



## **Training Package Content**

**Module 1, Sustainable development goals in business opportunity recognition**

**By Erasmus+ Knowledge Alliance for Business Opportunity Recognition in SDGs – SDG4BIZ (2021-2023)**

Co-funded by the  
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## Training Package Content

### Module 1, Sustainable development goals in business opportunity recognition

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## Introduction

You are holding in your hands the first part of the SDG4BIZ course material description which hopes to contribute to a more effective involvement of the private sector in the achievement of the UN's Sustainable Development Goals. The material is intended to be used by higher education institutions in entrepreneurship education. In addition to the academics, this material can also be used by the companies of the various kinds to train their own employees and executives and secondary education. The training material was created by the Erasmus+ Knowledge Alliance for Business Opportunity Recognition In SDGs - SDG4BIZ project team during autumn 2021 and spring 2022. The material was tested and piloted before the final version of this document was completed and published in the autumn of 2023. Although this package is mainly the result of the work of entrepreneurship education experts and researchers from two higher education institutions in Finland, it has been directly and indirectly influenced by the views and expertise of all SDG4BIZ project partnership.

The starting point for the development of this material has been that the Sustainable Development Goals (SDGs) set by the United Nations 2015 are likely not met by the target year 2030, if companies do not recognize and utilize the business opportunities inherent in them. It has been estimated that up to 80 million jobs would be created and €10 trillion in business opportunities would be unlocked, if SDGs were realized by 2030. However, the companies have not been able to utilize this growth potential so far. In addition, higher educational institutions (HEIs) focusing on business studies have not offered adequate training and support the competence building of future managers for solving the world's most urgent problems. The mainstream of the training efforts of SDGs, still focus on the awareness building only, not business opportunity recognition related to SDGs. We hope that the effort in SDG4BIZ project and the quality of this material will also motivate other educational institutions and organizations to adopt the training content.

The complete material of SDG4BIZ training consists of five parts, modules. This document, Training Package Content of Module 1 is the first part. It is titled: Sustainable development goals in business opportunity recognition. The following four modules, address specific opportunities in:

- Food and agriculture (Module 2)
- Cities (Module 3)
- Energy, materials and industry (Module 4)
- Health and wellbeing (Module 5)

Each module is equivalent to five credits (ECTS). Please note, that there is a description in a separate document for each module. The set of these descriptions of the five modules is supported by the curriculum (SDG4BIZ curriculum and training package description) and a learning platform ([sdg4biz.itslearning.com](https://sdg4biz.itslearning.com)). This material is available in several languages: in English, Finnish, Spanish, Slovak, German and Turkish. These language versions are more modest workflow-related text files, the function of which was to support the export of translated versions to the learning platform.








In the case that the pedagogical flow, a study path, is matter of interests as it is mounted on a learning platform, please, go to the project page at <https://www.sdg4biz.eu/en/>. On this page the final policy on how this pedagogical pathway, as implemented in the learning platform, will be accessible after the project.

This module 1 was created by two partner organizations of the SDG4BIZ consortium: Haaga-Helia University of Applied Sciences, Finland and Metropolia University of Applied Sciences, Finland.

## Learning goals

This module, **Sustainable development goals in business opportunity recognition** is divided into an introduction (0) and five sections (1-5) containing actual learning support materials. Each section is worth approximately one ECTS credit. The introduction and the actual learning section and the expected learning outcomes are as follows.



Sections of module 1	ECTS	At the completion of the section...
	0	<b>Orientation</b> 0. the learner knows the overall structure of the module 1 and how to utilize the learning diary.
	1	<b>Sustainable growth (SDGs)</b> 1. the learner understands the relevance of SDGs in business.
	1	<b>Context</b> 2. the learner is able to identify and analyze factors and stakeholders influencing sustainable development of businesses.
	1	<b>Motivation</b> 3. the learner is able to reflect and evaluate motivational drivers to recognize sustainable business opportunities.
	1	<b>Resources and networks</b> 4. the learner recognizes different networks influencing sustainable value creation. 5. the learner understands how to use resources in a sustainable manner.
	1	<b>Business modelling</b> 6. the learner is able to identify sustainable business opportunities. 7. the learner understands the process of business modelling and the use of underlying tools.
	0	<b>Next steps</b> i. the learner is ready to select the next module and answers for the call for action.

## How to use this material

The structure of the document has been chosen specifically to help you build an online course using this material. The package can also be used in the classroom although in that case, the pedagogical material, such as workshop manuals or lecture notes, must be further developed. In other words, this material provides rich content and tips for the classroom, yet that requires some adaptation.

In addition to the orientation and final parts of the Module, the course is divided into five different sections. In this document, these sections are numbered and titled. The structure of the sections is displayed in a table with two columns. The left column of the table points out a number and a title as well as the order in which the items are designed to be presented. Regarding the content itself is in the right column. Not all the components carry a title nor a number. These elements fall under the headings above them. The intention is to emphasise the specificity of the content block in relation to the preceding ones, and to suggest certain order for the presentation of the items. The structure is demonstrated in the picture below: 2.1 indicates the place of the item in the study path, “Introduction...” is a sub-title and the content itself, starting with a video, is in the right column.

<p><b>2.1 Introduction to the Context section</b></p>	<div data-bbox="467 852 886 1083"> </div> <p data-bbox="894 858 1154 884"><a href="https://youtu.be/ZHvUFRzXDpg">https://youtu.be/ZHvUFRzXDpg</a></p> <p data-bbox="467 1117 1399 1142"><b>In this section we will speak about the roles of businesses and individuals in achieving the Sustainable Development</b></p> <p data-bbox="467 1169 1399 1220">Successful implementation of the Sustainable Development Goals (SDGs) depends on businesses' and individuals' implement sustainability in their respective contexts.</p>
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As SDG4BIZ course is designed to be a self-study course, the learning diary and multiple-choice questions play an important role in verifying learning. Occasionally, the same questions are repeated in the immediate quizzes (Self-tests) and in the final examination (Actions to finalize the course, test). Poll questions (VOTE), in turn, have an orienting function. Poll questions, discussion questions and reflection exercises can also be used in the classroom.

The bibliography and references for each section can be found at the end of the section. Third-party material, books, videos and images form an important part of the study path. However, these have been removed from this material e.g. for copyright reasons. On the other hand, simple search functions, either on the international information network (known as Internet) or in library databases, enables one to replace the indication text (video, picture, article etc.) with updated resources available. In some cases, the material also includes a suggestion on the length of a video or a podcast. The selection of the original links (2021-2022) is added on annexes.

In the annexes you will find the lectures and the transcript frameworks.

## 0. What's in it for me?



### Item: Welcome to the course

Page	Content
0.1. Every problem is an opportunity - text version	<div data-bbox="485 834 1066 1149"></div> <p data-bbox="1087 841 1461 867"><a href="https://youtu.be/R38DkHYMeGk">https://youtu.be/R38DkHYMeGk</a></p> <p data-bbox="1087 906 1869 971"><b>We are happy to welcome you to this online module called Sustainable development goals in business opportunity recognition.</b></p> <p data-bbox="1087 1010 1885 1172">From now on, we use the abbreviation SDGs when we refer to sustainable development goals. This course offers you a journey to recognize business opportunities of sustainable business. You will learn to see problems as opportunities. You also learn, how to innovate new sustainable business solutions.</p> <p data-bbox="485 1175 1310 1201">Furthermore, you receive practical tools to develop sustainable solutions!</p> <p data-bbox="485 1240 1881 1338">This video aims at explaining the learning objectives of this module. We hope to inspire you to start your learning journey with us. Throughout the module the learning takes place through various activities such as video lectures, articles, company cases, presentations, self-tests and quizzes, as well as hopefully discussions with your peers. We also strongly encourage you</p>

to keep a reflective learning diary. Therefore, we have designed a path during which we will guide you to reflect upon your learning.

The core of our module is the process of Business opportunity recognition. We define it as a non-linear and interactive process leading to identification and further development of sustainable businesses. In practice this means that we will provide you concrete tools for sustainable business modelling.

Our three main learning objectives are as follows:

- Firstly: What are the SDGs in the context of business?
- Secondly: How do you apply the SDGs to recognize business opportunities?
- Thirdly: How do you develop a business model based on the SDGs?

All of these three learning objectives combine the elements from the business opportunity recognition process and the impact on environment, people and profit in other words the three main dimensions of sustainability: environmental, social and economic sustainability.

These three dimensions are illustrated as a triangle in the middle of the figure. During the module we will provide real life examples and learning materials which emphasize all of these dimensions.

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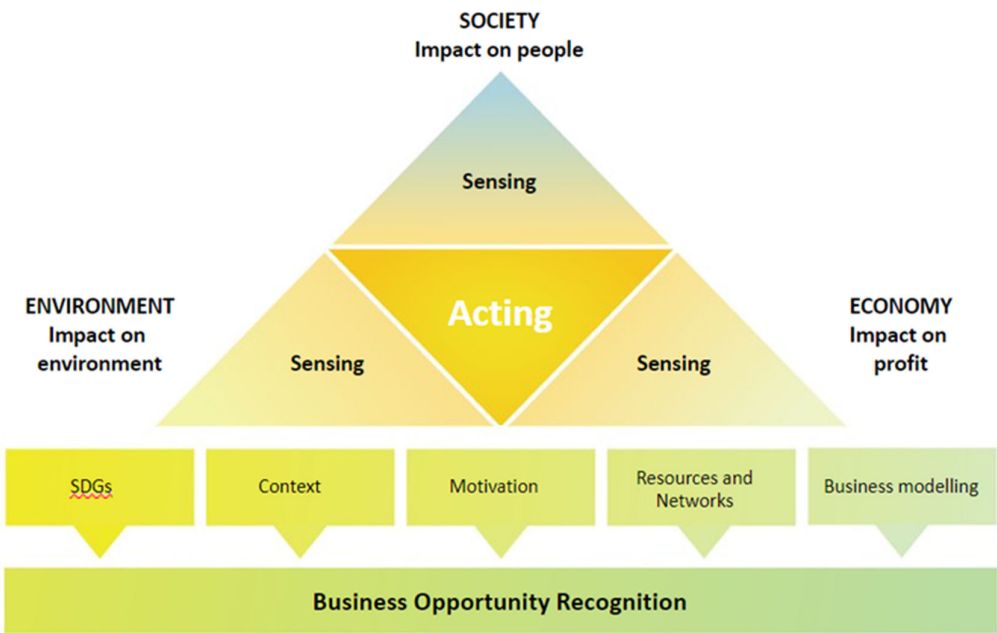


**Module 1 learning objectives 1-3: The learner will learn...**


...what the SDGs in the context of business are.

... to apply the SDGs for recognizing business opportunities.

...to develop a new business model on the SDGs.



At the heart of our approach is the continuous interplay of sensing and acting. We encourage you to apply the knowledge of this course in your work places and in your own ventures.

	<p>The business opportunity recognition is influenced by several factors outside and inside of the company and at the individual and organizational level. <b>We have grouped them into four different entities: Context, motivation, networks and resources and business modelling.</b></p> <p><b>In summary:</b> We have the 3 main learning objectives highlighted on the top. We have applied the dynamic capabilities in other words continuous interplay of sensing and acting driving you as learners to recognize and develop business opportunities taking into account the major dimensions of sustainability.</p> <p><b>We warmly welcome you to this course, which is open for everyone!</b> The course is structured as follows: The first section of this course focuses on the SDGs in business. After that, we focus on business opportunity recognition including the sections of Context, Motivation, Networks and Resources and finally, business modelling.</p>
<p>0.2. Introduction to the reflective learning diary</p>	<p><b>What is a learning diary?</b></p> <p>Throughout this course, we will strongly encourage you to reflect on your own learning. Your needs and wishes to apply the course contents to your everyday work environments may vary heavily due to the various backgrounds you come from.</p>  <p>The diagram illustrates a sequence of six reflection topics:</p> <ul style="list-style-type: none"> <li>Reflection upon own sustainable development and SDGs</li> <li>Reflection upon own stakeholders</li> <li>Reflection upon own motivators and drivers</li> <li>Reflection upon own resources and networks</li> <li>Reflection upon Value opportunity recognition</li> <li>Reflection upon Sustainable Business Model innovation (SBMI)</li> </ul>

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	<p>If you reflect upon your learning on a regular basis and document your insights carefully, at the end of the course you have something tangible to start making the change happen!</p> <p>The learning diary is the concrete tool and we have designed the following path for you to follow. Please document your insights using the file format that suits you best and do save the documentation in your own files. The reflections may vary from text to mind maps and other visualizations.</p> <p>(During the course you will be reminded on the course platform when it is time to reflect.)</p> <p>You are not expected to submit the learning diary to us. However, you might want to share insights, for example, with your colleagues or business partners with whom you are developing your sustainable business opportunities or your everyday work practices.</p> <p><b>Enjoy the journey!</b></p>
<p>0.3 What to do after completing the Module 1?</p>	<p>This module, Module 1, provides good basics before continuing to the rest of the modules.</p> <p>The upcoming modules are:</p> <p>Module 2: Shared value business opportunity recognition, entrepreneurship &amp; innovation in the field of food and agriculture</p> <p>Module 3: Shared value business opportunity recognition, entrepreneurship &amp; innovation regarding Cities and communities</p> <p>Module 4: Shared value business opportunity recognition, entrepreneurship &amp; innovation in the field of Energy, materials and industry</p> <p>Module 5: Shared value business opportunity recognition, entrepreneurship &amp; innovation in the field of health and well-being</p>
	<p>What I do to enrol to the next module? Please, open the section “Next steps”.</p> <p>There you find a title “How to continue my learning journey?” . There you find how to take the needed steps to enrol the sector specific module. The enrolment allows you to enter to the SDG4BIZ module you selected.</p>



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0.4 Activation of a personal Learning Diary	Activation of a personal Learning Diary (different solution for each organization). Write a few words about your learning objectives and your thoughts at the moment.
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# 1. Sustainable Development Goals (SDGs)



Page	Content
Description	<p>In this section you will learn the idea of United Nations Sustainable Development Goals (SDGs). You will discover most important principles of SDGs and how they appear in practice globally. In this section you will also discover how much different actors have done already and how much they have developed their activities to achieve the global goals so far.</p> <p>Learning objective: The learner understands the relevance of Sustainable Development Goals (SDGs) in business.</p>
1.1 Introduction to SDGs section	<div data-bbox="489 987 1073 1308" style="display: inline-block; vertical-align: top;"> </div> <div data-bbox="1094 992 1854 1321" style="display: inline-block; vertical-align: top; padding-left: 20px;"> <p><a href="https://youtu.be/AYJly0woXQk">https://youtu.be/AYJly0woXQk</a></p> <p>The first section provides you Sustainable Development Goals (SDGs) of United Nations.</p> <p>The learning objective of this section is to learn to understand what the SDGs are, what they mean and how the SDGs are related to all kind of work and businesses. It's valuable to learn and understand the SDGs, because they are an important source of innovation and development.</p> </div>

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	<p>In this section we'll guide you through the material. At first, we introduce you to the important basic information of the subject including some videos. The material includes also active links for more information. Related to the subject there are also some recommended materials for additional study and some questions that underlines the core items of the material.</p> <p>The first parts of this section present you the basic information of Sustainable Development Goals. You will also learn the history of the SDGs. After this you learn to understand the SDGs more deeply and get familiar with related indicators. The second parts of this section will take you to the path to see the development of countries and organizations all over the world. The growing trend gives you some insight into the world in which organizations work and promote the sustainability agenda.</p> <p>We wish you an interesting and inspiring journey into the world of Sustainable Development Goals.</p>
<p>1.2 SDGs and Agenda 2030</p>	<p>The Sustainable Development Goals (SDGs)</p> <p>(Picture from <a href="http://un.org/sustainabledevelopment/news/communications-material">un.org/sustainabledevelopment/news/communications-material</a>) Copyright © United Nations</p> <p>The SDGs are adopted by the United Nations as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity. The SDGs are also known as the Global Goals or the Goals. The SDGs are based on 17 goals. Each of these goals and all of them together will help us to reach the targets of global sustainability and sustainable development. The action and outcome of goals also affects each other. (United Nations 2022a)</p> <p>UNs has given a target to each goal. The target explains a goal and gives a deeper meaning for each goal. For example, one target of the goal 8 Decent work and economic growth is to</p> <p><i>“ Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services.” (UN 2022b)</i></p> <p>You can learn to know these 17 goals in United Nations website, where each of these 17 goals and their targets are presented United Nations presentation pages of SDGs (website).</p>
	<p>Agenda 2030</p>

United Nations took a big step to promote sustainable developing and transforming our world by launching an ambitious program. The Agenda 2030 is a plan of action for people, planet, and prosperity. It also seeks to strengthen universal peace in larger freedom.

The universal Agenda calls all countries and all stakeholders implementing the Agenda. The Agenda contains 17 Sustainable Development Goals (SDGs) and 169 targets, which demonstrate the scale and ambition of this universal Agenda.

The Goals and targets of Agenda 2030 also stimulate action in critical areas for humanity and the planet. The interlinkages and integrated nature of SDGs to critical areas is crucial importance in ensuring that the purpose of the Agenda 2030 is realised. (UN 2022c)

(picture)

- **People:** We are determined to end poverty and hunger, in all their forms and dimensions, and to ensure that all human beings can fulfil their potential in dignity and equality and in a healthy environment.
- **Planet:** We are determined to protect the planet from degradation, including through sustainable consumption and production, sustainably managing its natural resources, and taking urgent action on climate change, so that it can support the needs of the present and future generations.
- **Prosperity:** We are determined to ensure that all human beings can enjoy prosperous and fulfilling lives and that economic, social, and technological progress occurs in harmony with nature.
- **Peace:** We are determined to foster peaceful, just and inclusive societies which are free from fear and violence. There can be no sustainable development without peace and no peace without sustainable development.
- **Partnership:** We are determined to mobilize the means required to implement this Agenda through a revitalised Global Partnership for Sustainable Development, based on as spirit of strengthened global solidarity, focussed in particular on the needs of the poorest and most vulnerable and with the participation of all countries, all stakeholders, and all people. (UN 2022c)

The Goals and targets of Agenda 2030 also integrate and balance the three dimensions of sustainable development: the economic, social, and environmental.

(picture)

All together the Agenda 2030 contains different dimensions and levels of Sustainable Development.

(Add here link to the video)

There is not one right way to structure 17 SDGs, because of the interlinkages and integrated nature of SDGs. One way to structure interaction of SDGs is called “wedding cake”. In its structure the SDGs are arranged according to the theme’s biosphere, society, and economy.

- The ground level biosphere contains goals 6, 13, 14, and 5.
- The second level society contains goals 1, 2, 3, 4, 5, 7, 11 and 16.
- The third level economy contains goals 8, 9, 10 and 12.

On top of the cake (see image below) is goal 17 “Partnerships for the goals”. (Stockholm Resilience Centre 2020.)

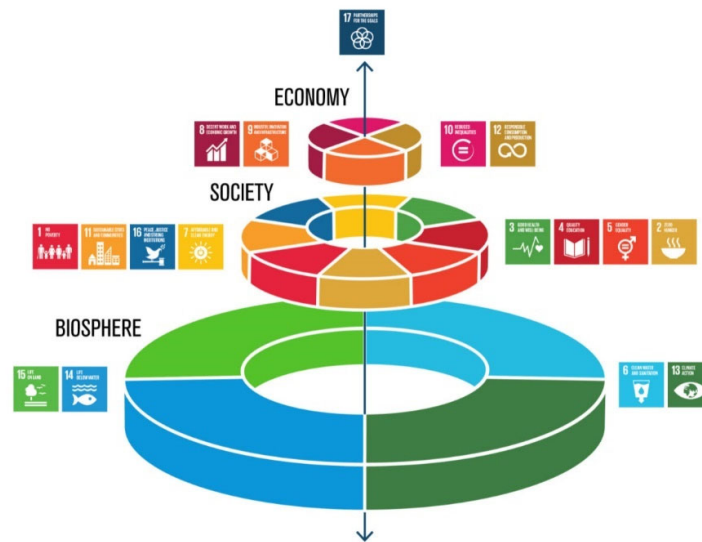


Image: “Wedding cake” Credit: Azote for Stockholm Resilience Centre, Stockholm University CC BY-ND 3.0

The idea of “wedding cake” is explained in the video

	<p>(video)</p> <p>When United Nations published the Agenda 2030 it was aware that each country has their own starting point, focus and is facing specific challenges in its pursuit of sustainable development. It has been decades work to reach many targets of Sustainable Development and a decade more to reach the 17 Goals and 169 targets of Agenda 2030. If you need to learn more about Agenda 2030 you can visit on the pages of Transforming our world: the 2030 Agenda for Sustainable Development (website).</p> <p><b>After reading some questions to think about:</b> Which of 17 goals do you think are the most important? Why? What is the difference between the goals and Agenda 2030? At what different levels the SDGs can be viewed?</p>
	<p>You have learned all material of this part Sustainable Development Goals, SDGs and Agenda 2030.</p> <p>Now it's time to go next part 'Decades of sustainable development'.</p>
<p>1.3 Decades of sustainable development</p>	<p><b>Decades of Sustainable Development</b></p> <p>The path to our understanding of the Sustainable Development has taken decades. The people around the world and our representatives in United Nations have been concerning already long time about the evolution of the earth and our living environment. Many steps towards global sustainability have been taken during the years.</p> <p>(picture)</p> <p>The path to our understanding of the Sustainable Development has taken decades. The people around the world and our representatives in United Nations have been concerning already long time about the evolution of the earth and our living environment. Many steps towards global sustainability have been taken during the years.</p> <p>The Ten principles of Global Compact (website) are</p> <p>Human Rights</p> <ul style="list-style-type: none"> <li>• Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights</li> <li>• Principle 2: make sure that they are not complicit in human rights abuses</li> </ul>

	<ul style="list-style-type: none"><li>• Labour</li><li>• Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining</li><li>• Principle 4: the elimination of all forms of forced and compulsory labour; Principle 5: the effective abolition of child labour</li><li>• Principle 6: the elimination of discrimination in respect of employment and occupation</li><li>• Environment</li><li>• Principle 7: Businesses should support a precautionary approach to environmental challenges</li><li>• Principle 8: undertake initiatives to promote greater environmental responsibility</li><li>• Principle 9: encourage the development and diffusion of environmentally friendly technologies</li><li>• Anti-Corruption</li><li>• Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery. (UN 2022e)</li></ul> <p>The Millenium Development Goals (MDGs) (website) were launched in 2000. It includes eight targets for halving poverty and improving health, education, equality, and the environment by 2015. After this there were need to refresh the goal and 2015 was launched Agenda 2030 for Sustainable Development. The new agenda calls on countries to begin efforts to achieve 17 Sustainable Development Goals (SDGs) over the next 15 years. (UN 2022f)</p> <p>United Nations has launched also two campaigns. The first Act Now was launched in 2018, which is campaign for individuals’ action on climate change and sustainability. It points out that everyone can help limit global warming and take care of our planet by making choices that have less harmful effects on the environment. (UN 2022g) (YouTube, 12:51)</p> <p>(video)</p> <p>The other campaign Decade of Action (website) was launched in 2020. The campaign underlines that the Goals is not yet advancing at the speed or scale required. 2020 needs to usher in a decade of ambitious action to deliver the Goals by 2030. The Decade of Action calls for accelerating sustainable solutions to all the world’s biggest challenges — ranging from poverty and gender to climate change, inequality and closing the finance gap. (YouTube, 0:40)</p> <p>(video)</p>
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The Decade of Action calls all sectors of society to mobilize for a decade of action on three levels

(picture)

- **global action** to secure greater leadership, more resources, and smarter solutions for the Sustainable Development Goals
- **local action** embedding the needed transitions in the policies, budgets, institutions and regulatory frameworks of governments, cities, and local authorities
- **people action** including by youth, civil society, the media, the private sector, unions, academia, and other stakeholders, to generate an unstoppable movement pushing for the required transformations.

The latest action of decade 2020 is from September 2021, when the indicators data was launched. The Global Sustainable Development Goal Indicators Database allows us to track achievements of SDGs. (UN 2022i)

Altogether it's been decades path to make visible and aware of all the work we need to do for the better future and to ensure that living possibilities are the best for us and the future generations.

If you want to learn more about making sustainability movement, you can watch the video. There is a story of making the sustainability movement more inclusive presented by Leen Zevenbergen. He is a long-time sustainable entrepreneur who has founded around 20 companies and has also led many large sustainability movements. (YouTube, 19:18)

(video)

**After reading some questions to think about:**

- What is the target of sustainable development by Brundtland Commission?
- What kind of actions has been created to promote sustainable development?
- What are the focus areas of Global Compact?



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	<p>Excellent work!</p> <p>You have learned all material of this part</p> <ul style="list-style-type: none"> <li>1972 First sustainability conference in Stockholm</li> <li>1987 Brundtland Commission report 'Our Common Future'</li> <li>1992 Sustainability conference 'Earth Summit' in Rio De Janeiro</li> <li>2000 Global Compact</li> <li>2000 Millennium Development Goals</li> <li>2015 Agenda 2030 and SDGs</li> <li>2018 Act Now</li> <li>2020 Decade of Action.</li> </ul> <p>Now it's time to go next part 'VOTE: Key role player'.</p>
<p>1.4 VOTE: Key role player</p>	<p>POLL: Key role player</p> <p>Who do you think has the key role as a developer of sustainability?</p> <ul style="list-style-type: none"> <li>youth</li> <li>civil society</li> <li>stakeholders</li> <li>unions</li> <li>corporate</li> <li>public sector</li> <li>governments</li> <li>cities</li> <li>private sector</li> <li>media</li> </ul>
<p>1.5 Indicators of SDGs</p>	<p><b>Indicators of SDGs</b></p> <p>The global indicators are providing a framework for the SDGs and targets of the Agenda 2030 for Sustainable Development. The Global indicator framework (website) was developed by the Inter-Agency and Expert Group on SDG</p>

	<p>Indicators and agreed in the session of UNs Statistical Commission in March 2017. The indicator framework was later adopted by the General Assembly and is contained in the Resolution adopted by General Assembly on Work of the Statistical Commission and pertaining to the Agenda 2030 for Sustainable Development. (UN 2022k)</p> <p>According to the Resolution, the indicator framework will be refined annually reviewed comprehensively by the Statistical Commission. The global indicator framework has been complemented by indicators at the regional and national levels. Please note also that some indicators repeat under two or three different targets. If you need to learn about indicator framework Measuring toward the Sustainable Development Goals (website) from Our World in Data.</p> <p>Our World in Data has also introduced resource where you can track the progress towards the UN Sustainable Development Goals (SDGs). This tracker provides clear way to tract global, regional and national progress towards the 17 goals, 169 targets and 232 indicators of SDGs. If you need to learn more about 169 targets and 232 indicator, you can visit on the website of 'Sustainable Development Goal (SDG) Tracker. (website)</p> <p>(picture)</p> <p><b>After reading some questions to think about:</b></p> <p>Why there need to be so many targets of each goals?</p> <p>Find the most interesting goal and study the targets of that goal. Are the goals you are interested in related to your own interest or related to your organization?</p>
	<p><b>EU progressing SDGs</b></p> <p>EU is collecting data of countries progress toward the SDGs. It has created a tool that is based on the mean scores of the selected indicators. From the tool you can select the goal which progress you are interested in. There is also a lot more key statistic information on the pages of Eurostat (webpage). (Eurostat 2022)</p>
	<p><b>UN Country profile of SDGs</b></p> <p>UN is publishing yearly report of sustainable development. It is called Sustainable Development Report (SDR). The Report presents data on countries' performance against the SDGs. It includes the global SDG Index and Dashboards.</p>

	<p>From the report you can find ranked countries by their overall score. The overall score measures a countries total progress towards achieving all 17 SDGs. The score can be interpreted as a percentage of SDG achievement. A score 100 indicates that all SDGs have been achieved.</p> <p>In the latest report SDR 2022 is topped by three Nordic countries – Finland, Denmark and Sweden. But even these countries are facing challenges in achieving several SDGs and need to do much more work to reach the goals.</p> <p><b>(picture)</b></p> <p><b>(picture about Finland tip, please localise this)</b></p> <p>If you are interested in to learn more reported data of SDGs or maybe your own country index, you can follow the link to SDR2022 website and use the active pages or download the report.</p> <p>If you are interested in to learn more reported data of SDGs or maybe your own country index, you can follow the link to SDR2022 website and use the active pages or download the report.</p> <p>(picture)</p> <p><b>After reading some questions to think about:</b></p> <ul style="list-style-type: none"> <li>• What kind of information you can find from Sustainable development Report (SDR) or statistics data base?</li> <li>• What kind of development you can see from the statistics?</li> <li>• What are the differences between countries? In which areas?</li> </ul>
	<p><b>End of page Indicators of SDGs</b></p> <p><b>Excellent work!</b></p> <p>You have learned all material of this part</p>

	<ul style="list-style-type: none"> <li>• Indicators of SDGs</li> <li>• EU progressing SDGs and</li> <li>• UN Country profile of SDGs and</li> <li>• Sustainable Development Report (SDR).</li> </ul> <p>Now it's time to go to the next part 'Implementing SDGs'.</p>
<p>1.6 Implementing SDGs</p>	<p><b>Implementing SDGs</b></p> <p>By announcing the SDGs United Nations emphasizes the importance of all parties in achieving the goals. This makes all kind of organizations as a key factor in this work.</p> <p>As you have learned the organizations can work at different levels and dimensions in implementing the SDGs in practice. The work can be done by people, working locally or globally. The work can be also done in three different dimensions of sustainable development: environmental, social, or financial level.</p> <p>To understand and learn how SDGs can be integrated into organization activities the Business Commission created a two-year international initiative to make the business case for the Sustainable Development Goals. They collected examples of the work from different countries. (Business Commission.)</p> <p>You can learn what organizations have done in different countries on website of Business commission 'Our work' (website).</p> <p>(picture)</p> <p>The first step to start integrating the SDGs is to understand what SDGs are and link the relevant SDG targets to organizations activities. There is no need to work with all 17 goals at the same time. It's more important to choose what are the main goals to the organization. (SDG Compass)</p>

	<p>(picture)</p> <p>For example, Finnish trading sector company Kesko tells that it is committed to support all SDGs in its operations and recognized three goals as most material for its operations and stakeholders.</p> <p><i>“The three goals most material for Kesko and its stakeholders are Responsible Consumption and Production, Decent Work and Economic Growth and Climate Action.” (Kesko 2022)</i></p> <p>For example, Finnish trading sector company Kesko tells that it is committed to support all SDGs in its operations and recognized three goals as most material for its operations and stakeholders.</p> <p><i>“The three goals most material for Kesko and its stakeholders are Responsible Consumption and Production, Decent Work and Economic Growth and Climate Action.” (Kesko 2022)</i></p> <p>(picture)</p> <p>After recognizing the main goals, the organization can prioritize SDG targets by considering which targets will have the biggest impact in short and longer term. It is important to link them to all activities and existing strategy. Implementation is achieved through acting, innovating, and collaborating with all the partners.</p> <p>Once the organization has identified the key goals and targets it is important to link them to all activities and existing strategy. Implementation is achieved through with acting, innovating, and collaborating with all the partners.</p> <p>For example: The Unilever CEO Paul Polman has been interviewed about what the SDGs mean to him. In the video he tells why gender quality and partnership are the most important SDGs, why it is synergy between businesses is crucial to creating a sustainable future and why it is important to align business models with the SDGs. (YouTube, 1:15)</p> <p>(video)</p> <p>UN has created with its partners a tool for organizations how to they can align their strategies as well as measure and manage their contribution to the realization of the SDGs. The name of the new tool is SDG Compass (website). The guide</p>
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	<p>presents five steps for organizations to maximize their contribution to the SDGs: understanding the SDGs, defining priorities, setting goals, integrating and reporting &amp; communicating. (SDG Compass)</p> <p>(video)</p> <p><b>After reading some questions to think about:</b></p> <p>In what kind of organizations, the SDGs can be implemented?</p> <p>What are the steps to start implementing the SDGs?</p> <p>How important it's to work with all the goals in organization at the same time?</p>
	<p><b>End of part Implementing SDGs</b></p> <p>Excellent work!</p> <p>You have learned all material of this part</p> <p>Business Commissions two-year international initiative UNs steps to implement SDGs and SDG Compass.</p> <p>Now it's time to go next part 'Reporting SDG activities '.</p>
<p>1.7 Reporting SDG activities</p>	<p><b>GRI reporting</b></p> <p>Many organizations have a need to report sustainability, but its challenging to find the best way to report. Due to different types of reporting, it is also difficult to compare organisations results and see how reliable or transparent reporting is.</p> <p>The independent and globally known standards organization Global Reporting Initiative (GRI) provides the global best practices for impact reporting. The GRI's mission is to deliver the highest level of transparency for organizational impacts on the economy, environment, and people.</p>


	<p>The GRI standards are the framework for sustainable reporting. The GRI standards enable any organization - large or small, private, or public - to understand and report on their impacts on economy, environment, and people in a comparable and credible way, thereby increasing transparency on their contribution to sustainable development. Organizations can also use those parts of standards that are significant for them. (GRI)</p> <p>(picture)</p> <p>The standards are designed as an easy-to-use modular set, delivering an inclusive picture of an organization’s material topics, their related impacts, and how they are managed. You can have an overview of how the standards are set up and what to look for in the reporting process by reading Short Introduction to the GRI standards (website, pdf) and video. (YouTube 2:40)</p> <p>(video)</p> <p>Example of reporting sustainability: Finnish listed trading company Kesko has done decades work developing their sustainability and they have also reported sustainability for years. You can visit Kesko’s sustainability website and read Kesko’s sustainability report.</p> <p>(Picture)</p> <p>You can also search the sustainability report of your own organization or organization you are interested in and benchmark the sustainability information of the organizations.</p>
	<p><b>EU sustainability reporting</b></p> <p>The natural continuum of the sustainability work is activity reporting. It’s important to organizations to report on their work toward sustainable development and the SDGs. As you learned earlier the UNs has been creating indicators and reporting of SDGs but, just as important is the organizations own reporting of its sustainable activities. The organizations have different ways to do it and now a days there are also a lot of information how to do it. European Union has given proposals and directives for organizations, which focuses sustainable development areas and who need to report. EU also creates guidelines to help organizations disclose information.</p>

