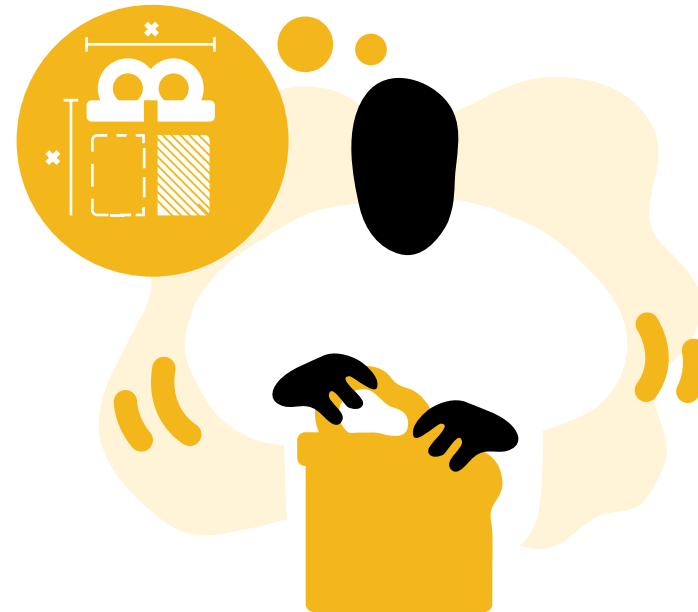


BM.7

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

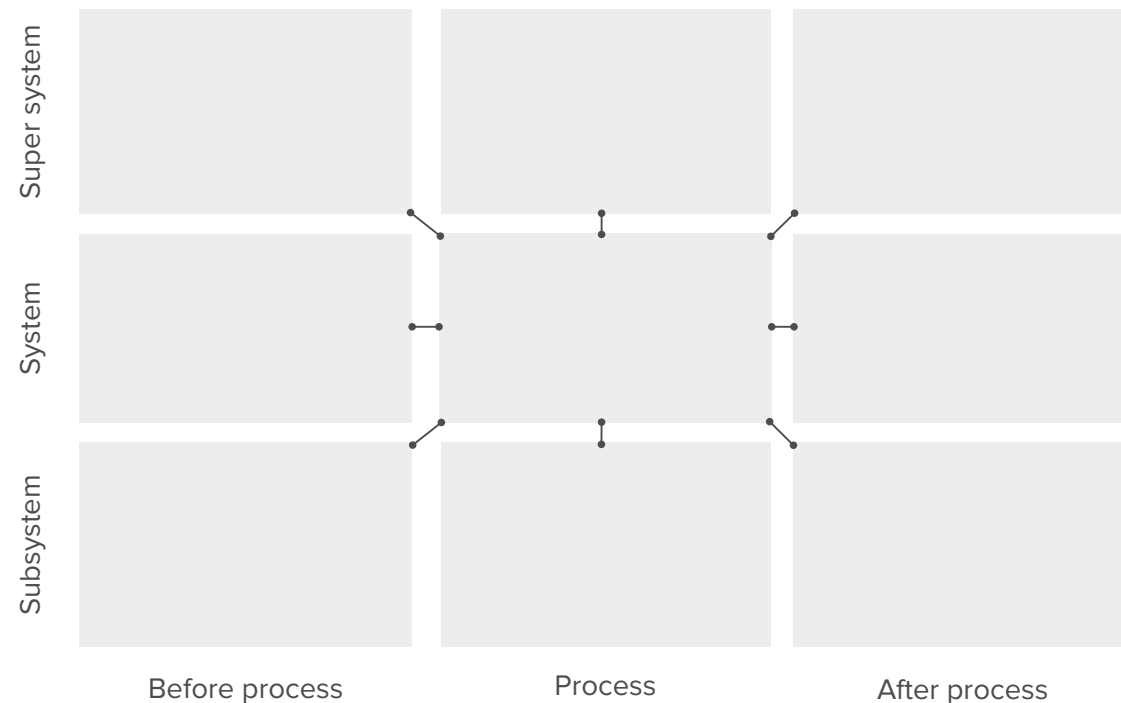
1. Prior to the workshop you need to prepare a worksheet to capture the responses. A standard A1 size flipchart sheet is best as it provides sufficient space for a small group to work with. The worksheet needs to be split into nine 'windows', with titles as shown in the template.
2. Ask the group to 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 sub-system 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



