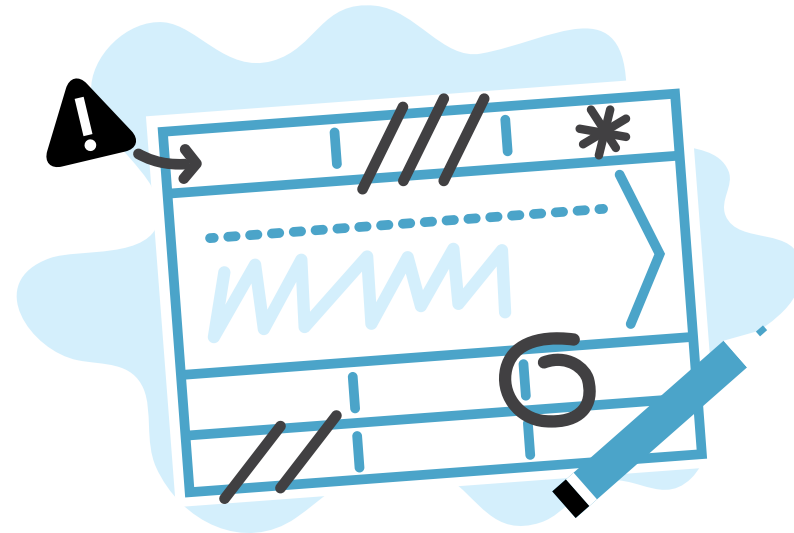
The main input of the Service Provider at this stage is in creating a project plan for the first project for eco-innovation. This plan needs to be approved by the Senior Management Team before the work can begin. Once the project is up and running, your input will be to provide some management guidance to keep the project on track. Some advice on this topic is given provided covering some of the more challenging aspects of supporting a project for eco-innovation.

IM.1

Create a project plan

Simple activity

The aim of this activity is to create a project plan for the first project for eco-innovation.



INPUT

- Scope and prioritised requirements for the first project for eco-innovation, from the activity *BR.3 Define and prioritise the requirements of the first project.*

OUTPUT

- A detailed plan for the first project for eco-innovation, used for the activity *IM.2 Present the project plan to the Senior Management Team.*

IM.1 Create a project plan

The aim of creating a project plan for the first project for eco-innovation is to help ensure that the project runs smoothly and effectively. By creating a clear plan, you will avoid raising the concerns of the Senior Management Team who may require the opportunity to review and sign-off the plan before allowing work to commence.

To help you create a project plan, the 'Project Canvas' template is provided below, although some companies may want you to use their own project planning template. Whatever template you use, the key questions you need to think about are described below.

HOW TO GO ABOUT IT

Questions to address within the project plan:

1. **What are the aims and objectives of the project?** A clear definition of aims and objectives must be provided to ensure that the company understands what the project must achieve and how they will know if they have been successful. The aims and objectives should be in line with the project scope agreed by the Senior Management Team in the activity 'Pitching the implementation roadmap to the CEO'. For instance, the aim of a project may be to develop a better understanding of a novel technology, thereby reducing the technical risk of committing to launching a new product that incorporates the new technology. Based on this, a project objective may be to create a prototype of the product.

Similarly, a prototype product may be used to gather feedback from customers in order to create a better understanding of the likely market acceptance, in order to reduce the commercial risk. This section of the plan should also briefly explain how the project

will contribute to the implementation of the new business model and the achievement of the strategic goals.

2. **What will be the deliverables from the project?** The sustainability benefits of the project should have been identified in the BUILD ROADMAP phase. At this stage it is important to understand what actually needs to be delivered in order to realize those benefits. In some cases the scope of the project may not extend to delivering the complete innovation idea. If the aim of the project is to create a partial solution, as a stepping stone to the full solution, the plan

Template of Project Canvas



IM.1 Create a project plan

needs to clearly identify the limitations of the project deliverables with respect to the complete solution i.e. “The ultimate aim is to implement a Design for Sustainability procedure across all design teams. In this project the scope is limited to implementing the procedure with a single design team.”

3. **What resources are required to complete the project?** The evaluation of the cost and effort of implementing the new business model (described in the activity *BM.16 Evaluate the costs*) should have identified the main costs for the company of implementing the innovation idea, but some effort should be made to list the resources required including budget, personnel, equipment. Particular focus should be given to resources that are not currently available (e.g. test facilities) and how they might be sourced (e.g. work with local university).
4. **Who should be involved in the project?** Consideration should be given to the skills and knowledge that will be of particular importance to the project. Unfortunately, it may not be feasible to use the company’s most experienced or knowledgeable personnel as these people are often critical to the day to day operations of the company and so cannot be assigned to the project for eco-innovation. Nevertheless, it is important to receive input from these experienced people where possible, so try to get them involved as a stakeholder for the project or mentor to younger members of the project team. Whenever possible, the project team should be gender-balanced.
5. **What are the implications for other parts of the company and value chain partners?** The project for eco-innovation selected may focus on one or two particular business model blocks but it is important to consider the possible implications for the other blocks. In particular, could the project proposal be adapted in some way in order to generate wider benefits across the company or for value chain partners?
6. **How will the project be managed?** The project plan needs to provide a suggestion for how the project will be managed. This should make clear:
 - Who is ultimately responsible for the success of the project?
 - When and how will project progress be reported?
 - Will the project run alongside day-to-day operations or be implemented by a separate and dedicated team?
 - What actions will be taken if the project is not progressing as planned?
7. **How will risk be managed?** The Risk Register that was initially completed during the *SET BUSINESS MODEL* phase should be reviewed and updated regularly as a tool for risk management.

IM.1 Create a project plan

LEARNING CASE STUDY OF PROJECT CANVAS

Aims and objectives <i>Reduce fish loss in the factory per tonne of fish processed by 25%</i>		Scope <i>All processes from goods inwards to leaving factory. 12 months duration.</i>		Success criteria <i>Achieve target of 25% reduction within 12 months and within budget of \$10,000</i>	
Milestones <i>Month 3 Identify sources of losses</i> <i>Month 6 Complete first sub-project</i> <i>Month 9 Complete first sub-project</i> <i>Month 11 Complete first sub-project</i> <i>Month 12 Review results</i>					Deliverables <ul style="list-style-type: none"> • Baseline data • Report summarising sub-projects completed and results • Budget use report
Actions <ul style="list-style-type: none"> • Capture baseline data • Perform mass balance at input and output of each process step to identify major sources of losses • Generate loss reduction ideas for top three sources of losses • Select solutions to implement and update project plan 					
Team <ul style="list-style-type: none"> • Production Manager • Service Provider (one day per week) 		Stakeholders <ul style="list-style-type: none"> • Production Operatives • Senior Management Team 		Customers <ul style="list-style-type: none"> • Senior Management Team 	
Resources <ul style="list-style-type: none"> • \$10,000 budget • One production line 		Constrains <ul style="list-style-type: none"> • Staff will not agree to changes in working practices • Use of sub-standard product to reduce waste 		Risks <ul style="list-style-type: none"> • Staff will not agree to changes in working practices • Use of sub-standard product to reduce waste 	

IM.1 Create a project plan

BACKGROUND INFORMATION

References and resources

Project template:

- Developed by Project Canvas at <http://www.projectcanvas.dk/>

→ Further information in the Metals Supplement



ARE CURRENTLY NOT AWARE OF PROJECT

WEAKNESSES (INTERNAL)

FOR PARTICIPATION ARE NOT CLEAR

getting by in
- lack of
- expertise mainly
- time constraints

John
- limited knowledge
- miss view / imbalance
- geographic dispersion
- lack of source on
- collaborations are
- KS, SM.

Weaknesses
- interaction btw
- champions of these hidden
- lack / limited communication
- connections btw
- champions & stakeholders
- lack of correct
- contact details

Grace
Weaknesses
- geographic dispersion
- lack of skills
- weak collaboration
- mixed vision/CS
- connections
- time constraints
- outdated content
- lack of support from
- management + users

SECTOR

10'S OF EXISTING DATABASES BUT DISCONNECTED EVEN WITHIN EACH PARTNER

Weaknesses
- tight timeframes
- lack of common understanding of goals for the KS
- timing

• strict terms of reference
• researchers not willing to share
• culture of paper-based exchange of info.