	<p>EU rules on non-financial reporting apply to large public interest companies with more than 500 employees. This covers approximately 11 700 large companies and groups across the EU, including listed companies, banks, insurance companies and other companies designated by authorities as public-interest entities. (EU Corporate sustainability reporting)</p> <p>(picture)</p> <p>Under Directive 2014/95/EU large companies must publish information related to</p> <ul style="list-style-type: none"><li>• environmental matters</li><li>• social matters and treatment of employees</li><li>• respect for human rights</li><li>• anti-corruption and bribery</li><li>• diversity on company boards (in terms of age, gender, educational and professional background). (EU Corporate sustainability reporting)</li></ul> <p>In 2021 EU Commission adopted a proposal for a Corporate Sustainability Reporting Directive (CSRD), which would amend the existing reporting requirements of Non-Financial Reporting Directive (NFRD). This proposal</p> <ul style="list-style-type: none"><li>• extends the scope to all large companies and all companies listed on regulated markets (except listed micro-enterprises)</li><li>• requires the audit (assurance) of reported information</li><li>• introduces more detailed reporting requirements, and a requirement to report according to mandatory EU sustainability reporting standards</li><li>• requires companies to digitally ‘tag’ the reported information, so it is machine readable and feeds into the European single access point envisaged in the capital markets union action plan. (EU Corporate sustainability reporting)</li></ul> <p>EU has also published sustainability reporting standards and guidelines to help companies disclose environmental, social, and climate-related information. If you need more information about reporting standards and guidelines, you can visit EU’s website of <a href="#">Corporate sustainability reporting</a>. (website)</p> <p>Many consultant and auditing organizations are consulting organizations. These organizations help companies how to report on the SDGs, where to start and what good SDG reporting looks like. Also, many countries administrations give information of sustainability for organizations.</p>
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	<p><b>After reading some questions to think about:</b>                  Does your organization need to report its sustainability?                  Do you think that your organization should report sustainability? What kind of information?</p>
	<p><b>End of part Reporting SDG activities</b></p> <p>Excellent work!                  You have learned all material of this part                  GRI sustainability reporting and                  EU sustainable reporting.                  Now it's time to go next part 'Growing trend'.</p>
<p>1.8 Growing trend</p>	<p><b>Ranking organizations</b></p> <p>Many instances are doing the ranking of organizations sustainability and progress towards the SDGs. Quite often these ranking is based on data base of institutions or organizations own reporting like GRI-report. You have already learned the part 1.4 indicators where are the UNs and EUs rankings of countries, but there are also special rankings for the organizations.</p> <p>One of these is Corporate Knights' index of the 100 world's most sustainable corporations (website). The ranking is based on a rigorous assessment of nearly 7,000 public companies with revenue over 1 billion US dollars. The ranking spots the world's greenest firms. If you are interested the website has more information.</p> <p>(picture)</p> <p>Another interesting ranking is S&amp;P 500 ESG Index: Defining the Sustainable Core. The index signalled an evolution in sustainable investing. The reason to launch this index was that indices based on environmental, social, and governance (ESG) data were no longer a means for companies to declare their sustainability credentials or tools to manage tactical investments playing a minor role in investors' portfolios. The index was built to underlie strategic, long-term mainstream investment products. If you are interested and want to learn more you can visit also the S&amp;P 500 ESG index website. (note the links that are included to the text)</p>
	<p><b>Changing attitude and culture</b></p>

	<p>The SDGs and sustainability can be understood as long-term business prosperity for which there is a need to change our attitude of importance of sustainability. There is also a need to shift the perspective and mindsets in the business world.</p> <p>For example, The EFQM has adopted the SDGs as a part of their EFQM Model, which foundation is built upon a based-on purpose strategy, effective leadership &amp; culture change and aligned to the SDGs. As the responsible business, everybody needs to play their part tackling global challenges. (EFQM.) In the video ‘What’s the relation between Excellence &amp; Sustainability’ Emmanuel Perakis explains how excellence and sustainability are related. (YouTube, 7:18)</p> <p>(video)</p> <p>It takes many years to achieve changes in a culture. If you want to learn more, you can watch the video ‘A shift in perspective’, where is an example from plastic industry. It shows how sustainability is not just about the environment but has become essential for long-term business prosperity. (YouTube, 21:38)</p> <p>(video)</p> <p><b>After reading some questions to think about:</b></p> <p>Is your organization on these ranking lists?</p> <p>What kind of observations you can make from the lists?</p>
	<p><b>End of part Growing trend</b></p> <p>Excellent work!</p> <p>You have learned all material of this part</p> <p>Corporate Knights' index S&amp;P 500 ESG Index and Case: Changing culture.</p>

	<p>Congratulations!</p> <p>You have worked through all the material of this first section!</p> <p>I hope you had an inspiring path to the world of sustainable development.</p> <p>Now it's time to do the self-test and complete your learning diary.</p>
1.9 Learning diary	<p><b>Learning diary</b></p>  <p><b>Now it's time you to list the most important findings and reflect your learning with your team.</b></p> <p>You can discuss things with your study group or in the workplace and write your things and thoughts in a diary.</p> <p>If you have not yet opened a learning diary, please see the instructions in the "Welcome" section.</p> <p>This diary post can be your memo of the key learning points, the thing that you want to remember or subjects that need to learn more later. It's also time to reflect your thoughts and ideas that come up from the material you have learned.</p> <p>These guides and questions give you the focus and helps you to concentrate the items of this section:</p> <ul style="list-style-type: none"><li>• What can you learn from your own country's sustainable development?</li></ul>

	<ul style="list-style-type: none"> <li>• What are your country focus areas of 17 SDGs?</li> <li>• What is your country score?</li> <li>• What is your country’s developing areas of 17 SDGs?</li> <li>• Can you see the evolution of your country?</li> <li>• What could be done in your country to promote sustainable development?</li> <li>• Can you see how the development of SDGs is related to your own organization?</li> <li>• Does your organization have a sustainability report?</li> <li>• What items or SDGs your organization highlights developing sustainability?</li> <li>• How is the sustainable developing work done in your organization?</li> <li>• What is the attitude of sustainable development in your company?</li> </ul>
<p>1.10 Key take-aways and references</p>	<p><b>Key take-aways</b></p> <p>The main items to learn in this section are</p> <ul style="list-style-type: none"> <li>Sustainable development Goals (SDGs) and Agenda 2030</li> <li>Indicators of SDGs</li> <li>Progressing towards SDS in levels of world, EU, country and organization</li> <li>Sustainability reporting</li> <li>Ranking organisations sustainability.</li> </ul> <p>Thank you for participating the section. We hope you had an inspiring path to the world of sustainable development.</p>

**The author of this part of the teaching material has collected the content from the following sources, which can also be recommended as supplementary material**

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Corporate Knights 2022, The 100 most sustainable corporations of 2022, viewed 20 May 2022, <<https://www.corporateknights.com/rankings/global-100-rankings/2022-global-100-rankings/100-most-sustainable-corporations-of-2022/>>

Ecosperity 207, Unilever’s Paul Polman on the SDGs, YouTube, viewed 20 May 2022, <[https://www.youtube.com/watch?v=85EuBUJ\\_Cww](https://www.youtube.com/watch?v=85EuBUJ_Cww) >

EFQM, The United Nations Sustainable Development Goals, viewed 20 May 2022, <<https://www.efqm.org/lens-series/UN-SDGs/> >

EFQM Channel 2015, What's the relation between Excellence & Sustainability?, YouTube, viewed 20 May 2022, <[https://www.youtube.com/watch?v=DW7LDMY\\_XsQ](https://www.youtube.com/watch?v=DW7LDMY_XsQ)>

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Eurostat 2022, Your key to European statistics, viewed 20 May 2022, <<https://ec.europa.eu/eurostat/web/sdi/key-findings>>

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<p>Understanding the Dimensions of Sustainable Development 2017, YouTube, viewed 20 May 2022, &lt;<a href="https://www.youtube.com/watch?v=pgNLonYOc9s">https://www.youtube.com/watch?v=pgNLonYOc9s</a> &gt;</p> <p>United Nations 2022a, The 17 Goals, viewed 20 May 2022, &lt; <a href="https://sdgs.un.org/goals">https://sdgs.un.org/goals</a>&gt;</p> <p>United Nations 2022b, The SDGs in action - What are the Sustainable Development Goals?, viewed 20 May 2022, &lt;<a href="https://www.undp.org/sustainable-development-goals">https://www.undp.org/sustainable-development-goals</a>&gt;</p> <p>United Nations 2022c, Transforming our world: the 2030 Agenda for Sustainable Development, viewed 20 May 2022, &lt; <a href="https://sdgs.un.org/2030agenda">https://sdgs.un.org/2030agenda</a>&gt;</p> <p>United Nations 2022d, Conferences - Environment and sustainable development, viewed 20 May 2022, &lt; <a href="https://www.un.org/en/conferences/environment">https://www.un.org/en/conferences/environment</a>&gt;</p> <p>United Nations 2022e, The Ten Principles of the UN Global Compact, viewed 20 May 2022, &lt; <a href="https://www.unglobalcompact.org/what-is-gc/mission/principles">https://www.unglobalcompact.org/what-is-gc/mission/principles</a>&gt;</p> <p>United Nations 2022f, Millennium development goals and beyond 2015, viewed 20 May 2022, &lt; <a href="https://www.un.org/millenniumgoals/bkgd.shtml">https://www.un.org/millenniumgoals/bkgd.shtml</a>&gt;</p> <p>United Nations 2022g, Decade of Action, viewed 20 May 2022, &lt; <a href="https://www.un.org/sustainabledevelopment/decade-of-action/">https://www.un.org/sustainabledevelopment/decade-of-action/</a>&gt;</p> <p>United Nations 2022h, Act Now on Climate Change, YouTube, viewed 20 May 2022, &lt; <a href="https://www.youtube.com/watch?v=hakqRofpMFs">https://www.youtube.com/watch?v=hakqRofpMFs</a>&gt;</p> <p>United Nations 2022i, UN Chief on Decade of Action for the Sustainable Development Goals, YouTube, viewed 20 May 2022, &lt; <a href="https://www.youtube.com/watch?v=vc8-7VnclbA">https://www.youtube.com/watch?v=vc8-7VnclbA</a>&gt;</p> <p>United Nations 2022j, SDG Indicators Database, viewed 20 May 2022, &lt;<a href="https://unstats.un.org/sdgs/dataportal">https://unstats.un.org/sdgs/dataportal</a>&gt;</p> <p>United Nations 2022k, SDG Indicators, viewed 20 May 2022, &lt; <a href="https://unstats.un.org/sdgs/indicators/indicators-list/">https://unstats.un.org/sdgs/indicators/indicators-list/</a>&gt;</p>
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	<p>United Nations 2022l, SDG Country Profile, viewed 20 May 2022, &lt; <a href="https://unstats.un.org/sdgs/dataportal/countryprofiles/FIN">https://unstats.un.org/sdgs/dataportal/countryprofiles/FIN</a>&gt;</p> <p>United Nations 2022m, SDG Indicators Database, viewed 20 May 2022, &lt; <a href="https://unstats.un.org/sdgs/dataportal/">https://unstats.un.org/sdgs/dataportal/</a>&gt;</p> <p>United Nations 2022n, The SDGs Explained for Business, viewed 20 May 2022, &lt;<a href="https://www.unglobalcompact.org/sdgs/about">https://www.unglobalcompact.org/sdgs/about</a>&gt;</p> <p>United Nations 2022o, About - Business Commission, viewed 20 May 2022, &lt;<a href="http://businesscommission.org/about">http://businesscommission.org/about</a>&gt;</p> <p>United Nations 2022p, Our work – Business Commission, viewed 20 May 2022, &lt;<a href="http://businesscommission.org/our-work">http://businesscommission.org/our-work</a>&gt;</p>
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## 2. Context



Page	Content
	<p><b>Description</b></p> <p>In this section we are speaking about the roles of businesses and individuals in achieving the Sustainable Development Goals. Successful implementation of the Sustainable Development Goals (SDGs) depends on businesses’ and individuals’ ability to implement the goals in their own contexts.</p> <p><b>Learning objectives</b></p> <p>The learner is able to identify and analyse factors and stakeholders influencing sustainable development of businesses</p>
<p><b>2.1 Introduction to the Context section</b></p>	<div data-bbox="485 1084 1062 1393" style="display: inline-block; vertical-align: top;"> </div> <p data-bbox="1087 1117 1440 1146"><a href="https://youtu.be/ZHvUFRzXDpg">https://youtu.be/ZHvUFRzXDpg</a></p> <p data-bbox="1087 1187 1793 1247"><b>In this section we will speak about the roles of businesses and individuals in achieving the Sustainable Development Goals.</b></p> <p data-bbox="1087 1287 1902 1382">Successful implementation of the Sustainable Development Goals (SDGs) depends on businesses’ and individuals’ ability to implement sustainability in their respective contexts.</p>

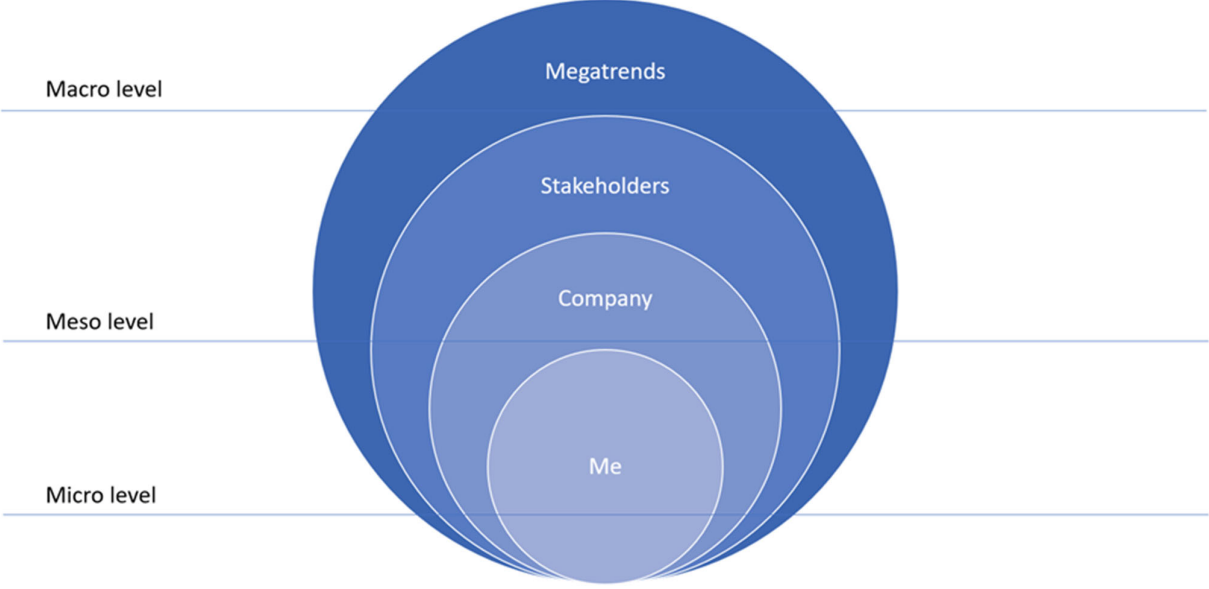
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In this section we will look the context of the organization in relation to sustainability actions. The organization can be either private or public. The context encompasses an understanding of the factors impacting the business or functions from various perspectives, including the megatrends connected to sustainability, meaning of sustainability in business or at work and from multiple stakeholders' point of view. When you are thinking about context of your organization and sustainability, you need to expand your thinking beyond the boundaries of your organization, to have a deeper understanding about what is going on in the world and what is changing that will affect to your work and or to your operating area.

We will start with megatrends, then look at sustainability in business context and company's stakeholders. We will end this section to the personal context. In this section, macro level means contextual environment which include economical, societal, technological, political and environmental perspectives. At meso level, we look at the actions of organizations, and micro level means the actions of individuals.

(picture, SDG4BIZ)

	
<p>2.2 Megatrends and sustainability</p>	<p><b>Megatrends</b></p> <p>Megatrends are significant developments, which affect to our lives. For megatrends there are different definitions offered, but a common trait emerges: Megatrends are global, sustained and macroeconomic forces of development and transformation (Singh, 2012). Megatrends duration is longer than normal trends, and their scale is larger (Mittelstaedt et al 2014, 254). All megatrends are related to sustainability and SDGs. Some of the megatrends are briefly described below.</p>
	<p><b>Demographic change</b></p>

	<p>Through demography we try to understand changes in population. These are components like gender, age, mobility, employment status and location. According to United Nations the world’s population is expected to increase by two billion people, from 7.7 billion at present to 9.7 billion in 2050. Half of global population growth between now and 2050 is expected to come from just nine countries: India, Nigeria, Pakistan, the Democratic Republic of the Congo, Ethiopia, Tanzania, Indonesia, Egypt and the United States of America (UN). The population growth varies in different parts of the world. The picture below shows the differences between regions in population growth.</p> <p>(Picture) Population growth (annual % year 2020) (World Bank)</p> <p>In Europe and some countries in Asia the population is aging. This cause challenges in these people supporting and caring. We must adapt education, health-care and social protection systems to provide a public safety net for this these older people. When life expectancy continues to increase, older persons are playing more significant roles in societies and economies. (Dugarova 2017)</p> <p>On the other hand, in some regions of the world, young people (ages 15 to 24 years) comprise a large and rapidly growing group. In sub-Saharan Africa, the population of working-age people (from 25 to 64 years) is growing faster than in any other age group. The relative increase in the working-age population offers an opportunity for accelerated economic growth: the so-called “demographic dividend”. In this context, efforts to achieve the Sustainable Development Goals can reinforce these trends and lead to greater opportunities. The effective means are ending hunger, ensuring healthy lives, promoting education and life-long learning, creating jobs, improving social protection and reducing inequality. (ILO, UN, World Bank)</p> <p>Nowadays about 55% of the world’s population lives in urban areas. This portion is expected to increase to 68% by 2050. Understanding the key trends in urbanization is crucial to the implementation of the 2030 Agenda for Sustainable Development. (UN)</p> <p>Because urbanization will continue, sustainable development depends on the successful management of urban growth. Many countries face challenges in meeting the needs of their growing urban population. These needs relate to, for example, housing, transport, energy systems, employment and basic services such as education and health. The solutions are needed to improve the lives of urban residents based on economic, social and environmental considerations. (World Bank)</p>
	<p><b>Climate change</b></p>

SDG4BIZ Training Package Content

621458-EPP-1-2020-1-FI-EPPKA2-KA/ KNOWLEDGE ALLIANCE FOR BUSINESS OPPORTUNITY RECOGNITION IN SDGs - SDG4BIZ

	<p>Climate change means long-term shifts in temperatures and weather patterns. Carbon dioxide levels today are higher than at any point in the past 800 000 years. The biggest reasons for this are human activities. The main reason is burning fossil fuels like coal, oil and gas. (NOAA, UN)</p> <p>But climate change is much more than just warmer temperatures. The Earth is a system, where everything is connected. If there is changes in one area influence changes in other areas too. The consequences of climate change mean for example droughts, water scarcity, fires, rising sea levels, flooding, melting glaciers, storms and declining biodiversity. (UN) Climate change is expected to impact developing countries the hardest. The risks is seen in agriculture and food and water supplies. (World Bank)</p> <p>In IPCC report (2022) is presents several options to act and adapt to the climate change. These climate responses and adaptation options have benefits for ecosystems, ethnic groups, gender equity, low-income groups and the Sustainable Development Goals. In general level they are presented in the following table.</p>
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SDG4BIZ Training Package Content

621458-EPP-1-2020-1-FI-EPPKA2-KA/ KNOWLEDGE ALLIANCE FOR BUSINESS OPPORTUNITY RECOGNITION IN SDGs - SDG4BIZ

System transition	Climate responses and adaptation options
Land and ocean ecosystems	<ul style="list-style-type: none"> <li>• Coastal zone management</li> <li>• Forest-based adaptation</li> <li>• Sustainable aquaculture and fisheries</li> <li>• Biodiversity management</li> <li>• Water use efficiency and water resource management</li> <li>• Improved cropland management</li> <li>• Efficient livestock management</li> </ul>
Urban and infrastructure systems	<ul style="list-style-type: none"> <li>• Green infrastructure and ecosystem services</li> <li>• Sustainable land use and urban planning</li> <li>• Sustainable urban water management</li> </ul>
Energy systems	<ul style="list-style-type: none"> <li>• Improve water use efficiency</li> <li>• Resilient power systems</li> <li>• Energy reliability</li> </ul>
Cross sectional	<ul style="list-style-type: none"> <li>• Planned relocation and resettlement</li> <li>• Human migration (when voluntary, safe and orderly)</li> <li>• Disaster risk management</li> <li>• Climate services, including Early Warning Systems</li> <li>• Social safety nets</li> <li>• Risk spreading and sharing</li> </ul>

Table: Diverse feasible climate responses and adaptation options to respond representative key risks of climate change Adapted IPCC 2022, 24-25

Climate responses and adaptation options have benefits for the Sustainable Development Goals. This means however that public and private sectors both nationally and internationally strongly support for adaption efforts. Accessing finance and technology development and transfer and capacity building support is also critical, particularly for developing countries. (UNCCS 2017)

**Resource scarcity**

	<p>Scientists believe that we are just now in the midst of a sixth mass extinction entirely caused by human. A mass extinction is a short period of geological time in which a high percentage of biodiversity, or distinct species (bacteria, fungi, plants, mammals, birds, reptiles, amphibians, fish, invertebrates) disappear. (Cowie, Bouchet and Fontaine, 2022)</p> <p>Water scarcity already affects every continent. Water scarcity will be exacerbated as rapidly growing urban areas place heavy pressure on areas water resources. Agriculture use 72% of all water withdrawals. Municipalities use 16% of all water withdrawals for households and services. Industry use about 12% of water. About 1.42 billion people live in areas of high-water vulnerability. Water should be treated as a scarce resource and focus on managing it’s demand. (UN-Water 2021)</p> <p>Other examples of resource scarcity are the lack of sand and helium. Sand is world's second most used resource after water. Sand is linked to all 17 Sustainable Development Goals (SDGs) either directly or indirectly. Sand plays a strategic role in ecosystem services, it is vital for infrastructure for economic development, it provides livelihoods to many people and it maintain biodiversity. Despite the strategic importance of sand, its extraction, sourcing, use, and management remain largely ungoverned in many regions of the world. This leads to numerous environmental and social consequences that have been largely overlooked. (UN)</p> <p>Helium is a non-renewable resource. Without helium, a great deal of scientific research cannot be conducted. The demand for helium is enormous and growing. There is no way to create artificial helium economically reasonable price. Earth's helium stores cannot response to the demand. (Davis 2019)</p>
	<p><b>Digitalization</b></p> <p>The connection between digitalization and sustainability unfolds opportunities for shaping a greener economy and society. This can pave the way towards the SDGs. According to researchers, a little evidence exists so far, about a genuine contribution of digitalization to sustainability. Further multidisciplinary research, dialogue and concerted efforts for transformation are required. (Del Rio Castro et al. 2021)</p> <ul style="list-style-type: none"> <li>• Digital transformation or DX is a societal change in which digital technology integrates all areas of business and brings changes in life of everyone (Toivonen &amp; Kijima 2019, 51). Digitalization is progressing very fast because of technical progress, development of the internet and technologies based on artificial intelligence. Technology trends emerging as</li> </ul>

	<p>a result of digitalization, such as 6G, IoT (Internet of Things), AI (Artificial Intelligence) and Big Data have a considerable impact on the working environment and business operations.</p> <ul style="list-style-type: none"> <li>• Wireless communication has managed to attract billions of users in very a short time. Progression of wireless communication has been and will be rapid. Companies are developing already 6G (sixth generation standard) solutions for wireless communication. When looking at 6G from a user perspective the key innovations can be optical free-space indoor communications, wireless charging and energy harvesting, and extensive use of machine learning to facilitate innovative services. (David and Berndt 2018)</li> <li>• Artificial Intelligence means algorithms which copy intelligent human behaviour. An example is the self-driving car, where a bunch of algorithms are in play and working together doing decisions instead of human being. Ethically, it is important to understand how different algorithms are working together. It will be the key to understanding exactly what machines interpret as well as how the machine's decision-making process is carried out. Humans need to set the boundaries for what the machine shall and shall not do, as well as how these policies need to be expanded, or perhaps restricted, going forward. (Jägare 2019)</li> <li>• Internet of Things (IoT) means bots (software programs) that enable conversational interfaces for various device interactions, like drones, appliances, vehicles, and displays (Jägare 2019).</li> <li>• The term big data is used to mean data sets that are too large or complex to be handled by traditional data processing application software. Big data is defined by the volume of the data, the variety of the types of data involved, the velocity, veracity (data quality,) and value. These are all important aspects of big data that should be considered when estimating the potential benefits of a big-data data set. (Jägare 2019)</li> </ul> <p>Big data and the development of smart systems connected to the internet of things can generate unique opportunities to strategically address challenges associated with the United Nations Sustainable Development Goals (SDGs) to ensure an equitable, environmentally sustainable, and healthy society. This perspective describes the opportunities that digitalization can provide towards building the sustainable future. (Mondejar et al. 2021) There is a paradigm when discussing about benefits of digitalization achieving SDGs. The connection between digitalization and SDGs causes also negative impacts such as energy consumption, electronic waste, growing water use and the use of non-renewable raw materials. There is need to research more the relationship between pros and cons of digitalization and how to solve or minimize the negative impacts.</p>
	<p>Some megatrends might be threatening the SDGs. Examples about these threats are the unsustainable growth model, weakened multilateralism overlooking transboundary responsibilities, strong structural and financial barriers such as debt crisis, unfair trade, and democracy loss worldwide. (Castro et al. 2021) The data, researches and forecasts associated with these megatrends give a bleak picture of the future in the planet, but we are all able to influence to the future through our own actions. <b>Every decision, small and large, matters. We have to solve the problems and it creates huge business opportunities.</b></p>



<p><b>2.3 Sustainability in business context</b></p>	<p><b>Role of organizations in achieving the Sustainable Development Goals</b></p> <p>We do not to meet the SDGs unless the private businesses and the public sector are properly oriented and directed in their activities, to provide the goods and services that are needed for achieving the Sustainable Development Goals. We can define sustainable development as “development that meets the needs of the present generations without compromising the ability of the future generations to meet their own needs” (Brundtland 1987, 43). The SDGs require a new vision for how business can be undertaken. If companies want to become more sustainable, they cannot think just to maximize shareholder’s value and financial aspect. Economic, social and environmental aspects need to be integrated in decision making and balance each other. In this view, we can define three different pillars of sustainability (Elkington 1997):</p> <ul style="list-style-type: none"> <li>• Environmental sustainability: The long-term health of ecological systems (Planet)</li> <li>• Social sustainability: The long-term health of people and communities (People)</li> <li>• Economic sustainability: The long-term ability to secure resources (Profit)</li> </ul> <p>(video)</p> <p>Elkington (2018) has criticized interpretations of triple bottom line as too financially focused. According to him all three perspectives are often viewed through economics and cost. Originally triple-bottom line was supposed to provoke deeper thinking about capitalism and its future, but many early adopters understood the concept as some kind of balancing act to adopt trade-off mentality between three angles. (Elkington 2018)</p>
	<p><b>Roles of individual business practitioners and employees</b></p> <p>What business practitioners and employees should be considering when they reflect their role and actions aiming to achieve the Sustainable Development Goals?</p> <p>A business manager needs to know the SDGs in order to get more understanding about the direction of the world economy as it actually will be. This is important when manager make decisions concerning the strategy and direction of the company. Although SDGs pose risks to the company (e.g. financing), there is a higher risk of ignoring them. Both customers and business partners pay attention to the sustainability of the entire value chain. (Ministry of Economy, Trade and Industry Japan)</p>

	<p>In other words, The Sustainable Development Goals are also a call for good behaviour and honouring standards in many different dimensions of our economic lives, including companies. Most important point is that the SDGs raise many of issues on corporate responsibility and corporate governance in our awareness. (Ministry of Economy, Trade and Industry Japan)</p> <p>The SDGs help also individual employees to think what the kind of world we want in the future. The SDGs create the direction to us that here is what the environment will look like in 5, 10 or 20 years, if we globally success in using the resources and focusing the investments in the right direction. Employees participate to achieve sustainability goals of the organization and they interpret those in the light of their own working duties. This can be developing your own work either alone or with your stakeholders. Next, we will focus on stakeholders.</p>
<p><b>2.4 Stakeholders</b></p>	<p><b>Activating people and organizations for sustainable development (Stakeholder engagement)</b></p> <p>In business, a stakeholder is any individual, group, or party that has an interest in an organization and the outcomes of its actions (Freeman 1984). Stakeholders can be divided to the internal and external stakeholders. Owners, managers and employees belong to the internal stakeholders and for example customers, suppliers, society and government are external stakeholders.</p>
	<p><b>Stakeholders (Organization’s perspective)</b></p> <p>Organizations can become sustainable only by engaging with their stakeholders to understand and respond to their needs. Sustainable development often involves a wide range of actors, sometimes in novel configurations, and this requires thinking about how different people can participate in the processes involved, and what they might seek to achieve from their involvement. Usually sustainable development is participatory, so the stakeholder needs and interests must take seriously.</p> <p>Achieving SDGs require drawing in the experience, ambitions and consent of diverse people, and respecting their viewpoint. (High, C &amp; Nemes G 2009). In the video below lecturer Todd Cort (Yale school of management) tells why it is important to engage external stakeholders to company’s sustainability goals.</p> <p>(video)</p> <p>A multi-stakeholder perspective emerges as needed to drive sustainability. Achieving the SDGs will require close collaboration, cooperation and coordination efforts, as well as shared responsibility from all stakeholders, to move beyond intentions into actions. But this needs further regulation for clarifying the roles, responsibilities and the engagement. Collaboration of all the</p>

actors, at all levels of society in the same direction, is essential to accelerate transformation and progress for pursuing the goals. (Castro et al. 2021)

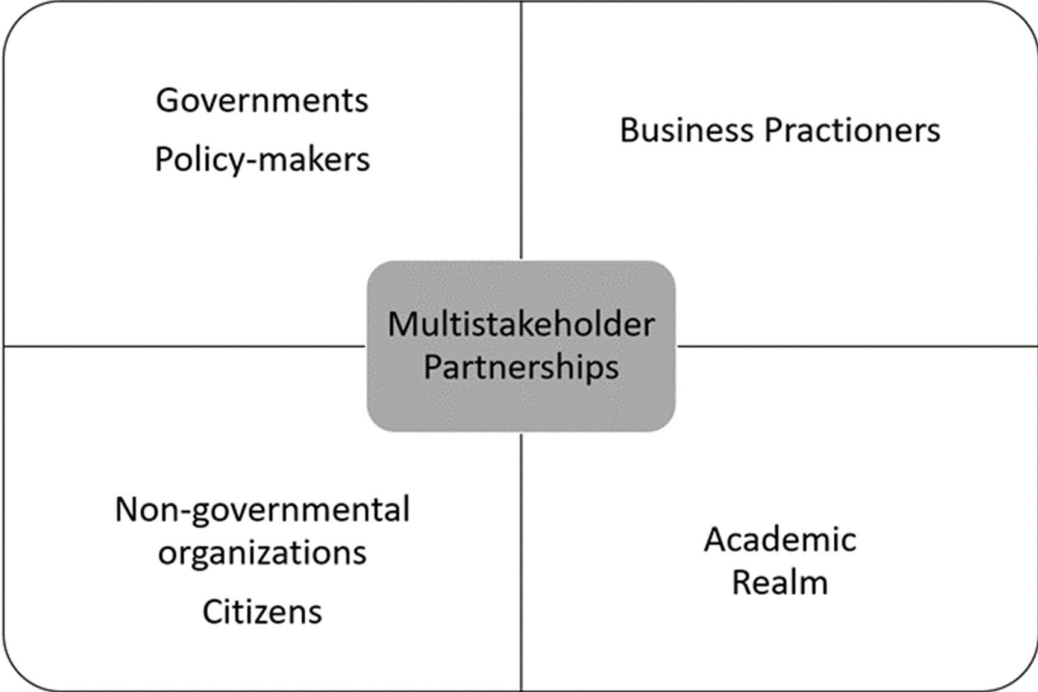



Figure: SDGs key stakeholders (adapted Castro et al. 2021)

**Stakeholders (personal working perspective)**

Employees as an internal stakeholder are very important and multidimensional group. As mentioned earlier, they participate to achieve sustainability goals of the organization and they interpret those in the light of their own working duties. In these light

	<p>employees are also responsible for and they operate in a corporate towards external stakeholders. (Onkila, T., Mäkelä, M., &amp; Sarna, B. 2021)</p> <p>It is important to identify different stakeholders from an individual perspective. One example is to use the matrix below to think about the most important stakeholders for your work (internal and external). The idea is that you organize the stakeholders in different boxes according to their interest and power when you comparing their influence in your work. Vertical 'Interest' measures to what degree they are likely to be affected by your work, and what degree of interest or concern they have in or about it. Horizontal 'Power' measures the influence they have over your work, and to what degree they can help achieve or maybe block your goals at work.</p> <p>Stakeholders (the people or organizations) with high power, and interests with your work or its' results should fully engage, bring on board and take to the consideration in your working activities. At the very top of the 'power' list will be the 'decision-makers', usually your bosses or other supervisors. Beneath these are people (for example co-workers) whose opinion matters – the 'opinion leaders'. (Hovland I. 2005, 9)</p> <p>Stakeholders with high interest but low power (with your working goals) need to be kept informed. It may be that they form an interest group which can lobby for change or is against it. These stakeholders with high power but low interest should be kept satisfied. (Hovland I. 2005, 9)</p> <p>(image)</p> <p>Figure: Stakeholder analysis (Hovland 2005, 9)</p>
	<p><b>An example about the meaning of context and the big picture</b></p> <p>Next video presents an example based on Greenstep's experience and know-how about a meaning of the big context and the importance of understanding customers as stakeholders. This experience has helped Greenstep to develop new sustainability businesses that have accelerated customer growth.</p> <p>Greenstep is a family business that helps thousands of companies in Europe grow. Their services include accounting and payroll automatization, finding new financing or owners when necessary, acting as interim or part-time CFOs and HR Managers in customer organizations, implementing business analytics and backbone ERP software to support customers' global ambitions and helping customers to build a more sustainable future. (Greenstep Ltd)</p>

<p><b>2.5 Learning diary: context</b></p>	<p><b>(Video)</b></p> <p><b>Learning Diary</b></p> <p>In this section one of the tasks is to reflect and document your learning to the Learning Diary. As mentioned earlier in this section, employees participate to achieve sustainable development goals in their organizations and they interpret and promote those in their own context and the light of their own working duties. Who are your main external and internal stakeholders? How do you influence your stakeholders? And how do you collaborate with your stakeholders? What ways do you have to promote sustainability and ideate new ways to act in your own organization and in collaboration with your stakeholders? Open a Blog where the Learning Diary will be created from <a href="#">here</a>. It will be opened into a new browser tab so you can keep it open as you go further.</p> 
<p><b>2.6 Key take-aways and references</b></p>	<p><b>Key take-aways</b></p> <ul style="list-style-type: none"> <li>• Megatrends are long-term global and significant developments. Megatrends are closely interlinked and they have a direct link also to the SDGs.</li> <li>• Context is an own environment where individual can influence to things and development. Every decision, small and large, matters in achieving SDGs.</li> <li>• Employees participate to achieve sustainability goals of the organization and they interpret those in the light of their own working duties.</li> <li>• The goal of stakeholder analysis is to develop a strategic view of the relationships between the different stakeholders and the sustainability issues they value and can promote together.</li> </ul>

- We do not to achieved the SDGs unless the private businesses and the public sector are properly oriented and directed in their activities, to provide the goods and services that are needed for achieving the SDGs. This creates new business opportunities.