9 Windows on the world

Project _____

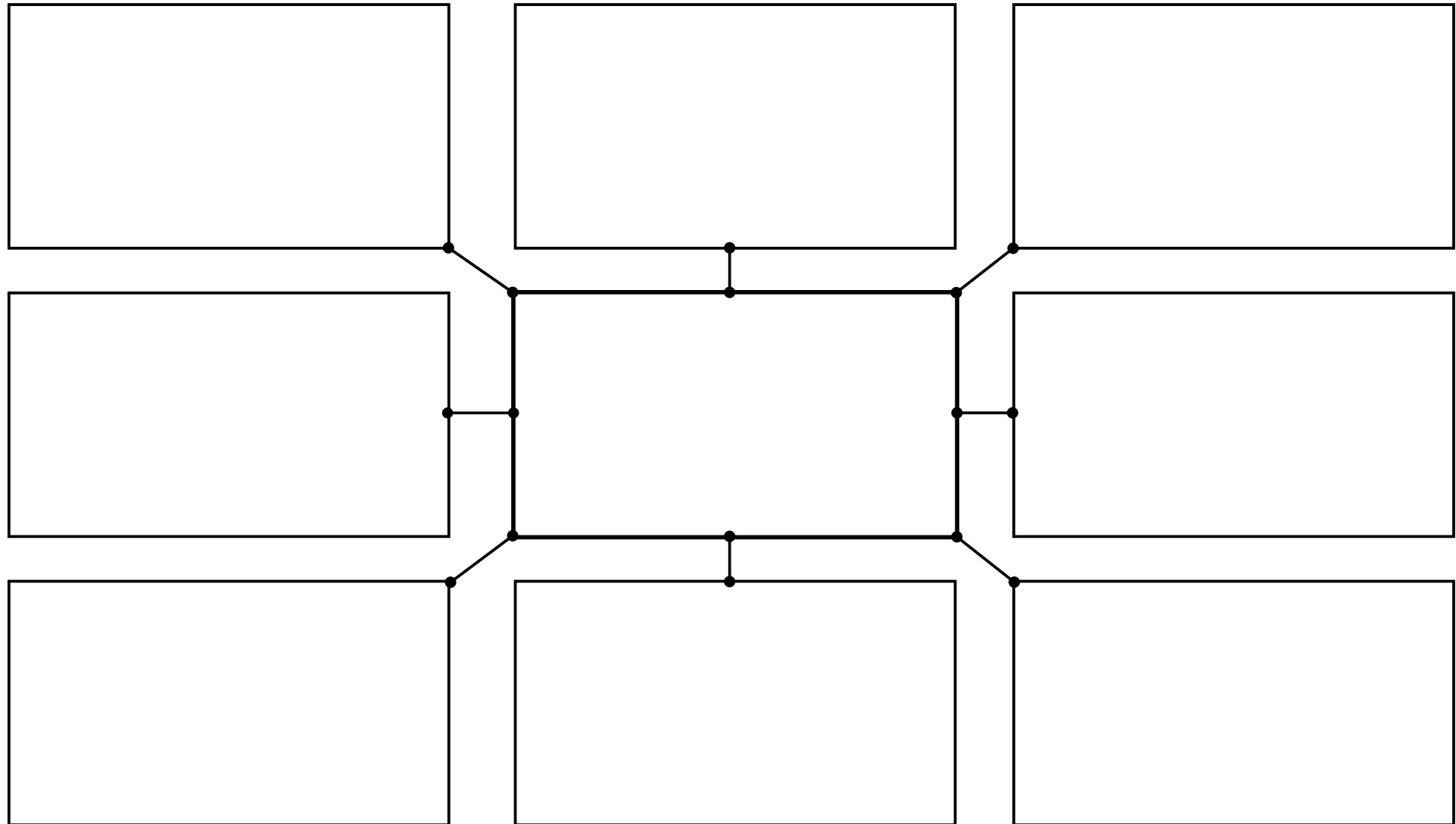
Date _____

Version _____

Super system

System

Subsystem



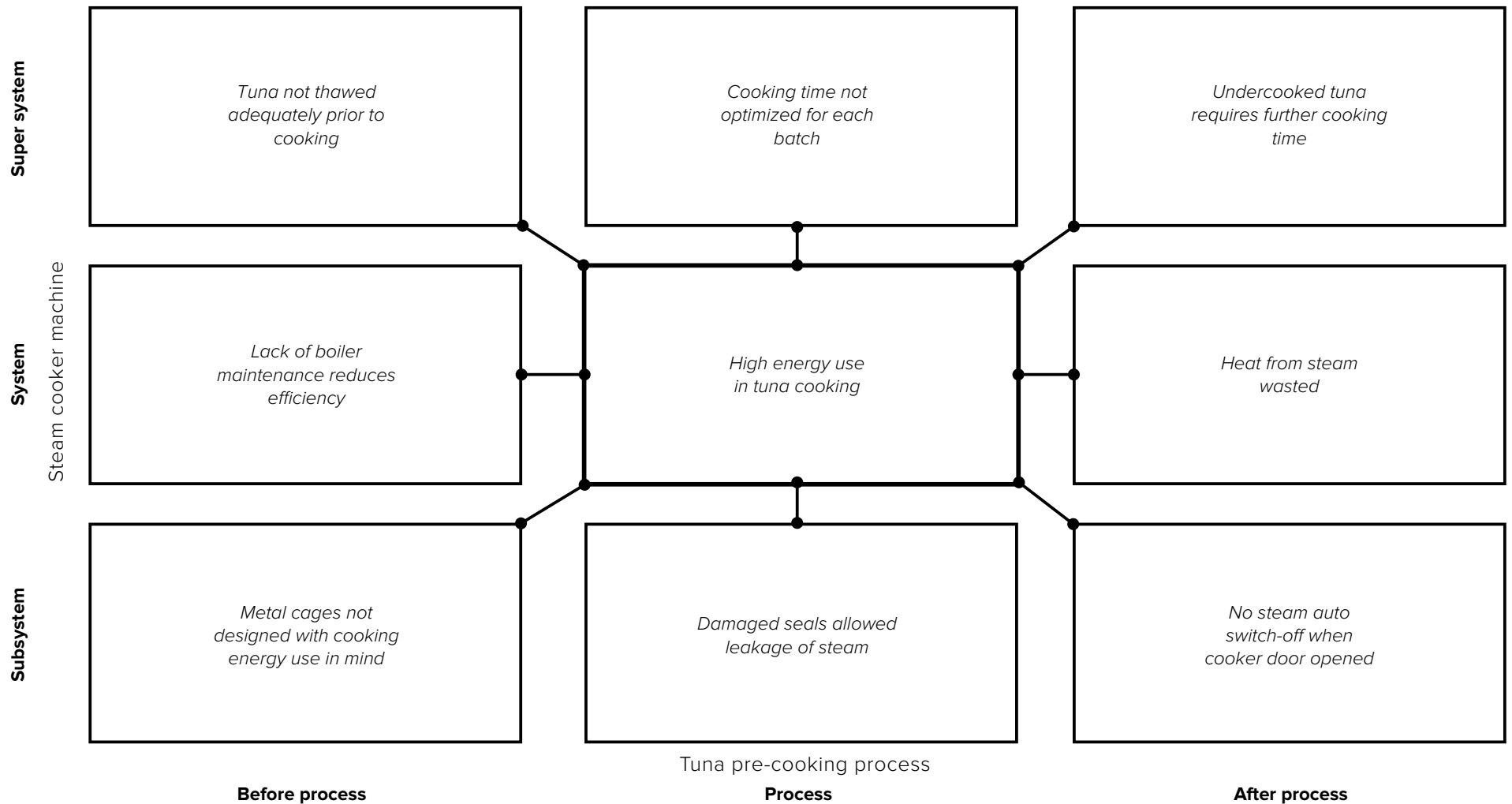
Before process

Process

After process

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>
- McAlloone, 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



BM.7 Generate technical ideas for the value proposition block

SOME EXAMPLES OF ECO-INNOVATIVE VALUE PROPOSITION IN THE AGRI-FOOD VALUE CHAIN

- Products from alternative protein sources – This approach can be applied to companies in the meat and dairy sectors. The value delivered to the consumers can include nice tasting, novel, functional food that have a significantly lower sustainability impact compared to traditional meat and dairy products.
- Life cycle approach to choice of ingredients and process – Developing new products and processes in the food and beverage industry generally focus on attributes such as quality, taste, texture, appearance, nutritional

value and shelf-life when choosing ingredients and process technology. Adding life cycle impact as an attribute during the product and process developing stages might add value for consumers who are environmentally and socially aware.