CONTACTS DATABASE NOT YET AVAILABLE

Limited Bandwidth
- Key stakeholders are geographically dispersed
- Limited Bandwidth capacities

- SMALL COURTOUR TEAM AT RG/ML LEVEL → Workload
- Weak linkages with other Fara initiatives
- Need for str ICT/M Skill improvement (DADY)

Weaknesses • Neble
- New technology (will people want to learn and use it?)
- complexity of links in between different restricted sections
- how to facilitate of these new features?
- different software used in between sections of Website

KS in R - NEARNESSSES
- Lack of strong networks within the CG/AR
- Lack of KS in R team
- "Hub and Spoke" model
- Geographic dispersion

- Static content, no one uses
- little attention to outposted staff
- not clear who's in charge
- IT has different vision
Pete

• Weak research and stakeholder linkages
• Low ICT skills of most researchers.
• Too many researchers sharing few computers

lack of collaboration with IT groups.
Slow decision making on technical solutions
NAO - George

Weaknesses
- this is new time - in learning we go!
- lack of skills needed to support the system
- experts to some extent (e.g. not working together)

- clear - friendliness
- updating of content

Weaknesses
- Reason for working in collaboration
- Agreement for key message
- Total commitment to tool
- not having Comm. Officers more involved

- Lack of time
- Poor understanding of KS options
- Demand re-orientation
- Connectivity

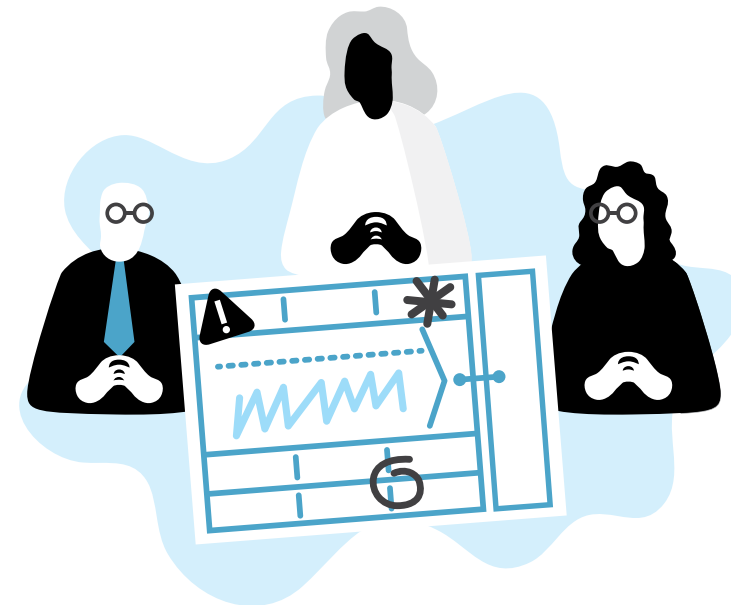
Weaknesses
→ Not updated content
→ Regional staff hardly to access it
→ Search function is not working well
→ Minimum participation from staff / scientists
Chris

IM.2

Present the project plan to the Senior Management Team

Complex activity

The aim of this activity is to present the project plan to the Senior Management Team and respond to any feedback before proceeding with the first project for eco-innovation.



INPUT

- Scope and prioritised requirements for the first project for eco-innovation, from the activity *BR.3 Define and prioritise the requirements of the first project*.
- A detailed plan for the first project for eco-innovation, from the activity *IM.1 Create a project plan*.

OUTPUT

- Approval from the Senior Management Team for the project plan. This output is not used elsewhere but may be necessary to allow you to proceed with the first project for eco-innovation.

IM.2 Present the project plan to the Senior Management Team

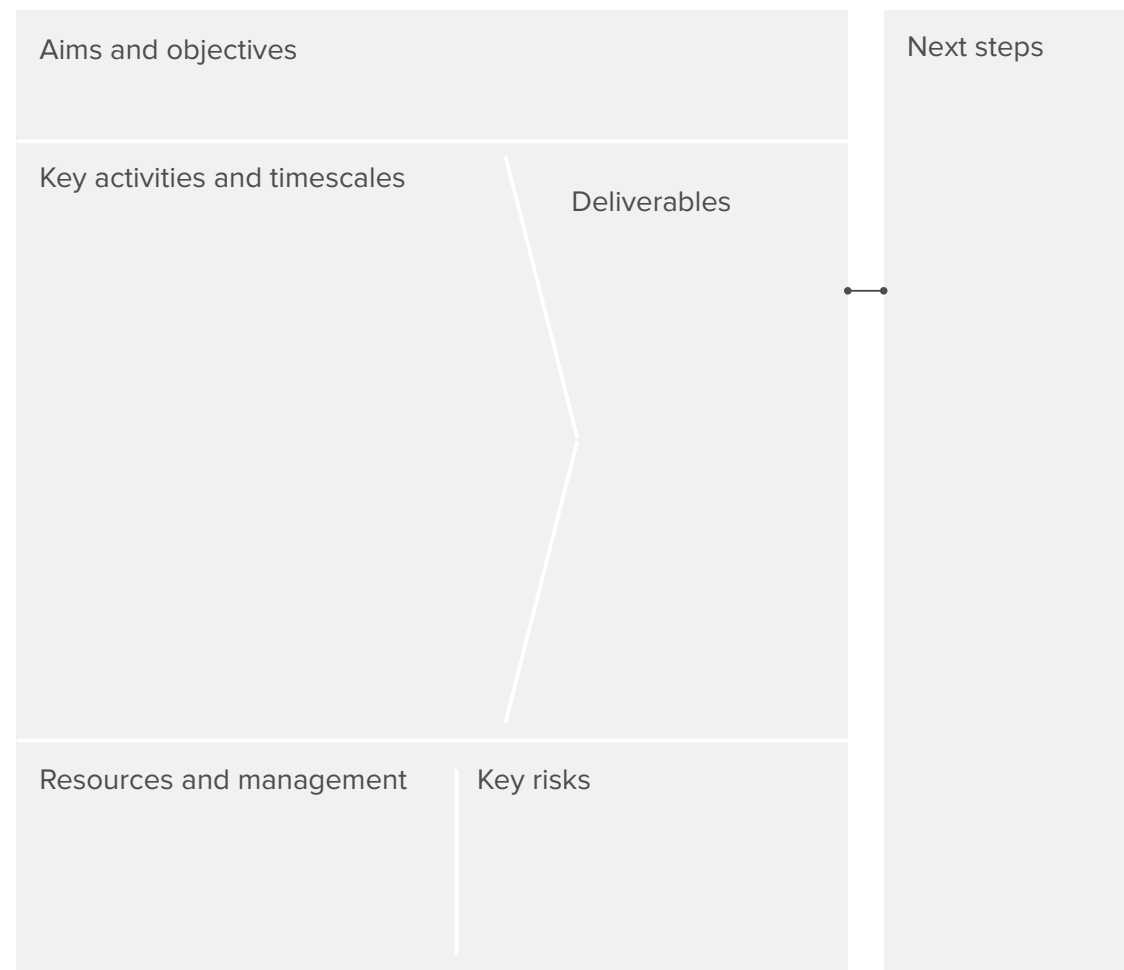
Depending on the company, it may be necessary at this stage to present the project plan in order to gain Senior Management Team approval to proceed or to obtain resources (internal or external). During the *BUILD ROADMAP* phase, the Senior Management Team will have agreed in principle to proceed with the project. The aim of this presentation therefore is not to convince the Senior Management Team of the potential business benefits of the first project for eco-innovation but to convince them that a realistic plan is in place that will deliver the business benefits that have been promised. This presentation will draw heavily on the content project plan and the previous preparatory work. Guidance on what to include in the presentation is provided in the box below.

HOW TO GO ABOUT IT

Suggested topics to include in the presentation of the project plan to Senior Management:

- **Aims and objectives of the project** – in particular, has anything changed since the *BUILD ROADMAP* phase?
- **Deliverables and timescales** – if the deliverable is a new product (or prototype) you may want to create a one-page marketing flyer that describes the features and benefits of the product to help the Senior Management Team understand what the product is and how it would be marketed to the user.
- **Key activities** – what needs to be done to successfully complete the project?
- **Key risks** – what could go wrong and what are you doing to mitigate those risks. The Risk Register created during the *SET BUSINESS MODEL* phase should be revisited and updated for this purpose.

Template of Project Pitch



IM.2 Present the project plan to the Senior Management Team

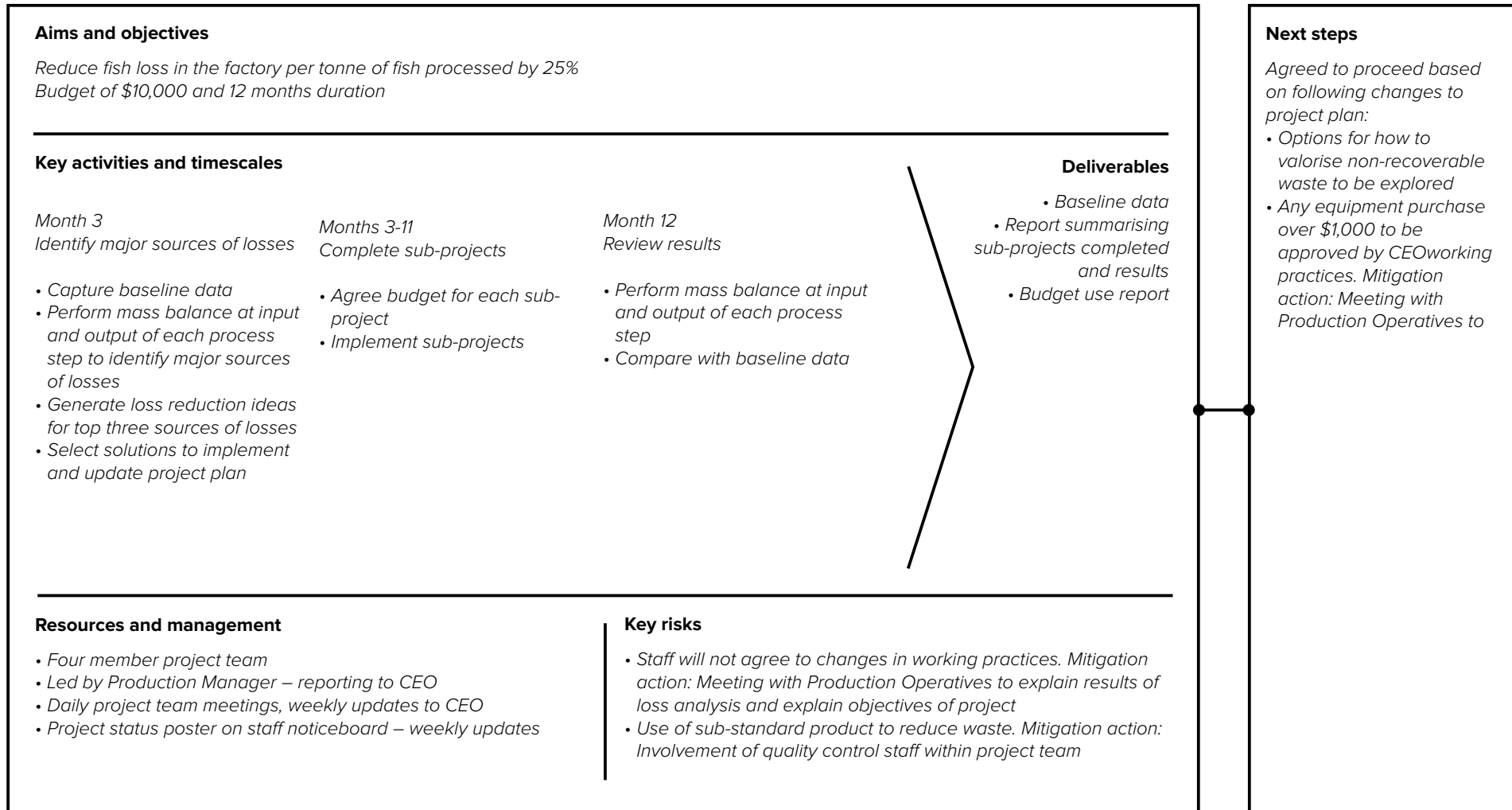
- **Resources and management** – what resources are required and how will the project be managed.
- **Next steps** – if the project is approved what will be the first actions taken.