**The author of this part of the teaching material has collected the content from the following sources, which can also be recommended as supplementary material**

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### 3. Motivation



Page	Content
	<p><b>Description</b></p> <p>In this section we explore the various motivational drivers of entrepreneurs, companies and individuals when identifying sustainable business opportunities and innovating new sustainable solutions and business ideas. You will also learn how the triple bottom line, SDG's and various ways of sustainable business are inspiring sustainable business innovations.</p> <p><b>Learning objectives</b></p> <p>The learner is able to reflect and evaluate motivational drivers to recognize sustainable business opportunities.</p>
<p>3.1 Introduction to Motivation section</p>	<div data-bbox="485 1076 1045 1373"> </div> <p><a href="https://youtu.be/olGK6pA-SVE">https://youtu.be/olGK6pA-SVE</a></p> <p><b>Welcome to the Motivation section</b></p> <p>In this section we'll explore the various motivational drivers of entrepreneurs, companies and individuals when identifying sustainable business opportunities and innovating new sustainable businesses.</p>

	<p>The goal of this section is to provide you various perspectives, frameworks and case stories that will help you to reflect and evaluate motivational drivers of sustainable business. This will be done through discussing how sustainable development goals are inspiring companies to shape their businesses towards sustainability, how the triple bottom line model can be a source of motivation and how the variety of sustainable business models can support the sustainable business opportunity recognition of individuals as well as organisations.</p> <p>In this section, you will find a few real life stories of entrepreneurs, individuals and companies who have started a new business or transformed their existing business towards sustainability. These stories will open up various perspectives to motivators and drivers of sustainable business innovation. In addition, through these stories you will not only learn what has motivated them to work towards sustainable business, but also get a glimpse on the variety of different business models of sustainable business.</p>
<p>3.2. VOTE</p>	<p><b>Let's warm up</b></p> <p><b>This is a warm-up exercise for the motivation section.</b> Do not take it too seriously, but rather with a curiosity. After giving your poll answers, you'll learn how the other participants of this course have voted.</p> <p>Each of the three polls allow you to give only one answer. I know, choosing just one is difficult – but just give a try. After giving your answer, you'll see how the other course participants have answered.</p>
	<p>POLL 1: Personal incentives and motivators towards sustainable business ideas</p> <p>What of the three following would you state as the most central motivator for you to work towards sustainability? (It's might be hard to choose just one, as they all are important, but please try.)</p> <ul style="list-style-type: none"> <li>• Societal perspective: Making positive impact on society and people</li> <li>• Environmental perspective: Making positive impact of globe</li> <li>• Economical perspective: Making positive impact on profit of my organisation</li> </ul>
	<p>SDG's as drivers and motivators towards sustainability (1-9)</p> <p>Which one of the following SDG's is or could be a relevant driver or a source of inspiration for the organization that you work for? (you may choose only one)</p>

	<ol style="list-style-type: none"> <li>1. No poverty</li> <li>2. Zero hunger</li> <li>3. Good health and well-being</li> <li>4. Quality education</li> <li>5. Gender equality</li> <li>6. Clean water and sanitation</li> <li>7. Affordable and clean energy</li> <li>8. Decent work and economic growth</li> <li>9. Industry, innovation and infrastructure</li> </ol>
	<p>SDG's as drivers and motivators towards sustainability (10-17)</p> <p>Which one of the following SDG's is or could be a motivator for you and/or your organization to work towards sustainability?</p> <ol style="list-style-type: none"> <li>10. Reducing inequalities</li> <li>11. Sustainable cities and communities</li> <li>12. Responsible consumption and production</li> <li>13. Climate action</li> <li>14. Life below water</li> <li>15. Life on land</li> <li>16. Peace, justice and strong institutions</li> <li>17. Partnership for goals</li> </ol>
<p><b>3.3 Motivational drivers towards sustainable business</b></p>	<p><b>Motivational drivers towards sustainable business innovation</b></p> <p>This lecture discusses elements of sustainability (i.e. triple bottom line) and SDG's as sources of inspiration for innovating and identifying opportunities for sustainable business.</p> <p><b>Triple bottom line: impact on people, planet and profit</b></p> <p>Triple bottom line gives a framework to identify what kind of impact the entrepreneur of organization wishes to make. When choosing a focus area does not mean that you forget the other. However, identifying the inspiring focus areas can act as motivators and inspirators when looking for new sustainable business opportunities and innovating how to transform the existing operations towards sustainable business models.</p> <p><b>Sustainable Development Goals</b></p>

SDG's are helping the organizations to narrow down their focus in certain areas of sustainability when innovating sustainable business and aligning their strategies with SDG's. Through sustainability goals, companies can choose areas where they innovate new ways of transforming their business models towards sustainability. SDG's can thus act as an innovation springboard for new business ideas, solutions and markets.

SDG Compass (link) is a guide that helps mainly large multinational enterprises to align SDG's and their sustainability strategy. For small and medium enterprises and other organizations it can act as a source of inspiration.

There are many examples on how bigger companies align their sustainability strategy and operations according to SDG's. This type of examples you will typically find in the sustainability reporting but also on the company websites describing their sustainability strategy. Here you'll see some examples. For example LEGO company has chosen two of the SDG's as their focus areas: Quality Education and X Consumption.

They write in their Sustainability Report 2021: *"We are committed to making a positive impact for children, and therefore we are particularly inspired by SDG4, 'Quality Education' and SDG 12, 'Responsible Consumption and Production'. This is where we see our contribution making the greatest impact on the lives of children and the planet."* (LEGO 2021 Sustainability Reporting. (link))

(picture)

Picture 1: LEGO focuses on 2 SDG's (see LEGO 2021 Sustainability reporting: LEGO 2021 Sustainability Reporting. (link))

Another example comes from a laundry business. Lindström company states the three sustainable development goals which they can promote in particular: SDG 6 Clean Water and Sanitation, SDG8 Decent work and economic growth and SDG 12 Responsible Consumption and Production.

(picture)


Picture 2. Three SDG's that company Lindström has chosen as their sustainability focus areas (Lindström Sustainability Report 2020)

For individuals, entrepreneurs and smaller companies SDG's serve as source of inspiration and a springboard for business opportunity recognition on the wide spectrum of various SDG's ranging from social issues as poverty and inequality into natural resources to mention some.

**Extrinsic and intrinsic motivators**

One way of looking at the motivators for sustainable business is to understand that there are extrinsic motivators such as environmental laws or regulations that a company must follow or there might be some rewards and incentives for more sustainable business given e.g. by state or city. On the other hand, there are intrinsic motivators thriving the sustainable business innovation such as values or firm competitiveness.

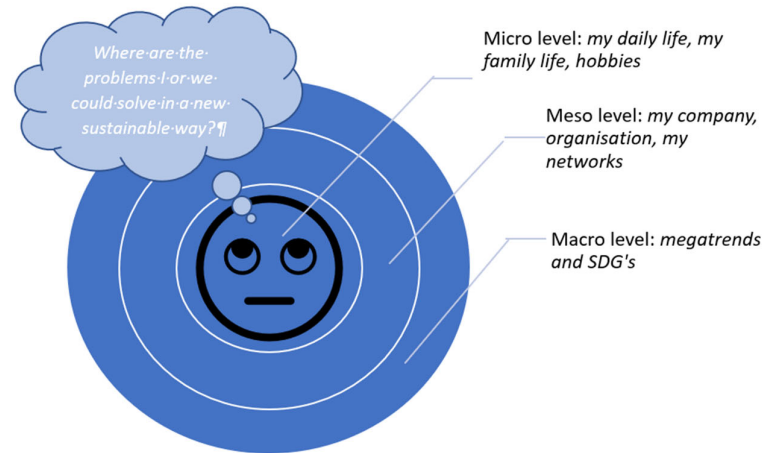
- Legitimacy: e.g. regulatory compliance, good reputation, interest groups
- Competitiveness: e.g. through less waste, by increasing process efficiency and launching greener products

	<ul style="list-style-type: none"> <li>• Responsibility and values: e.g. impact on people, planet and profits.</li> </ul> <p><b>Developmental steps</b>          Compliance is often the first step towards sustainability and it can then lead to more proactive sustainable product development and even an innovation of new kind of business models such as sharing platforms with other stakeholders. Below you will see a step-wise illustration based on Nidumolu, Prahalad &amp; Rangaswami (2009 Harvard Business Review)</p>  <p>PICTURE 3: Steps towards sustainable business. Adapted from Nidumolu, R., Prahalad, C.K. and Rangaswami, M.R., 2009. Why sustainability is now the key driver of innovation. Harvard business review, 87(9), pp.56-64.</p>
<p><b>3.4 How to identify opportunities for sustainable business?</b></p>	<p><b>Coming up with a problem to be solved - and being motivated enough to solve it!</b></p> <p>Next you will find various company case stories which illustrate different type of motivators and journeys for a sustainable business innovation (sections 3.5-3.7). Browse through them – and find the ones that inspire you the most! Before digging deeper into the company cases, please read the short introductory text below. It might help you to find the stories that resonate best.</p> <p><b>Finding an interesting problem to be solved</b>          How do individuals and companies come up with new sustainable business ideas?          Sometimes it can be a bit hard to start thinking on how things can be changed towards sustainability. This is when e.g. UN Sustainability goals can come handy. Fundamental question for business ideas and opportunity recognition is to identify a problem that many people or business have. What is a problem to be solved and how to solve it?          You might find the problem – and feel motivated to solve it – in your close by surroundings: Your daily life, your daily work, the daily life around yourself. In company cases you’ll find examples of this type of situations which then had motivated people to find solutions for those. For example the entrepreneur of Skipperi (see section 3.7) realized that with the busy life with kids, they did not have any more enough time to spend on boating and came up with a sharing platform idea of boats.          You may also be motivated with the daily issues at work, the problems of your customers, partners or colleagues. In company cases you’ll find this type of company case of Valtra, where an enthusiastic employee started experimenting</p>

and innovating ways of prolonging the lifespan of their tractors, or company case Durat where a new buy-back service was invented with an aim towards fully closed material loop (see section 3.6)

There are also problems and needs that might not come from your everyday life but that have large impact on globe and societies. Megatrends and the UN SDG's give you a list of problems to be tackled and to be solved. In the first section you learnt about the list of 17 SDG's and some of the things such as clean water, daily sanitation, plastic waste in oceans and reducing waste.


Map your potential motivators for identifying a problem to be solved by a new sustainable idea or innovation on various levels:



picture SDG4BIZ

When pondering the potential problems and sustainable solutions for those, it's important to evaluate your motivation to those:

1. How important this problem is for you? Do you feel motivated to solve it? Will this give you satisfaction if you'll find a sustainable solution to this problem? If the problem is important for you, it will keep you motivated even in those days when you'll face some obstacles that you will need to come over

	<p>2. What is your relationship with the problem? Do you know the problem well enough to start solving it? It does not always mean that you'll need to know the solution yet, but understanding – or willing to understand – the problem is important, as having a personal relationship, or expertise on the field helps you and keeps you motivated to solve it. You might wonder why it is important to find a problem that really matters you personally – or is closely connected to your own area of expertise. The reason is simple: strong motivation is needed in order to have the grid and persistent to work on the problem and creating a sustainable solution for it.</p> <p>But hey, let's not keep you too long here – it's time to read the most interesting Company case stories in sections 3.5-3.7. Enjoy!</p>
<p><b>3.5 CASE! Product as a service (copyrights Sitra)</b></p>	<p><b>Lindström company story: Workwear as a service</b></p> <p><b>Lindström provides workwear as a service.</b></p>  <p>Photo credit: SITRA 2021 / Petteri Tuukkanen, Berry Creative</p> <p><b>“We reduce overconsumption of textiles and save natural resources”</b></p> <p>In 170 years, Lindström has grown from a yarn dyeing plant into an international textile rental company that looks after the entire life cycle of the textiles it offers. Senior Vice President Anna-Kaisa Huttunen, who is responsible for ecosystems and sustainability, says the textiles-as-a-service model enables customers to concentrate on their core operations.</p>

“Lindström’s story begins in the 1840s. We have always offered services: first as a yarn dyeing plant, then as a laundry and, as early as the 1930s, by renting out workwear to one of our customers and caring for it. You could say that we were a pioneer in the sector.

In the 1990s, we began to focus on the textiles-as-a-service business more widely. Companies need different kinds of textiles, but owning, storing and caring for them requires money and natural resources. We provide companies with the textiles they need and look after the entire life cycle of the products, from design to reuse. We design and manufacture textiles only for the companies’ needs and make them as durable as possible. This enables us to reduce overconsumption and save natural resources.

We need to collaborate with several operators to ensure that the entire life cycle of the product is in line with the circular economy. In a traditional linear operating model, companies manufacture and sell their products. In the circular economy model, we need partners for activities such as the recycling of textiles that are no longer used and the development of new textile fibres that are more suitable for the circular economy. My duty at Lindström is to make sure that we have the right partners for the textile circular economy.


Digitisation plays an important role in the textiles-as-a-service model. Nearly all our textiles have a microchip enabling us to ensure that our customers have the right number of textiles. This way, we can move unnecessary textiles from one site to another and avoid having to acquire new textiles too early. We also monitor the use and the wear and tear of the textiles so that we can develop the products and make them last even longer.

The textile industry is still a burden on the environment. Although we maintain and wash our textiles efficiently, we want to reduce the emissions of our activities even more in the future. Our aim is to recycle all textiles that are no longer used and, for example, change to using renewable energy in our service centres.

We operate in 24 countries and have huge opportunities for growth in all of them. Although Lindström is the largest company in Finland, textiles as a service is still a new operating practice for many companies. Next, we will be looking to grow in the food industry, the medicine industry and healthcare.”

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	<p>SOURCE: Sitra (2021). Most interesting companies in the circular economy in Finland 2.1.  <a href="https://www.sitra.fi/en/projects/interesting-companies-circular-economy-finland/">https://www.sitra.fi/en/projects/interesting-companies-circular-economy-finland/</a></p>
<p><b>CASE! CombiWork, business of surplus capacity (copyrights Sitra)</b></p>	<p><b>CombiWork company story</b></p> <p><b>CombiWorks – taking advantage of factories’ surplus capacity</b></p> <p>“We offer factory production as a service”</p>  <p>Photo credit: SITRA 2021 / Petteri Tuukkanen, Berry Creative</p> <p>Combi Works offers factory production as a service to companies. However, it does not own a single factory itself but uses the surplus capacity of other factories for production. Founder and CEO Edward Blomstedt wants to increase the sustainability of companies’ production chains.</p> <p>This is the story told by the founder and CEO Edward Blomstedt:</p> <p>“Combi Works started in 2005 from an army tank factory that a friend of ours was a director of in Russia. The factory had been standing almost inactive since the collapse of the Soviet Union and the owner did not know what to do with it. We decided to manufacture well-hole covers and sell them to Finland. This way, we made use of the foundry capacity of the old factory dating from the Soviet era.</p> <p>We extended the idea to the mechanical engineering sector. We reflected on how to offer our customers a production chain that is flexible when needed and does not require large continuous investments in equipment. The idea was to free</p>

up companies' investment resources from manufacture to product development and take advantage of the surplus capacity of already existing factories.

Today, Combi Works offers factory production as a service to companies. In practice, companies can outsource the manufacture and logistics of their products to us. We find the most suitable and cost-effective solutions for them and manage and optimise the production chains.


We do not own any factories ourselves. Instead, we take advantage of the underused capacity of existing factories for our customers. The production is not tied to a certain place, capacity or methods as we can manufacture the products where it is most sensible to do it.

For example, if our customer is going to sell production lines to China, we can manufacture a large part of the heaviest equipment in China. This saves time and freight costs and reduces the environmental emissions caused by transport. At the same time, the production equipment of factories is used as efficiently as possible and our customers do not need to spend money and natural resources on building factories of their own. Taking advantage of the existing resources as efficiently as possible instead of building more and more new factories is part of the circular economy.

Our customers include companies from the mechanical engineering sector and manufacturers of equipment in the sorting and recycling of waste, in particular. We currently manufacture products in Finland, Lithuania, Estonia, Latvia, China, India, Slovakia, the Czech Republic and Romania.

In the past few years, responsibility aspects have become critical for the boards of directors of companies. Because we manage the production ecosystems of several companies, we can easily compare different options for production and enhance the supply chain by combining the needs of several companies. This way, we gain a lot of information for planning the production chains and can take into account the responsibility criteria better than before. In the future, our goal is to collect even more information on production chains, such as carbon footprint data, so that we can make production even more responsible."

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<p><b>3.6 CASE! Circular change in an existing company (copyrights Sitra)</b></p>	<p><b>Durat company case story</b> <b>Durat buys back the furniture it has made from recycled plastic</b></p>  <p>Photo credit: SITRA 2021 / Petteri Tuukkanen, Berry Creative</p> <p><b>“We aim at a fully closed loop”</b></p> <p>Durat makes fully recyclable material for furniture from waste plastics and buys the used products back. According to CEO Heikki Karppinen, the company aims to keep all of their products in circulation so that not a single item ends up as waste.</p> <p>“Durat has always been a circular economy company. Our story began in the 1990s, when our founders Kari Karppinen and Ulla Tuominen were considering how the amount of waste and the use of plastic could be reduced. They developed Durat, a material made from 30 per cent waste plastic. Durat was ahead of its time.</p> <p>The waste plastic we use is collected from factories, broken down into granules in our factory in Rymättylä and used as material for different kinds of furniture. Durat’s products, such as sinks and bathtubs, are sold to schools, restaurants and hotels.</p>

	<p>Our material is also fully recyclable. We have always taken advantage of used products by selling them to a new owner or by using them as raw material for new products. In the past few years, we have developed a buy-back service through which customers can sell their used products back to us. With the service, the customer receives compensation for recycling the product instead of having to pay the waste charge. Those buying a second-hand item in turn get a first-class product that does not burden the environment.</p> <p>The challenge with high-quality furniture that lasts long is that it is difficult to convey the message about the buy-back opportunity from one owner to another. We also do not always know all the places where Durat’s furniture is used. However, customers have been enthusiastic about the ability to get compensation for recycling the products. Indeed, our aim is that every product we manufacture will return to us in the end and that way will be reused.</p> <p>I have been working at Durat for 15 years. Interest in the circular economy runs in the family as I ended up working in the company through my father Kari – first in international assignments and later as the CEO.</p> <p>In the past couple of years, the fast change of attitude in society and among customers has surprised me. Recycled and recyclable products are very much sought after. Still, we are not happy with just environmental friendliness. It is important to us that our products are also beautiful and functional.</p> <p>Durat continues to be a pioneer. Our products will also be able to respond to future requirements, for example, when waste charges become stricter and the life cycle of products will be more closely monitored.”</p> <p>This material is originally published on the webpage of Finnish Innovation Fund Sitra as a part of Sitra's list of most interesting companies in the circular economy in Finland. The material is used here with the permission of Sitra. All the rights of the material belong to Sitra.</p> <p>SOURCE: Sitra (2021). Most interesting companies in the circular economy in Finland 2.1.  <a href="https://www.sitra.fi/en/projects/interesting-companies-circular-economy-finland/">https://www.sitra.fi/en/projects/interesting-companies-circular-economy-finland/</a></p>
<p><b>CASE! (copyrights Sitra)</b></p>	<p><b>Valtra company case</b>  <b>Valtra reconditions its old gearboxes.</b></p>

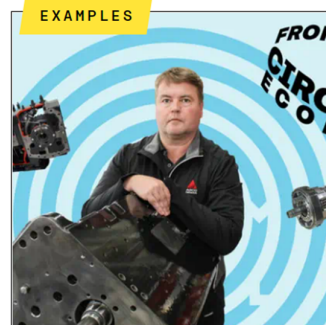


Photo credit: SITRA 2021 / Petteri Tuukkanen, Berry Creative

**“We extend the service life of tractors by up to 30 years”**

Jari Luoma-aho, Aftersales Marketing Manager at Valtra, was involved in inventing a gearbox circular economy innovation that benefits the owner of the tractor, Valtra and the environment. The turnover of the tractor and forest machine manufacturer’s Reman service is growing by an annual rate of 30 per cent.

“In 2012, my supervisor and I were considering new ideas for developing Valtra’s maintenance services and the range of the services offered. Valtra’s factory at Suolahti has the best expertise in the world in the power transmission designed and manufactured by the company. One of its parts is the gear system. I suggested that we should begin to recondition the gear systems of our products for reuse. This would extend the service life of tractors.

The idea raised eyebrows at first, but I was allowed to proceed with our plans. In the beginning, I was given a space of one hundred square metres in a corner of the factory in Suolahti and a power transmission technician to work with.

This is how the Reman business for the gearboxes of Valtra tractors was launched. Reman is short for remanufacturing. If the gear system of the tractor is damaged, the owner can order a new gear system remanufactured from used parts, in other words, a Reman part. When the customer orders one from our warehouse, they pay a deposit in addition to the product price.

	<p>A service location authorised by Valtra replaces the tractor’s damaged gear system with the remanufactured part. Upon the return of the original damaged component to us, the deposit is paid back to the customer. The deposit is approximately half of the price of the gearbox and it ensures that we get the original component for remanufacturing. The popularity of the Reman service has grown steadily since 2012 and people seem to be more and more interested in it.</p> <p>We offer remanufactured parts for tractors up to 30 years old, which have a history of tens of thousands of working hours. If the parts of the gear system, such as the box, have not been damaged, we can extend the service life by up to another 30 years. Our Reman parts have extended the lifespan of hundreds of machines in Europe.</p> <p>Remanufacturing is a quick, cost-efficient and environmentally friendly way to service a tractor. Because the entire gearbox is replaced at the same time, our customer and maintenance personnel do not need to calculate what repairing individual parts will cost. Our maintenance personnel can also tell precisely how long it will take to replace the component. This way, we can give the customer an accurate cost estimate and the maintenance personnel can plan the timetables for the workshop better. The service carried out using a Reman part has a warranty of 12 months, the same as the warranty for a new part.</p> <p>The customer saves both time and money – and the environment! We estimate that replacement parts save approximately 85 per cent of the energy and material compared to manufacturing a new part.”</p> <p>This material is originally published on the webpage of Finnish Innovation Fund Sitra as a part of Sitra's list of most interesting companies in the circular economy in Finland. The material is used here with the permission of Sitra. All the rights of the material belong to Sitra.</p> <p>SOURCE: Sitra (2021). Most interesting companies in the circular economy in Finland 2.1.  <a href="https://www.sitra.fi/en/projects/interesting-companies-circular-economy-finland/">https://www.sitra.fi/en/projects/interesting-companies-circular-economy-finland/</a></p>
<p><b>3.7 CASE! From own observation into sharing platform business (copyrights Sitra)</b></p>	<p><b>Fiksuruoka company case</b></p> <p><b>Fiksuruoka brings surplus food to people’s doorsteps</b></p>

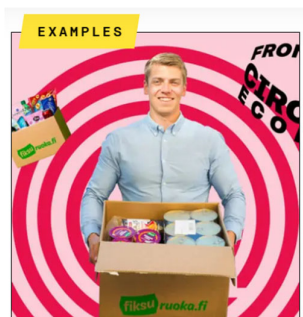


Photo credit: SITRA 2021 / Petteri Tuukkanen, Berry Creative

**“The more we grow, the more we reduce food waste”**

Fiksuruoka buys surplus food from manufacturers and sells it online to consumers at affordable prices. The company has already reduced food waste by millions of kilograms. CEO and co-founder Juhani Järvensivu is taking the online surplus food shop to the global market.

“Food waste is a huge problem in society. According to the Natural Resources Institute of Finland (LUKE), one third of the global carbon dioxide emissions are caused by food production. In Finland, up to 15 per cent of all food goes to waste.

The other co-founder, Richard Lindroos, worked in logistics for years and saw how much waste was created in all sectors. He started to investigate how the surplus could be reduced profitably and had an idea about an online store for surplus food.

From the beginning, it has been important for us to make it as easy as possible for consumers to reduce food waste. This way, food waste can be reduced by large amounts. The operating principle of Fiksuruoka.fi is the same as that of any other online store. The customer selects and pays for the product, and our partner delivers the order to the customer’s doorstep. The difference between us and other online food stores is that the food we deliver would otherwise go to waste and costs only just over half of their prices.

	<p>In the beginning, our warehouse was in Richard’s garage, from where he took the orders to the post office himself after his day at work. I joined in 2017 when I met Richard in one of the projects related to my studies. Richard contacted me on the same day and after some discussions, I joined Fiksuruoka as the CEO.</p> <p>Today, we offer 1,500 products that we buy from wholesalers and food manufacturers. Typically, the food will be going to waste because its best-before date is approaching, the product has been removed from the product range or the packaging has changed.</p> <p>We promote the circular economy by making sure that products that have already added a burden to the climate and the environment by being manufactured do not end up as waste. With Fiksuruoka, we have already managed to reduce food waste by 4.5 million kilograms together with our customers.</p> <p>In four years, we have grown from a garage warehouse to a company with a turnover of 12 million euros. This proves that our business model is profitable and the idea is scalable. The more we grow, the more we reduce food waste.</p> <p>In my opinion, the most important factors in the success of Fiksuruoka are a good team and decisions based on data. We gather information on our activities and try to optimise them both in the operation of the online store and in digital marketing.</p> <p>We also want to reduce food waste outside Finland in the future. In the funding round we just had, a new equity investment firm, Verdane, invested in us. With them, we will grow internationally in the future.”</p> <p>This material is originally published on the webpage of Finnish Innovation Fund Sitra as a part of Sitra's list of most interesting companies in the circular economy in Finland. The material is used here with the permission of Sitra. All the rights of the material belong to Sitra.</p> <p>SOURCE: Sitra (2021). Most interesting companies in the circular economy in Finland 2.1.  <a href="https://www.sitra.fi/en/projects/interesting-companies-circular-economy-finland/">https://www.sitra.fi/en/projects/interesting-companies-circular-economy-finland/</a></p>
<p><b>CASE! (copyrights Sitra)</b></p>	<p><b>Skipperi company story</b></p>



### **Skipperi makes boating available to more people**



Photo credit: SITRA 2021 / Petteri Tuukkanen, Berry Creative

#### **“A shared boat is a smart boat”**

With Skipperi, you can either rent a boat conveniently from the owner or get to be a skipper whenever you want, with a monthly fee. Anna-Leena Raji, one of the founders of Skipperi, says the service makes sure that boats are not left sitting in the harbour and no one who wants to go boating needs to buy one.

“We originally started this to solve a problem of our own. Because we had children and were also otherwise busy, we could no longer go boating very often. We wanted to make owning a boat more sensible for us. A boat costs and needs work on it even if you do not have time to use it more than once or twice during the season.

In 2016, we tried to rent out our boat in the traditional way for the first time. The following year, we launched an online platform for peer-to-peer boat rental.

When owners rent a boat out to others, they are able to cover the costs of the boat, take better care of it and thus extend its service life. Skipperi takes care of the marketing. We also provide advice and help with matters such as insurance.

We found out very soon that there was also a great demand for renting a boat for a day. For example, people wanted to enjoy the evening sun on the waves after work. For the boating season in 2019, we launched the service that is currently known as Skipperi Fleet: with a monthly fee, you can use up to hundreds of boats.

During the 2021 boating season, one or both of our services have been available in Finland, in Stockholm, Gothenburg, Oslo and Copenhagen, and in Auckland in New Zealand.

I find the service very egalitarian as large one-time investments are no longer needed and there is no need to worry about the maintenance, storage or anything else related to owning a boat. At best, shared use of boats also reduces the need to keep on manufacturing more and more new boats. With our training, anyone can become a boater. An important part of our ethos is to get women behind the steering wheel.

Our services also serve as a sharing platform that improves the efficient use of resources in another way: there is no room for an endless number of boats by the sea and in the archipelago. It also makes no sense to have boats taking up berths if they are used only very rarely. Our service makes experiences available to many. This may be why our co-operation with cities has worked so well. The cities have understood that a shared boat is a smart boat.


The biggest challenges are with legislation. In some countries, the legislation governing the rental of boats is old and inflexible.

I am surprised about the community that has formed around Skipperi and how actively the users of Skipperi have been sharing their tips and experiences with one another.”

Lauri, who uses Skipperi to rent out his boats, is part of that community of boaters: “Before Skipperi, renting out a boat of your own would have been difficult. Now you can conveniently make your boat available for renting through this service. The service provides good visibility to those interested in renting. Of course, it feels strange to let people you do not know use your boat in the beginning, as it is quite valuable. Fortunately, the service has been built to safeguard the property of the person renting out the boat.”

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	<p>SOURCE: Sitra (2021). Most interesting companies in the circular economy in Finland 2.1.  <a href="https://www.sitra.fi/en/projects/interesting-companies-circular-economy-finland/">https://www.sitra.fi/en/projects/interesting-companies-circular-economy-finland/</a></p>		
<p><b>3.8 Inspiration through variety of ways to do sustainable business</b></p>	<p><b>Various ways to build sustainable business</b>                  As you already learnt from the various company cases, there is a plenty of different ways to build sustainable business! In the final section of this module (section 5) you will learn more about sustainable business modelling, but before that, let's have a short sneak-peak into various ways and aspects of ideating and building sustainable business.  <b>Social enterprise</b> aims at social impact by e.g. providing workplaces for people who otherwise find it hard to find employment such as disabled or long-term unemployed.</p> <p><b>Bottom of the pyramid firm</b> aims at customers at the bottom of the income pyramid by tailoring the products, packaging and services to the needs of this low-income customer segment. You find many examples of this in emerging markets such as India; low-cost health insurances, shampoo in sachet packages.</p> <p><b>Product-service systems</b> integrate products and services into customer offerings that provide a product, a functionality or a result. Often these move the business towards sharing or selling the product as a service like Company case Lindström or Skipperi.</p> <p><b>Circular businesses</b> are closing, slowing, intensifying, dematerialising, or narrowing resource loops. Circular business can aim at <i>Product-life extension</i> (see company case Valtra), <i>Product as a service</i> (see company case Lindström or CombiWorks), <i>Sharing platforms</i> (see company case Skipperi or Fiksuruoka) or <i>Material renewability</i> (see company case Sulapac) or <i>Resource efficiency and recycling</i> (see company case Durat)                  Sources: Geissdoerfer, Vladimirova and Evans, 2018                  TEM.fi ( <a href="https://tem.fi/en/social-enterprises">https://tem.fi/en/social-enterprises</a>)                  Sitra 2021. 41 pioneering Finnish circular economy companies. <a href="https://www.sitra.fi/en/articles/41-pioneering-finnish-circular-economy-companies/">https://www.sitra.fi/en/articles/41-pioneering-finnish-circular-economy-companies/</a></p>		
<p><b>3.9. Self-test: what did I learn from the company cases?</b></p>	<p><b>Which one of the following sustainable business solutions was not introduced in the 6 Company cases i.e. stories of companies?</b></p>	<p><b>Bottom-of-the pyramid: solutions for the poor</b></p>	<p>X (correct)</p>
<p><b>Product life extension</b></p>			
<p><b>Sharing platform</b></p>			

	<p>Based on the 6 stories on sustainable business opportunity identification and development.</p>	<p><b>Product as a service</b></p>	
		<p><b>There seems to be only one driver for sustainable business: digitalization</b></p>	
		<p><b>The main motivator for developing sustainable business is the company reputation</b></p>	
		<p><b>Developing sustainable business means less profits</b></p>	
		<p><b>both individuals as well long established companies can be inspired to develop new sustainable business model</b></p>	<p>X (correct)</p>
<p><b>3.10 Learning Diary: What motivates me and my organization in sustainability?</b></p>	<p><b>SUSTAINABLE BUSINESS – WHAT MOTIVATES AND INPIRES ME?</b> You have now read or listened to different company cases describing the story and the steps towards sustainable business.</p> 		

	<ul style="list-style-type: none"> <li>• Which one of those inspired you? How and why?</li> <li>• How could you apply either the ideas or something else presented in stories in your own organization?</li> <li>• What about the different ways of working towards sustainability – whether it’s through sharing platforms, working towards longer lifecycles of products, recycling, efficient use of resources, renewable materials, socially ethical principals etc.?</li> <li>• Which of the SDG’s motivate you the most? Why? Which of the SDG’s are the ones that you see as motivators and drivers of your organization?</li> <li>• What is the problem you want to solve?</li> <li>• Now it’s time to go to your <u>Learning Diary</u> and reflection on the motivational factors towards sustainable business. What motivates me, my team or my organisation? Where can I find an inspiration? Is it in different models of sustainable business, is it SDG’s guiding the way, or is it the impact that I want to make on the environment, society or the performance of my organization?</li> </ul> <p>Reflect on your own motivators in sustainable business.</p> <p>Analyse and identify the drivers and enablers that can motivate the organization where you are working towards innovating sustainable business.</p> <p>Open a Blog where the Learning Diary will be created from here. It will be opened into a new browser tab so you can keep it open as you go further.</p>
	<p><b>Key take-aways</b></p> <p>Key content:          Motivation and drivers of sustainable business innovation or transformation          Impact on globe, society and profit as a framework for motivation          SDG’s and how they inspire companies to align their sustainability strategies</p>


SDG4BIZ Training Package Content

621458-EPP-1-2020-1-FI-EPPKA2-KA/ KNOWLEDGE ALLIANCE FOR BUSINESS OPPORTUNITY RECOGNITION IN SDGs - SDG4BIZ

	Various ways of building sustainable solutions and business as sources of inspiration Inspirational stories of entrepreneurs and companies: why and how did we do it?
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## 4. Resources and networks



Page	Content
	<p>In this section learners focus on analyzing and activating networks in the opportunity recognition process. In addition, this section focuses on the systematic search for resources and ability to overcome resources constraints.</p> <p>Learning objectives</p> <p>The learner recognizes different networks influencing sustainable value creation.</p> <p>The learner understands how to use resources in sustainable manner.</p>
<p><b>4.1 Introduction to the Resources and Networks section</b></p>	<div style="display: flex; align-items: flex-start;">  <div style="margin-left: 20px;"> <p><a href="https://youtu.be/gaAFgSZUD6k">https://youtu.be/gaAFgSZUD6k</a></p> <p><b>Welcome to the Networks and Resources section</b></p> <p>So far you have completed three different sections and now we continue our learning journey in the section that focuses on Resources and Networks. The main objectives of this section are as follows: Firstly, you will recognize different networks influencing sustainable value creation.</p> </div> </div>

	<p>Secondly, you will understand how to use resources in sustainable manner.                  In order to meet the first objective, it is important to notice that recognizing sustainable business opportunities does not only depend on your own activities as an employee or manager in a company or as an entrepreneur. On the contrary, understanding the role of relevant network partners, actively searching for network partners and collaboration with them is essential.</p> <p>In this section we will encourage you to map your own networks to create sustainable value: Employees, investors and shareholders, research institutes, media, customers, partners in supply chain and other companies in the same field of business. Furthermore, we will discuss different forms of collaboration. Finally, we will provide a concrete tool which will enable you to facilitate collaboration between different types of organizations. Complex problems call for collaboration!</p> <p>We will also discuss how to engage in systemic search for existing tangible and intangible resources and utilize them while seeing resource constraints as a source of creativity. All in all, you will become familiar with the barriers and drivers for sustainable business development.</p> <p>Enjoy this section!</p>
<p><b>4.2 What are the resources and/or networks your organization would need to be a changemaker?</b></p>	<p>Consider the resources and networks that would enable you to develop sustainable business opportunities?</p> <p><i>“No single person needs to have all the abilities of a changemaker. What is essential is how the individuals’ abilities are used together with others – and also how the process of using them is supported”</i></p> <p>Sitra Studies 2011</p> <p>Please, bear in mind the topic should be relevant in the context of the Sustainable development goals and sustainable growth and have some link to the business development. Concerning the business potential, you should not be too judging at this moment, as the potential is not always obvious.                  Please be supportive to the thoughts shared by others. Let the conversation to take inspirational turns. What are the resources and/or networks your organization would need to be a changemaker?</p>



<p><b>4.3 Learning diary reflection: Networks and resources</b></p>	<p><b>Reflection upon own resources and networks.</b></p>  <p>Please consider and map out your existing and prospective networks in terms of sustainable business opportunity recognition. Please consider your resources and other capabilities as well. What are your barriers and drivers in terms of sustainable business opportunity recognition?</p> <p>When you click the link the learning diary blog will be opened into a new browser tab. When you make a new post click "Add blog entry".</p>
<p><b>4.4 Resources, networks and collaboration in sustainable value creation</b></p>	<p><b>Orientation to "Power point lectures" files</b></p> <p>Below you see four files.</p> <ul style="list-style-type: none"> <li>• The first one is a text content of the mini lecture</li> <li>• The second are the slide of the mini lecture without the audio</li> <li>• The third one combines the two above: by opening the file and starting the slide show you can "participate" in this mini lecture. You see the slides and hear the lecture as you were in the classroom.</li> <li>• The forth one is one slide presentation "Value mapping tool", a visual tool that you may utilize in order to learn and to develop your capability into business opportunity recognition from the perspective of resources and networks.</li> </ul> <p>There is same content in all of them. Please, select the one that fits your learning style or the moment you are!</p>
<p><b>Video Script</b></p>	<p><b>Video script</b></p>

**Cover slide:**

Welcome to this short mini lecture regarding resources, networks and collaboration.