- Eco-labels – Using eco-labels can help to assure consumers that the products they are buying have relatively low environmental impacts. This is particularly important in markets where consumers are willing to pay a higher price for products that are more environmentally sustainable.
- Zero food loss and waste products – The increase in efficiency in the value chain by

elimination of food loss and waste could have several benefits for the consumer. For instance, the price of the product could be decreased while the availability of food would increase. Smart product and packaging design could also eliminate waste and waste disposal effort for the end consumer.

- Increased transparency and traceability – This could increase consumer trust in food quality and safety standards.
- Designing products and packaging to minimize impacts in consumer and end-of-life phase – Food bought and not eaten by consumers is an unnecessary cost that could be reduced by proper product and packaging design. Some

tips for reducing this waste include: selecting appropriate portion sizes for different customer segments; proper expiration date labelling differentiating when food is at peak quality and when it is still safe to consume (labelling regulation can be a limiting factor); choosing packaging solution that will extend the shelf-life of the product while reducing environmental impact; communicating clearly to the consumer how the food should be stored.

- Being beyond compliance with international and export standards for food quality, safety and environmental management – This would deliver high

quality and safe food products to the consumer while reducing risks for the company. The risks mitigated include new regulation affecting the company and risks of food borne illness outbreaks.

- Product diversification – Diversification increases the availability of food products for the consumers and enables the company to enter new markets segments.

BM.7 Generate technical ideas for the value proposition block

CONSIDER DEVELOPING AND MARKETING PRODUCTS WITH POSITIVE IMPACTS FOR VALUE CHAIN ACTORS

Consider developing products that offer clear sustainability benefits and try to communicate those positive impacts to the consumers. Some examples of this include:

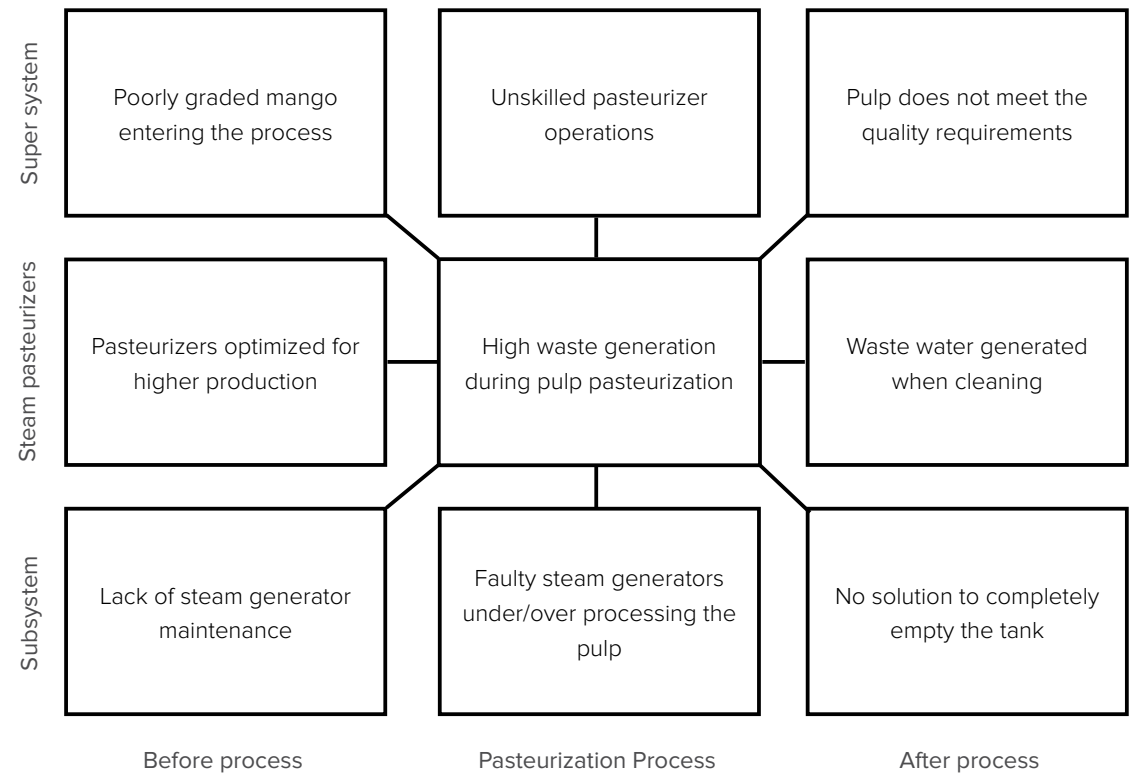
- Using less additives and processing aids (e.g. only using natural ingredients)
- Avoiding ingredients that negatively affect human health (e.g. reducing salt content, fat content or sugar content)
- Using ingredients with less impact on the environment (e.g. many manufacturers have stopped using palm oil where a suitable

substitute was available)