The output of the meeting is likely to be one of the following decisions:

- **Agree to proceed** – Well done! Proceed with the activities outlined in the ‘next steps’ section of the presentation.
- **Request for more information** – if there are unanswered queries following the presentation you may be required to go back to some of the earlier steps to fill in missing details or identify evidence in support of key assumptions. It is important to agree a timescale for the next review in order to avoid the project stalling.
- **Pause** – there may be many reasons why the company might not feel ready to proceed with the project. Try to determine exactly what it is about their current situation that is making them reluctant to proceed. Try to identify ways that you can help the company to get to a position where they would be ready to begin the project.
- **Abandon** – at this stage it is unlikely the company will abandon eco-innovation entirely but it may be that another idea is now preferred. Try to investigate what has caused this change of preference before deciding how to proceed.

IM.2 Present the project plan to the Senior Management Team

LEARNING CASE STUDY OF PROJECT PITCH





STEP

Support the implementation activities

ACTIVITIES

IM.3

Provide guidance and solve problems

OVERVIEW

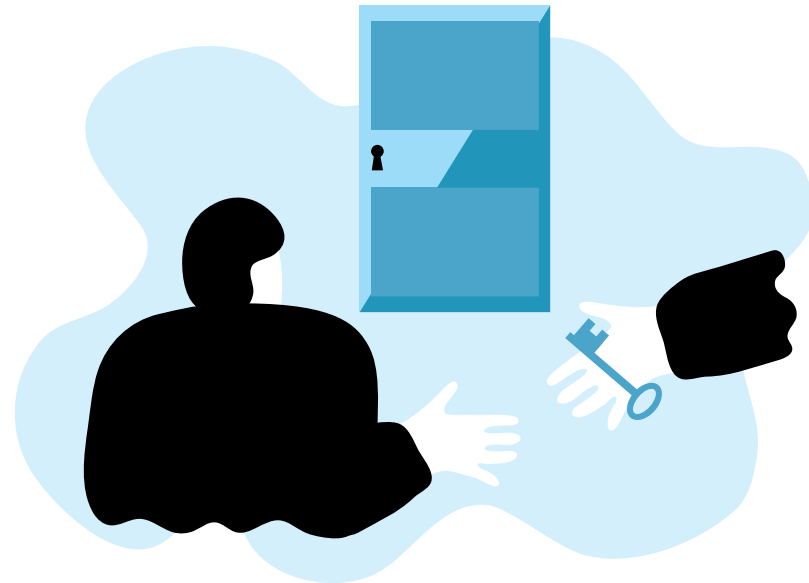
During the completion of the first project for eco-innovation, the level of support and guidance you provide will depend on the nature of your role in the project. Some companies will need you to act as the day-to-day project manager and have full responsibility for implementing the project. Other companies will appoint their own project manager and use your services to provide oversight, mentoring and troubleshooting. Whatever your role, it is important to ensure that the first project for eco-innovation is completed successfully.

IM.3

Provide guidance and solve problems

Requires dialogue

The aim of this activity is to provide appropriate guidance and problem-solving support for the company during the execution of the first project for eco-innovation.



INPUT

- A detailed plan for the first project for eco-innovation, from the activity *IM.1 Create a project plan*.

OUTPUT

- First project for eco-innovation completed successfully, used for the Phase *REVIEW*, throughout the step *Review the performance of the first project for eco-innovation*.

IM.3 Provide guidance and solve problems

Many of the things you can do to support the first project for eco-innovation will be similar to normal innovation projects, but there are some aspects that require special attention within a project for eco-innovation. This activity highlights some of those issues and provides guidance on how to address them.

HOW TO GO ABOUT IT

Make responsibilities clear

At the start of a project for eco-innovation, it is important to make sure responsibilities and ownership of tasks are clear, this will help to get engagement and commitment from project team members. As eco-innovation will involve new, and sometimes unplanned, activities it can be difficult to allocate all of the tasks to relevant personnel at the start of the project. However, as a minimum, you should request the on-going support of the Focal Point to coordinate and monitor the progress of the project. Depending on the situation, it may be that you as the Service Provider take on the Project Manager role. Alternatively, the CEO may appoint a Project Manager to the project from their own personnel. Either way, a key aspect of the Project Manager role is to ensure that tasks are allocated to individuals who then have the responsibility to ensure that the task is completed on time and in accordance with the specification. Where a project falls across two or more different functions within an organization (e.g. 'Production' and 'Marketing') it is particularly important to ensure that responsibilities and reporting channels are clear to avoid the project 'falling down the cracks' between the functions.

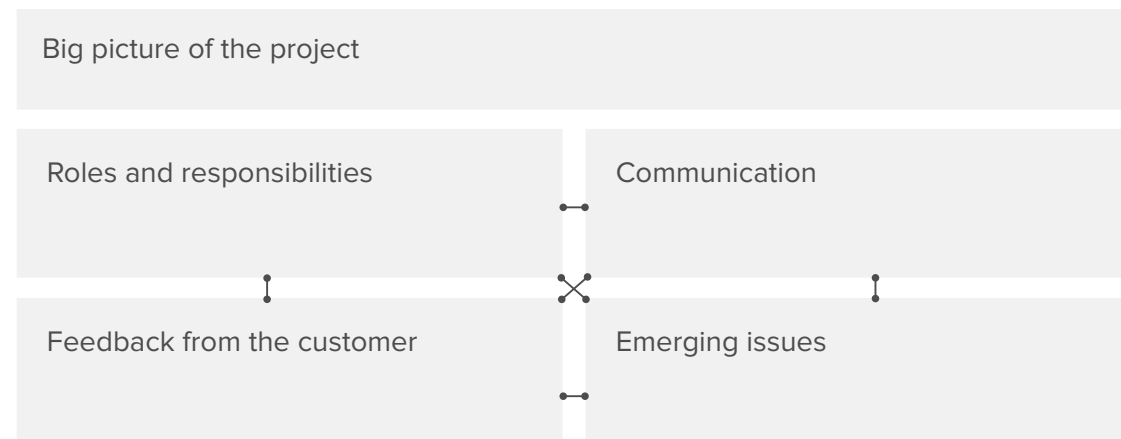
Establish ways to communicate

Communication is another important aspect of a project for eco-innovation in which the Project Manager will play an important role. The

Project Manager should act as a central focal point for the project and make everybody aware that if they have any questions, comments or concerns about the project then the Project Manager should be the first person they speak to. This is true for both internal and external partners (for example where suppliers or research centres are involved in the project). Other ways to promote good communication include:

- Set-up a project notice board – This should provide key facts about the project such as the aims and objectives of the project, who is involved, how other people can contribute etc. The project notice board should also be used to record what activities each team member is working on and their progress. It is important that this information is regularly updated so that the notice board is viewed and credible and up to date source of information about the project.

Template of Project Implementation



IM.3 Provide guidance and solve problems

- Hold regular progress meetings – If members of the project team are working on different tasks it can be useful to hold regular progress meetings (every fortnight for example) where one person per task reports on progress on that task. This does not need to involve every member of the team, just those that are the owner of a particular task. To ensure the meetings are short and effective, try to establish a simple set of questions for people to answer when reporting back. For example:
 - What progress has been made?
 - What has gone well?
 - What problems have you encountered?
 - What could we do to improve performance?
- Organize open briefings – Much of the eco-innovation activity within the company to date may have been conducted by you as the Service Provider in discussion with the Senior Management Team. Therefore, the start of the project is a good opportunity to organize a briefing session that anybody within the company can attend to learn about the project and ask questions. Such briefings should not be compulsory to attend as otherwise they can become a significant cost for the company. Further briefings after key milestones can also be useful to keep interested stakeholders up to date.