The outline of our lecture is as follows:

We discuss types of opportunities and opportunity recognition as a process. We focus on sustainable opportunities for shared value creation. We speak about network actors and other stakeholders as well as value creation capability. We refer to different types of networks for value creation which might inspire you to map out your own networks. All in all, we underline network-centric view in shared value creation and finally, we emphasize the collaborative networks.

**Slide 2: Types of opportunities and development process**

It is suggested that business opportunity recognition is a process. Opportunities are identified and further developed. According to research opportunities may be distinguished based on their origin and degree of development. Market needs or, in other words, value sought may be identified (known) or unidentified (unknown). Defined value creation capability includes intellectual, human, financial and or physical resources. Networks are a resource but also enable to acquire other resources.

We may argue the developmental progress from situations in which both problem and solution are unknown (upper left corner in the figure), to situations in which either the problem or solution -but not both-is known (upper right, lower left corners), to the situation in which both problem and solution are known (lower right corner in the figure). Businesses formed in cells where either problem or solution or both are unknown would be less likely to succeed than those where both problem and solution are known.

If you consider your own venture or the company for which you work, where would you position yourselves in terms of sustainable business opportunity recognition? In other words, have you identified the problem and do have you defined the required resources?

**Slide 3: Sustainable opportunities for value**

The value proposition of the network represents the benefits delivered to stakeholders. In the context of sustainability new value opportunities help expand the business into new markets and introduce new products and services that offer enhanced benefits to stakeholders. These benefits

are not limited to customers but they might involve seeking to enhance employee wellbeing or making positive contributions to the environment.

- opportunities for new value creation can be

1. new forms of value for old stakeholders
2. value for new stakeholders

- opportunities for new value may emerge by

1. generating solutions that capture new value through the reduction or elimination of destroyed value (such as negative social impacts or environmental damage)
2. capturing currently missed value (such as under-utilized assets, resources, capabilities, or waste streams) through new activities, relationships, and network reconfiguration)

It may also be the case that new opportunities emerge when value destroyed is first re-conceptualized as missed value.

#### **Slide 4: Sustainable value creation and related networks**

A network-centric rather than firm-centric perspective encourages the optimization of value in a network (i.e. considering all actors involved in the design, production and distribution of a product or service). If we consider sustainable value creation and related networks, we consider following network actors: firm, investors, suppliers, partners, distribution channels, media, academia, other participants. It is also important to remember other stakeholders that receive impacts of a product or service such as customers, environment and society.

Creating new networks involves two distinct activities: finding the right prospective partners and forming relationships with those prospective partners. There are substantial barriers to each activity.

#### **Slide 5: Value creation capability**

As discussed earlier, value creation capability refers to various resources. A typical distinction is between tangible and intangible resources. However, value creation capability refers also to core competences, digital resources, users and customers and networks.

#### **Slide 6: Examples of networks for innovation**

Networks can be an important source of new insights, competencies, and relationships for the

firm while changes are taking place in the industry. Networks may be business or social, local, international, horizontal, vertical, planned or serendipitous. Networks enable, for example, the following

- access to new networks, financing, markets
- access to information and knowledge
- access to contacts, referrals, distribution channels
- exchange resources with difficult-to-measure value such as tacit knowledge and know-how
- learning through networks
- reduce uncertainty

The network activities are not limited to maintaining existing relationships. Researchers (Birkinshaw et al., 2007) have identified following types of networks for innovation: Idea networks refer to a set of relationships with individuals and organizations to solve technical problems or to brainstorm new ideas.

Corporate venturing networks mean relationships with hundreds of prospective new ventures to develop new technologies and make selective investments.

Lead user groups are customers who help the firm to experiment and try out new product ideas. Cross-industry alliances refer to relationships with actors in a particular industry which enables to achieve something that the firm could not achieve on their own. Communities of practice are engaged in experience and idea sharing around shared knowledge fields, in particular across organizations.

Supplier networks Networks of partners with a strategic goal.  
Open invitation networks are organized around a specific project or issue.

**Slide 7: Collaborative networks**

When solving complex issues and finding solutions for them, it is extremely important to collaborate. It is not only about finding and forming networks but also performing. Following principles are essential in collaborative networks. First,

- Keeping the network up-to-date and engaged
- This means tackling an immediate and pressing problem; and having immediate value

	<ul style="list-style-type: none"> <li>• Building trust and reciprocity across the network Partnerships require trust and reciprocity to be effective, not selective information and attempts for control</li> <li>• Understanding your own position in the networks Especially large firms consider themselves as network orchestrators. However, networks and ecosystems cannot be controlled by any single player in them.</li> </ul> <p>Finally, sometimes</p> <ul style="list-style-type: none"> <li>• Learning to let go meaning letting go of sometimes long-established links.</li> </ul> <p>Later in this section you will also have a chance to get to know a tool called Co-Innovation Builder (CIB) particularly designed for fostering collaboration and co-innovation with network partners. Thank you for your attention and good luck mapping your networks!</p>		
<p><b>4.5 Self-test/Resources, networks and collaboration in sustainable value creation</b></p>	<p>Please answer the following two questions to test what you learned. Bear in mind that there might be more than one correct answer.</p>		
<p>Types of opportunities vary and</p>	<p>unidentified value and undefined value creation capability is only a dream</p>	<p>x (correct)</p>	
	<p>identifying value and combining it with defined value creation capability leads to business formation</p>	<p>x</p>	
	<p>identified value and defined value creation capability is problem solving</p>		
	<p>unidentified value combined with value creation capability means technology transfer</p>	<p>x</p>	
<p>Value mapping tool covers, for example, following stakeholders</p>	<p>academia</p>	<p>x</p>	
	<p>competitors</p>		
	<p>customers</p>	<p>x</p>	
	<p>employees</p>	<p>x</p>	

<p><b>4.6 VOTE! Barriers and drivers for sustainable business development</b></p>	<p>Barriers for sustainable innovation</p> <p>Which of the following barriers are familiar to you in your own organization? Select the one that you deal with most often.</p> <ul style="list-style-type: none"> <li>• Focus on maximizing profit</li> <li>• No or low tolerance for uncertainty</li> <li>• Resources allocated to projects with quick returns</li> <li>• Silo thinking</li> <li>• Focus on current customer demand</li> <li>• Lack of awareness for sustainable business model innovation</li> <li>• Lack of skills for sustainable business model innovation</li> </ul>														
<p><b>4.7 Barriers and drivers for sustainable business model innovation</b></p>	<p><b>Please open the document below "Barriers and drivers for sustainable business model innovation"</b></p> <p>You will find two slides that summarize</p> <ol style="list-style-type: none"> <li>1. Institutional, strategic and operational barriers for sustainable business model innovation</li> <li>2. Institutional, strategic and operational drivers for sustainable business model innovation</li> </ol>														
<p><b>4.8 Self-test/Barriers and drivers for sustainable business innovation</b></p>	<p>Please answer the following two questions to test what you learned. Bear in mind that there might be more than one correct answer.</p> <table border="1" data-bbox="495 1101 1831 1367"> <tr> <td data-bbox="495 1101 940 1341" rowspan="4"> <p>The following are operational barriers for sustainable business model innovation. You may select more than one.</p> </td> <td data-bbox="949 1101 1394 1172"> <p>Performance metrics for sustainability</p> </td> <td data-bbox="1402 1101 1831 1172"></td> </tr> <tr> <td data-bbox="949 1179 1394 1237"> <p>Fixed resource planning and allocation</p> </td> <td data-bbox="1402 1179 1831 1237"> <p>x</p> </td> </tr> <tr> <td data-bbox="949 1243 1394 1276"> <p>People capability development</p> </td> <td data-bbox="1402 1243 1831 1276"></td> </tr> <tr> <td data-bbox="949 1282 1394 1341"> <p>Standard innovation process and procedure</p> </td> <td data-bbox="1402 1282 1831 1341"> <p>x</p> </td> </tr> <tr> <td data-bbox="495 1347 940 1367"></td> <td data-bbox="949 1347 1394 1367"> <p>enabling innovation structure</p> </td> <td data-bbox="1402 1347 1831 1367"></td> </tr> </table>			<p>The following are operational barriers for sustainable business model innovation. You may select more than one.</p>	<p>Performance metrics for sustainability</p>		<p>Fixed resource planning and allocation</p>	<p>x</p>	<p>People capability development</p>		<p>Standard innovation process and procedure</p>	<p>x</p>		<p>enabling innovation structure</p>	
<p>The following are operational barriers for sustainable business model innovation. You may select more than one.</p>	<p>Performance metrics for sustainability</p>														
	<p>Fixed resource planning and allocation</p>	<p>x</p>													
	<p>People capability development</p>														
	<p>Standard innovation process and procedure</p>	<p>x</p>													
	<p>enabling innovation structure</p>														

	Strategic drivers for sensing, seizing and transforming for sustainable business model innovation (includes one correct answer)	incentive scheme for sustainability	
		collaborative innovation	x
		embracing ambiguity	
<p><b>4.9 Canvas to facilitate collaboration and co-innovation</b></p>	<p><b>Co-innovation builder canvas</b></p> <p>In this section we have learnt that creating shared value requires collaboration. Solving complex problems is a collaborative endeavour. In order to facilitate collaboration to enhance co-innovation and renewal, organizations of different sizes and strengths are needed. The co-innovation builder is a tool that enables to facilitate the co-innovation process. It was originally developed by a group of developers that focused on startup-corporate collaboration. However, it may be applied to all kinds of organizations. The benefit of the tool is that it enables at the early stages to identify, whether there is potential to start collaborating.</p> <p>You may download the canvas template, watch a short video how to use it and and download a guidebook by following this link:</p> <p><a href="https://www.corship.eu/digital-toolbox/co-innovation-builder/">https://www.corship.eu/digital-toolbox/co-innovation-builder/</a></p> <p>How would you apply this tool in the interactive, non-linear process of identifying sustainable business opportunities?</p>		
<p><b>4.10 VOTE! Using CO-Innovation Builder</b></p>	<p>Co-innovation Builder</p> <p>Collaboration is the key in developing sustainable solutions. Would you be interested in using the tool</p> <p>Very likely Likely Perhaps Not likely No, I would not.</p>		

<p><b>4.11 Summary: key take-aways and references</b></p>	<p><b>Key take-aways and references</b></p> <p>Business opportunities may be distinguished based on their origin and the degree of development. Network-centric rather than firm-centric view in shared value creation: Involving network partners (firm, investors, suppliers, partners, distribution channels, media, academia, other participants) and stakeholders (customers, environment and society).</p> <p>Opportunities for new value creation may be generated through solutions that capture new value through the reduction or elimination of destroyed value or capture currently missed value through new activities, relationships, and network reconfiguration.</p> <p>When solving complex issues, collaboration is essential. Co-innovation builder is a tool to facilitate collaboration and co-innovation.</p> <p>There are various institutional, strategic and operational barriers and drivers for sustainable business model innovation.</p> <p><b>References</b></p> <p>Ardichvili, A., Cardozo, R., &amp; Ray, S. (2003). A theory of entrepreneurial opportunity identification and development. <i>Journal of Business venturing</i>, 18(1), 105-123.</p> <p>Birkinshaw, J., Bessant, J., &amp; Delbridge, R. (2007). Finding, forming, and performing: Creating networks for discontinuous innovation. <i>California Management Review</i>, 49(3), 67-+. doi:10.2307/41166395</p> <p>Bocken, N. M., &amp; Geradts, T. H. (2020). Barriers and drivers to sustainable business model innovation: Organization design and dynamic capabilities. <i>Long Range Planning</i>, 53(4), 101950.</p> <p>Bocken, N., Short, S., Rana, P., &amp; Evans, S. (2013). A value mapping tool for sustainable business modelling. <i>Corporate Governance</i>.</p> <p>Corship (2022). <a href="https://www.corship.eu/digital-toolbox/co-innovation-builder/">https://www.corship.eu/digital-toolbox/co-innovation-builder/</a></p>
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SDG4BIZ Training Package Content


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	<p>Yang, M., Vladimirova, D., &amp; Evans, S. (2017). Creating and Capturing Value Through Sustainability: The Sustainable Value Analysis Tool A new tool helps companies discover opportunities to create and capture value through sustainability. Research-Technology Management, 60(3), 30-39.</p>
<p>Section annexes list: resources for a lecture</p>	<p>Additional material e.g. Two mini-lessons have been created for this section. They can be found at the end of the material. References in e.g. the figures in the lecture material refer to the references in this section, which are listed above. The lectures have been indexed so that they can be linked to the correct place in the material. The lecture script very briefly explains what is planned to be said in the lecture.</p> <ul style="list-style-type: none"> <li>4.4. Collaboration for value creation lecture 1</li> <li>4.4. Value mapping tool_image</li> <li>4.4. Collaboration for value creation Lecture script</li> <li>4.4. Collaboration for value creation_ lecture 2</li> <li>4.7. Barriers and drivers for SBMI_tools</li> </ul>

## 5. Business modelling



Page	Content
	<p><b>Description</b> In this section, you will learn about business modelling processes, practices, and tools, which are applicable in recognition and development of sustainable business models.</p> <p><b>Learning objectives</b> The learner perceives how to identify sustainable business opportunities. The learner knows the content and process of business modelling. The learner is aware of common business modelling tools.</p>

<p><b>5.1 Introduction to the Business Modelling section</b></p>	 <p><a href="https://youtu.be/512XZhEoSUc">https://youtu.be/512XZhEoSUc</a></p> <p><b>Welcome to the Business modelling section</b></p> <p>In this section you will first learn what is a business model. One of the key learning objectives is related to the systemic nature of business models, i.e. to perceive how different business model components form a coherent value exchange system offering a wide range of opportunities for the whole organization to sense and seize business opportunities.</p> <ul style="list-style-type: none"> <li>• Next, you will learn the concept of uncaptured value, which offers business opportunities both on strategic and operative level.</li> <li>• Furthermore, you will learn how lifecycle and multi-stakeholder thinking provide a broader perspective on identifying business opportunities.</li> <li>• You will also get acquainted with the pre-conditions, principles and challenges of sustainable business model innovation (SBMI).</li> </ul> <p>What's more, with the help of company cases, you will learn useful practices and processes of sustainable business model innovation.</p> <p>The learning material of this section consists of three video lectures covering the main themes of business modelling. The first two of them are followed by self-reflections on the learning diary.</p> <p>We will provide you also materials such as white papers and web links as well as references to relevant literature.</p> <p>We wish you inspiring learning moments!</p>
	<p><b>Saul Kaplan about Business Model Innovation</b></p> <p><b>(video)</b></p>
	<p><b>Understanding how to implement sustainable business models (BCG)</b></p> <p>BCG has been one of the forerunners of the sustainability business during the last couple of decades.</p>

	(video)
5.2 Value opportunity recognition	<p><b>Video lecture 1: Value opportunity recognition</b></p> <p>Please start your Business modelling learning journey by first getting acquainted with the video lecture Value opportunity recognition (see below the ppt-file) covering the purpose and content of different business models as well as various approaches of value innovation and business modelling.</p> <p>Please watch also the three videos of this part, i.e. the Business Model Canvas and Value Proposition Canvas by Österwalder and the Lean canvas by Maurya. The first learning objective is about to perceive, what is a business model all about. One could say that business model is a systemic approach to define a logic of value exchange between different stakeholders.</p>
	<p>1/3 Video lecture: Value opportunity recognition (script)</p> <p>Video script of the 1/3 Video lecture: Value opportunity recognition</p> <p>Slide 1:</p> <p>Welcome to the business modelling section. So, what is a business model? A business model describes the rationale of how an organization creates, delivers and captures value.</p> <p>Slide 2:</p> <p>Let's start your learning journey from the value opportunity recognition.</p> <p>Slide 3:</p> <p>Here are the learning objectives of the value opportunity recognition. First, we will cover the topics of value creation, value delivery and capture value. They will be followed by lifecycle thinking, multi- stakeholder approach, uncaptured value recognition and shared value proposition.</p> <p>Slide 4:</p> <p>Here we have a business model's value framework. Including three elements, value proposition, value creation and delivery, and value capture.</p>

The value proposition is answering on the question of desirability.  
Meaning what value and to whom we are offering.  
Second, the question of feasibility is about how the value is provided and last the question of viability is about how does a company make a profit and capture other forms of value.  
Please pay attention here that for example, the customer relationship is presented here as a part of the value proposition.  
It could be presented also as a part of the value creation and delivery, meaning it's typical for a business model that there is some overlapping between the value proposition and value creation plus delivery.  
As an example, customer relationships could also be a key activity of a company.

Slide 5:

Let's have a look at the creating value.  
So, here we have the traditional business model canvas created by Axel Österwalder and Yves Pigneur.  
We can see that the value proposition is a sort of glue between the customers and the company.  
It answers the questions:  
Is the business model desirable?  
Is it unique and is it valuable?  
And to whom?

Slide 6:

Österwalder's Business Model Canvas and its value proposition was further developed towards a more in-depth analysis of customers' jobs to be done and related pains and gains for the same job to be done, which could be also called customers' problems to be solved.  
This visually very strong and transparent approach should help companies to connect the dots between the customers' pains and equivalent pain relievers.  
The same with the customers gains and gain creators.  
This approach provides a systematic and transparent way to both recognize and communicate, what's the core of the value proposition.  
Meaning what kind of solution and offering should have a perfect match and fit with the customers' jobs to be done.

Slide 7:

Next, we are covering the creating and delivering value.  
It's about a feasibility of the business model and it's about asking questions:  
What is the operating model and how does it work?  
The feasibility is also very much about the importance of looking at the business model from a systemic-holistic point of view.  
Obviously, the value proposition and customer segments and other additional elements of sustainable-business models belong to that system.  
Creating and delivering value includes topics such as key resources, key activities, key partners and channels.  
Here, it's important to perceive what are the interdependencies between different components of the canvas.  
As an example, how our decision for making something by ourselves versus outsourcing affects our cost structure, which will affect our revenue model, pricing, etc.  
This all means that every element or component of the canvas is one way or another affecting the entire business model.  
This is one of the most important learning of the business modelling.

Slide 8:

Here we have the third element of the business model – capture value.  
Regarding the viability, this kind of matrix demonstrates a potential and variety of different options companies can have for the value capture.  
Product service systems (PSS) have affected that development already long time ago, meaning including both transaction and value in use revenue streams.  
Some of the more successful platform business models of the world, Google, Facebook remind us about the importance of seeing the value capture also from a systemic point of view.  
Value capture benefits from innovative revenue models.

Slide 9:

What does the lifecycle thinking mean?  
It is about considering economic, environmental, and social impacts of a product throughout the whole lifecycle.

Starting from the design and manufacturing, continuing its life in use, and ending to its recycling, reuse, remanufacturing, and disposal.  
The beginning of life covers activities such as R&D, design, procurement, part production and assembly.  
The middle of life deals with distribution, use, maintenance, after sales, insurances, services and repair.  
The end of life may include collection, disassembly, remanufacturing, recycling, and disposal.  
Lifecycle thinking may help companies to discover sustainability focused value opportunities throughout the product lifecycle and perhaps to identify new business models to maximize value and minimize environmental and social impacts.

Slide 10:

Multi-stakeholder approach belongs to the core of sustainability and business models.  
Business models are created at multiple different levels.  
Individual products and services and organizations, including public and nonprofit ones.  
An ecosystem platform may include several stakeholders, such as enterprises, authorities, government organizations plus citizens.  
This Wear2wear ecosystem was initiated and orchestrated by two companies originally, and eventually it included approximately 12 companies.

Slide 11:

The concept of uncaptured value includes value opportunities which are not yet captured with an existing business model.  
It offers a wide range of opportunities for organizations to engage the whole personnel to develop more sustainable businesses.  
It challenges organizations with questions:  
How to leverage dynamic capabilities of an entire organization to sense uncaptured value opportunities?  
How to seize the recognized value opportunities and how to maybe transform an entire organization towards a more sustainable direction.  
Uncaptured Value could mean Value Surplus, such as waste heat, overproduction.  
Or it could mean Value Absence, including a temporary lack of labor.  
Value Missed could mean an under-utilization of by-products or Value Destroyed, such as health and safety problems and pollution.

Slide 12:

Shared value proposition is a typical feature of a sustainable business model.

As an example, platform Business model represents win-win value opportunities for its multiple members.

What does it mean?

Basically, a platform connects different stakeholders, producers, consumers, suppliers, authorities, service providers, etc. and allows them to exchange value.

The connections can be direct connections between users, social networks as an example, or they establish other mechanisms for a value exchange.

Interactions on a platform business model mean any economic or social exchange - either through a physical or in the virtual world of Internet.

In each value exchange a producer and consumer exchange three things - information, goods and services, and some form of currency.

Slide 13:

Here is an example of the shared value proposition, which is related to the earlier example of the Wear2wear textile ecosystem.

This is a circular business model where each member makes an individual contribution to the closed textile loop.

The shared value proposition consists of designers, producers, manufacturers who are making the product.

Next, there are customers using the product.

And then there are those who take care of the recovery of the textile products, including washing, cleaning, dismantling and upcycling.


Unfortunately, the textile material cycles typically cannot be totally closed because of deteriorated materials during production, usage and reprocessing.

In any case, product reuse is preferred over part reuse, which is preferred over recycling but still better than combustion. These principles are in accordance with the EU waste hierarchy logic (reduce, reuse, recycle, recover and dispose).

Slide 14:



	<p>The key takeaways of the value opportunity recognition can be summarized as follows.                  The business model consists of three interdependent elements.                  Value creation, which is about desirability of the business model. Delivering value, meaning feasibility of the business model and last, but certainly not the least, capture value, which is linked to the viability of the business model.</p> <p>In addition, learners should remember that sustainable business models often require a multi-stakeholder approach, which is embedded to the lifecycle thinking. It means that physical products should be seen from a loop point of view, typical for the circular economy. The material loop is built by multiple stakeholders, who take care of making, using, recovering, taking back and disposing.</p> <p>Furthermore, learners have hopefully realized some potential with the concept of uncaptured value, which provides a wide spectrum of opportunities for the whole personnel to sense and seize business opportunities. It is an empowering value recognition opportunity for the whole personnel - from the operative level processes to the executive level strategies.</p> <p>And finally, the meaning of a shared value proposition, which is typical for sustainable business models attracting multiple stakeholders to share the recognized value opportunities.</p> <p>Slide 17:</p> <p>This is the end of the first video lecture of value opportunity recognition.                  Please follow the instructions on your learning platform. Continue your learning journey with the Learning diary reflection. Perhaps you have recognized some indicative value opportunities, which are related to your own work, your team, your unit or the whole organization.                  Please get acquainted with the additional audiovisual learning material on the learning platform.                  The next video lecture will be about sustainable business model innovation.                  Thank you for your time!</p>
	<p><b>Value proposition canvas (Uber example)</b></p> <p>This is an example (Uber) of the Value Proposition breakdown.</p> <p>(video)</p>
	<p><b>Business Modelling with Business Model Canvas: General/incumbent approach</b></p>

	<p>Here is explained the Business Model Canvas, which is one of the most popular visual tools developed for the business modelling. It's based on Alex Österwalder's and Yves Pigneur's book called Business Model Generation, a handbook co-created by 450 business modelling practioners from 45 countries.</p> <p>(video)</p>
	<p><b>Business Modelling with Lean Canvas: Startup approach</b></p> <p>The Lean Canvas was created by Ash Maurya. It's adapted from the Business Model Canvas and it's optimized particularly for startups. Please pay attention on <b>learning the differences</b> between the Lean Canvas and the Business Model Canvas by Österwalder&amp;Pigneur.</p> <p>(video)</p>
<p><b>5.3 Learning diary reflection: Value opportunity recognition</b></p>	<p><b>Learning diary: Value opportunity recognition</b></p>  <p>This is the moment to update your Learning diary (highly recommended) with your first-hand reflections based on the first learning theme of the Value opportunity recognition and the business models in general.</p> <ul style="list-style-type: none"> <li>• What are the three value perspectives of the business models?</li> <li>• What is the purpose and content of business models?</li> <li>• What does it mean that a business model should be seen as a system?</li> <li>• How does the traditional Business Model Canvas differ from the Lean Canvas?</li> </ul>

	<p>Can you recognize and name any sustainability related value opportunities (=uncaptured value) in tasks and processes related to your</p> <ul style="list-style-type: none"> <li>• own work?</li> <li>• department/unit?</li> <li>• company/organization?</li> </ul>
<p><b>5.4 Sustainable Business Model Innovation (SBMI)</b></p>	<p>Video lecture 2: Sustainable Business Model Innovation (SBMI)</p> <p>Next, after getting acquainted with the “Value opportunity recognition”, your learning journey of the Business modelling continues with the second video lecture (ppt file) with a title Sustainable Business Model Innovation (SBMI). The ppt file includes additional video links of inspiring business model innovations.</p> <p>Here one of the main learning objectives is to perceive how sustainability criteria affect on the business modelling process. This part also emphasizes the importance of call-to-action methodologies, processes and practices, which could be applied for the SBMI?</p> <p>NOTE! It’s worth reminding all the learners about the importance and also an opportunity of engaging the whole organization. Accessible and easy-to use innovation management systems should lower the whole organization’s barrier of entry for the SBMI.</p> <p>This part of the learning platform includes also inspirational company examples (videos and articles) of sustainable business model innovation.</p>
	<p>2/3 Video lecture: Sustainable Business Model Innovation (SBMI)</p> <p><b>Video script of the 2/3 Video lecture: Sustainable Business Model Innovation (SBMI)</b></p> <p>Slide 1:</p> <p>Welcome to the second lecture of the business modelling.</p> <p>Slide 2:</p> <p>In this video lecture you will learn more about Sustainable Business Model Innovation (SBMI).</p> <p>Slide 3:</p>

Here are the learning objectives of the Sustainable Business Model Innovation.

Slide 4:

The innovation of sustainable business models addressing typically wicked problems requires something else than the conventional business models, which are formed around organization centric logics.

They don't necessarily incorporate all the costs such as externalities, either short- or long-term costs. This forms the steppingstone for a systemic arrangement, where prices are kept artificially low for the sake of monetary economic growth.

Slide 5:

Here are some of the principles of value creation for sustainable and circular economy business models. The first one is about life-span extension, meaning re-using material as efficiently and as long as possible.

The second principle of servitization means services as functionalities are replacing products. The third principle assumes that components of a product or substances comprising materials may be disassembled or deboned again and with ease they can be used as part of a material or part of a product.

Slide 6:

Here we have some of the common challenges of sustainable business model innovation. In the centre we have the triple bottom line challenge, meaning, how to co-create profits, while being socially and environmentally friendly at the same time. It is quite challenging when moving towards sustainable business models.

Starting from the mindset, meaning business rules, guidelines, behavioural norms, and performance metrics prevailing in the mindsets of companies and inhibiting the introduction of new business models. Resource reluctancies mean how to allocate resources to business model innovation and reconfigure resources and processes for new business models.

On the other hand, technology innovation integration can be quite difficult.  
For example, clean technology with business model innovation is a multidimensional and rather complex process.

External relationships mean how to engage in extensive interaction with external stakeholders and business environment. It requires an extra effort.

Last, business modelling methods and tools.

This area has been improving quite a bit during recent years, for example, including tools such as business model canvases, value analysis tools, etc.

Slide 7:

We can approach the sustainable business model innovation by monitoring three layers or dimensions of so-called value-based innovation.

First, we have the normative layer, which is very important for the sustainable business model, because it forms a company's identity – its purpose, meaning why does it exist, plus its vision, meaning what does it want to be in future.

Safety is very typical for Volvo, or serving humanity for the Arawind, the eye care company.


Second, the strategic dimension, or layer, is traditionally related to the business model innovation. On this layer the three components of creating, delivering and capturing value define the whole operating model.

Product service systems (PSS) and innovative revenue models are examples of radical or complementary business model innovations.

The third and certainly not least important element of the sustainable business model innovation, is the instrumental layer. We could call it also operative layer, which is related to the process, product and service innovations.

Volvo's safety cage as an example, or Tata Motor's Lean product design, radical efficiency and cost

	<p>reduction.</p> <p>New process innovations are typical outcomes of recognized uncaptured values.          Snow melts first on the edges - at the periphery, meaning the voice of the service or maintenance people visiting customer plants should be heard!          Innovation management systems and processes should be easily accessible for the whole organization!</p> <p>Slide 8:</p> <p>Similar with the conventional business model innovation, four different types of sustainable business model innovations can be named.</p> <p>The first one is about a sustainable startup, meaning a new company is created with a new sustainable business model.</p>
	<p><b>The impact of "Imagine" of the Sustainable Business Model Innovation Process: Interface and Mission Zero</b></p> <p>Here is Ray Anderson, the founder of Interface Inc, explaining the business logic of sustainability and Interface’s inspirational sustainability business initiative called Mission Zero.</p>
	<p>Process of sustainable business model innovation: Circular Navigator by University of St. Gallen          University of St. Gallen has developed hands-on business modelling tools. Through the below link, please have a look on their White Paper “<b>Circular Ecosystems: Business Model Innovation for the Circular Economy</b>” offering a systematic and practical process description of the sustainable business model innovation.</p> <p>NOTE! Through the “<b>Appendix I: Circular Ecosystem Patterns</b>; p. 12-17 “ you can learn more about different circular economy patterns, including company examples.</p> <p>(link)</p>
	<p>An inspiring example of a sustainable business model innovation: Interface Inc. (carbon neutral carpet tile and resilient flooring)</p> <p>(link)</p>

	<p>An inspiring example of sustainable business model innovation: Riversimple (Mobility as a Service, MaaS)</p> <p>(link)</p>
<p><b>5.5 Learning diary reflection: Sustainable Business Model Innovation (SBMI)</b></p>	<p><b>Learning diary reflection: Sustainable Business Model Innovation (SBMI)</b></p>  <p>Now it's time to update your learning diary by writing down about your first-hand reflections based on the second theme "Sustainable Business Model Innovation (SBMI)".</p> <ol style="list-style-type: none"> <li>1. How do the sustainability criteria affect business modelling, i.e. the innovation/development process?</li> <li>2. In case you have recognized (at least intuitively) some value opportunities, what kind of call-to-action practices you could implement/test in a near future – or at least suggest to someone in your organization?</li> </ol>
<p>5.6 Business modelling tools</p>	<p><b>Sustainable business modelling tools</b></p> <p>This part of the learning platform consists examples of business modelling tools, such as business modelling canvases, value analysis tools and links to websites, white papers and video presentations. Some of these tools were mentioned already in the first two video lectures – <b>Value opportunity recognition</b> and the <b>Sustainable Business Model Innovation (SBMI)</b>.</p>
	<p><b>Sustainable business modelling tools (script)</b></p> <p>Video script of the 3/3 Video lecture: Business modelling tools</p> <p>Slide 1:</p> <p>Welcome to the third video lecture of the Business modelling.</p>

Slide 2:

Here are the learning objectives of the third video lecture Business modelling tools.

Slide 3:

Welcome to the Business modelling tools. This learning material includes a couple of examples of frameworks and visual models you can use for your business modelling. They are practical tools. In the beginning you will concentrate on the value analysis and value mapping. The remaining part of this learning material concentrates on the business model canvases. There's the traditional business model canvas by Österwalder and Pigneur and its applications also towards sustainable direction. You can find more learning material from the Sources.

Slide 4:

Here we have the sustainable Value Analysis tool. Remembering the triple bottom line challenge, you should build your analysis from the point of view of economic, social and environmental aspects. Horizontally you can see that business opportunities can be recognized based on lifecycles, beginning of lifecycle, middle of lifecycle and end of lifecycle. Please pay attention on the stakeholder layer as well. The next one, value uncaptured, may include additional rows for value missed, value destroyed, etc. you remember from the earlier video lecture. And finally at the bottom, after the value analysis, you may have recognized new value opportunities.

Slide 5:

Here we have the Value Mapping tool. Please pay attention that it's a multi-dimensional tool for value analysis. At the center of this visualization, you can see the purpose, representing the normative layer of value innovation.



It's followed by the value captured, meaning the current value proposition.  
Pay also attention that it's related to the multi-stakeholder perspective, including environment, customers, network actors and society.

The next layer is meant for the value uncaptured. As you can see, this tool has lots of similarities with the Value Analysis tool.

This is another learning and development opportunity for you. Obviously, you can modify and further develop the existing tools towards directions, which are the most suitable for your own, your team's or company's needs.

Slide 6:

Here we have the traditional Business Model Canvas by Österwalder and Pigneur.  
This spreadsheet is from the website Strategyzer, where you can find also more valuable learning material for business modelling.  
The business model canvas is used for multiple purposes - also for sustainable business model innovation, platform business models etc.

Slide 7:

Here we have an application of the traditional business model canvas. This one is a platform business model canvas.

You can create a multi-sided approach by presenting your stakeholders, such as customers and partners with specific colors or other visualizations.

The same applies obviously for other components of the canvas, such as the value proposition etc.  
Meaning with a specific color you can run through one customer segment and its impact and connections in other components of the canvas.

Remember that the strength of a business model canvas is very much based on its visuality and its impact on communication and fast-paced business development purpose.