- Using organic raw materials (materials produced without use of artificial chemical aids)
- Complying with social responsibility standards (e.g. fair wages for employees and fair prices to farmers)

LEARNING CASE STUDY OF 9 WINDOWS OF THE WORLD

An example of generating technical ideas for a value proposition using the *9 Windows of the World* template for the Mango Pulp Company is shown below:



BM.7 Generate technical ideas for the value proposition block

TIPS & TRICKS

SOME EXAMPLES OF ECO-INNOVATIVE VALUE PROPOSITIONS IN THE CHEMICAL PRODUCTS' VALUE CHAIN

The value proposition can consist solely of a product, a service, or a combination of both depending on the business model and customer values. Some innovations in terms of value proposition in the chemical sector could include:

- Improvement of existing value propositions by providing additional services such as chemicals management, optimisation of chemical use by industrial customers (e.g. "Chemical Leasing"), operation of non-core processes (e.g. surface cleaning and coating services), etc.
- Prototyping support (e.g. materials based on

carbon nanotubes)

- Developing chemicals that enable final product recycling (e.g. flame retardants in plastics that do not prevent plastics recycling due to toxic properties)
- Designing chemical processes that enable more efficient recovery of chemicals (e.g. adding stabilizing-additives to solvent mixtures to allow easier separation by vacuum distillation)
- Being beyond compliance with export regulations or industry best practices. Some examples could include: tributyltin oxide-free anticorrosive paints, lead-free paints, VOC-free cleaning agents, etc.
- Eco-labels for consumer products (e.g. EU eco-la-

bel for textiles) or consumables (e.g. eco-labels for paints, industrial and institutional cleaners) can also add value to the chemical as well as the end product alongside to other certificates

A STRONG VALUE PROPOSITION REFLECTS THE CUSTOMERS' VALUES AND NEEDS

A strong value proposition addresses the customers' values and needs. A report by Erhardt (2011) shows that surveyed customers of the chemical industry value the following as much if not more than price: product quality, performance, reliability of supply, and quality of complaint resolution.

BM.7 Generate technical ideas for the value proposition block

LEARNING CASE STUDY OF PEOPLE, PLANET, PROFIT

Taking the textile industry as an example, the Zero Discharge of Hazardous Chemicals (ZDHC) initiative ensures that participating textile brands issue and enforce a Restricted Substances List (RSL) in their supply chain. Keeping abreast of such developments can help companies take advantage of new emerging opportunities. For example, due to the ZDHC initiative, suppliers of textile chemicals (e.g. bleaching, dyes, finishing) and auxiliary chemicals (lubricants, catalysts) are able to provide solutions to key challenges faced by textile companies required to eliminate and replace the commonly used chemicals on the RSL (e.g. Nonylphenol ethoxylates, Azo dyes and pigments).

Use the PPP diagram to generate value proposition ideas

The *People, Planet, Profit* diagram shown below for the TipTop Textiles Co. illustrates that waste reduction along the life cycle and elimination of hazardous chemicals from the value chain are product requirements that would create benefits for business, the environment, and the customer at the same time.

One specific idea that emerges from applying the PPP diagram is that TipTop Textiles Co. could enhance their value proposition by obtaining an eco-label certification for their synthetic textiles, such as OEKO-TEXT STeP or the Bluesign Standard. This would benefit 'People' including customers, who would be assured that the product is sustainably produced and the workforce exposure to hazardous chemicals is lowered. It would benefit the 'Planet' as it requires the company to implement environment-friendly practices, such as using a chemicals positive list for suppliers, increasing product testing, and integrating the eco-label requirements into supplier contracts. Implementing these practices would require TipTop Textiles Co. to

work closely with suppliers and value chain partners to help the company meet the eco-label requirements but would ultimately benefit the company ('Profit') as it would help to differentiate their product from their competitors and perhaps enable them to charge a premium price for the eco-labelled product range.