Get regular feedback

Related to the issue of communication is the issue of feedback. Within projects that aim to develop a new product, there should be somebody in the project team that is acting as the representative of the customer (sometimes called the ‘Voice of the customer’). That person should receive regular updates and demonstrations so that

they can provide feedback. It is important to get this feedback as early as possible so that changes can be made before further work is completed, which makes changes more difficult and considerably more expensive. In order to get early feedback, the product development schedule should prioritize the completion of key features at the start of the project, even if this means presenting the representative of the customer a partial solution, so that they can provide feedback on the features of the solution that are complete. Organizing regular (e.g. fortnightly or monthly) ‘demonstration’ meetings with the representative of the customer to gather feedback, also has the advantage that it provides frequent small milestones that can help focus and motivate the project team.

Solve problems quickly

During the course of a project for eco-innovation, you are likely to encounter some problems. Creative thinking can help to overcome these problems quickly and effectively. To help encourage creative problem solving, you can help the team to apply structured problem solving tools. One activity that can help with this is applying the *9 Windows on the World template*. This template was introduced in the activity *BM.7 Generate technical ideas for the value proposition block* to support idea generation, but it is also well suited to dealing with technical problems. Refer back to the activity *BM.7 Generate technical ideas for the value proposition block* for instructions on how to apply the *9 Windows on the World template*. If a solution cannot be found within the company then it may be necessary to look to external partners for ideas. For instance:

- Suppliers often have a lot of technical knowledge about their products which may be helpful.

IM.3 Provide guidance and solve problems

- Trade associations may be able to put you in contact with other companies that face the same problem as you so that you can work on a joint solution.
- Retailers may be able to provide more insights into customer buying habits or help you engage directly with end users.

Keep the big picture in mind

A final consideration for the Service Provider during the *IMPLEMENT* phase is that you must ensure that the project team continue to be aware of the big picture to which the project is contributing. For instance, are decisions being made that are consistent with the business model and business strategy that have been set? Is the project having a positive impact on the company's social issues such as gender equality? What other operational areas of the company will be impacted by this project? What have we learned that reinforces or casts doubt on the assumptions that were made prior to beginning the project? The aim here is to strike a balance between maintaining focus on completing the project as quickly and effectively as possible but at the same time trying not to miss opportunities that might emerge to enhance the business value of the project by becoming too 'blinkered'. This is a difficult challenge, but remember that a comprehensive review of the project will be undertaken following the completion of the project - described in the *REVIEW* phase.



IM.3 Provide guidance and solve problems

LEARNING CASE STUDY OF PROJECT IMPLEMENTATION

Big picture of the project

- What impact is reduced fish loss in the factory having on the wider value chain? Is fish catch reducing? Is the price of tuna going down?
- How is the project viewed by staff? Is it helping to embed a culture of eco-innovation? What impact is reduced

Roles and responsibilities

- Production Manager:*
- Day-to-day project management
 - Communication with management team
 - Planning of tests

- Production Technicians:*
- Implementation of tests
 - Data gathering
 - Support for idea generation

- Service Provider:*
- Propose ideas to test
 - Review of testing
 - Communication with management team

Communication

- Weekly progress meetings:*
- Managed by Production Manager
 - CEO audience

- Project noticeboard:*
- Managed by Production Technicians
 - All internal audience

- Progress reports:*
- Managed by Service Provider
 - Senior Management audience

Feedback from the customer

- 'Customer' is Senior Management Team
- Feedback from first progress report was positive
- Keen to see results of first sub-project

Emerging issues

- 'Significant quantity of fish discarded at first quality inspection, apparently due to poor temperature control during transportation from market. Could include this process within the scope of the project.'

IM.3 Provide guidance and solve problems

TIPS & TRICKS

GET CEO TO EXPRESS SUPPORT

The explicit support of the CEO is often an important factor in the success of large projects. Therefore, ask the CEO to make a statement to all staff at the start of the project to help launch the practical eco-innovation activities, expressing why the company is pursuing an eco-innovative strategy and how this first project will contribute to that strategy.

→ Further information in the Agri-foods and Metals Supplements





it be free for?

it wouldn't be run efficiently if TOTALLY free.
It should be free for people who would endanger others by driving (legally blind, etc.)

Buses were made Free in Chapel Hill and they ran on time and better since no load up with payers! would be interesting to see free bus routes here and ridership increases

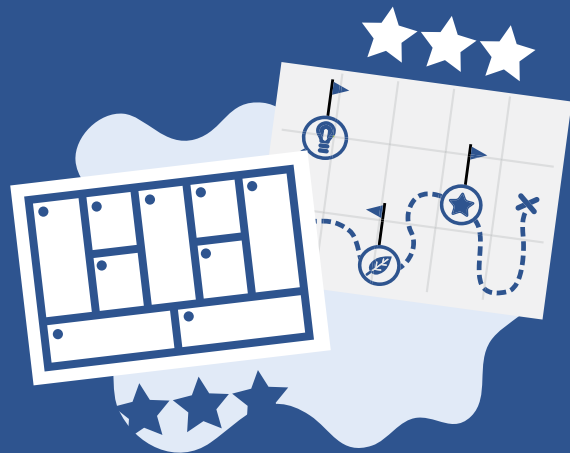
↑ one pass for the DDs brought to bus at Chapel Hill.
Buses would benefit, maybe use them, and at bus on city.

TO USE Public Transportation for FREE, As is done in many other cities

For students on weekends to discourage drunk driving
Disables -vet
- Seniors
- Baby!!!

Check phone numbers for changed bills

Change people to drive more when car pool



REVIEW

Review the performance of the first project for eco-innovation and update your plans for the future

PHASE 6 — BM

REVIEW

OVERVIEW

By this point, both you as the Service Provider and the company should have significant experience and knowledge of eco-innovation. It is now time to review the outputs of the first project for eco-innovation and determine if the current roadmap and business model are delivering the desired business performance and remain aligned with the business strategy. The REVIEW phase therefore features two main steps, the review activity and the planning of next steps.

STEPS & ACTIVITIES

Review the performance of the first project for eco-innovation

Do a project review workshop

RE.1

Do a personal review

RE.2

Review the business model and roadmap and agree the next steps

Review the business model and roadmap

RE.3

Present the review conclusions and agree next steps with the CEO

RE.4



STEP

Review the performance of the first project for eco-innovation

ACTIVITIES

RE.1

Do a project review workshop

RE.2

Do a personal review

OVERVIEW

Having completed the first project for eco-innovation it is worthwhile taking some time to review the performance of the project. This is achieved through a review workshop. It is also worth reviewing your personal performance as a Service Provider to reflect on how you could improve and what other markets you might be able to target with your services.

RE.1

Do a project review workshop

Complex activity

The aim of this activity is to review the performance of the project and consider how future projects could be implemented more effectively and efficiently.



INPUT

- Results of the first project for eco-innovation.

OUTPUT

- Short report describing the outputs of the project review.
- Five actions that could be implemented to improve the performance of future projects.

These outputs are used in the activity *RE.2 Do a personal review* and *RE.3 Review the business model and roadmap*.

RE.1 Do a project review workshop

The project review should focus on the performance of the project, the results achieved and the ways that future projects could be improved. Ultimately, you are trying to answer the questions:

- Did the project accomplish what it set out to achieve?
- What wider benefits have been generated by the project (e.g. any new knowledge and skills, new partnerships, improved gender equality or brand and public relations benefits)?
- How could future projects be managed differently to make them more successful, efficient and cost-effective?

Gathering the information you need to answer these three questions can be done efficiently through a review workshop. A suggested process for this review workshop is provided below. If you are unable to obtain the participation of the relevant personnel you will need to perform the review yourself and try to get your findings and conclusions validated by your Focal Point within the company.

HOW TO GO ABOUT IT

1. Review workshop planning

If you have not already done so, seek the permission of the CEO to perform the review workshop. Explain to the CEO that the purpose of the review workshop is to determine the results and benefits of the project and to identify ways to improve the performance of future projects for eco-innovation.

Decide on the scope of the review in terms of time period considered, which aspects of the project will be covered and who will be consulted during the review. If value chain partners have been involved in the project, it may be useful to obtain their feedback within

the review process. Gaining feedback from partners will be particularly important if they are due to be involved in subsequent projects on the roadmap as you will need to ensure that they are satisfied with the business benefits they are realising from the eco-innovation activities and remain motivated to continue with their involvement.

Whilst feedback and improvement ideas for all aspects of the project should be welcomed, it can be useful to focus attention on one or two key aspects. For instance, if the aim of the project was to develop a more sustainable packaging solution, the review might focus on the technology development process and the communication between the production process, design and marketing personnel.

Aim to complete the review soon after the completion of the project – when project team members will still be able to remember the details of the project. However, it is important to allow time for the results of the project to become clear. For example, if the project was about the development of a more sustainable packaging solution you may have to wait 3-6 months to obtain the product sales data in order to be able to evaluate the consumer acceptance of the new design.

Gather and review project documentation such as the requirements specification and the Risk Register. Also gather evidence of the results and benefits of the project e.g. data showing a reduction in the energy consumption of production processes following the introduction of a new manufacturing process.

Decide on who should participate in the review workshop. Team leaders are good candidates to involve in the review because they should have a good overview of the activities completed

RE.1 Do a project review workshop

and the problems encountered. The presence of members of the Senior Management Team may inhibit some participants from providing a critical and honest review of the project and should therefore be avoided. Try to ensure a gender balanced group of participants for the review workshop.