	<p>Slide 8:</p> <p>Here we have the Flourishing Business Canvas, which is co-created by the members of the Sustainable Business Model Group, which is a community of innovation practice.</p> <p>It's an action research knowledge mobilization initiative of the Strategic Innovation Lab at Toronto's OCAD University, which is Canada's largest design school.</p> <p>This community is evolving to become a planetary wide network of nodes that together form the Flourishing Enterprise Institute.</p> <p>The Sustainable Business Model Group consists of business entrepreneurs, researchers and designers who are working together to produce a concrete vision to help all enterprises flourish through integration of social, environmental and economic factors.</p> <p>The Flourishing Business Canvas emphasizes that every business is related to three contexts –the environment that enables society that creates the economy.</p>
	<p><b>Business Models Inc: Including case company examples and free templates of business modelling and design tools</b></p> <p><b>(link)</b></p>
	<p><b>Business Models Inc: Including case company examples and free templates of business modelling and design tools</b></p> <p>Including sustainable business model innovation material by the <b>Threebility approach</b> to sustainable product- and business model innovation. The Threebility is being taught at ESCP Europe, TU Berlin and Steinbeis University of Berling by Robert Gerlach and at numerous universities in the world.</p> <p><b>(link)</b></p>
	<p><b>Flourishing Business Canvas</b></p> <p>In this video you will learn, how the original Business Model Canvas with its nine (9) components is extended with seven (7) additional components.</p> <p><b>(video)</b></p>

	<p><b>The triple layered business model canvas</b></p> <p>SustainableBusinessModel.org is a website platform created by the renowned sustainability researchers to support the growing community of experts interested in business models for sustainability transition.</p> <p>Here is an overview of the Triple Layered Business Model Canvas developed by Alexandre Joyce.</p> <p>NOTE! For those, who want to learn more about the latest research on the business modelling, the platform offers lots of links to the latest research papers, seminars etc.</p> <p>(link)</p>
	<p><b>Multisided Platform Business Model Canvas: The Business Model Analyst</b></p> <p>Here you can find more examples of the multisides/platform business models.</p> <p>(link)</p>
<p><b>5.7 Circular Economy (CE) case 1: Nutrinity/Extraverd Oy</b></p>	<p><b>This is a self-test based on a startup case company called Extraverd Oy and their Nutrinity product. First, read the case text.</b></p> <p>Nutrinity was built on the concept of reducing food waste from the environment. Once we learned how much food waste is produced and underutilized for its true nutritional value, we decided to explore the opportunities surrounding the entire supply chain of food waste to identify ways to reduce it. Through internet research and interviews with restaurants, cafeterias, and city officials, we were able to identify the loopholes in the food chain. These loopholes allowed us to focus on areas of our expertise and create ideas to solve each challenge.</p> <p>We started by designing self-sustainable, energy-efficient greenhouse farming units, capable of upcycling food waste. For a complete utilization, it was vital that we build a closed-loop system instead of a linear one, meaning using the circular economy principles to reduce overall waste. We drew the entire closed-loop system from start to end. That forced us to think about all the inputs and outputs of the system at each step and what kind of partnerships/tools we will need to fulfill that step. We started by looking into the Carbon/Nitrogen ratio of different kinds of food waste, and different styles of biogas reactors that were suitable for our purpose. We checked out all the places from where we could get fruits and bread and waste as they were the best suited for our purpose (both being high in carbohydrates). We decided to partner up with delivery companies like Foodora/ Wolt who would deliver the waste to us. Then we looked into suppliers of reactors and identified a few companies from which we could buy a reactor. Next, we moved on to the type of fertilizer we need to produce and ways to optimize it. And finally, food production, where we looked for purchasing equipment and setting up a vertical farm ourselves. We started talking to universities for space procurement. This would have allowed easy access to students who could work with us to gain practical experience and perhaps their thesis as well. We</p>

	<p>needed microbiologists, chemical engineers who would have assisted us. We found Aalto University and Metropolia AMK to be the most favorable partners for us. Metropolia had a dedicated space for start-ups to set up and collaborate freely, which we finalized, conditional to fund procurement. A university collaboration eased our troubles in terms of waste delivery as the cafeteria gave us unlimited access to daily waste, ready to be recycled. The proximity to other start-ups also helped tremendously as we were able to talk to them about their experiences and pitfalls, including other VFs.</p> <p>Our greenhouse design consisted of three sections to complete the closed-loop design. 1. Biogas digester to degrade the food waste; 2. Worm farm to convert the digestate (the output from the biogas digester) into fertilizers; and 3. Using this fertilizer to grow vegetables on a vertical farm. We identified the potential customers for the food to be restaurants and supermarkets. We started back calculating the amount of food waste we will need to produce X kg of food. We enquired about equipment costs for setting up a vertical farm (VF), and learned about the risks involved, both financial and operational (setting up sales channel, personnel, etc.). Existing vertical farms looked at three (3) years at a minimum to break even. Besides that, setting up waste to fertilizer converter equipment came with its own set of challenges, including sanitation. The risks and challenges with each step started mounting exponentially. We took the advice of mentors and VCs who we were in touch with at the time and decided to focus on solving one problem at a time. So, we pivoted to fertilizer production from food production and instead of treating VFs as competitors, we decided to collaborate with them. We talked with the existing VFs we had known through our collaborations and they were happy to test out our fertilizer products in small batches and give us feedback on the quality of the lettuce produced. We got verbal confirmation from two VFs to test our fertilizer once it is ready. Thus, the farms became our partners and customers who would use our fertilizers to grow their food. The waste produced from the VFs during food packaging could be used as input in our reactor ensuring complete circularity and helping us close the circular system.</p> <p>With a renewed focus, we were able to design a more efficient process to tackle different types of food waste, including animal remains. We designed a three-step process to i) break down the food waste, ii) convert it into fertilizers, and iii) optimize the fertilizer for food production with the optimal NPK (Nitrogen- Phosphorus- Potassium) ratio.</p> <p>In the end, we realized that our process design can be patented and can also become a product for franchising and growing as a brand name. This is how we came up with an expansion and internationalization strategy for Nutrinity.</p> <p><b>Self-test task:</b> Referring to the pages 2-10 of the below White Paper “Business Model Innovation for the Circular Economy” by the St. Gallen University please answer on the <b>seven (7)</b> open questions? <a href="https://www.alexandria.unisg.ch/259076/1/Circular%20Ecosystems_Takacs%2C%20Stechow%20%26%20Frankenberger%20%282020%29.pdf">https://www.alexandria.unisg.ch/259076/1/Circular%20Ecosystems_Takacs%2C%20Stechow%20%26%20Frankenberger%20%282020%29.pdf</a></p> <p><b>NOTE!</b> The correct answers represent company’s opinions.</p>
	<p><b>self test</b></p>

<p>Step 1, Impulse: Capture the need for change from a company perspective for reasons such as changing consumer behavior and legislation, a possible reduction of resource dependencies and costs and increased motivation for current and future employees. What did this step mean in the Nutrinity case? Please answer with couple of sentences.</p>	
<p>correct answer</p>	<p>Keywords required for automatic assessment.</p>
<p>Company’s answer: In the case of Nutrinity, we would define impulse as when we learned how much food waste is produced and underutilized for its true nutritional value. We decided to explore the opportunities surrounding the entire supply-chain of food waste to identify ways to reduce food waste.</p> <p>The itslearning automation may not evaluate your answer fairly, therefore it is recommended to compare your answer with the provided model answer. Automated evaluation, in this case, does not affect your overall score.</p>	<p>food waste, underutilized</p>
<p>Step 2, Identify: Assessing the environmental and social impact of the current company’s business model and of the entire linear value chain. This is achieved by combining the three spheres of sustainability (planet, people and profit) with the magic triangle concept of business models. What did this step mean in the Nutrity case? Please answer with couple of sentences.</p>	
<p>correct answer</p>	<p>Keywords required for automatic assessment.</p>
<p>Company’s answer: Through internet research and interviews with restaurants, cafeterias and city officials, we were able to identify the loopholes in the food chain. These loopholes allowed us to focus on areas of our expertise and create ideas to solve each challenge.</p> <p>The itslearning automation may not evaluate your answer fairly, therefore it is recommended to compare your answer</p>	<p>interviews, loopholes</p>

	with the provided model answer. Automated evaluation, in this case, does not affect your overall score.	
<p>Step 3, Ideate: Creating ideas for circular ecosystems that go beyond existing solutions. What did this step mean in the Nutrinity case? Please answer with couple of sentences.</p>		
	<p>correct answer</p> <p>Company’s answer: During ideation of the possible solutions, we always kept a closed-loop system in mind, meaning all parts of the solution would be used to their maximum potential and to generate as minimal waste as possible. We started by trying to tackle the entire value chain (from waste to fertilizer; from fertilizer to food; and selling the produced food). We identified the potential customers for the food to be restaurants and supermarkets. We started back calculating the amount of food waste we will need to produce X kg of food. We enquired about equipment costs for setting up a vertical farm, and learned about the risks involved, both financial and operational (setting up sales channel, personnel, etc.). Existing vertical farms looked at three (3) years at a minimum to break even. Besides that, setting up waste to fertilizer equipment came with its own set of challenges, including sanitation, that we also solved through including a basic treatment step in the protocol. The risks and challenges with each step started mounting exponentially. We took the advice of mentors and VCs who were in touch with us at the time and decided to focus on solving one problem at a time. So, we pivoted to fertilizer production from food production and instead of treating vertical farms as competitors, we decided to collaborate with them. The farms became our partners and customers who would use our fertilizers to grow their food.</p>	<p>Keywords required for automatic assessment.</p> <p>pivot to fertilizer production  collaboration with vertical farms  closed-loop system in mind</p>

	<p>The itslearning automation may not evaluate your answer fairly, therefore it is recommended to compare your answer with the provided model answer. Automated evaluation, in this case, does not affect your overall score.</p>	
<p>Step 4, Integrate: Designing a circular ecosystem by consolidating the generated ideas into a circular logic. What did this step mean in the Nutrinity case? Please answer with couple of sentences.</p>		
	<p>correct answer</p> <p>Company’s answer: It is essential to realize that to ensure circularity in a business, a life cycle assessment (LCA) is absolutely vital. The LCA helps you understand your business and offering from an ecosystem perspective. You are forced to answer tough questions and think ahead in the future about all the moving parts associated with your business. The LCA should be included in the initial plans and is as important as areas like market research, customer segmentation or financial projections. Without it, it is hard to find all the missing pieces of the puzzle that is your value-chain. However, LCA is just half of it. An LCA without a dynamic, flexible mindset may stunt the company’s growth in the long-term. The ability to change or pivot is as fundamental as the theory of ‘survival of the fittest’ in nature. We did this in the beginning for Nutrinity as well. We did not make a simulated model but we drew the entire system from start to end. That forced us to think about all the inputs and outputs of the system at each step and what kind of partnerships/tools we will need to fulfill that step. We also came up with alternatives, so in case Plan A fails, we always have plan B or C to rely on.</p>	<p>Keywords required for automatic assessment.</p> <p>life cycle assessment  ecosystem perspective  dynamic mindset  flexibility  ability to pivot</p>

<p>The itslearning automation may not evaluate your answer fairly, therefore it is recommended to compare your answer with the provided model answer. Automated evaluation, in this case, does not affect your overall score.</p>	
<p>Step 5, Imagine: Expressing the vision and motivation for a circular transformation in one’s company, as well as for partners in the circular ecosystem.                  What did this step mean in the Nurtinity case? Please answer with couple of sentences.</p>	
<p>correct answer</p> <p>Company’s answer: Closely associated with Integrate step as without the imagination of the entire closed-loop system we would not have been able to visualize each step closely. Nutrinity was built on the concept of reducing and upcycling food waste from the environment. This is a cause close to the hearts of all our stakeholders. Every food producer (including VFs) generate a certain amount, however small, of food waste. Our solution helped them close this gap with ease, by providing them a solution to not only recycle food waste, but also to utilize it (upcycle) for their production purposes.</p>	<p>Keywords required for automatic assessment.</p> <p>reducing food waste                  upcycling                  visualize each step</p>
<p>Step 6, Incorporate: Approaching the ideal partners and incorporating them into the ecosystem. This aspect is of particular importance for the success of circular solutions because no company can deliver or create all the needed products, services or guidelines alone.                  What did this step mean in the Nutrinity case? Please answer with couple of sentences.</p>	
<p>correct answer</p> <p>Company’s answer: Once the integration and imagination steps are complete, then it is time to incorporate identified partners in your system. It is also a good time to think of alternatives in case certain partnerships do not work out. This is where LCA</p>	<p>Keywords required for automatic assessment.</p> <p>identifying partners                  think of alternatives                  Life cycle assessment</p>



	<p>proves useful further; knowing the input and output at each step helps you plan the alternatives in time as well.</p> <p>The itslearning automation may not evaluate your answer fairly, therefore it is recommended to compare your answer with the provided model answer. Automated evaluation, in this case, does not affect your overall score.</p>			
<p>Step 7, Implement: For each company, implementing the ecosystem takes place at the individual business model level. Following the current best practices of de-risking and assumption-based testing for validating new business models, as well as adapting these regarding the specific requirements of the CE, are the key elements to realizing the designed ecosystem and reaping the benefits of such a unique offering.</p> <p>What did this step mean in the Nutrinity case? Please answer with couple of sentences.</p>				
<table border="1"> <tr> <td data-bbox="422 797 1167 834">correct answer</td> <td data-bbox="1167 797 1921 834">Keywords required for automatic assessment.</td> </tr> </table>			correct answer	Keywords required for automatic assessment.
correct answer	Keywords required for automatic assessment.			
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<p>Step 8, Which SDGs (<i>choose the numbers</i>) are applicable to the Nutrinity case?</p>				

	<p>(picture)</p> <table border="1"> <tr> <td data-bbox="426 285 1167 321">correct answer</td> <td data-bbox="1167 285 1911 321">Keywords required for automatic assessment.</td> </tr> <tr> <td data-bbox="426 321 1167 561"> <p>SDGs: 8, 11, 12, 13 and 17</p> <p>The itslearning automation may not evaluate your answer fairly, therefore it is recommended to compare your answer with the provided model answer. Automated evaluation, in this case, does not affect your overall score.</p> </td> <td data-bbox="1167 321 1911 561"> <p>decent work and economic growth/ 8 sustainable cities and communities/ 11 responsible consumption and production/12 climate action/13 partnerships for the goals/17</p> </td> </tr> </table>	correct answer	Keywords required for automatic assessment.	<p>SDGs: 8, 11, 12, 13 and 17</p> <p>The itslearning automation may not evaluate your answer fairly, therefore it is recommended to compare your answer with the provided model answer. Automated evaluation, in this case, does not affect your overall score.</p>	<p>decent work and economic growth/ 8 sustainable cities and communities/ 11 responsible consumption and production/12 climate action/13 partnerships for the goals/17</p>
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<p><b>5.8 Circular Economy (CE) case 2: Renewable diesel, Neste Ltd</b></p>	<p><b>Circular Economy (CE) case 2: Renewable diesel, Neste Ltd</b></p> <p><b>This is a self-test based on the Neste Ltd and their renewable diesel. First, read the case text.</b></p> <p>Neste and Hesburger to launch a significant circularity collaboration – used cooking oil collected from more than 300 restaurants to produce renewable diesel</p> <p>Neste and Hesburger, a Finnish restaurant chain, engaged in a significant circular economy collaboration. Used cooking oil from more than 300 Hesburger restaurants in Finland and in the Baltics is recycled to produce renewable diesel. As a result of the collaboration, Hesburger will begin using Neste MY Renewable Diesel™ (<a href="#">weblink</a>) in the majority of its transport vehicles in Finland, reducing the greenhouse gas emissions in these transports by up to 90%* compared to fossil diesel use.</p> <p>The initiative started by Neste actively seeking for partners who could both have the goal to reduce their emissions and generate food waste (used cooking oil) from the current operations. As Hesburger is a Finnish owned family company with strong values to impact on climate change, and Neste is the world’s leader in renewable diesel, the partnership seemed like a great match. The initiative started by defining the process and discussing it with collecting partners to ensure logistics were able to arrange as smoothly and efficiently as possible. It also required to commit the existing logistic partners to start using renewable diesel. There was an existing partner already collecting used cooking oil in Finland for Neste’s production, who also takes care of purification of the raw material, so it was naturally to rely on the same partner and start collecting the used cooking oil with them.</p> <p>The goal behind the initiative was to turn waste into a low-emission solution, that would reduce Hesburgers carbon footprint within their deliveries. Recycling and the circular economy have also been important focal points in the development of Hesburgers’ activities, and this circular economy collaboration with Neste was a perfect match with their aims. Every year, restaurants in Finland, Estonia, Latvia and Lithuania produce up to 420 tons of used cooking oil which is collected and transported as ecologically as possible. Neste uses the cooking oil and other renewable waste and residue raw materials to produce renewable diesel to be used</p>				

	<p>also in Hesburger’s trucks. As the used cooking oil is collected by trucks delivering goods to the restaurants, it will not result in extra mileage.</p> <p>The additional goal was to make it clear how circular solutions really are possible, and all it takes is partnership and dedication to make it happen. In September 2021, Neste and Hesburger conducted a consumer survey on climate actions** of 1,000 people in Finland. A total of 52% of the respondents considered everyday actions related to the climate to be easier in matters related to their own home and living. Outside the home – when moving, traveling or eating at a restaurant, for example – climate actions are considered to be much more difficult. 65% of the respondents felt that companies and consumers share the responsibility for climate actions.</p> <p>Hesburger’s transportation vehicles that began using Neste’s renewable diesel travel annually a total of roughly 680,000 kilometres. By replacing fossil diesel with Neste’s renewable diesel, the amount of annually reduced greenhouse gas emissions compares to removing as many as 350 private cars from Finland’s roads for one year.</p> <p><i>*) The methodology for calculating life cycle emissions and emissions reduction complies with the European Union’s Renewable Energy Directive (2009/28/EC).</i></p> <p><i>***) The survey by Neste and Hesburger was conducted as a national consumer panel through IRO Research Oy’s study between September 21 and 29, 2021. A total of 1,000 Finnish consumers responded to the survey nationwide.</i></p> <p><b>Self-test task:</b> Based on the Neste Ltd.’s renewable diesel case please answer on the two multiple questions. <b>NOTE!</b> The correct answers represent company’s opinions.</p>		
	<p>Referring to the below White Paper’s “<b>Fig. 1: The seven steps of the Circular Navigator</b>” (page 2), what is your assumption of the <b>top three</b> (3) steps particularly seemed to urge forward and influence on the new CE case of the Neste and Hesburger?</p>	<p>impulse</p>	<p>x (correct)</p>
		<p>identify</p>	<p>x</p>
		<p>ideate</p>	
		<p>integrate</p>	

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		imagine	
		incorporate	
		implement	x
How do you perceive, which top five (5) SDGs are related to the Neste Oyj's renewable diesel case?	1 No Poverty		
	2 Zero Hunger		
	3 Good Health and Well-Being		
	4 Quality Education		
	5 Gender Inequality		
	6 Clean Water and Sanitation		
	7 Affordable and Clean Energy	x (correct)	
	8 Decent Work and Economic Growth		
	9 Industry, Innovation and Infrastructure		
	10 Reduced Inequalities		
	11 Sustainable Cities and Communities	x	
	12 Responsible Consumption and Production	x	

		13 Climate Action	x
		14 Life Below Water	
		15 Life on Land	
		16 Peace, Justice and Strong Institutions	
		17 Partnerships for the Goals	x
<p><b>5.9 Key take-aways and references</b></p>	<p><b>Key take-aways</b></p> <ul style="list-style-type: none"> <li>• business modelling is about defining how a company creates, delivers and captures value, i.e. how it succeeds in a sustainable way in future</li> <li>• life-cycle thinking, multi-stakeholder approach, recognition of uncaptured value and shared value proposition challenge companies and their individuals to seek opportunities around them – every problem could be a business opportunity!</li> <li>• the goal of a more sustainable business modelling requires the involvement of whole personnel in defining the company's purpose and strategy and how to implement it</li> <li>• sustainable business model innovation is a call-to-action process, i.e. even though it may be a long-term project, it encourages also learn fast principles and practices on all organizational levels – from the operative level to the executive level</li> <li>• business modelling tools provide practical applications for the business opportunity recognition based on the SDGs– <i>“it’s easier to act your way to a new way of thinking than to think your way to a new way of acting.”</i></li> </ul> <p><b>The author of this part of the teaching material has collected the content from the following resources, which can also be recommended as supplementary material:</b></p> <p>Agard, A. Sustainable Business Models. Innovation, Implementation and Success. Palgrave MacMillan 2019.</p> <p>Anderson, R. Ray Anderson: The business logic of sustainability. Available: <a href="https://youtu.be/iP9QF_IBOyA">https://youtu.be/iP9QF_IBOyA</a></p> <p>Baker, J. Solving supply chain transparency with Jessi Baker of Provenance. The Beautiful Truth. Available: <a href="https://www.youtube.com/watch?v=CDMBzB4dQx8&amp;t">https://www.youtube.com/watch?v=CDMBzB4dQx8&amp;t</a></p>		

	<p>BCG. Understanding How To Implement Sustainable Business Models: Available: <a href="https://youtu.be/Cw5QYwhhog8">https://youtu.be/Cw5QYwhhog8</a></p> <p>Bocken, N., Short, S., Rana, P., Evans, S. (2013). A value mapping tool for sustainable business modelling. Corporate Governance VOL. 13 NO. 5, pp. 482-497.</p> <p>Bocken, N., Short, S., Rana, P., Evans, S. (2014). A literature and practice review to develop sustainable business model Archetypes. Journal of Cleaner Production. Vol. 65, pp. 42-56.</p> <p>BMI. Our business design tools. Available: <a href="https://www.businessmodelsinc.com/about-bmi/tools/">https://www.businessmodelsinc.com/about-bmi/tools/</a></p> <p>Breuer, H., Lüdeke-Freund, F. Values-Based Innovation Management. Innovating by what we care about. Palgrave MacMillan 2017.</p> <p>Evans, S., Vladimirova, D. Holgado, M., Van Fossen, K., Yang, M., Silva, E. A., Barlow, C.Y. (2017). Business Model Innovation for Sustainability: Towards a Unified Perspective for Creation of Sustainable Business Models, Business Strategy and the Environment 26, 597–608. Wiley Online Library.</p> <p>Facility Executive. Interface Report Highlights 25 Years of Sustainability Initiatives. Available: <a href="https://facilityexecutive.com/2019/11/interface-report-highlights-25-years-of-sustainability-initiatives/">https://facilityexecutive.com/2019/11/interface-report-highlights-25-years-of-sustainability-initiatives/</a></p> <p>Flourishing Enterprise. 10. Resources. Available: <a href="https://www.youtube.com/watch?app=desktop&amp;v=vq3kvzGI3E0&amp;list=PL6t17Kjg-WSdVEyqtgU1Zcq1yNQbb-KFB&amp;index=11">https://www.youtube.com/watch?app=desktop&amp;v=vq3kvzGI3E0&amp;list=PL6t17Kjg-WSdVEyqtgU1Zcq1yNQbb-KFB&amp;index=11</a></p> <p>Flourishing Enterprise Innovation Toolkit. Available: <a href="http://flourishingbusiness.org/">http://flourishingbusiness.org/</a></p> <p>Geissdoerfer, M, Vladimirova, D., Evans, S. (2018). Sustainable Business Model Innovation: A review. Journal of Cleaner Production.</p> <p>Hasan, A. Pitching Their Stories: doctHERs. Available: <a href="https://www.youtube.com/watch?app=desktop&amp;v=OCRD5QnSYrc">https://www.youtube.com/watch?app=desktop&amp;v=OCRD5QnSYrc</a></p> <p>InnovationTactics. Available: <a href="https://innovationtactics.com/platform-business-model-canvas/">https://innovationtactics.com/platform-business-model-canvas/</a></p> <p>Kaplan, S. Saul Kaplan – A Business Model Innovation. Available: <a href="https://youtu.be/_BQitH1zocw">https://youtu.be/_BQitH1zocw</a></p> <p>Maurya, A. Capture Your Business Model in 20 Minutes - Lean Canvas. Available: <a href="https://youtu.be/7o8uYdUaFR4">https://youtu.be/7o8uYdUaFR4</a></p> <p>Parker, G. G., Van Alstyne, M.W., Choudary, S.P. Platform Revolution. W.W. Norton &amp; Company, Inc. 2016.</p> <p>Riversimple. How the business works. Available: <a href="https://www.riversimple.com/how-the-business-works/">https://www.riversimple.com/how-the-business-works/</a></p> <p>Strategyzer. Business Model Canvas. Available: <a href="https://www.strategyzer.com/canvas">https://www.strategyzer.com/canvas</a></p>
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	<p>Strategyzer. Value Proposition Canvas by Strategyzer.com explained through the Uber Example. Available: <a href="https://youtu.be/kiWkRiynPAo">https://youtu.be/kiWkRiynPAo</a></p> <p>Strongly Sustainable Business Model Group. Available: <a href="http://flourishingbusiness.org/about/">http://flourishingbusiness.org/about/</a></p> <p>Sustainablebusinessmodel.org. The Triple Layered Business Model Canvas – A Tool to Design More Sustainable Business Models. Available: <a href="https://sustainablebusinessmodel.org/2015/04/17/the-triple-layered-business-model-canvas-a-tool-to-design-more-sustainable-business-models/">https://sustainablebusinessmodel.org/2015/04/17/the-triple-layered-business-model-canvas-a-tool-to-design-more-sustainable-business-models/</a></p> <p>Takacs, F., Stechow, R. &amp; Frankenberger, K. (2020). Circular Ecosystems: Business Model Innovation for the Circular Economy. White Paper of the Institute of Management &amp; Strategy, University of St. Gallen.</p> <p>Tbd. 6 Tools for Sustainable Product and Business Model Innovation. Available: <a href="https://www.tbd.community/en/a/6-tools-sustainable-product-and-business-model-innovation">https://www.tbd.community/en/a/6-tools-sustainable-product-and-business-model-innovation</a></p> <p>The Business Model Analyst. Multisided Platform Business Model. Available: <a href="https://businessmodelanalyst.com/multisided-platform-business-model/">https://businessmodelanalyst.com/multisided-platform-business-model/</a></p> <p>UX Berlin Innovation Consulting: <a href="https://www.uxberlin.com/values-based-and-sustainable-business-models-in-worms/">https://www.uxberlin.com/values-based-and-sustainable-business-models-in-worms/</a></p> <p>Vladimirova, D. (2019). Building Sustainable Value Propositions to Multiple Stakeholders: A Practical Tool, Research Gate.</p> <p>Volans. (2016). Breakthrough Business Models. Exponentially more Social, Lean, Integrated and Circular.</p> <p>Volans. Breakthrough Cities. Business models for solving urban challenges. An Action Guide for City Authorities and SMEs. Available: <a href="https://volans.com/project/breakthrough-cities-new/">https://volans.com/project/breakthrough-cities-new/</a></p> <p>Wear2wear. Available: <a href="https://www.wear2wear.org/en/">https://www.wear2wear.org/en/</a></p> <p>Yang, M., Vladimirova, D., Evans, S. (2017.) Creating and Capturing Value Through Sustainability, Research-Technology Management, 60:3, 30-39 Available: <a href="http://dx.doi.org/10.1080/08956308.2017.1301001">http://dx.doi.org/10.1080/08956308.2017.1301001</a></p> <p>Österwalder, A. Business Model Canvas of Nespresso. Available: <a href="https://youtu.be/dhQh-tryXOg">https://youtu.be/dhQh-tryXOg</a></p>
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## SDG4BIZ Training Package Content

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Section annexes list: resources for a lecture	<p>Three mini-lectures have been created for this section. They can be found at the end of the material. References in e.g. the figures in the lecture material refer to the references in this section, which are listed above. The lectures have been indexed so that they can be linked to the correct place in the material. The lecture script very briefly explains what is planned to be said in the lecture.</p> <ul style="list-style-type: none"><li>5.2. Value opportunity recognition lecture 1</li><li>5.2. Value opportunity recognition Lecture 1 script</li><li>5.4. Sustainable Business Model Innovation (SBMI) lecture 2</li><li>5.4. Sustainable Business Model Innovation (SBMI) Lecture 2 script</li><li>5.6 Business modelling tools lecture 3</li><li>5.6. Business modelling tools Lecture 3 script</li></ul>
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## 6. Next Steps and test



	In this section you have a chance to become familiar with further learning opportunities. Four different sector specific modules are introduced. By attending any of these, you may deepen your knowledge in business opportunity recognition process in SDGs and focus on Food and Agriculture, Cities, Energy and Materials or Health and Well-being.			
How to continue my learning journey				
Actions to finalize the course, test	Step 2 Quiz of the Business Opportunity Recognition			
			Correct (X)	
	1	Which one of the following statements aren't correct? (includes more than one correct answer)	Value proposition answers on the question - What value and to whom?	
			Desirability of a business model answers on the question - How does the company capture value?	X
			Revenue model answers on the question – How does the company make profits?	X
Customers' Jobs to Be Done corresponds to the Customers' Problems to Be Solved.				

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	2	Which ones of the following statements are correct? <i>(includes more than one correct answer)</i>	Business modelling demonstrates the importance of looking at a business from all the interrelated business components point of view	x
			Sustainable business model corresponds to a systemic approach	x
			Circular business models benefit from diluting resource loops	
			Instrumental innovation means innovation in business model components	x
	3	Which ones of these qualify for Sustainable Business Models (SBM)? <i>(includes more than one correct answer)</i>	SBMs are based on products' lifespan extension	x
			SBMs emphasize functionalities over products	x
			SBMs require multi-stakeholder approach	x
			SBMs have long-term perspective	x
	4	Sustainable business model archetypes and strategies don't include characteristics such as <i>(includes more than one correct answer)</i>	lean	
			integrated	
			product-payment-systems	x
			top-of-the pyramid	x
	5	Which one of the following statements isn't true <i>(includes one correct answer)</i> ?	The Flourishing Business Canvas v2.0 includes the multi-stakeholder approach	
			Business Model Canvas of Österwalder & Pigneur and Lean Canvas of Maurya can be both used for platform business modelling	
			The Problem component of the Lean Canvas corresponds to Customers' Jobs to Be Done	
			The Business Model Canvas isn't applicable for the circular business modelling	
	6	Co-innovation tool is a canvas that is designed to enable collaboration and co-innovation <i>(includes one correct answer)</i>	Between mainly large established companies	
			Only between startups and corporations	
			Between all kinds of organizations	x
			Especially for early-stage start-ups	
7	Types of opportunities vary and <i>(includes one correct answer)</i>	unidentified value and undefined value creation capability is only a dream		

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		identifying value and combining it with defined value creation capability leads always to business formation	
		identified value and defined value creation capability is only problem solving	
		unidentified value combined with value creation capability may lead to technology transfer	x
8	The following are operational barriers for sustainable business model innovation (includes multiple correct answer)	performance metrics for sustainability	
		Fixed resource planning and allocation	x
		People capability development	
		Standard innovation process and procedure	x
9	Value mapping tool covers, for example, following stakeholders (include multiple correct answers)	academia	x
		competitors	
		customers	x
		employees	x
10	Strategic drivers for sensing, seizing and transforming for sustainable business model innovation (includes one correct answer)	enabling innovation structure	
		incentive scheme for sustainability	
		collaborative innovation	x
		embracing ambiguity	
11	Which one of the following statements is Brundtland Commission definition target of sustainable development? (includes one correct answer)	'meeting the needs of people now and ensure the good future'	
		'meeting the needs of societies in complex word and ensure the possibilities to develop'	
		'meeting the needs of the present without compromising the ability of future generations to meet their own needs'	x
		'meeting the needs of the present without compromising the global needs'	
12	How many of 17 SDGs and 169 targets organization needs to choose and link them to organisation activities? (includes one correct answer)	It's important to work with all ambitious 17 goals and 169 targets.	
		As many as possible, but not all 17 goals.	
		Organisation needs to find most relevant goals and link them to organisation's activities.	x
		No more than four goals and their targets.	

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	13	Who are the key players in sustainable developing? (includes multiple correct answers)	youth	x	
			civil society	x	
			stakeholders	x	
			unions	x	
			academia	x	
			corporate	x	
			public sector	x	
			governments	x	
	14	Which of the following sentences is true? (includes one correct answer)	SDGs means the same thing as the climate change.		
			Agenda 2030 contains 17 Sustainable Development Goals.	x	
			The 10 principles of Global Compact are not any more relevant.		
			Act Now and Decade of Action are new goals and targets of sustainable development.		
	15	Which organizations are obliged to report on their sustainability? (includes multiple correct answers)	All listed companies, banks, insurance companies and other companies designated by national authorities as public-interest entities in EU.	x	
			All companies that want to be responsible, transparent and meet the demands of stakeholders.	x	
			All global organizations regardless of industry.		
			All organization whose activities are linked to environment and climate change.		
	16	In demographical change context, efforts to achieve the Sustainable Development Goals can lead to greater business opportunities for companies. Which of the following is NOT an effective mean?	ending hunger		
			ensuring healthy lives, promoting education and life-long learning		
			creating jobs		
			improving social protection		
			increasing inequality	x	
	17	Lecturer Todd Cort (Yale school of management) describes inclusivity as	ability to include stakeholder feedback into company's decision-making process	x	

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		the way of providing everyone with equal access to opportunities and resources	
		a company policy to meet the needs of customers	
18	Which of the following is NOT a pillar of sustainability according to Elkington (1997)?	Environmental sustainability	
		Social sustainability	
		Economic sustainability	
		Political sustainability	x
19	All the following are features of the megatrend EXCEPT (old megatrends by Sitra)	Continuous	
		Local	x
		Macroeconomic	
		Large scale	
20	If companies want to become more sustainable, they need to	maximize shareholder's value and financial aspect	
		integrate economic, social and environmental aspects into decision making in a balanced way	x
		respect the needs of external stakeholders more than the needs of internal stakeholders	
21	Based on the company case stories on sustainable business opportunity identification and development... (Includes one correct answer)	...there seems to be only one driver for sustainable business: digitalization	
		...both individuals and long established companies can be inspired to innovate new sustainable business models	x
		...in all company case stories the main motivator for developing sustainable business is the company reputation.	
		... developing sustainable business means less profits.	
22	Which one of the following can be a motivator for sustainable business development? (Includes more than one correct answer)	Competitiveness due to e.g. low waste and process efficiency	x
		Attractiveness as an employer	x
		Good reputation and compliance	x
		None of these choices	
23	How can SDG's act as drivers and motivators for sustainable business development of	SDG's restrict companies from making mistakes	
		SDG's are helping the organizations to identify their focus areas of sustainability	x

		companies and entrepreneurs? (Includes more than one correct answer)	especially small companies can find both clear guidance and inspiration in SDG Compass on how to align company strategy with relevant SDG	
			SDG's highlight various areas for sustainable business innovation	x
24	Many of the case companies and entrepreneurs presented in Motivation section were inspired to build various types of circular business models. Which of the following is NOT a circular business model: (Includes one correct answer)	business model that aims at 'product-life extension'		
		'sharing platform' business model		
		'bottom of the pyramid' business model		x
		'product as a service' business model		
<p><b>What to do next</b>  <b>Congratulations, you completed the first Module of the SDG4BIZ training course!</b></p> <p>Now it is time for you to select the sector specific module. The idea of the designers of the training entity was that after completing the module 1 you will enrol to one more module of your choice. The modules are presented below.</p>				
<p>Module 2: Module 2, Shared value business opportunity recognition, entrepreneurship &amp; innovation in the field of food and agriculture</p> <p>The module 2, Shared value business opportunity recognition, entrepreneurship &amp; innovation in the field of food and agriculture, aims to help learners to take a holistic view to the whole food production system from agriculture to consumers and by that inspire them to look for new more sustainable ways to fulfil people's need for food. The module 2 provides content on SDGs related to food and agriculture in relation to agricultural policies on economic development with a focus on SDGs related to food and agriculture. In addition, this module provides overall understanding and links between civil society and innovation through quadruple helix model innovation and social innovation concepts, and gives an overview of what are the partnership opportunities in different sectors for food and agriculture projects. The module also brings forward the lifecycle thinking and the importance of the food and agriculture in this systemic change. The content also includes the carbon capture and the sustainable use of peatland and its role in sustainable agriculture and business ecosystem. Module content is wrapped up by tackling how to design marketing strategy and feasibility analysis and budgeting in the food and agriculture companies.</p>				

	<p>Module 3 Shared value business opportunity recognition, entrepreneurship &amp; innovation regarding Cities and communities</p> <p>Module 3, Shared value business opportunity recognition, entrepreneurship &amp; innovation regarding cities and communities, takes three different points of view to the sustainable business opportunity recognition in cities: They are Circular economy, Silver economy and Mobility. The Module 3 has utilized a storytelling and carries pragmatic business cases throughout the module as examples.</p> <p>There are three different aspects that gain a special attention in the module 3: These aspects are: Business modelling in Circular economy, Business modelling in Mobility and Business modelling in Silver economy. Circular economy business case studies where waste traditional material inputs derived from virgin resources with bio-based, renewable, or recovered materials reduce demand for virgin resource extraction in the long run.</p> <p>Mobility business case studies related with cities, improving traffic flow, more sustainable vehicles, the walkability of cities, Silver economy case studies related with the needs of people for a better and easiest lifestyle, supported by technology. You will create a model for your business by including the elements of sustainability across the value chain. Furthermore, you will identify the key performance indicators to measure the impact on people, environment, and profit.</p>
	<p>Module 4, Shared value business opportunity recognition, entrepreneurship &amp; innovation in the field of Energy, materials and industry</p> <p>The Module 4, Shared value business opportunity recognition, entrepreneurship &amp; innovation in the field of Energy, materials and industry, gives the learners an overview on how specific European, national and regional contexts influence the development of business opportunities related to sustainability and SDGs, specifically in the sector of energy, industry and material. The context analysis will include the analysis of economic, social and regulations constraints that can favourably or unfavourably shape the business opportunities and the way to reach them. The learner profile-specific- examples of different tasks in a company and how the SDGs are reflected upon their work.</p> <p>The module offers insights for business modelling in the fields of Green energy, Sustainable construction and Sustainable and innovative materials.</p>
	<p>Module 5, Shared value business opportunity recognition, entrepreneurship &amp; innovation in the field of health and wellbeing</p> <p>Module 5, Is a module for people who work or have their own business in the field of health and well-being. Module 5 pedagogical solutions supports the innovation by walking and doing. It is more practical than the other modules. The learning in Module 5 increases significantly if you can do the module with your co-workers or peers at your workplace or study group.</p>

## SDG4BIZ Training Package Content

621458-EPP-1-2020-1-FI-EPPKA2-KA/ KNOWLEDGE ALLIANCE FOR BUSINESS OPPORTUNITY RECOGNITION IN SDGs - SDG4BIZ

	<p>Module 5, Shared value business opportunity recognition, entrepreneurship &amp; innovation in the field of health and wellbeing aims to create a link to the business opportunities in the health and well-being and the participant's own field of business, the learner will be asked to explore their own field of business in the light of the SDGs and to familiarize themselves with a concrete example of finding a new business opportunity with the help of the SDGs. In practice, the module consists of the exploration of the United Nations' Sustainable Development Goals and the case companies. You are invited e.g. to explore your own business environment in the light of the global megatrends. To wrap up you are encouraged to create a model for your business(s) by including the elements of sustainability across the value chain. Furthermore, they will identify the key performance indicators to measure the impact on people, environment, and profit.</p>
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## Annexes



The annexes contain additional slides, lecture slides and lecture transcripts, which can be used either as part of classroom teaching or to build a recorded lecture for online teaching. The original audio and video materials can also be found here. The links have been compiled from 2021-2022 and have not been updated since then.