Prepare a review form that includes no more than 10 questions about the key aspects of the project you would like to review. Send each participant a copy of the review form to complete prior to the workshop. Some basic, generic questions are:

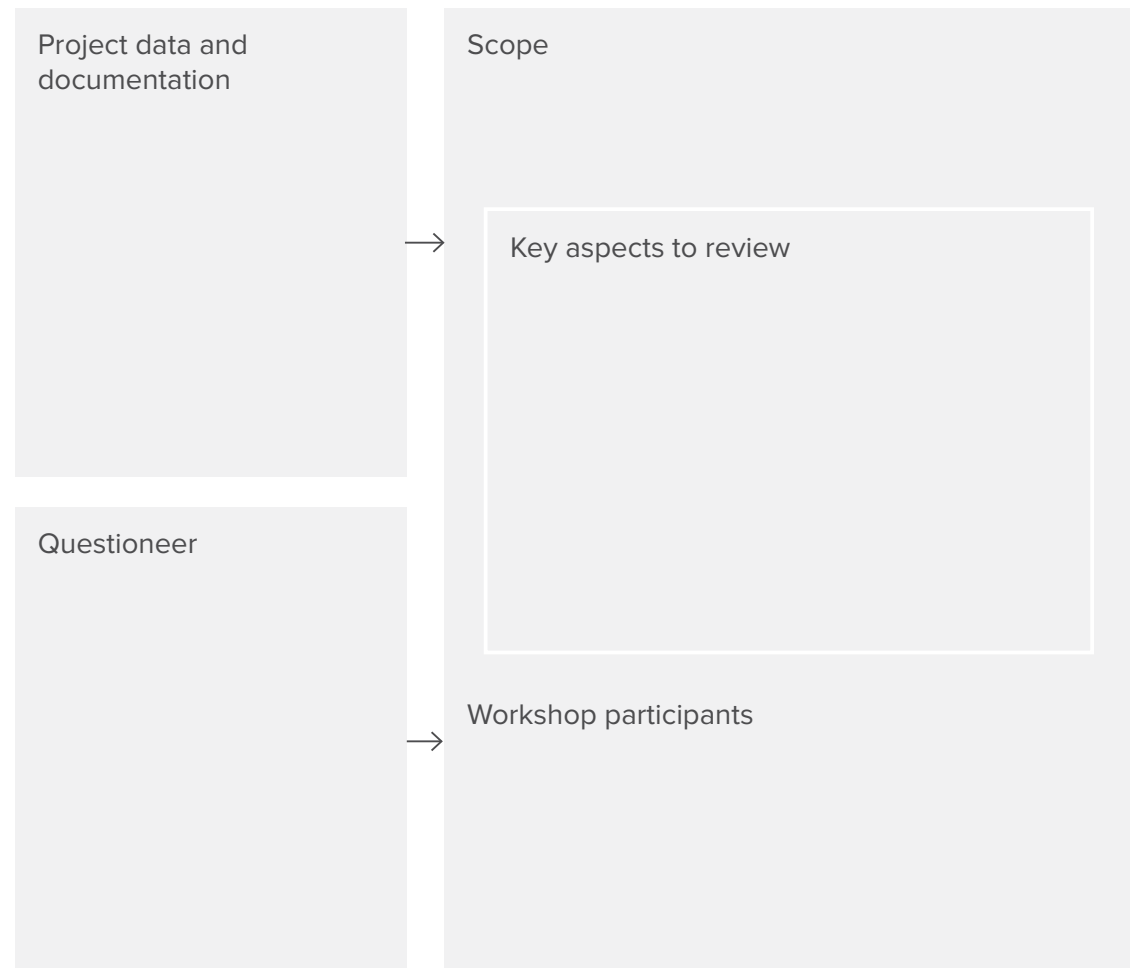
- Did the project accomplish what it set out to achieve?
- What went well within the project?
- What was challenging about the project?
- What could have been done differently?
- What wider benefits has the project generated beyond its primary scope? (e.g. any new knowledge and skills, new partnerships, improved gender equality or brand and public relations benefits)?
- What have you learned from participating in the project?

Try to develop your own more specific questions for inclusion in the review form. Ask the participants to bring their completed review forms with them to the workshop.

2. Facilitating the review workshop

Begin the workshop by explaining that the purpose of the review is to determine the results and benefits of the project and to identify ways to improve the performance of future projects for eco-innovation. Ask participants to be open, honest and objective when

Template of Project Review



RE.1 Do a project review workshop

providing their feedback. It can also be productive to ask participants to focus their criticisms on the project process, not on individuals.

Ask each participant in turn to read out one of the points they have made in their review form. Allow some time for discussion of each point, but aim to keep progressing through the points so that there is an opportunity to hear all of the points. Continue until all points have been heard.

Based on the points raised and the discussion, ask the participants to list their top five actions that can be taken to improve the performance of future projects and make a note of these.

3. Reporting the findings of the review

To ensure that the conclusions from the review are captured and acted upon it is important to summarize the findings from the review workshop into a short report. This should explain the scope of the report, describe the review workshop activity and highlight the recommended actions to improve the performance of future projects.

One aspect to think about is how the benefits of the project could be enhanced. For instance, if a new eco-innovative product has been launched, should the company now apply for an eco-label for the product? Is there an award scheme for sustainable product innovations that you could enter? Are there other parts of the company that could benefit from what has been achieved within the project? These types of follow-up actions should be noted in the report for discussion at the roadmap and business model review.

Once the review report is ready, you should try to arrange a short meeting with the CEO and the Senior Management Team in order to present a summary of this report. This presentation can be integrated at the start of the roadmap and strategy review, described in the activity *RE.3 Review the business model and roadmap*.

→ Further information in the Metals Supplement

RE.1 Do a project review workshop

LEARNING CASE STUDY OF PROJECT REVIEW

Project data and documentation

- Process mass balance completed in month 12 shows a 28% reduction in fish loss compared to the baseline data
- Project budget report shows that \$8,500 spent from \$10,000 budget
- Conclude that project achieved its main objectives

Review questionnaire

- Did the project achieve its objective to 'Reduce fish loss within the factory by 25% within 12 months'?
- Could a greater reduction of fish loss been achieved? If so, how?
- Has the project helped to promote a culture of eco-innovation in the company?
- What other benefits has the project delivered?
- Has the project had any negative impacts for Tasty Tuna?
- Did the sub-projects address the most important sources of fish loss within the factory?
- Was the process for generating ideas to reduce loss completed in a thorough and systematic manner?
- Were there other ideas that you think are still worth implementing?
- What was the most challenging aspect of the project?
- How could the implementation of future projects be improved?

Scope

- Scope to exclude the third sub-project as this was not fully implemented
- Review questionnaire will be sent to all Production Operatives, project team, and Quality Manager

Key aspects to review

- Results and positive impacts of the project – generating convincing data to present to Senior Management Team
- Idea generation process – was the idea generation process effective?
- Learning – How could we improve in future projects?

Workshop participants

- Production Operatives x2
- Production Team Leaders x2
- Production Manager
- Production Technicians x2
- Quality Manager

Trauma

-Bad thoughts V^s
good thoughts.

RE.2

Do a personal review

Simple activity

The aim of this activity is to review your own personal performance as a Service Provider and think about other markets in that might benefit from your services.



INPUT

- Results of the first project for eco-innovation.
- Short report describing the outputs of the *Project Review template* from the activity *RE.1*
Do a project review workshop.

OUTPUT

- Five actions you can take to improve your own performance in supporting future projects for eco-innovation
- Ideas for new markets that could benefit from your services. This output is not used elsewhere but it will help to improve all future eco-innovation activities.

RE.2 Do a personal review

The review until now has been focused on the benefits for the company and what they have gained. However, you should take the time to review your own performance, what you have learned and what your next steps should be.

HOW TO GO ABOUT IT

1. Ask yourself the following questions
 - What did I do well?
 - What did I find challenging?
 - What could I do differently in future projects?
 - What have I learned?
 - Are there other markets that I should target with my eco-innovation services?
2. Try to generate five actions you can take to improve your performance in supporting future projects for eco-innovation.
3. If you have identified potential new markets for your eco-innovation services, this will involve returning to the *PREPARE* phase in order to assess the attractiveness of the market and build your understanding of that market.

→ Further information in the Metals Supplement

Template of Personal Review

What did I do well?	What did I find challenging?	Feedback from others
What have I learned?	What should I do differently in future projects?	

Are there other markets that I should target with my eco-innovation services?

RE.2 Do a personal review

LEARNING CASE STUDY OF PERSONAL REVIEW

What did I do well?

- *Productive weekly meetings with CEO*
- *Helped to generate a wide range of improvement ideas – some of which could be implemented in a future project*
- *Generated good baseline data and was able to demonstrate improvements achieved in a robust manner*

What did I find challenging?

- *Managing quality control issues that arose*
- *Unable to proceed with third sub-project due to high capital cost of anaerobic digestion equipment*
- *Dealing with Production Operatives that were reluctant to implement new practices*

Feedback from others

- *CEO impressed with results achieved within 12 months*
- *Production Manager would like to delegate responsibility for technical feasibility studies in future projects as they require dedicated attention*
- *Production Operatives were pleased to be involved in problem solving activities*

What have I learned?

- *When problems arise that create a conflict between project objectives and day-to-day operation of the company then early input from CEO is required to decide on priorities and best way to resolve conflict*
- *Dealing with the concerns of staff is key to the success of any project*
- *Production Operatives can be a great source of ideas when give the chance to participate in problem solving*

What should I do differently in future projects?

- *Complete some training on change management*
- *Get ballpark figures for technology costs early in the process to avoid wasting time on technology that is too expensive for the budget*
- *Try to identify potential sources of internal conflict during project planning*
- *Seek advice from CEO when internal conflicts do arise*
- *Include clear description of benefits for operational staff in project poster*

Are there other markets that I should target with my eco-innovation services?

Very similar challenges identified in other food processing companies – need to investigate these opportunities further

STEP

Review the business model and roadmap and agree the next steps

ACTIVITIES

RE.3

Review the business model and roadmap

RE.4

Present the review conclusions and agree next steps with the CEO

OVERVIEW

During the first project for eco-innovation you will learn a lot about the needs of the market, market trends, the innovation capacity of the company and the willingness of the supply chain to participate. There may also have been new developments in areas such as technology, the price of energy and commodities, or legislation. You will also have learned about which aspects of the business model are working well and which need some refinement. Now is therefore a good time to review and update the business model and roadmap.

RE.3

Review the business model and roadmap

Requires dialogue

The aim of this activity is to review the business model and roadmap then make any necessary changes based on what you have learnt during the first project for eco-innovation.



INPUT

- Results of the first project for eco-innovation.
- Short report describing the outputs of the *Project Review template* from the activity *RE.1 Do a project review workshop*.
- Five actions that could be implemented to improve the performance of future projects from the activity *RE.2 Do a personal review*.

OUTPUT

- A proposal for changes to the business model and roadmap or confirmation that no changes are required used in the activity *RE.4 Present the review conclusions and agree next steps with the CEO*.

RE.3 Review the business model and roadmap

The *Business Model and Roadmap Review template* can be completed to a large extent by you working alone. You can then present your findings and recommendations to the CEO and Senior Management Team. The key activities in this review are discussed below. Note that the focus is on the roadmap and business model because the overall strategy should not need updating regularly, although some small adjustments to the strategy and goals may be necessary at times.

HOW TO GO ABOUT IT

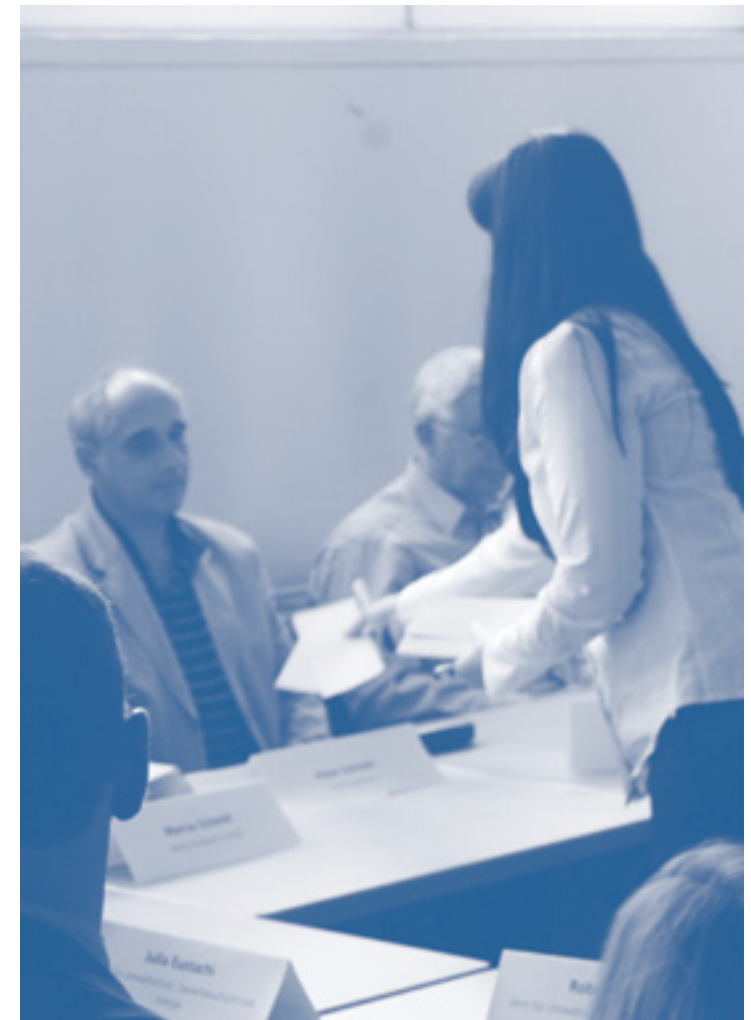
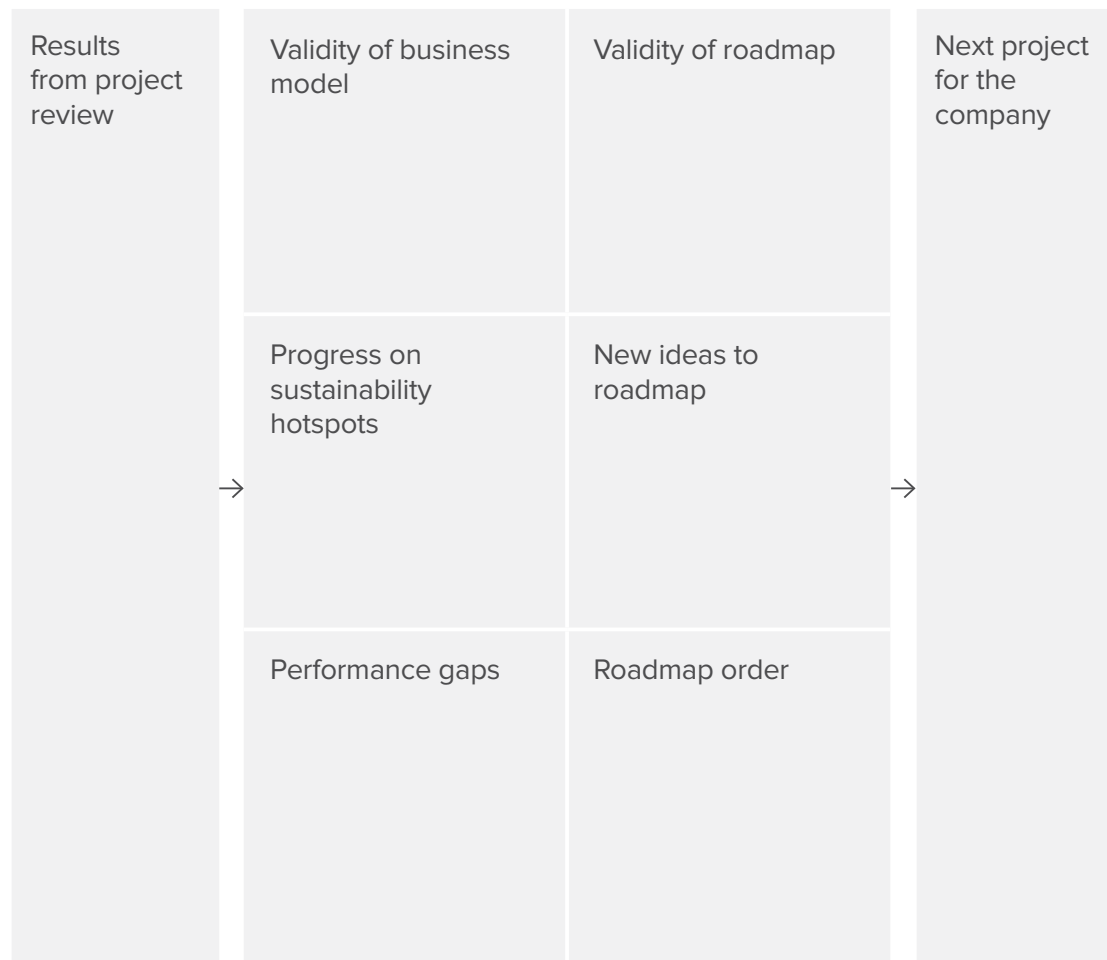
Key activities to cover within the review of the business model and roadmap:

- Look again at the recommendations from the *Project Review template* and consider if there are any implications for the business model or roadmap? For example, is there a need for additional training on topics like life cycle thinking before proceeding with the next project? Was the lack of engagement from suppliers highlighted as a problem, and if so, what could be done to address this?
- Review the business model and try to evaluate:
 - Is there any new information of evidence that strengthens or weakens your confidence in the validity of the business model? In particular, what has been the response of competitors? How are they adapting, and are new competitive threats emerging? If you have serious concerns about the validity of the business model then your recommendation to the company should be to revisit the *SET BUSINESS MODEL* phase in order to address the issues.
 - What progress was made during the last project on the sustainability hotspots identified during the In-Depth Assessment?
- Were any new performance gaps identified over the course of the project? If so, try to generate new project ideas to overcome those gaps and add them to the roadmap.
- Review the roadmap and decide:
 - Is there any new information of evidence that strengthens or weakens the case for completing any of the roadmap items? Remove any items that are no longer important or relevant.
 - Are there any new ideas that should be added to the roadmap? Where should they fit in?
 - Is the order of the roadmap items still valid? If not, how should it change?
 - Which idea, or combination of ideas on the roadmap, would make a logical next project for the company?