- The lectures are planned to be short 10-20 minute presentations.
- The lectures should be complemented by other teaching methods.
- The numbering indicates the context in which the lecture is planned to take place.

#### 4.4. SDG4BIZ M1 Value mapping tool



# VALUE MAPPING TOOL

## ENVIRONMENT

Environmental value:  
Environmental benefits and impacts

### Value opportunities

New opportunities for additional value creation and capture through new activities and relationships

### Value missed, destroyed or wasted

Negative outcomes, or inadequately captured by current model

### Value captured

Current value proposition

PURPOSE

## CUSTOMERS

Use value:  
Perceived actual  
benefits and impacts

## NETWORK ACTORS

Transaction value:  
Firm  
Investors  
Suppliers  
Partners  
Distributors  
Media  
Research institutes

## SOCIETY

Societal value:  
Societal benefits and impacts

Based on Bocken et al., 2013

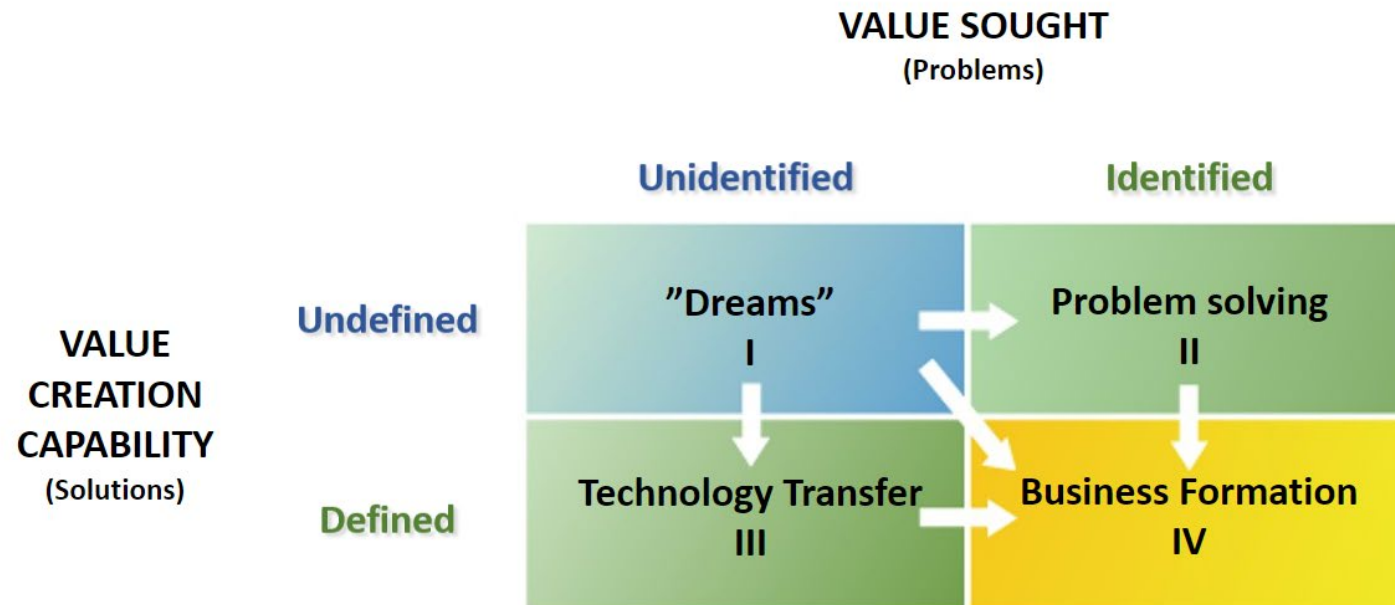
#### 4.4. SDG4BIZ M1Collaboration for value creation lecture slides



# Resources, Networks and collaboration in sustainable value creation

- types of opportunities and opportunity recognition as a process
- sustainable opportunities for value
- network actors and other stakeholders
- value creation capability
- different types of networks for value creation
- network-centric view
- collaborative networks

# Types of opportunities and opportunity recognition as a development process



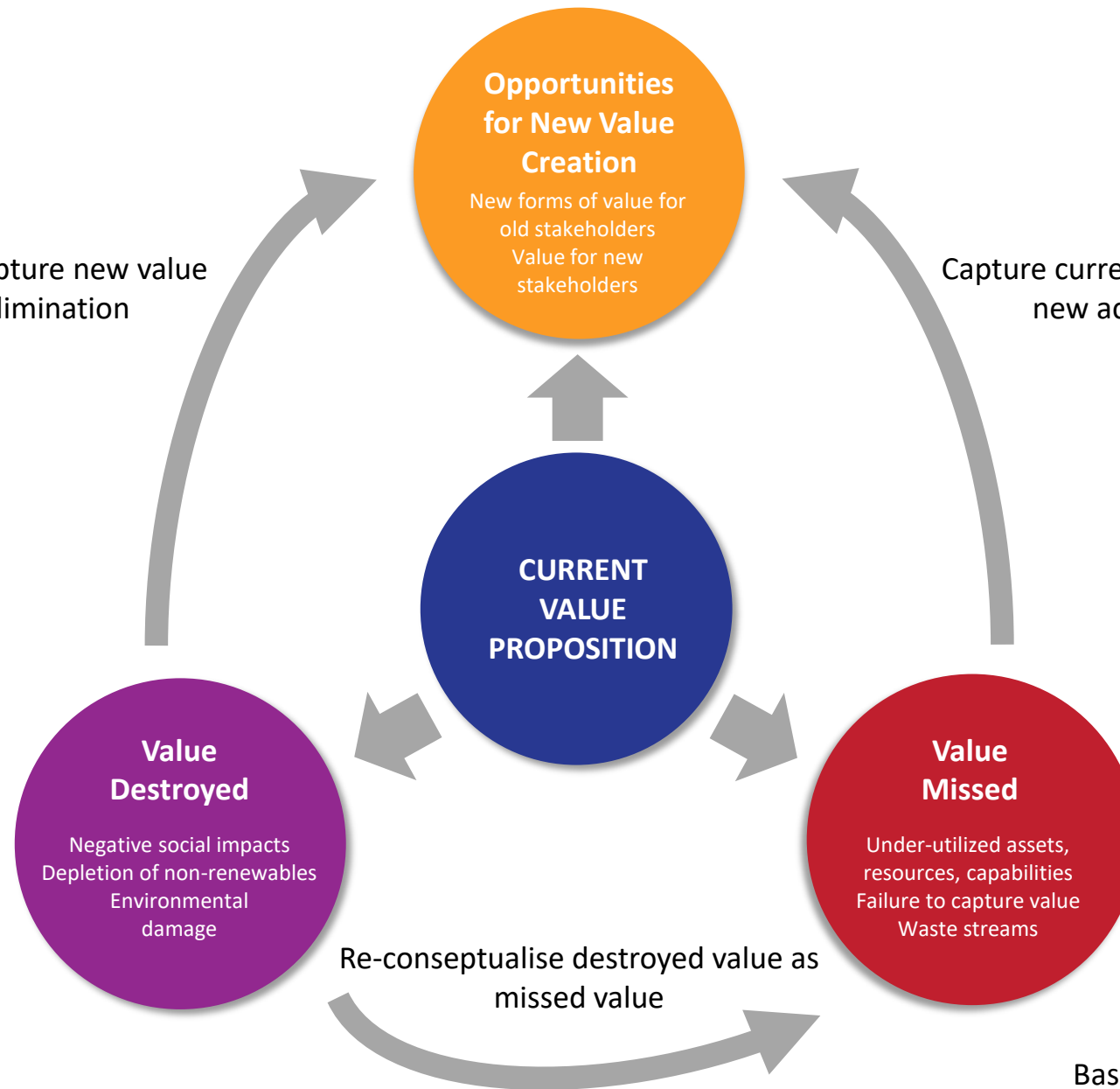
Adjusted from [Ardichivili et al., 2003](#)



Co-funded by the  
Erasmus+ Programme  
of the European Union



Generate solutions that capture new value through the reduction or elimination of destroyed value



Capture currently missed value through new activities, relationships, and network reconfiguration

Re-conceptualise destroyed value as missed value

Based on Bocken et al., 2013

# Sustainable value creation and related networks

## 1. Network actors

firm, investors suppliers, partners, distribution channels, media, academia, other participants

## 2. Other stakeholders

customers, environment and society



# Value creation capability

Tangible assets (resources)

Intangible assets (resources)

Capabilities and core competences

Digital resources

Users and customers

Networks

# Network examples for innovation

- idea networks
- corporate venturing networks
- lead user groups
- cross-industry alliances
- communities of practice
- supplier networks
- open invitation network

Birkinshaw et al., 2007

# Collaborative networks

- Keeping the network up-to-date and engaged
- Understanding your own position in the networks
- Building trust and reciprocity across the network
- Learning to let go

7

#### 4.4. SDG4BIZ M1 Collaboration for value creation, lecture script



## Video script

**Cover slide: Welcome to this short mini lecture regarding resources, networks and collaboration. The outline of our lecture is as follows:**

We discuss types of opportunities and opportunity recognition as a process. We focus on sustainable opportunities for shared value creation. We speak about network actors and other stakeholders as well as value creation capability. We refer to different types of networks for value creation which might inspire you to map out your own networks. All in all, we underline network-centric view in shared value creation and finally, we emphasize the collaborative networks.

### **Slide 2: Types of opportunities and development process**

It is suggested that business opportunity recognition is a process. Opportunities are identified and further developed. According to research opportunities may be distinguished based on their origin and degree of development. Market needs or, in other words, value sought may be identified (known) or unidentified (unknown). Defined value creation capability includes intellectual, human, financial and or physical resources. Networks are a resource but also enable to acquire other resources.

We may argue the developmental progress from situations in which both problem and solution are unknown (upper left corner in the figure), to situations in which either the problem or solution -but not both-is known (upper right, lower left corners), to the situation in which both problem and solution are known (lower right corner in the figure). Businesses formed in cells where either problem or solution or both are unknown would be less likely to succeed than those where both problem and solution are known.

If you consider your own venture or the company for which you work, where would you position yourselves in terms of sustainable business opportunity recognition? In other words, have you identified the problem and do have you defined the required resources?

### **Slide 3: Sustainable opportunities for value**

The value proposition of the network represents the benefits delivered to stakeholders. In the context of sustainability new value opportunities help expand the business into new markets and introduce new products and services that offer enhanced benefits to stakeholders. These benefits are not limited to customers but they might involve seeking to enhance employee wellbeing or making positive contributions to the environment.

- opportunities for new value creation can be
  1. new forms of value for old stakeholders
  2. value for new stakeholders
- opportunities for new value may emerge by
  1. generating solutions that capture new value through the reduction or elimination of destroyed value (such as negative social impacts or environmental damage)
  2. capturing currently missed value (such as under-utilized assets, resources, capabilities, or waste streams) through new activities, relationships, and network reconfiguration)

It may also be the case that new opportunities emerge when value destroyed is first re-conceptualized as missed value.

#### **Slide 4: Sustainable value creation and related networks**

A network-centric rather than firm-centric perspective encourages the optimization of value in a network (i.e. considering all actors involved in the design, production and distribution of a product or service). If we consider sustainable value creation and related networks, we consider following network actors: firm, investors, suppliers, partners, distribution channels, media, academia, other participants. It is also important to remember other stakeholders that receive impacts of a product or service such as customers, environment and society.

Creating new networks involves two distinct activities: finding the right prospective partners and forming relationships with those prospective partners. There are substantial barriers to each activity.

#### **Slide 5: Value creation capability**

As discussed earlier, value creation capability refers to various resources. A typical distinction is between tangible and intangible resources. However, value creation capability refers also to core competences, digital resources, users and customers and networks.

#### **Slide 6: Examples of networks for innovation**

Networks can be an important source of new insights, competencies, and relationships for the firm while changes are taking place in the industry. Networks may be business or social, local, international, horizontal, vertical, planned or serendipitous. Networks enable, for example, the following

- access to new networks, financing, markets
- access to information and knowledge
- access to contacts, referrals, distribution channels
- exchange resources with difficult-to-measure value such as tacit knowledge and know-how
- learning through networks
- reduce uncertainty

The network activities are not limited to maintaining existing relationships. Researchers (Birkinshaw et al., 2007) have identified following types of networks for innovation:

**Idea networks** refer to a set of relationships with individuals and organizations to solve technical problems or to brainstorm new ideas.

**Corporate venturing networks** mean relationships with hundreds of prospective new ventures to develop new technologies and make selective investments.

**Lead user groups** are customers who help the firm to experiment and try out new product ideas.

**Cross-industry alliances** refer to relationships with actors in a particular industry which enables to achieve something that the firm could not achieve on their own.

**Communities of practice** are engaged in experience and idea sharing around shared knowledge fields, in particular across organizations.

**Supplier networks** Networks of partners with a strategic goal.

**open innovation networks** are organized around a specific project or issue.

### Slide 7: Collaborative networks

When solving complex issues and finding solutions for them, it is extremely important to collaborate. It is not only about finding and forming networks but also performing. Following principles are essential in collaborative networks. First,

- Keeping the network up-to-date and engaged

This means tackling an immediate and pressing problem; and having immediate value

- Building trust and reciprocity across the network

Partnerships require trust and reciprocity to be effective, not selective information and attempts for control

- Understanding your own position in the networks

Especially large firms consider themselves as network orchestrators. However, networks and ecosystems cannot be controlled by any single player in them.

Finally, sometimes

- Learning to let go

meaning letting go of sometimes long-established links.

Later in this section you will also have a chance to get to know a tool called Co-Innovation Builder (CIB) particularly designed for fostering collaboration and co-innovation with network partners.

Thank you for your attention and good luck mapping your networks!

## 4.7. SDG4BIZ M1 barriers and drivers for SBMI tools





# Institutional, strategic and operational barriers for sustainable business model innovation (SBMI)

Institutional	Strategic	Operational
Focus on maximizing shareholder value	Functional strategy	Functional excellence
Uncertainty avoidance	Dominant focus on exploitation	Standard innovation process and procedure
Short-termism	Prioritizing short-term growth	Fixed resource planning and allocation
		Incentive system focused on short-term
		Financial performance metrics

Bocken & Geradts,  
2020

# Institutional, strategic and operational drivers for SBMI

Institutional	Strategic	Operational
Balancing shareholder and stakeholder value	Collaborative innovation	People capability development
Embracing ambiguity	Strategic focus on SBMI	Enabling innovation structure
Valuing business sustainability	Patiet investments	Ring-fenced resources for SBMI
		Incentive scheme for sustainability
		Performance metrics for sustainability

Bocken &  
Geradts, 2020

## 5.2 SDG4BIZ M1 Value opportunity recognition, lecture slides



# Business Modelling



***“A business model describes the rationale of how an organization creates, delivers, and captures value. ”***

Adapted from Osterwalder & Pigneur



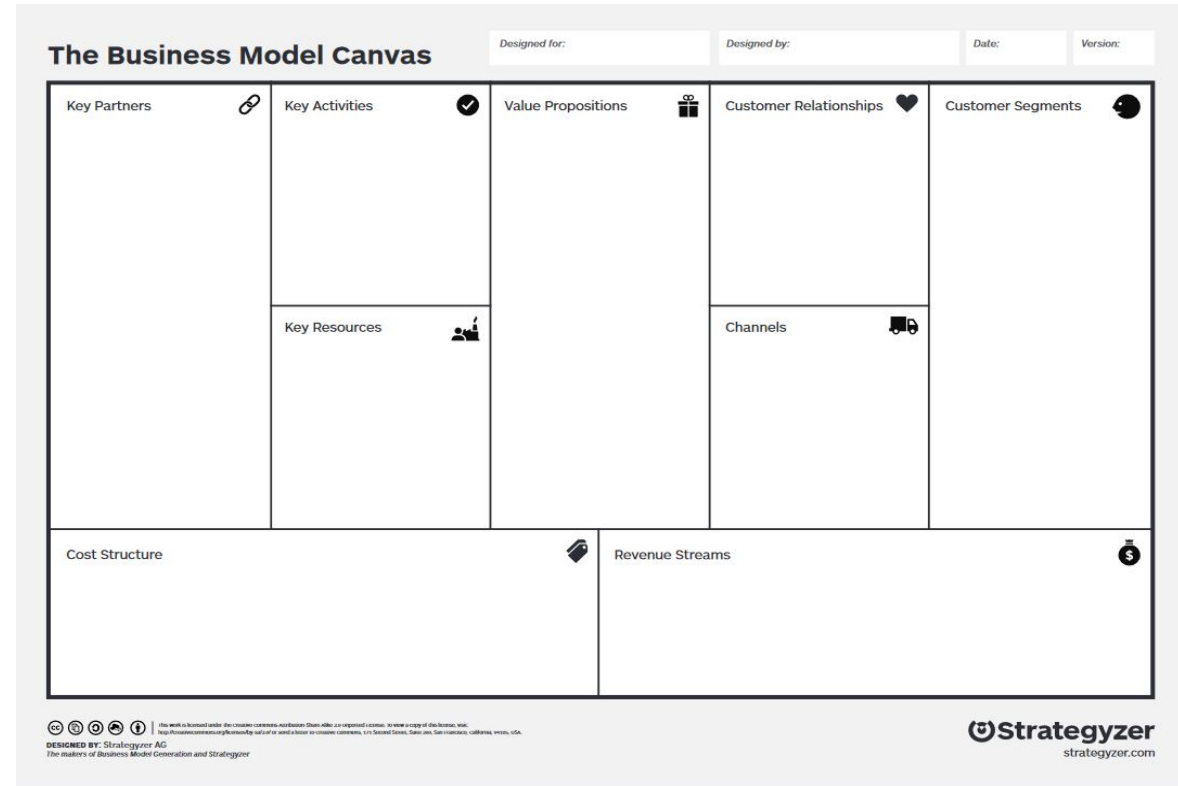


# LEARNING OBJECTIVES:



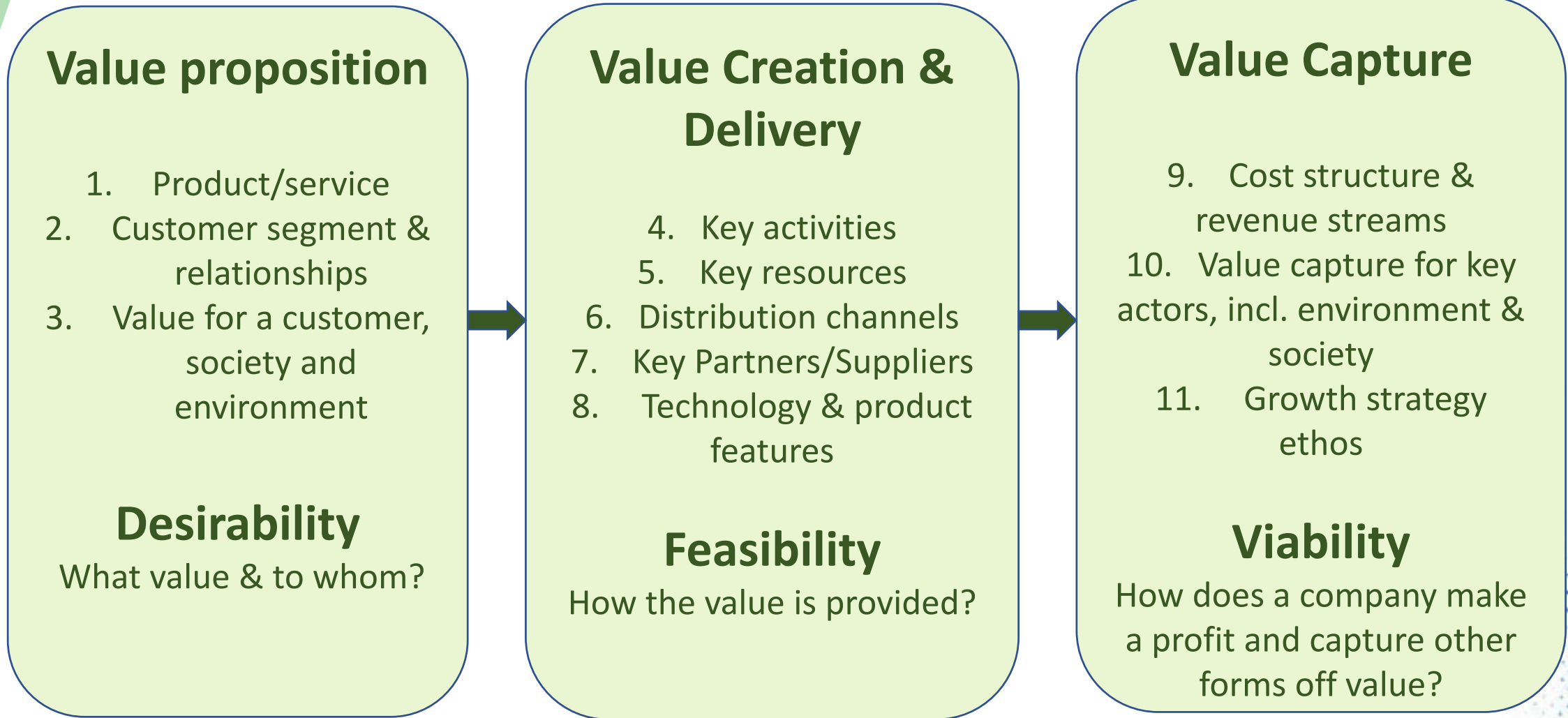
## Value opportunity recognition

- Create, Deliver and Capture Value
- Life-cycle thinking
- Multi-stakeholder approach
- Uncaptured value recognition
- Shared value proposition



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<https://www.strategyzer.com/library/5-tools-for-new-business-success>

# BUSINESS MODEL'S VALUE FRAMEWORK



Adapted from Aagard

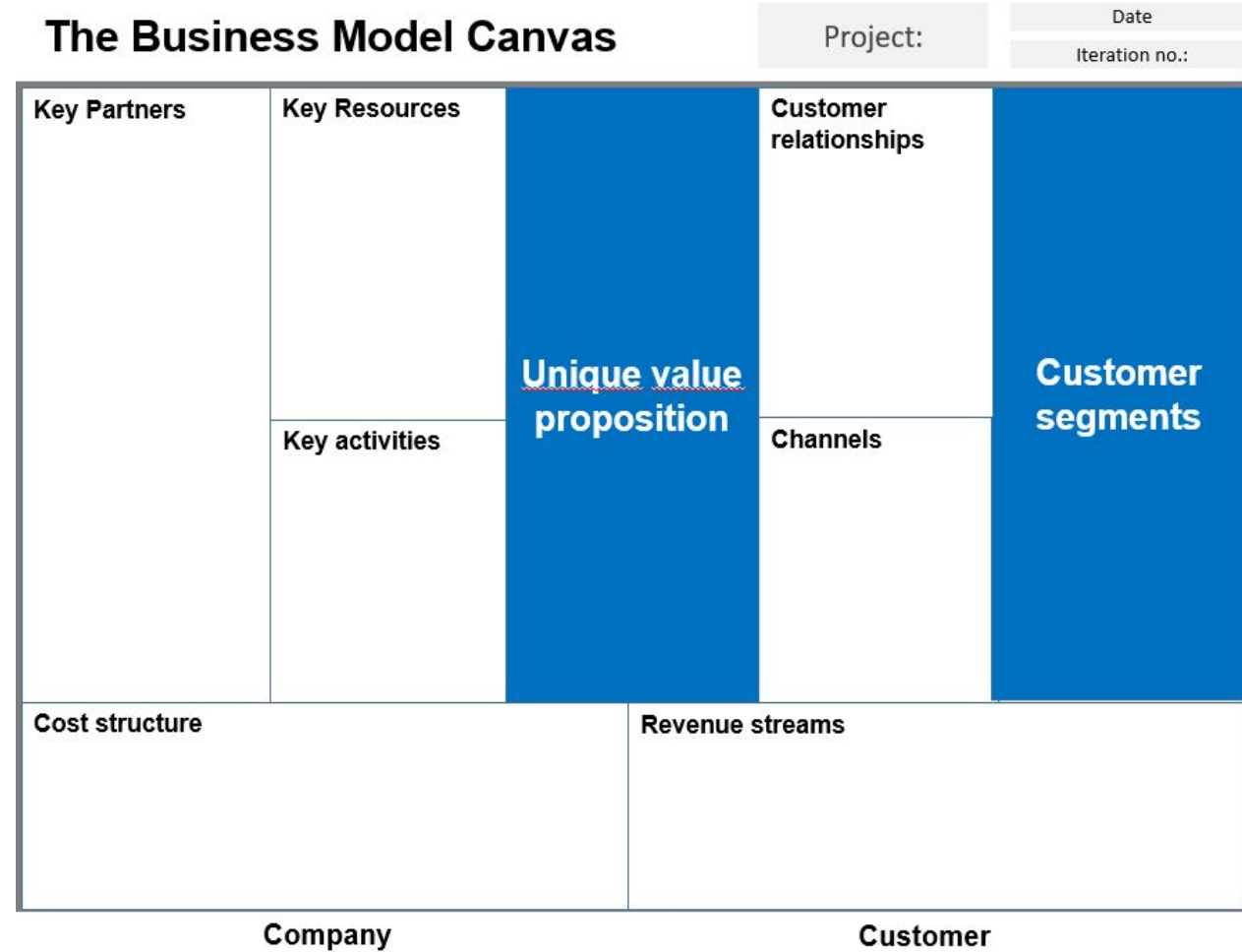
# CREATING VALUE



Is the Business Model

- Desirable?
- Unique?
- Valuable?

- to whom?



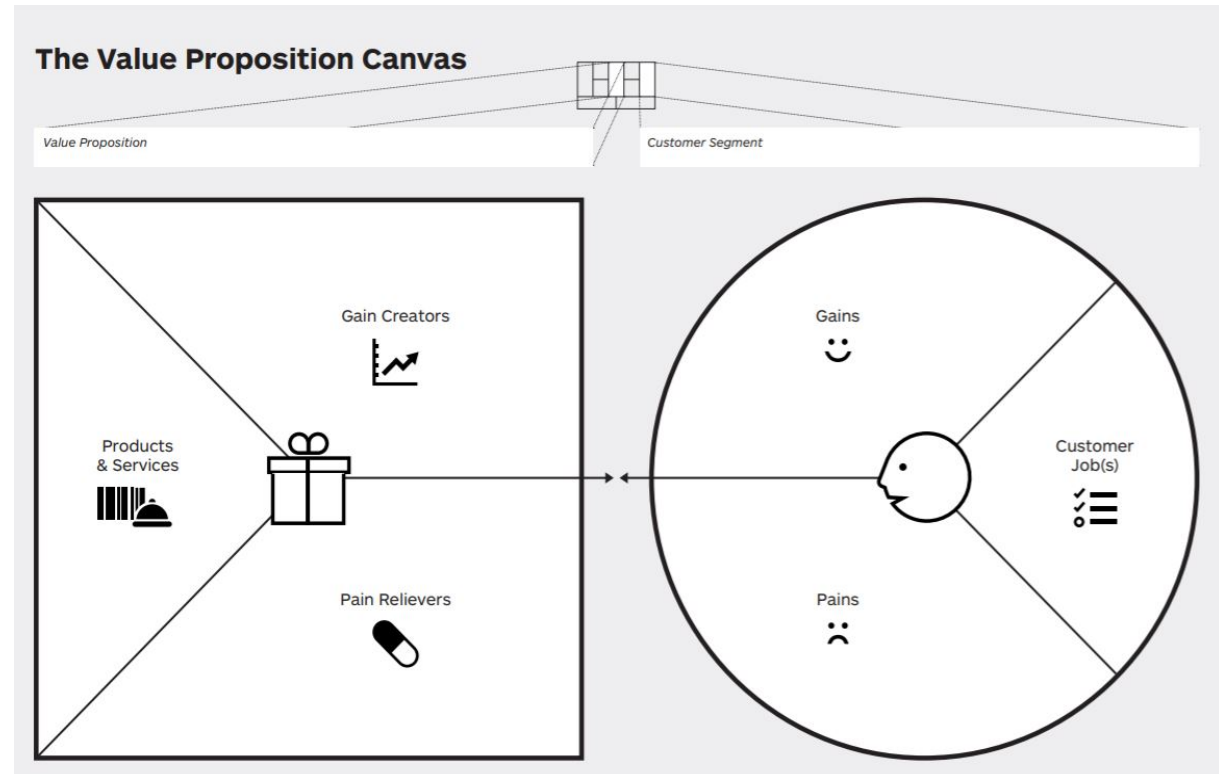
Adapted from Osterwalder's Strategyzer, original Designed by Business models Foundry CC BY-SA 1.0 Deed <https://www.strategyzer.com/library/5-tools-for-new-business-success>





# VALUE PROPOSITION

- For to **Identify** Customer's Jobs-to-be Done
  - **Pains** they face when trying to accomplish their Jobs-to-be-done
  - **Gains** they perceive by getting their jobs done.
- For to **Define** accurately
  - customer profiles
  - the most important elements of company's offering,
  - how to **Relieve** the **Pains** and how to **Create** the **Gains** for the customers.



Adapted from Osterwalder's Strategyzer Designed by Business models Foundry CC BY-SA 1.0 Deed <https://www.strategyzer.com/library/5-tools-for-new-business-success>



# CREATING & DELIVERING VALUE

Is the Business Model

- feasible?
- doable?
- sense making?



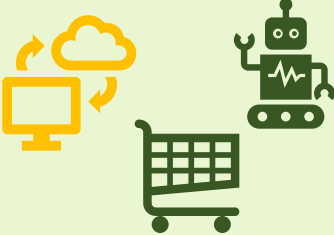
**Key Resources**



**Key Activities**



**Key Partners**



**Channels**



# CAPTURE VALUE

## REVENUE MODELS AND PRICING SCHEMES

Is the Business Model

- **viable?**
- **sustainable?**
- **profitable?**

<b>R</b> \ <b>P</b>	Fixed price	Channel dependent	Performance dependent	Time dependent	Channel dependent	Real time pricing
<b>Selling</b>						
<b>Licencing</b>						
<b>Subscription</b>						
<b>Freemium</b>						
<b>Advertising</b>						
<b>Leasing</b>						

Adapted from the UX Berlin Innovation Consulting

# LIFE-CYCLE THINKING



End of life  
(EOL)

Add picture e.g. "Figure 1: Mobile phone life cycle" from Technical Report Jensen et al. 2009, Life Cycle Management; How business uses it to decrease footprint, create opportunities and make value chains more sustainable

Beginning of  
life (BOL)

Middle of life  
(MOL)



# MULTI-STAKEHOLDER APPROACH



RECYCLED RAW MATERIALS  
& GRANULATES



**EXAMPLE:**  
Wear2wear  
circular ecosystem  
and industrial  
partnership for  
closing the  
textile loop

Adapted from Takacs, Stechow, Frankenberger, 2020

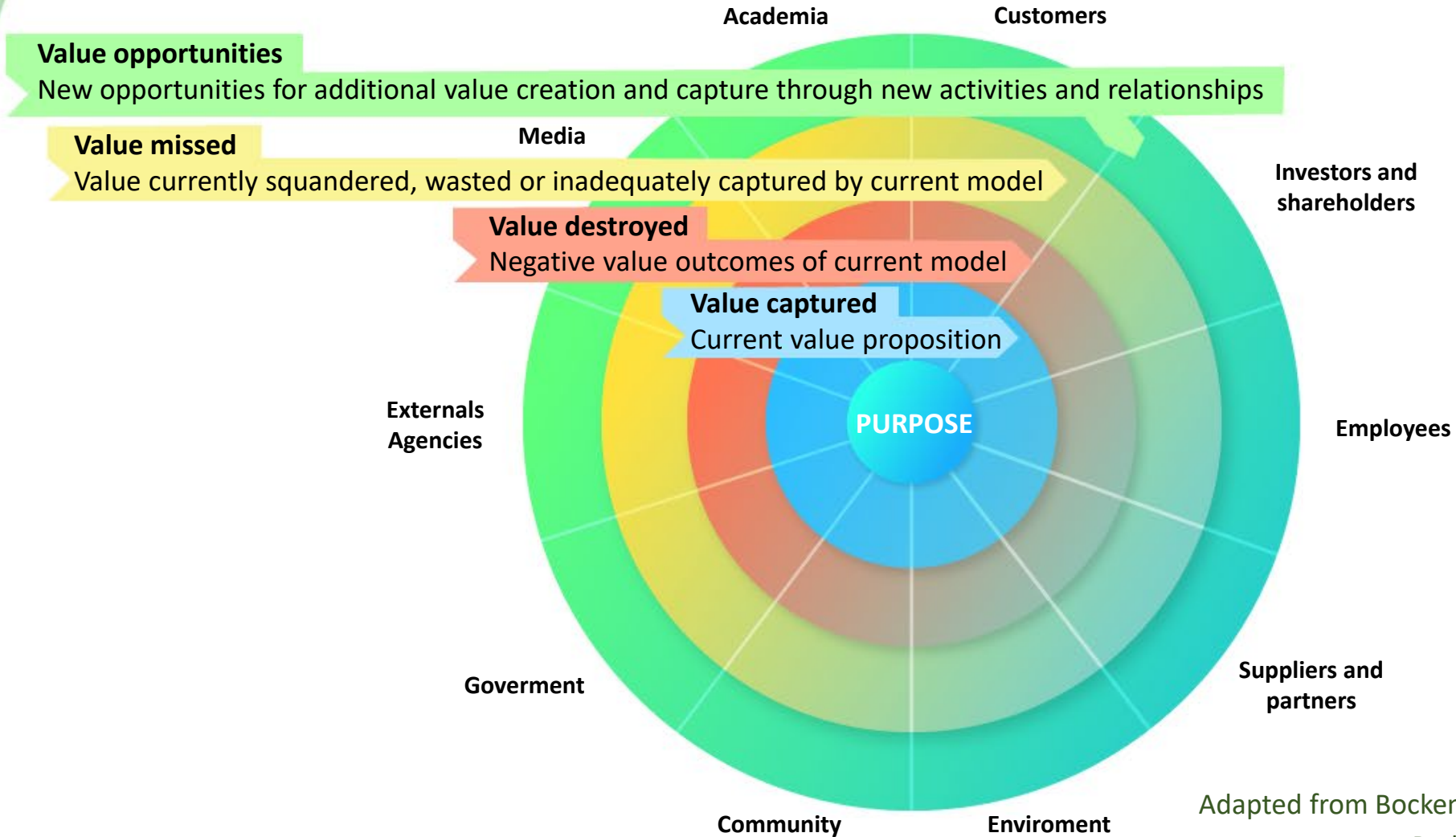


# UNCAPTURED VALUE RECOGNITION

	Definition	Examples
<b>Value Surplus</b>	<i>Created something, which is not required</i>	Waste heat Overproduction Repeated work
<b>Value Absence</b>	<i>Something, which is required, doesn't exist.</i>	Temporary lack of labor Lack of space
<b>Value Missed</b>	<i>Something exists, which is not exploited.</i>	Underutilization of by-products Inefficient use of HR
<b>Value Destroyed</b>	<i>Something exists, which ruins value.</i>	Health and safety problems Bad working conditions Pollution

Adapted from Yang, Vladimirova, 2017

# SHARED VALUE PROPOSITION



Adapted from Bocken, Short, Rana, Evans 2013  
Parket et al.