→ Further information in the Chemicals and Metals Supplement

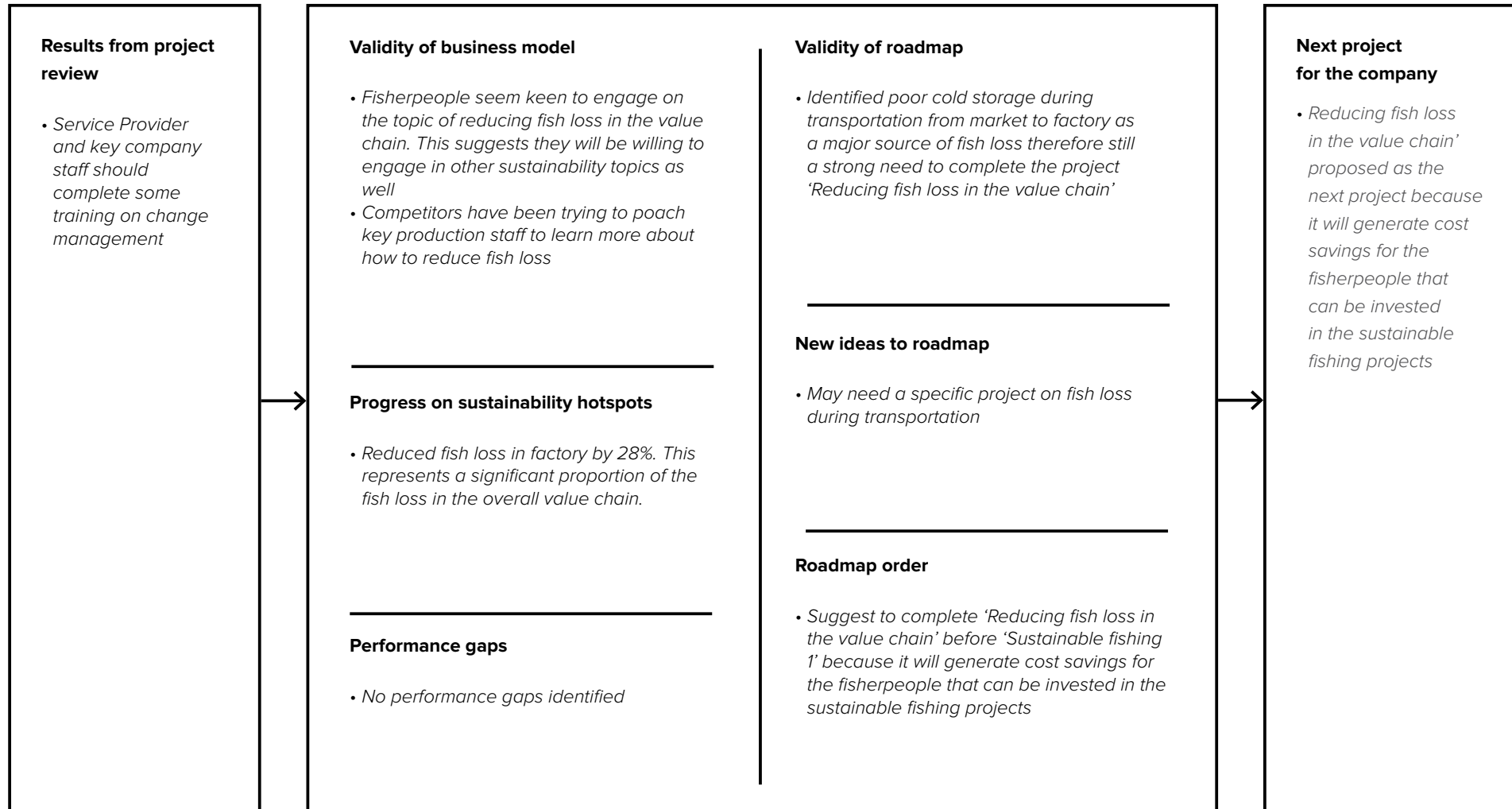
RE.3 Review the business model and roadmap

Template of Business Model and Roadmap Review



RE.3 Review the business model and roadmap

LEARNING CASE STUDY OF BUSINESS MODEL & ROADMAP REVIEW



RE.4

Present the review conclusions and agree next steps with the CEO

Complex activity

The aim of this activity is to present the conclusions from the review activities and agree with the CEO how to proceed with the next phase of eco-innovation implementation.



INPUT

- A proposal for changes to the business model and roadmap or confirmation that no changes are required from the activity *RE.3 Review the business model and roadmap*.

OUTPUT

- Decision from the CEO as to how to proceed. The output is not used elsewhere but is necessary to allow you to proceed to the next phase of eco-innovation implementation with the company.

RE.4 Present the review conclusions and agree next steps with the CEO

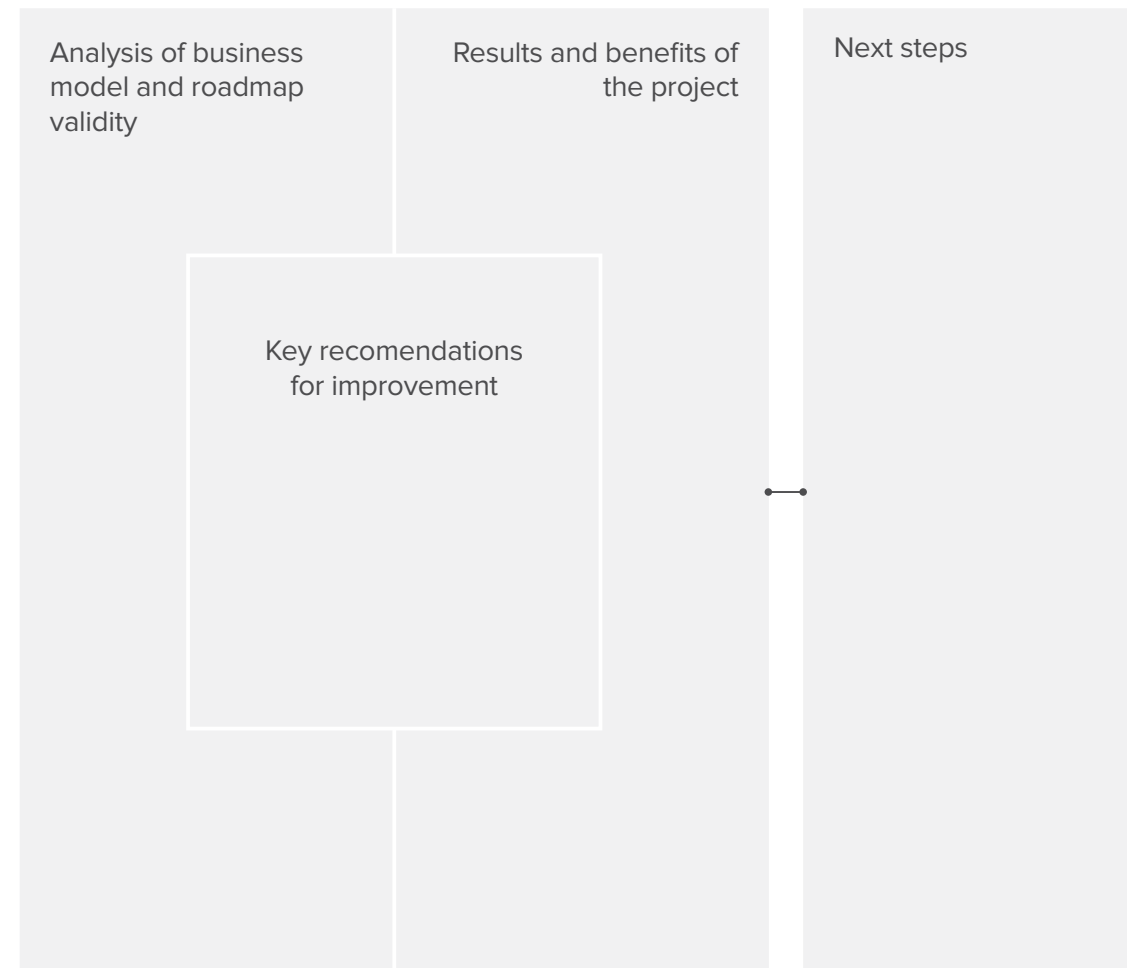
The final activity is to present your recommendations to the CEO and Senior Management Team. Guidance on what to include in this presentation is provided below.

HOW TO GO ABOUT IT

Suggested topics to include in the presentation to the CEO:

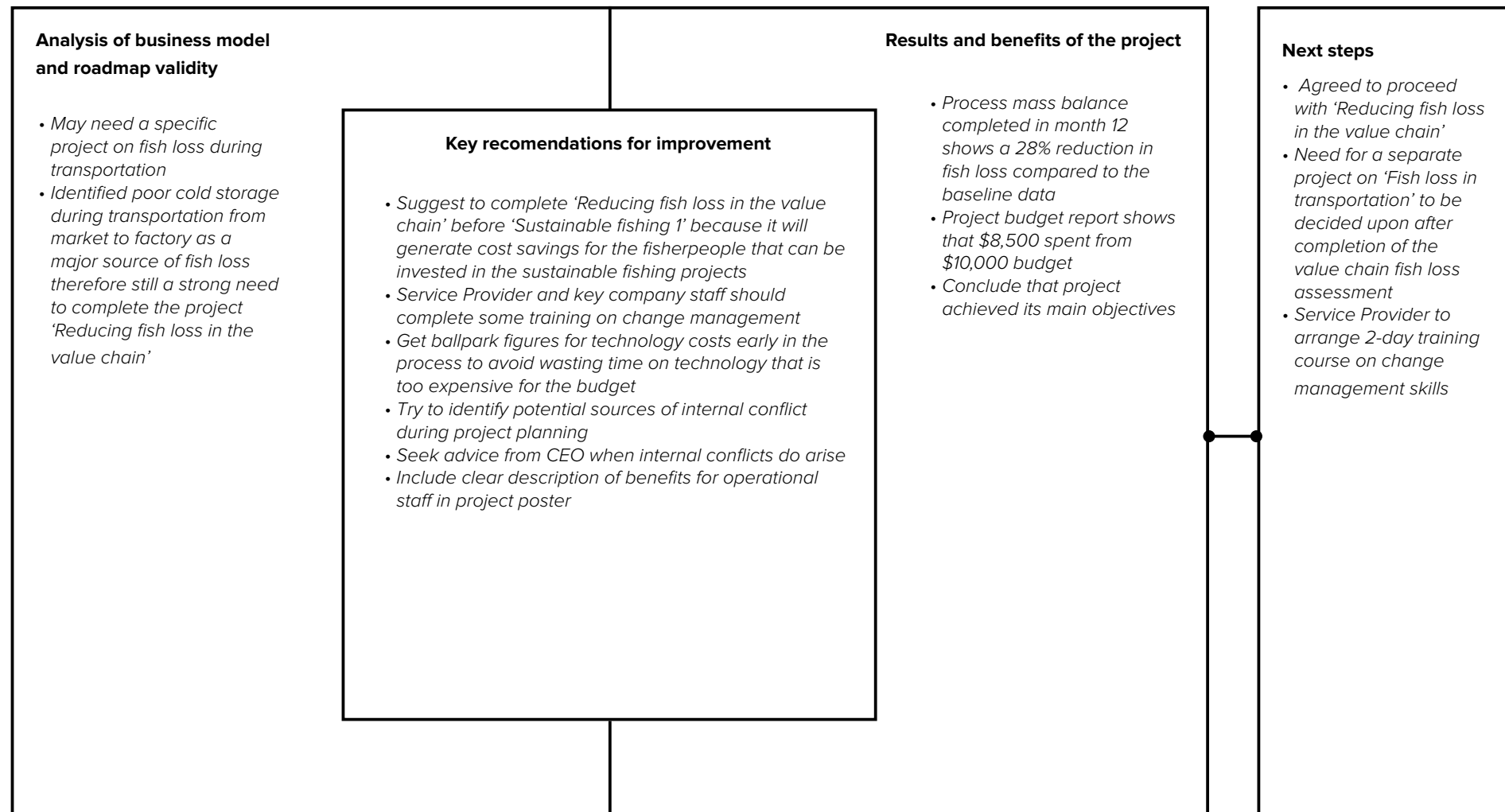
- A summary of the project review activity, highlighting the results of the project and the business benefits gained.
- The top five recommended actions to improve performance on projects for eco-innovation that came from the project review workshop.
- Your analysis of the on-going validity of the business model and roadmap.
- Your recommendation for the next steps, whether this be proceeding to the next project on the roadmap, or revisiting earlier phases in the process in order to address any issues that have arisen with the business model or roadmap

Template of Review Presentation



RE.4 Present the review conclusions and agree next steps with the CEO

LEARNING CASE STUDY OF REVIEW PRESENTATION



Glossary of key terms

Business model

Describes how a company does business. It is the translation of strategic issues, such as strategic positioning and strategic goals into a conceptual model that explicitly states how the business functions. The business model serves as a building plan that allows designing and realizing the business structure and systems that constitute the company's operational and physical form. (Osterwalder et al, 2005).

Business strategy

Describes the long term goals of the company and the markets in which the company will operate (i.e. vision and mission) (adapted from Andrews, 1997).

Gender

Describes the roles, behaviours, activities, and attributes that a given society at a given time considers appropriate for men and women. These attributes, opportunities and relationships are socially constructed and are learned through socialization processes. They are context/time-specific and changeable. (UN Women)

Gender discrimination

Describes any distinction, exclusion or restriction made on the basis of sex which has the effect or purpose of impairing or nullifying the recognition, enjoyment or exercise by women, irrespective of their marital status, on the basis of equality of men and women, of human rights and fundamental freedoms in the political, economic, social, cultural, civil or any other field (Art.1 CEDAW, 1979).

Gender equality

Refers to the equal rights, responsibilities and opportunities of women and men and girls and boys. Equality does not mean that women and men will become the same but that women's and men's rights, responsibilities and opportunities will not depend on whether they are born male or female. Gender equality implies that the interests, needs and priorities of both women and men are taken into consideration, recognizing the diversity of different groups of women and men. Gender equality is not a women's issue but should concern and fully engage men as well as women. (UN Women)

Gender-sensitive

Describes an attempt to redress existing gender inequalities when designing and implement development projects, programs or policies.

Life cycle

Consecutive and interlinked stages of a product (good or service), from the extraction of natural resources to the final disposal (adapted from ISO 14040:2006).

Life cycle assessment

It is a systematic set of procedures for compiling and examining the inputs and outputs of materials and energy and the associated environmental impacts directly attributable to the functioning of a product throughout its life cycle (adapted from ISO 14040:2006).

Life cycle thinking

It is a mostly qualitative approach to understand how our choices influence what happens at each of the stages of the life cycle of an industrial activity: from raw material acquisition through manufacture, distribution, product use and disposal. This approach is needed in order for us to balance trade-offs and positively impact the economy, the environment, and society (UN Environment, 2004).

Glossary of key terms

Marketing

It is the set of activities that are designed to help the company to understand the type of product it should offer to a market and communicate the benefits and value of the product to the targeted consumer. Marketing focuses on the product, promotion, price and distribution channels.

Market analysis

It is the activity of gathering information about the size, growth, profitability, target groups and existing products of a market, which is used to inform decision making at a strategic level. This specific activity would fall under the broader umbrella of marketing activities.

Organization structure

It refers to the range of activities and key resources (human and financial) within the company, in addition to those relating directly to production, that are dedicated to supporting the business model. These include procurement processes, distribution, key partnerships, customer relationships and interfaces, research and development, internal communication, and revenue generation.

Partners

It refers to parties in the value chain that provide or receive value including suppliers, outsourced workers, contractors, customers, consumers, clients, members, and others (ISO 26000:2010).

Roadmap

It is a planning tool used to support the implementation of strategies. It is made-up of a series of projects that will help to progress the organization from the company's current position towards fulfilling the organization's goals (adapted from Phaal R et al, 2007).

Stakeholder

It is any group or individual who can affect, or is affected by, an organization or its activities. Also, any individual or group that can help define value propositions for the organization (Stakeholder Research Associates Canada Inc., United Nations Environment Programme, AccountAbility: Stakeholder Engagement, 2005).

Supply chain

It is a system of organizations, technology, activities, information and resources involved in moving a product or service from supplier to customer (Michael Porter 1985) are the most significant impacts in the value chain or the life cycle of a product or service system, which can be used to identify impact improvement opportunities and to prioritize impact reduction actions (UN Environment/SETAC, 2014).

Value

It is understood to involve creating economic value (the revenue that a firm gets in return for its goods or services) in a way that also creates positive Outputs for society by addressing its needs and threats, taking into account economic, environmental and social considerations (adapted from Porter & Kramer, 2011).

Value chain

It is the entire sequence of activities or parties that provide or receive value in the form of products or services (e.g. suppliers, outsource workers, contractors, investors, R&D, customers, consumers, members) (ISO 14001 CD2, 2013). See also Partners definition above.

Value proposition

It refers to the products or services that an organization offers to a specific market segment that the organization believes will create value for that specific market segment.

General references and resources

Eco-innovation policy aspects:

Kemp, R., & Peterson, P. (2007). Final report MEI project about measuring eco-innovation [Online]. Available from: <http://www.oecd.org/greengrowth/consumption-innovation/43960830.pdf>

UN Environment (2012). Global outlook on sustainable consumption and production policies: taking action together. UN Environment, Nairobi. Available from: http://www.unep.org/pdf/Global_Outlook_on_SCP_Policies_full_final.pdf

Guidance on Gender Equality and the Environment:

UNIDO (2015). Guide on Gender Mainstreaming: Environmental Management Projects. Available from: https://www.unido.org/fileadmin/user_media_upgrade/What_we_do/Topics/Women_and_Youth/Gender_Environmental_Management_Projects.pdf

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Design for Sustainability and Cleaner Production:

UNIDO-UN Environment (2010). Promoting Resource Efficiency in SMEs resource kit (PRE-SME). Available from: http://www.unep.org/pdf/PRE-SME_handbook_2010.pdf

McAloone, T. C., Bey N. (2009). Environmental improvement through product development – a guide. Danish Environmental Protection Agency. Available from: <http://www.ecodesign.dtu.dk/Ecodesign-Guide>

Crul, M.R.M, Diehl, J.C., (2007). Design for Sustainability: A Practical Approach for Developing Economies. Paris, UN Environment DTIE. Available from: www.d4s-de.org

Technology issues:

UN Environment (2016). Technologies for Eco-innovation. UN Environment DTIE, Paris

Eco-innovation projects and relevant initiatives:

Eco-innovation Observatory – reports, data and examples concerning eco-innovation activities in the European Union. Available from: <http://www.eco-innovation.eu/>

Ecoweb – database of over 3000 EU-funded projects. Available from: <http://www.ecoweb.info/>

Eco-innovation project database – details of over 200 EU-funded projects. Available from: <http://ec.europa.eu/environment/eco-innovation/projects/>

Global SCP Clearinghouse – UN Environment convened platform for the exchange of knowledge, tools and information related to sustainable consumption and production. Available from: <http://www.spcclearinghouse.org/>

General references and resources

Life Cycle Initiative – UN Environment-SETAC joint project to encourage the development and practical adoption of life cycle thinking. Available from: http://www.life_cycleinitiative.org/

KARIM project - European network for responsible innovation and technology transfer. Available from: <http://www.karimnetwork.com/>

CyclLED Cycling resources embedded in systems containing Light Emitting Diodes. Available from: <http://www.cyc-led.eu/Eco-innovation.html>

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Pictures References

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