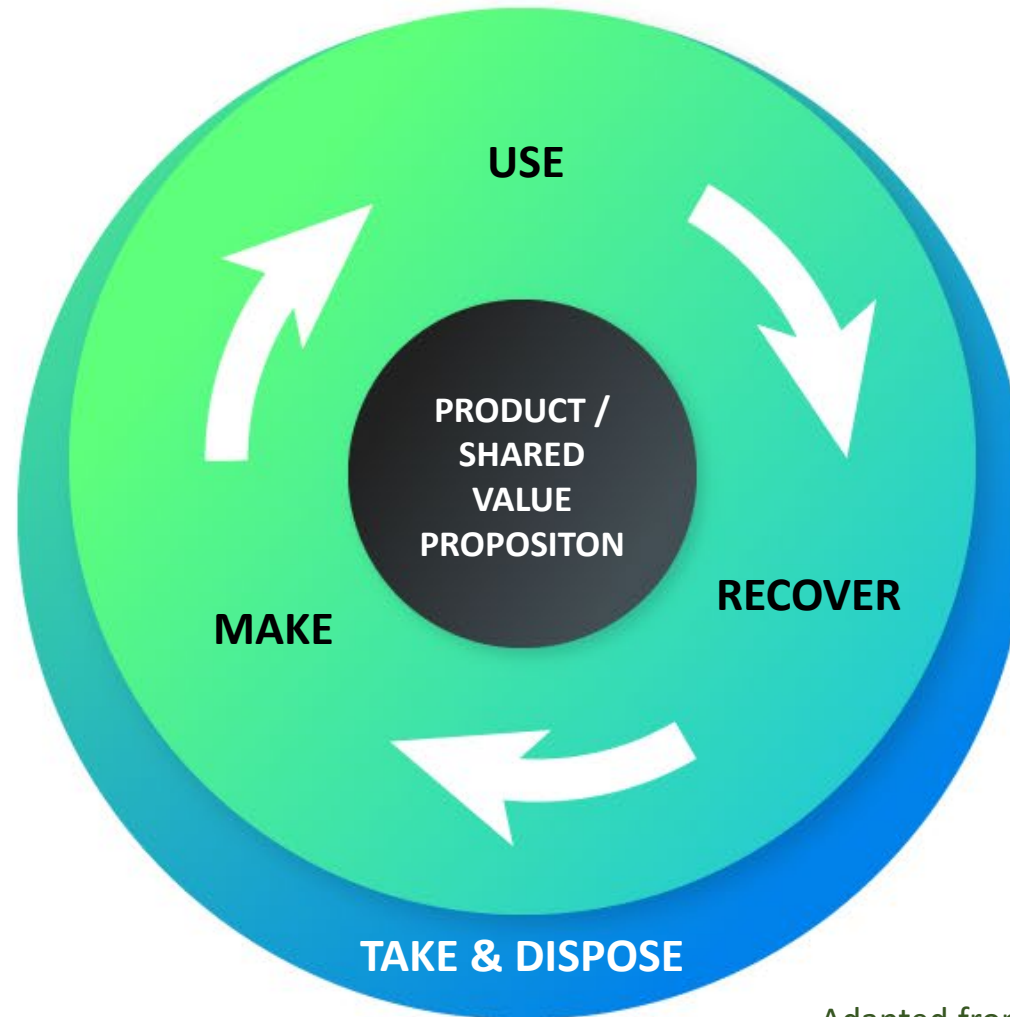


# EXAMPLE OF SHARED VALUE PROPOSITION



DESIGN

METRICS



PACKAGING & LOGISTICS

FINANCING

Adapted from Takacs, Stechow, Frankenberger, 2020



# KEY TAKEAWAYS OF THE VALUE OPPORTUNITY RECOGNITION

# Sources:

Aagard, A. Sustainable Business Models. Innovation, Implementation and Success. Palgrave MacMillan 2019.

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Strategyzer. Available: <https://www.strategyzer.com/canvas>

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UX Berlin Innovation Consulting: <https://www.uxberlin.com/values-based-and-sustainable-business-models-in-worms/>

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Available: <https://volans.com/project/breakthrough-cities-new/>

Wear2wear. Available: <https://www.wear2wear.org/en/>

Yang, M., Vladimirova, D., Evans, S. (2017). Creating and Capturing Value Through Sustainability, Research-Technology

Management, 60:3, 30-39 Available: <http://dx.doi.org/10.1080/08956308.2017.1301001>

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# Thank you for your time!



## 5.2. SDG4BIZ M1 Value opportunity recognition, lecture script



# Video script of the 1/3 Video lecture: Value opportunity recognition

## **Slide 1:**

Welcome to the business modelling section.

So, what is a business model?

A business model describes the rationale of how an organization creates, delivers and captures value.

## **Slide 2:**

Let's start your learning journey from the value opportunity recognition.

## **Slide 3:**

Here are the learning objectives of the value opportunity recognition.

First, we will cover the topics of value creation, value delivery and capture value.

They will be followed by lifecycle thinking, multi-stakeholder approach, uncaptured value recognition and shared value proposition.

## **Slide 4:**

Here we have a business model's value framework.

Including three elements, value proposition, value creation and delivery, and value capture.

The value proposition is answering on the question of desirability.

Meaning what value and to whom we are offering.

Second, the question of feasibility is about how the value is provided and last the question of viability is about how does a company make a profit and capture other forms of value.

Please pay attention here that for example, the customer relationship is presented here as a part of the value proposition.

It could be presented also as a part of the value creation and delivery, meaning it's typical for a business model that there is some overlapping between the value proposition and value creation plus delivery.

As an example, customer relationships could also be a key activity of a company.

## **Slide 5:**

Let's have a look at the creating value.

So, here we have the traditional business model canvas created by Axel Österwalder and Yves Pigneur.

We can see that the value proposition is a sort of glue between the customers and the company.

It answers the questions:

Is the business model desirable?

Is it unique and is it valuable?

And to whom?

**Slide 6:**

Österwalder's Business Model Canvas and its value proposition was further developed towards a more in-depth analysis of customers' jobs to be done and related pains and gains for the same job to be done, which could be also called customers' problems to be solved.

This visually very strong and transparent approach should help companies to connect the dots between the customers' pains and equivalent pain relievers.

The same with the customers gains and gain creators.

This approach provides a systematic and transparent way to both recognize and communicate, what's the core of the value proposition.

Meaning what kind of solution and offering should have a perfect match and fit with the customers' jobs to be done.

**Slide 7:**

Next, we are covering the creating and delivering value.

It's about a feasibility of the business model and it's about asking questions:

What is the operating model and how does it work?

The feasibility is also very much about the importance of looking at the business model from a systemic-holistic point of view.

Obviously, the value proposition and customer segments and other additional elements of sustainable-business models belong to that system.

Creating and delivering value includes topics such as key resources, key activities, key partners and channels.

Here, it's important to perceive what are the interdependencies between different components of the canvas.

As an example, how our decision for making something by ourselves versus outsourcing affects our cost structure, which will affect our revenue model, pricing, etc.

This all means that every element or component of the canvas is one way or another affecting the entire business model.

This is one of the most important learning of the business modelling.

**Slide 8:**

Here we have the third element of the business model – capture value.

Regarding the viability, this kind of matrix demonstrates a potential and variety of different options companies can have for the value capture.

Product service systems (PSS) have affected that development already long time ago, meaning including both transaction and value in use revenue streams.

Some of the more successful platform business models of the world, Google, Facebook remind us about the importance of seeing the value capture also from a systemic point of view.

Value capture benefits from innovative revenue models.

**Slide 9:**

What does the lifecycle thinking mean?

It is about considering economic, environmental, and social impacts of a product throughout the whole lifecycle.

Starting from the design and manufacturing, continuing its life in use, and ending to its recycling, reuse, remanufacturing, and disposal.

The beginning of life covers activities such as R&D, design, procurement, part production and assembly.

The middle of life deals with distribution, use, maintenance, after sales, insurances, services and repair.

The end of life may include collection, disassembly, remanufacturing, recycling, and disposal.

Lifecycle thinking may help companies to discover sustainability focused value opportunities throughout the product lifecycle and perhaps to identify new business models to maximize value and minimize environmental and social impacts.

**Slide 10:**

Multi-stakeholder approach belongs to the core of sustainability and business models.

Business models are created at multiple different levels.

Individual products and services and organizations, including public and nonprofit ones.

An ecosystem platform may include several stakeholders, such as enterprises, authorities, government organizations plus citizens.

This Wear2wear ecosystem was initiated and orchestrated by two companies originally, and eventually it included approximately 12 companies.

**Slide 11:**

The concept of uncaptured value includes value opportunities which are not yet captured with an existing business model.

It offers a wide range of opportunities for organizations to engage the whole personnel to develop more sustainable businesses.



It challenges organizations with questions:

How to leverage dynamic capabilities of an entire organization to sense uncaptured value opportunities?

How to seize the recognized value opportunities and how to maybe transform an entire organization towards a more sustainable direction.

Uncaptured Value could mean Value Surplus, such as waste heat, overproduction.

Or it could mean Value Absence, including a temporary lack of labor.

Value Missed could mean an under-utilization of by-products or Value Destroyed, such as health and safety problems and pollution.

**Slide 12:**

Shared value proposition is a typical feature of a sustainable business model.

As an example, platform Business model represents win-win value opportunities for its multiple members.

What does it mean?

Basically, a platform connects different stakeholders, producers, consumers, suppliers, authorities, service providers, etc. and allows them to exchange value.

The connections can be direct connections between users, social networks as an example, or they establish other mechanisms for a value exchange.

Interactions on a platform business model mean any economic or social exchange - either through a physical or in the virtual world of Internet.

In each value exchange a producer and consumer exchange three things - information, goods and services, and some form of currency.

**Slide 13:**

Here is an example of the shared value proposition, which is related to the earlier example of the Wear2wear textile ecosystem.

This is a circular business model where each member makes an individual contribution to the closed textile loop.

The shared value proposition consists of designers, producers, manufacturers who are making the product.

Next, there are customers using the product.

And then there are those who take care of the recovery of the textile products, including washing, cleaning, dismantling and upcycling.

Unfortunately, the textile material cycles typically cannot be totally closed because of deteriorated materials during production, usage and reprocessing.

In any case, product reuse is preferred over part reuse, which is preferred over recycling but still better than combustion. These principles are in accordance with the EU waste hierarchy logic (reduce, reuse, recycle, recover and dispose).

**Slide 14:**

The key takeaways of the value opportunity recognition can be summarized as follows.

The business model consists of three interdependent elements.

Value creation, which is about desirability of the business model. Delivering value, meaning feasibility of the business model and last, but certainly not the least, capture value, which is linked to the viability of the business model.

In addition, learners should remember that sustainable business models often require a multi-stakeholder approach, which is embedded to the lifecycle thinking. It means that physical products should be seen from a loop point of view, typical for the circular economy. The material loop is built by multiple stakeholders, who take care of making, using, recovering, taking back and disposing.

Furthermore, learners have hopefully realized some potential with the concept of uncaptured value, which provides a wide spectrum of opportunities for the whole personnel to sense and seize business opportunities. It is an empowering value recognition opportunity for the whole personnel - from the operative level processes to the executive level strategies.

And finally, the meaning of a shared value proposition, which is typical for sustainable business models attracting multiple stakeholders to share the recognized value opportunities.

**Slide 17:**

This is the end of the first video lecture of value opportunity recognition.

Please follow the instructions on your learning platform. Continue your learning journey with the Learning diary reflection. Perhaps you have recognized some indicative value opportunities, which are related to your own work, your team, your unit or the whole organization.

Please get acquainted with the additional audiovisual learning material on the learning platform.

The next video lecture will be about sustainable business model innovation.

Thank you for your time!

# Video script of the 2/3 Video lecture: Sustainable Business Model

## Innovation (SBMI)

### **Slide 1:**

Welcome to the second lecture of the business modelling.

### **Slide 2:**

In this video lecture you will learn more about Sustainable Business Model Innovation (SBMI).

### **Slide 3:**

Here are the learning objectives of the Sustainable Business Model Innovation.

### **Slide 4:**

The innovation of sustainable business models addressing typically wicked problems requires something else than the conventional business models, which are formed around organization centric logics.

They don't necessarily incorporate all the costs such as externalities, either short- or long-term costs.

This forms the steppingstone for a systemic arrangement, where prices are kept artificially low for the sake of monetary economic growth.

### **Slide 5:**

Here are some of the principles of value creation for sustainable and circular economy business models.

The first one is about life-span extension, meaning re-using material as efficiently and as long as possible.

The second principle of servitization means services as functionalities are replacing products.

The third principle assumes that components of a product or substances comprising materials may be disassembled or debonded again and with ease they can be used as part of a material or part of a product.

### **Slide 6:**

Here we have some of the common challenges of sustainable business model innovation.

In the center we have the triple bottom line challenge, meaning, how to co-create profits, while being socially and environmentally friendly at the same time. It is quite challenging when moving towards sustainable business models.

Starting from the mindset, meaning business rules, guidelines, behavioral norms, and performance metrics prevailing in the mindsets of companies and inhibiting the introduction of new business models.

Resource reluctancies mean how to allocate resources to business model innovation and reconfigure resources and processes for new business models.

On the other hand, technology innovation integration can be quite difficult.

For example, clean technology with business model innovation is a multidimensional and rather complex process.

External relationships mean how to engage in extensive interaction with external stakeholders and business environment. It requires an extra effort.

Last, business modeling methods and tools.

This area has been improving quite a bit during recent years, for example, including tools such as business model canvases, value analysis tools, etc.

### **Slide 7:**

We can approach the sustainable business model innovation by monitoring three layers or dimensions of so-called value-based innovation.

First, we have the normative layer, which is very important for the sustainable business model, because it forms a company's identity – its purpose, meaning why does it exist, plus its vision, meaning what does it want to be in future.

Safety is very typical for Volvo, or serving humanity for the Arawind, the eye care company.

Second, the strategic dimension, or layer, is traditionally related to the business model innovation. On this layer the three components of creating, delivering and capturing value define the whole operating model.

Product service systems (PSS) and innovative revenue models are examples of radical or complementary business model innovations.

The third and certainly not least important element of the sustainable business model innovation, is the instrumental layer. We could call it also operative layer, which is related to the process, product and service innovations.

Volvo's safety cage as an example, or Tata Motor's Lean product design, radical efficiency and cost reduction.

New process innovations are typical outcomes of recognized uncaptured values.

Snow melts first on the edges - at the periphery, meaning the voice of the service or maintenance people visiting customer plants should be heard!

Innovation management systems and processes should be easily accessible for the whole organization!

### **Slide 8:**

Similar with the conventional business model innovation, four different types of sustainable business model innovations can be named.

The first one is about a sustainable startup, meaning a new company is created with a new sustainable business model.

The second type is about sustainable business model transformation, meaning an existing business model is modified, resulting in a new and more sustainable business model.

The third one is about diversification, meaning without a major modification of an existing business model, an additional sustainable business model is formed and the fourth one, which is about an acquisition, including to identify, acquire and integrate a company with an existing organization.

**Slide 9:**

This figure demonstrates a path towards a sustainable business model.

Starting from the left-hand side and moving towards the sustainable business model – what does it require?

First, it requires sustainable value, proactive multi-stakeholder approach and long-term perspective.

These are all the ingredients for solutions of sustainability.

When we are moving to the right-hand side towards the circular business model, topics such as closing resource loop, slowing resource loops, narrowing resource loops, dematerializing resource loops and intensifying resource loops are all the ingredients for solutions of the circular economy.

**Slide 10:**

One of the main goals of business opportunity recognition based on the SDGs is to trigger learners' call-to-action!

Here we have a couple of business development methodologies, which represent practical call-to-action approaches to innovation.

On the left-hand side we can see the Lean Startup methodology, which has become popular also among big companies. The famous General Motors-Toyota joint venture case called NUMMI still makes sense, meaning act your way towards a new way of thinking than vice versa. The Lean Startup has a low barrier of entry to start building something, which is followed by continuous measuring and learning.

On the right-hand side we can see the process and form of Design Thinking, which is another practical business development framework. Starting by empathizing to gain deeper understanding of customers' and other stakeholders' problems, continuing with ideating, rapid prototyping and testing.

These methodologies rely on rapid building of something. They also follow an iterative process and maximizing learning is their motto.

**Slide 11:**

Here's a practical and systematically presented example of a sustainable business model innovation process in action by the University of St. Gallen

It is about a circular economy business modelling process, which starts from the Impulse, meaning basically capturing a need for a change which could be related to changing customer behavior, legislation and strengthening trends.

The Impulse is followed by the Identify, including assessing the environmental and social impact of the current business model and the entire value chain or network.

If the first and second steps can be still happening inside the company, the third step of Ideating requires the company to go out of the building to its outer circle, meaning it is about co-creating ideas for a circular economy that go beyond its current solutions.

In ideal circumstances the leading company is doing this step together with potential partner companies, which may in this way lead to a higher level of innovation?

The fourth step of the process means Integration. This step covers design of the circular ecosystem by consolidating the general ideas into a circular logic.

The earlier mentioned circular canvas of the first video lecture should enable a structure and means to work with this kind of systemic perspective.

The fifth step of Imagine emphasizes the need of both defining and communicating a common and compelling vision, which addresses the purpose of the change for the entire ecosystem. Why do we need this model - what is the relevance and the value promise to all members of the new business model?

Ray Anderson, the founder of Interface and his famous “Mission Zero” represents an inspiring example.

The sixth step, which has a particular importance for the success of the circular solution, requires approaching of ideal partners and to Incorporate them into the circular business ecosystem.

And finally, the most important step anyway is the implementation of the ecosystem, which takes place at an individual business model level, meaning the company must come back to its inner circle once again.

This step may utilize the earlier mentioned call-to-action methodologies and practices, such as the Lean Startup.

**Slide 12:**

Here we have so-called generic sustainable business models, which are divided into technological, social and organizational categories including a couple of examples of each. If you want to learn more about these and have even a broader perspective of the sustainable business model archetypes, please get acquainted with the “A literature and practice review to develop sustainable business model Archetypes” from the Sources.

**Slide 13:**

Referring to the business model’s value framework in the previous video lecture “Value opportunity recognition”, here we can see an application of the sustainable business model archetype representing how to maximize material productivity and material efficiency.

In this example, the more sustainable value proposition is based on products or services, which use less resources and generate less waste and pollution.

On the other hand, the value creation and delivery are based on networking and collaboration with external stakeholders aiming at improving efficiencies and for example reducing supply chain emissions. The value capture includes more attractive and competitive pricing through the material optimization, which is leading eventually to increased profits.

**Slide 14:**

The next three slides cover so-called Breakthrough business models by Volans.

The first one is about an Integrated business model.

Here we have a company called Provenance, which is a for-profit social enterprise.

They offer full transparency in food and product supply chain.

They are using blockchain technology, a global peer-to-peer network to provide an open-source platform delivering neutrality, reliability and security.

By leveraging customer data, the business model is based on subscriptions from users.

They benefit from getting a digital passport to authenticate their information, and by this they are also avoiding fake claims.

**Slide 15:**

Breakthrough business models are also lean, meaning they are optimizing use of all forms of capital from physical and financial through human, intellectual to social and natural.

Here we have an example of DoctHERs connecting female doctors with patients by converting existing community spaces into walk-in clinics.

As part of a shift from physical to virtual, patients are remotely diagnosed by doctors using a telemedicine system alongside operated by the nurses.

**Slide 16:**

Here we have the third example of the Breakthrough business models representing the social aspects.

It's the company called Tiffinday, where single immigrant mothers of the Toronto area are producing and delivering artisan quality vegan stews, hot lunches in reusable metal containers which are collected next day.

Their customers are typically office workers, young men in the area of the downtown Toronto.

Please get acquainted with the attached videos. The first one represents conventional aspects of the case and the second one the sustainable aspects.

**Slide 17:**

Key takeaways of the Sustainable Business Model Innovation emphasize call-to-action practices and approach.

Starting from an Impulse, perceiving the process of sustainable business model innovation is very important. Going out of the building is a must thing to do, meaning Ideation through co-creation, Integration, Imagining and Incorporation require companies to move also to their outer circle.

The final implementation utilizes methodologies such as Lean Startup and Design Thinking, testing and validation of minimum viable products – the MVPs.

These all form a coherent systemic approach, which is an important requirement for building a successful new sustainable business model.

**Slide 20:**

Thank you for your time learning Sustainable Business Model Innovation – the SBMI.

Remember to write down your first-hand thoughts and ideas in the Learning diary.

Your learning journey of the Business modelling will continue with Business modelling tools.

That will be your third and the last video lecture of the Business modelling section.



## 5.4 SDG4BIZ M1 Sustainable Business Model Innovation (SBMI), lecture slides



# Business Modelling



***“A business model describes the rationale of how an organization creates, delivers, and captures value. ”***

Adapted from Osterwalder & Pigneur



# Sustainable Business Model Innovation (SBMI)



# LEARNING OBJECTIVES:



## Sustainable Business Model Innovation (SBMI)

- Preconditions for the SBMI
- Principles of value creation
- Challenges of Sustainable Model Innovation
- Identifying value opportunities for SBMs
- Instrumental and strategic innovation
- Different types of SBMIs
- Path towards Sustainable Business Models
- Call-to-Action practices
- SBM archetypes and cases

# Preconditions for the SBMI



**From a single to multiple value creation logic**

**From an organization-centric supply-chain approach to organizing value cycles**

**From a single-actor (clients) to addressing the plural needs of multiple actors (community)**

Jonker, Faber in Aagard et al. 2019

# PRINCIPLES OF VALUE CREATION FOR SUSTAINABLE/CE BUSINESS MODELS



**1) Lifespan extension**

**2) Servitization**

**3) Decomposition/  
Debonding**

Jonker, Faber in Aagard et al. 2019



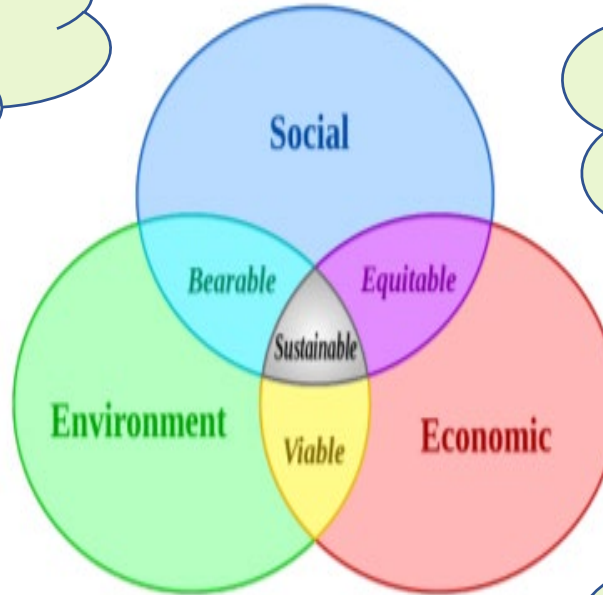
# CHALLENGES OF SUSTAINABLE BUSINESS MODEL INNOVATION



Resource  
reluctance

Technology  
innovation  
integration

Mindset



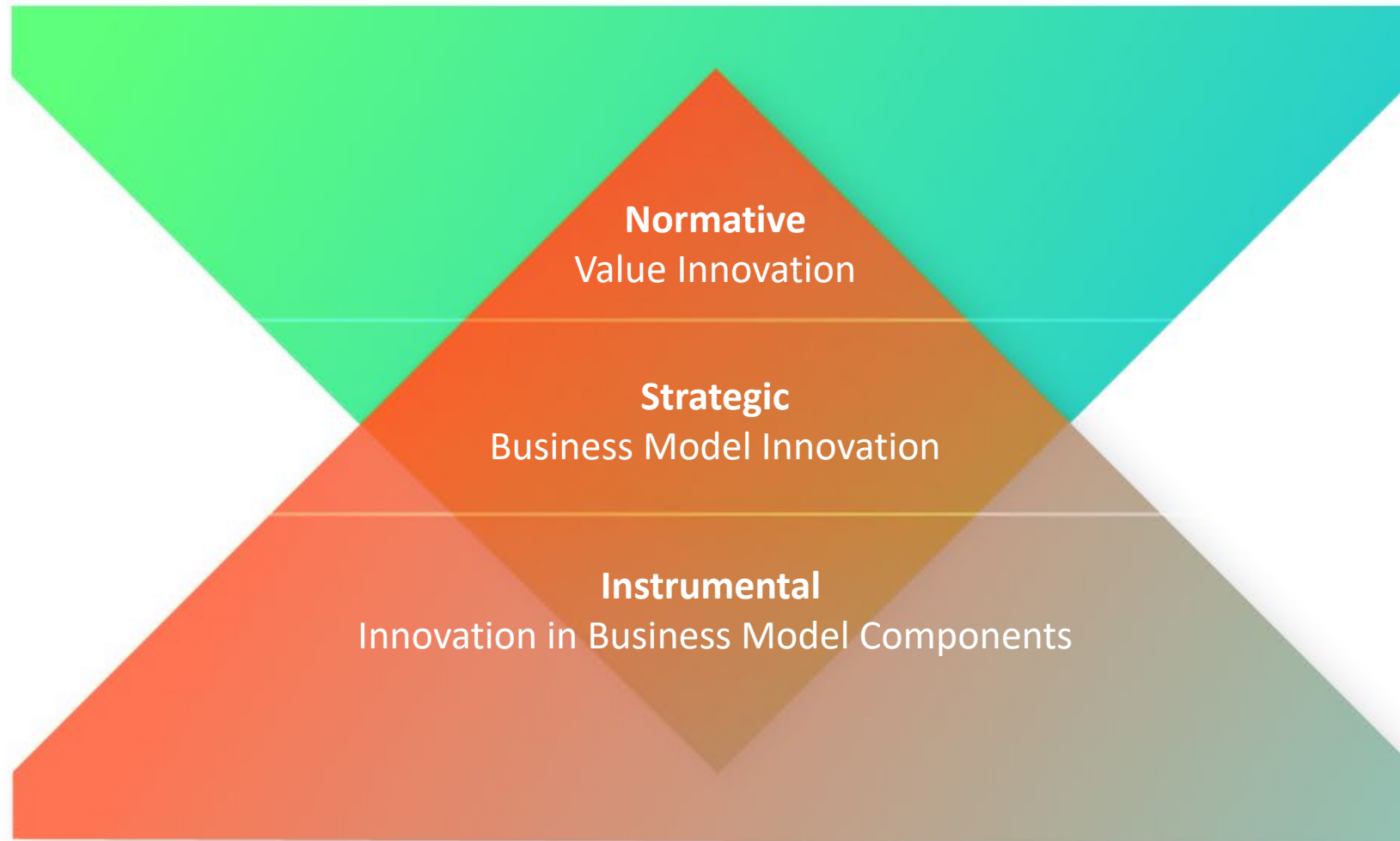
Business  
Modelling  
methods and  
tools

External  
relationships

CC BY-NC

Adapted from Evans et al. 2017

# THREE LEVELS OF VALUE INNOVATION

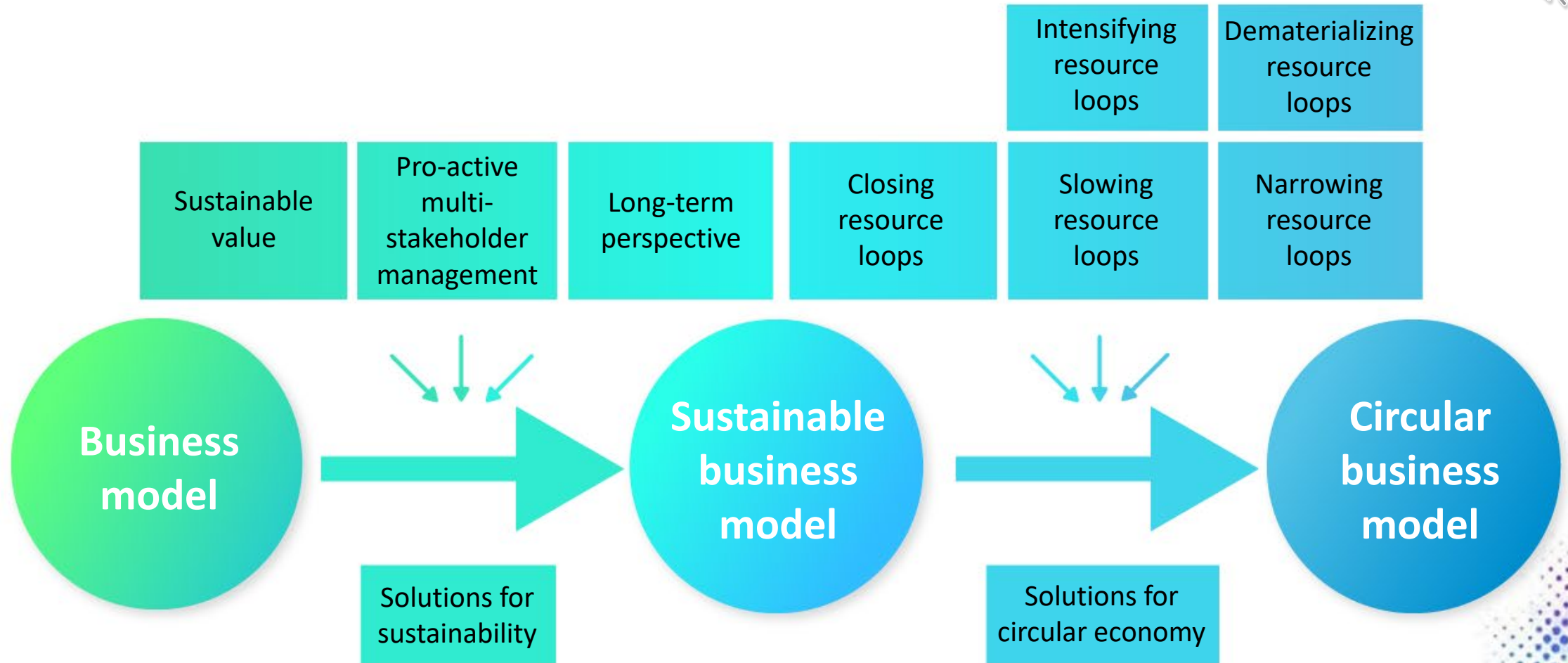


Three levels of innovation, internally (red) and externally (green) driven

Adapted from Breuer, Lüdeke-Freund, 2017



# PATH TOWARD SUSTAINABLE BUSINESS MODELS



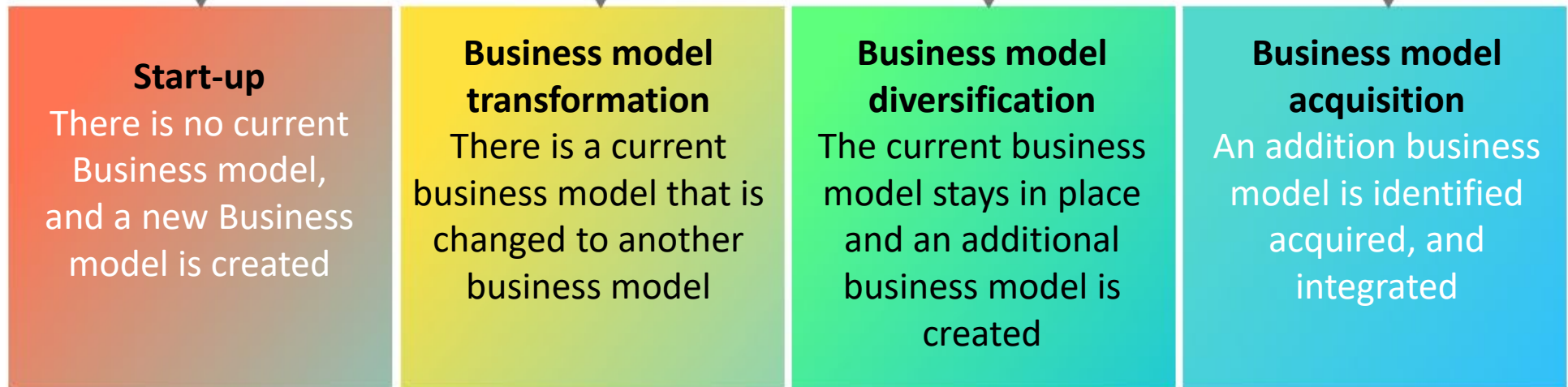
Sustainable and circular business models

Adapted from Geissdoerfer, Vladimirova, Evans, 2018



# BUSINESS MODEL INNOVATION

## TYPES OF SBMI

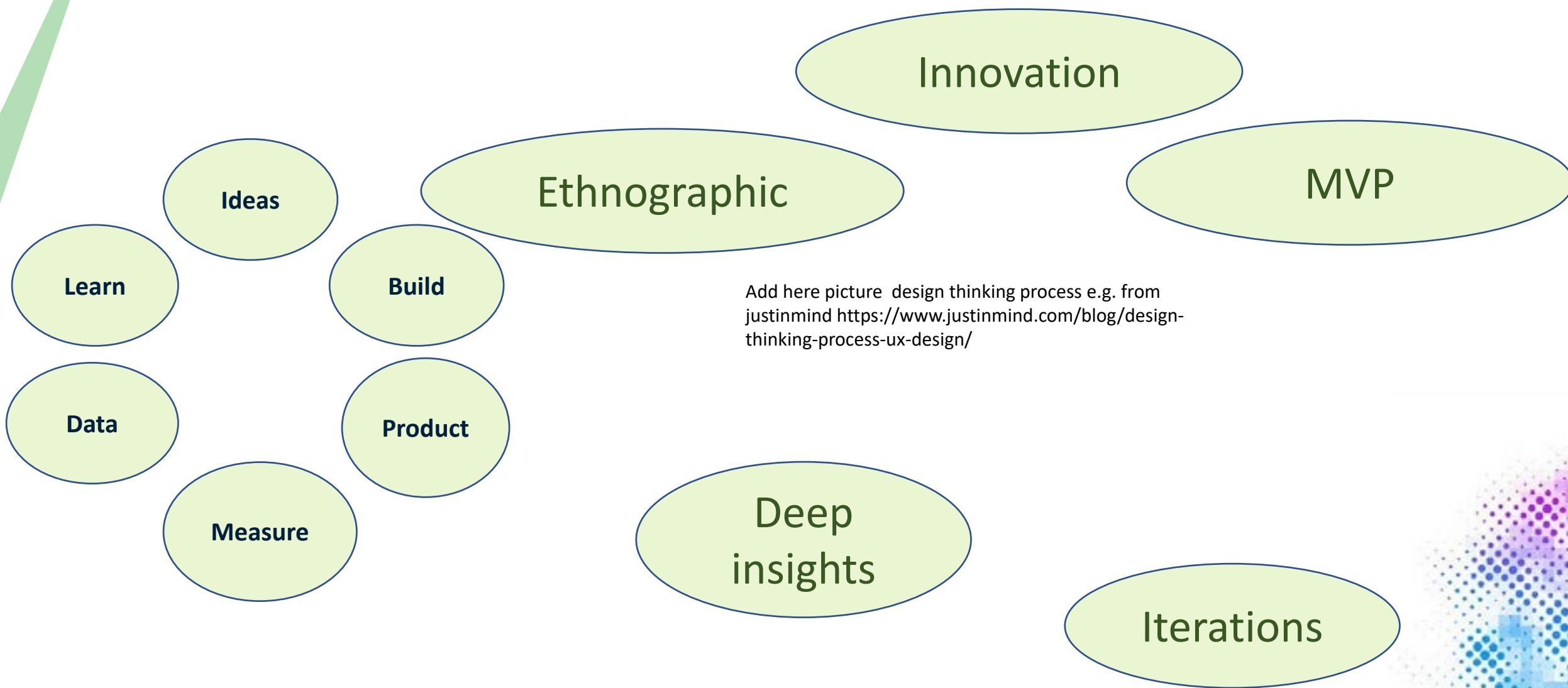


Types of Business Model Innovation

Adapted from Geissdoerfer, Vladimirova, Evans, 2018



# CALL-TO-ACTION PRACTICES OF SBMI



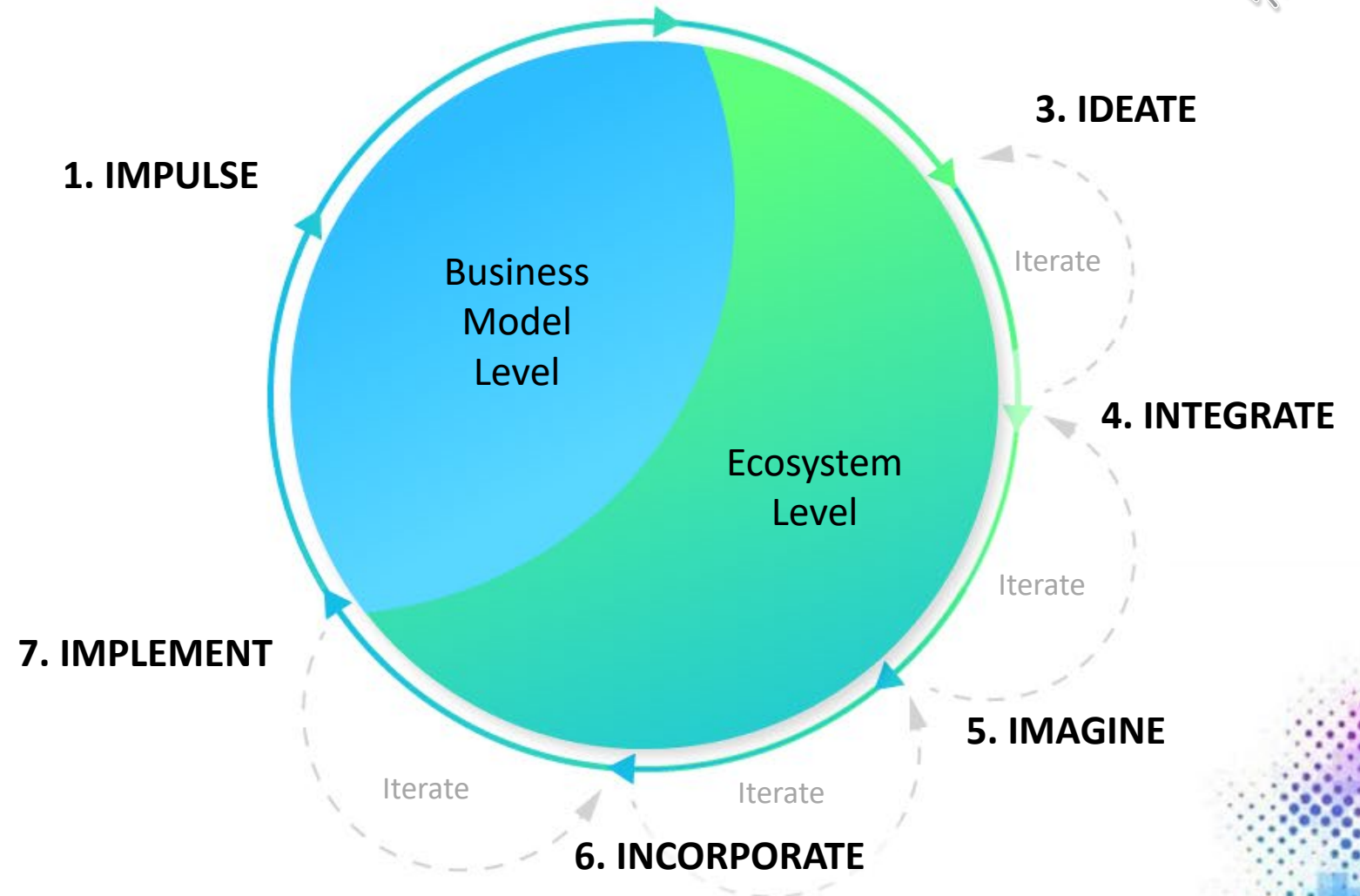
Add here picture design thinking process e.g. from justinmind <https://www.justinmind.com/blog/design-thinking-process-ux-design/>

# 7 STEPS OF THE CIRCULAR NAVIGATOR

2. IDENTIFY

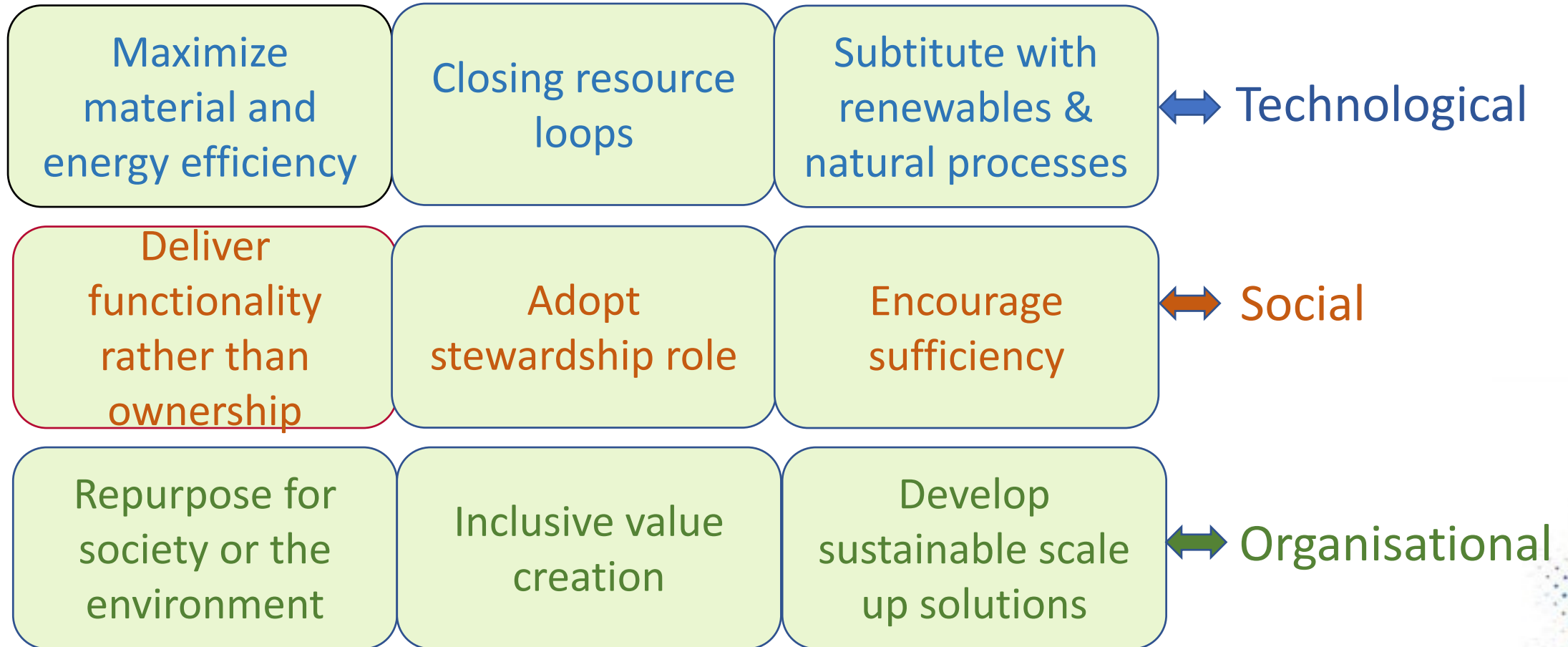


**CTA-  
EXAMPLE:  
SBMI**  
process  
in practice



Adapted from Takacs, Stechow, Frankenberger, 2020

# NINE GENERIC SUSTAINABLE BUSINESS MODELS



Geissdoerfer et al. 2018

# BREAKTROUGH BUSINESS MODELS

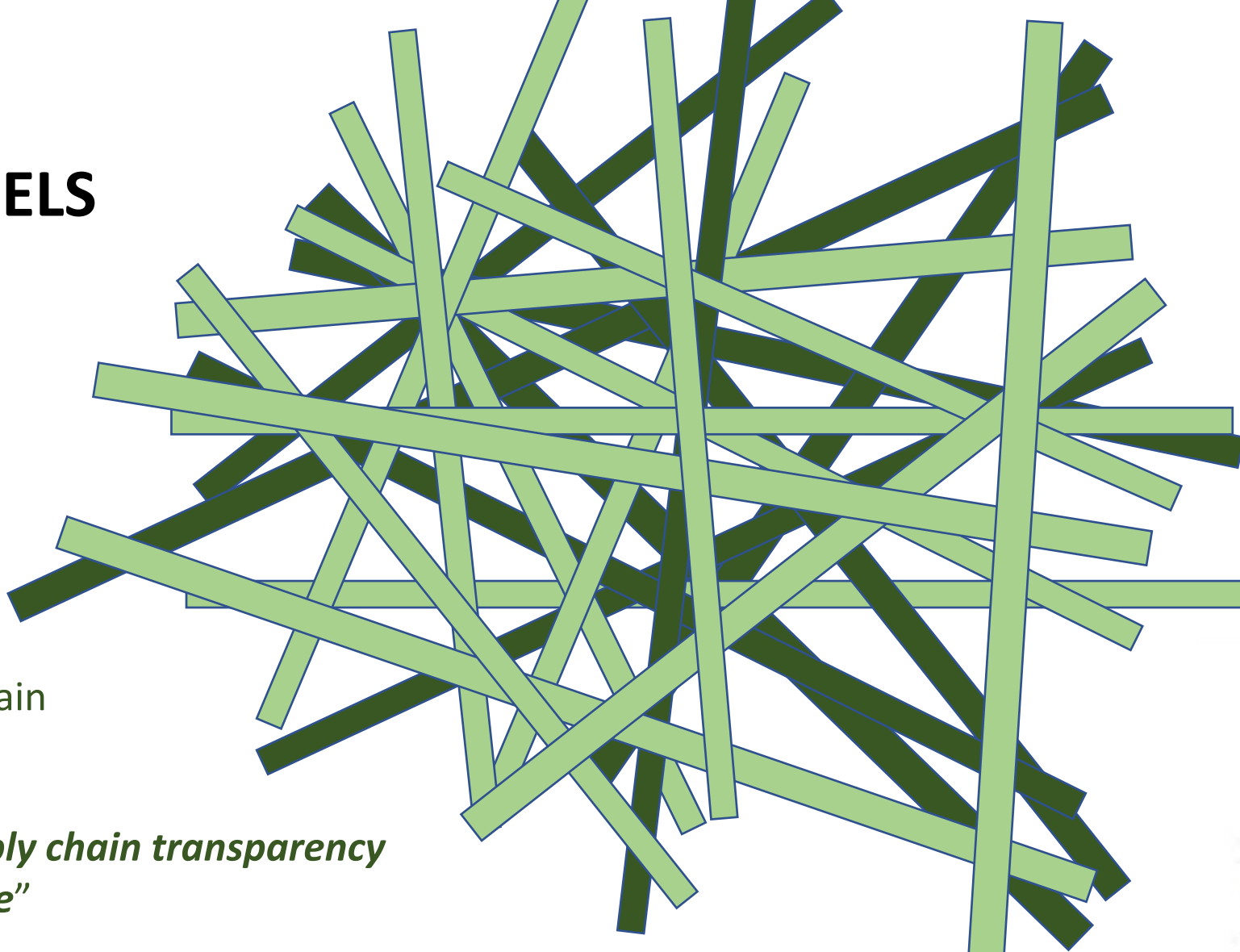
Integrated example:

## Provenance

- Offering full transparency in food and product supply chains using Blockchain technology.

Watch the video *“Solving supply chain transparency with Jessi Baker of Provenance”*

<https://www.youtube.com/watch?v=CDMBzB4dQx8&t=249s>



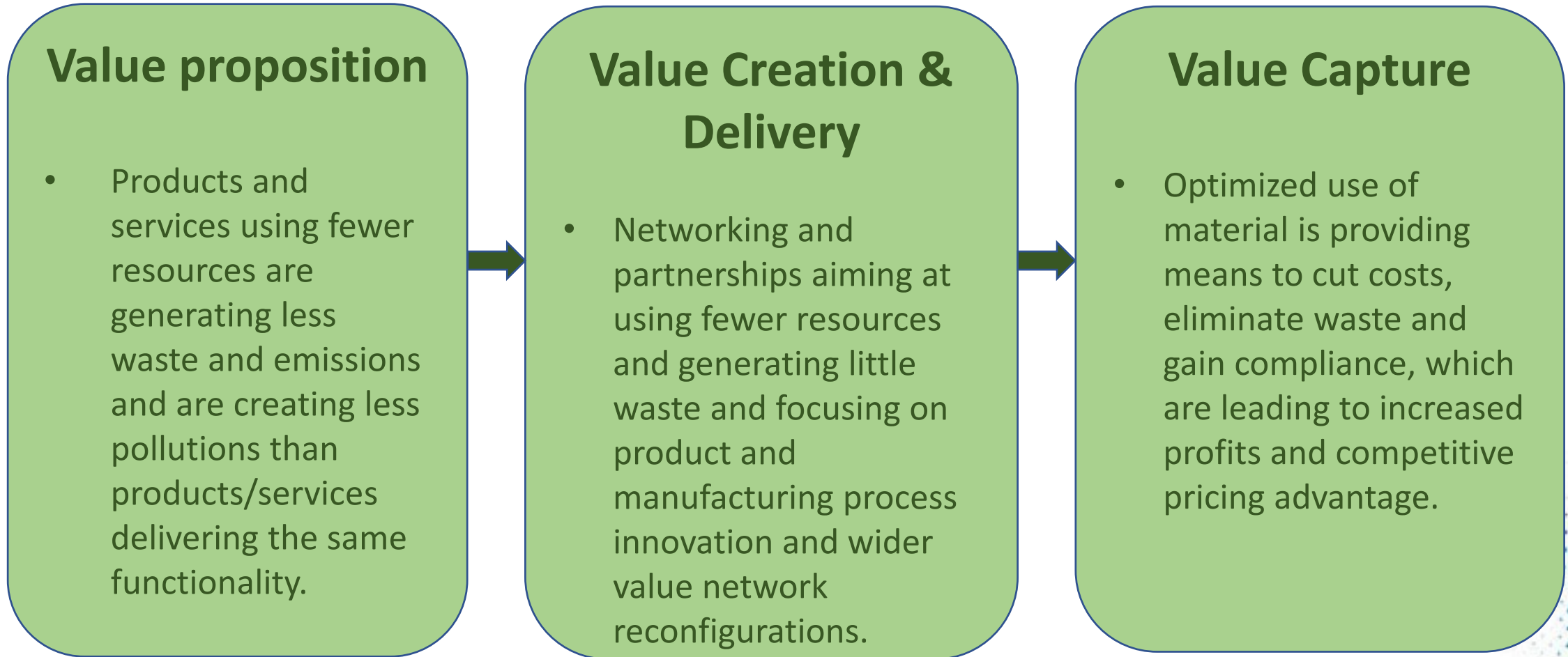
Volans, 2016



# EXAMPLE OF A SUSTAINABLE BUSINESS MODEL ARCHETYPE



MAXIMIZE MATERIAL PRODUCTIVITY AND MATERIAL EFFICIENCY



Adapted from Bocken et al. 2014

# BREAKTHROUGH BUSINESS MODELS



Lean/Social example:

## DoctHERs

- Connecting female doctors with patients; converting existing community spaces into walk-in clinics.
- Bottom-of the pyramid business model.



Watch the video “Pitching Their Stories”  
*with Asher Hasan of doctHERs*”

<https://www.youtube.com/watch?v=OCD5QnSYrc>

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# BREAKTROUGH BUSINESS MODELS

## Social example:

### Tiffinday

- Single immigrant mothers producing and delivering artisan quality vegan stews, hot lunches in reusable metal containers, collected next day.
- The customers are office workers, typically young men in the downtown Toronto area.



## Flourishing Business Canvas Tiffinday case part 1 – Conventional aspects



## Flourishing Business Canvas Tiffinday case part 2 – Sustainable aspects

Strongly Sustainable Business Model Group

# KEY TAKEAWAYS OF THE SBMI



Business call to action (add picture)

MVP (add picture)

gear wheels innovation  
(add picture)

Design (add picture)

Lean (add picture)

# Sources:

Aagard, A. Sustainable Business Models. Innovation, Implementation and Success. Palgrave MacMillan 2019.

Baker, J. Solving supply chain transparency with Jessi Baker of Provenance. The Beautiful Truth. Available:

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Volans. (2016). Breakthrough Business Models. Exponentially more Social, Lean, Integrated and Circular.

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## 5.4.SDG4BIZ M1 Sustainable Business Model Innovation (SBMI) lecture script



# Video script of the 2/3 Video lecture: Sustainable Business Model

## Innovation (SBMI)

### **Slide 1:**

Welcome to the second lecture of the business modelling.

### **Slide 2:**

In this video lecture you will learn more about Sustainable Business Model Innovation (SBMI).

### **Slide 3:**

Here are the learning objectives of the Sustainable Business Model Innovation.

### **Slide 4:**

The innovation of sustainable business models addressing typically wicked problems requires something else than the conventional business models, which are formed around organization centric logics.

They don't necessarily incorporate all the costs such as externalities, either short- or long-term costs.

This forms the steppingstone for a systemic arrangement, where prices are kept artificially low for the sake of monetary economic growth.

### **Slide 5:**

Here are some of the principles of value creation for sustainable and circular economy business models.

The first one is about life-span extension, meaning re-using material as efficiently and as long as possible.

The second principle of servitization means services as functionalities are replacing products.

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Resource reluctancies mean how to allocate resources to business model innovation and reconfigure resources and processes for new business models.

On the other hand, technology innovation integration can be quite difficult.

For example, clean technology with business model innovation is a multidimensional and rather complex process.

External relationships mean how to engage in extensive interaction with external stakeholders and business environment. It requires an extra effort.

Last, business modeling methods and tools.

This area has been improving quite a bit during recent years, for example, including tools such as business model canvases, value analysis tools, etc.

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This figure demonstrates a path towards a sustainable business model.

Starting from the left-hand side and moving towards the sustainable business model – what does it require?

First, it requires sustainable value, proactive multi-stakeholder approach and long-term perspective.

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In ideal circumstances the leading company is doing this step together with potential partner companies, which may in this way lead to a higher level of innovation?

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The sixth step, which has a particular importance for the success of the circular solution, requires approaching of ideal partners and to Incorporate them into the circular business ecosystem.

And finally, the most important step anyway is the implementation of the ecosystem, which takes place at an individual business model level, meaning the company must come back to its inner circle once again.

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Here we have so-called generic sustainable business models, which are divided into technological, social and organizational categories including a couple of examples of each. If you want to learn more about these and have even a broader perspective of the sustainable business model archetypes, please get acquainted with the “A literature and practice review to develop sustainable business model Archetypes” from the Sources.

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In this example, the more sustainable value proposition is based on products or services, which use less resources and generate less waste and pollution.

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**Slide 14:**

The next three slides cover so-called Breakthrough business models by Volans.

The first one is about an Integrated business model.

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Breakthrough business models are also lean, meaning they are optimizing use of all forms of capital from physical and financial through human, intellectual to social and natural.

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The final implementation utilizes methodologies such as Lean Startup and Design Thinking, testing and validation of minimum viable products – the MVPs.

These all form a coherent systemic approach, which is an important requirement for building a successful new sustainable business model.

**Slide 20:**

Thank you for your time learning Sustainable Business Model Innovation – the SBMI.

Remember to write down your first-hand thoughts and ideas in the Learning diary.

Your learning journey of the Business modelling will continue with Business modelling tools.

That will be your third and the last video lecture of the Business modelling section.

## 5.6 SDG4BIZ M1 Business modelling tools, lecture slides



# Business Modelling



***“A business model describes the rationale of how an organization creates, delivers, and captures value. ”***

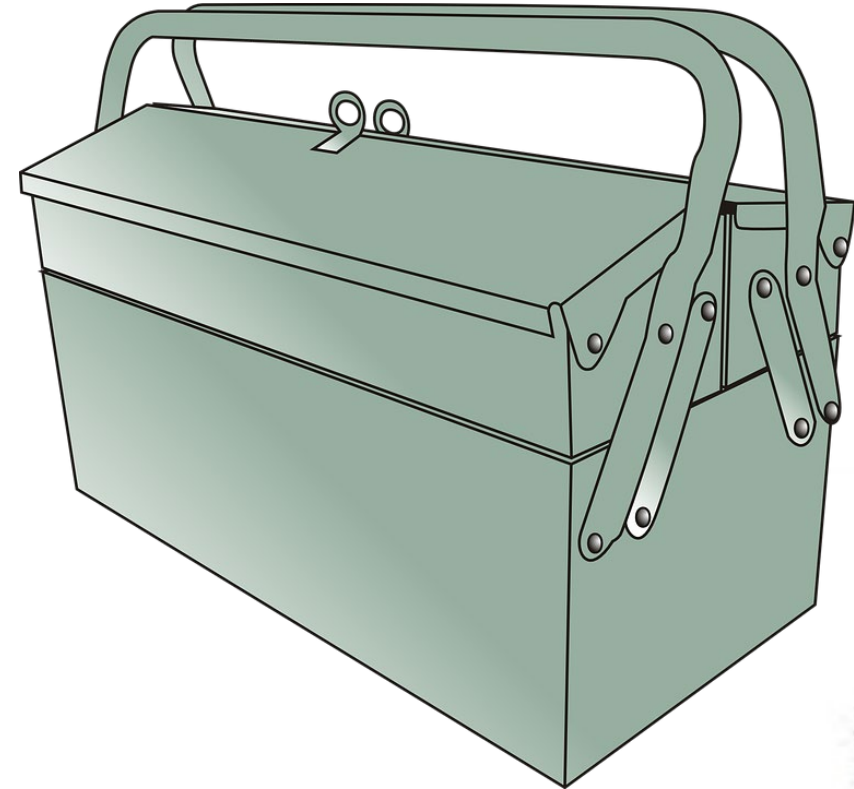
Adapted from Osterwalder & Pigneur

# Learning objectives:



## Business modelling tools

- Sustainable Value Analysis Tool
- Value mapping tool
- Business model canvases





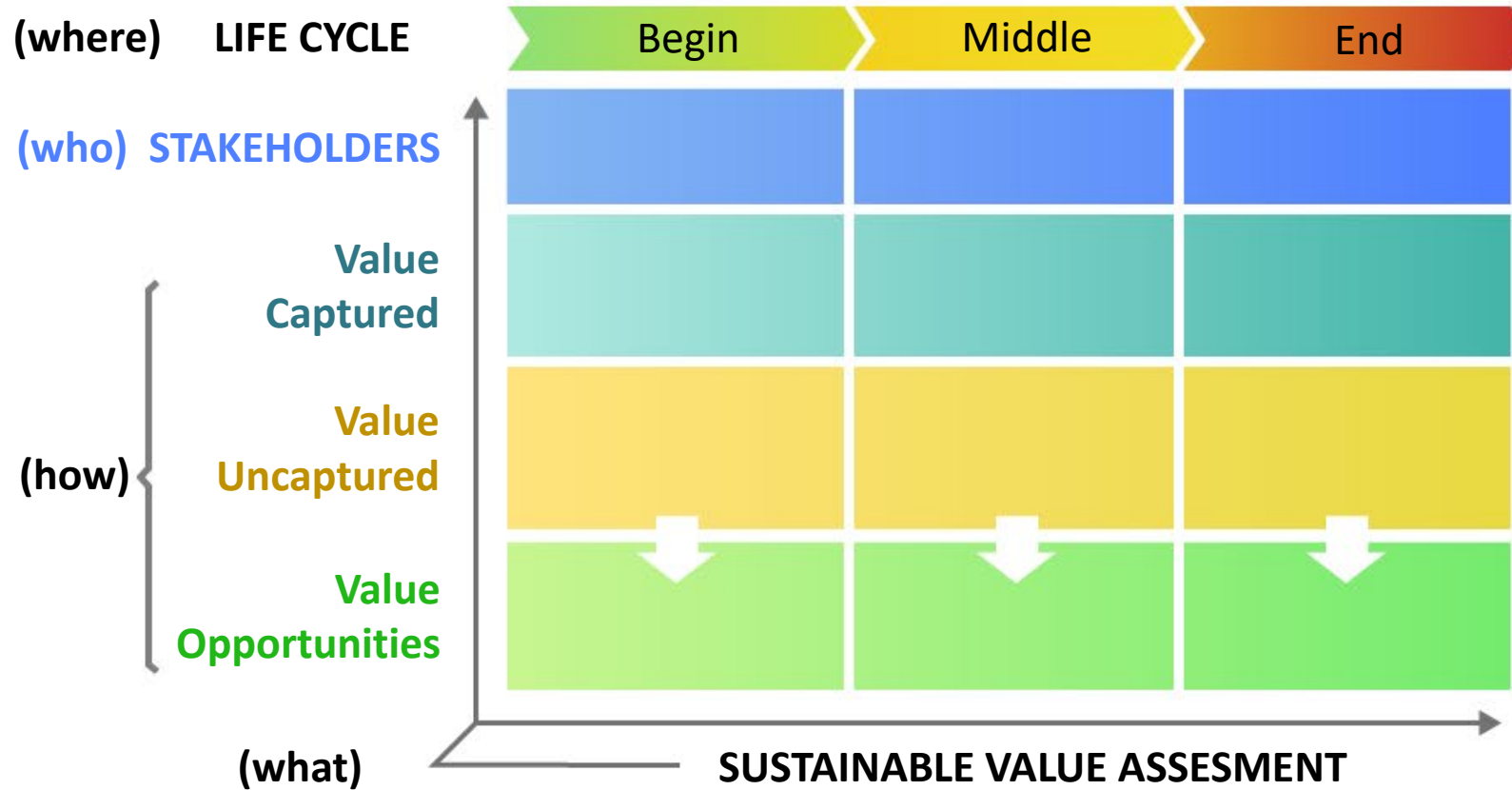


# Business modelling tools





# SUSTAINABLE VALUE ANALYSIS TOOL



Adapted from Yang, Vladimirova 2017

# VALUE MAPPING TOOL

## ENVIROMENT

Enviromental value:  
Enviromental benefits and impacts

### Value opportunities

New opportunities for additional value creation and capture through new activities and relationships

### Value missed, destroyed or wasted

Negative outcomes, or inadequately captured by current model

### Value captured

Current value proposition

PURPOSE

Simplified value mapping tool

## CUSTOMERS

Use value:  
Perceived actual  
benefits and impacts

## NETWORK ACTORS

Transaction value:  
Firm  
Investors  
Suppliers  
Partners  
Distributors  
Media  
Research institutes

## SOCIETY

Societal value:  
Societal benefits and impacts










Adapted from Bocken, Short, Rana, Evans 2013

# BUSINESS MODEL CANVAS (BMC)



The Business Model Canvas

Designed for: \_\_\_\_\_ Designed by: \_\_\_\_\_ Date: \_\_\_\_\_ Version: \_\_\_\_\_

Key Partnerships 	Key Activities 	Value Propositions 	Customer Relationships 	Customer Segments 
	Key Resources 		Channels 	
Cost Structure 		Revenue Streams 		

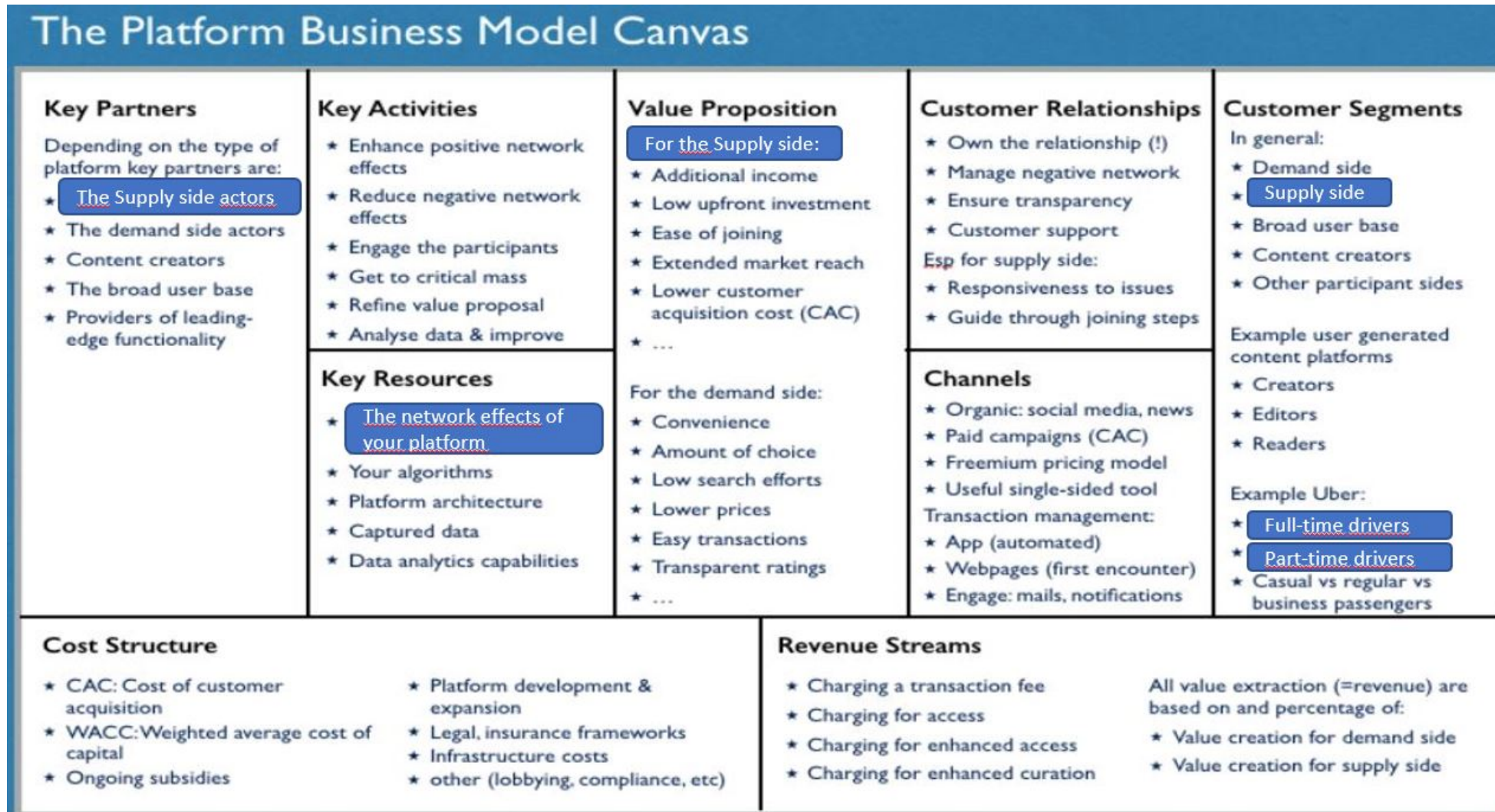
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**Strategyzer**  
strategyzer.com

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Business Model  
Canvas Poster  
download  
<https://www.strategyzer.com/library/the-business-model-canvas>

# PLATFORM/MULTI-SIDED APPLICATION OF THE BMC



Adapted from the InnovationTactics



# FLOURISHING BUSINESS CANVAS

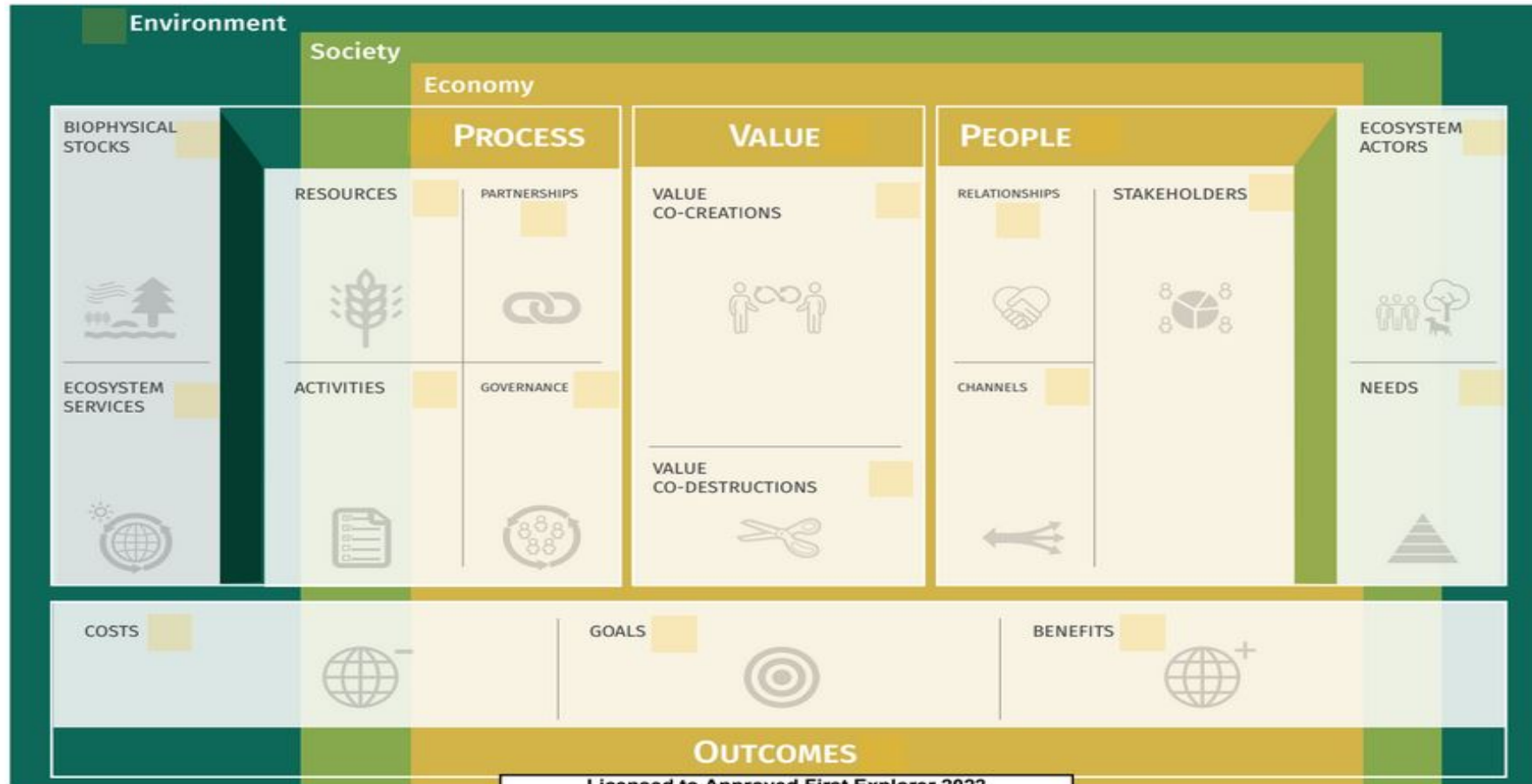


Flourishing Business Canvas v2.0

Designed for:

Designed by:

Date:



Watch the below video as an example of the sustainable aspects of Resources.

<https://www.youtube.com/watch?v=vg3kvzGI3E0&list=PL6t17Kjg-WsDVEyqtgU1Zcq1yNQbb-KFB&index=11>

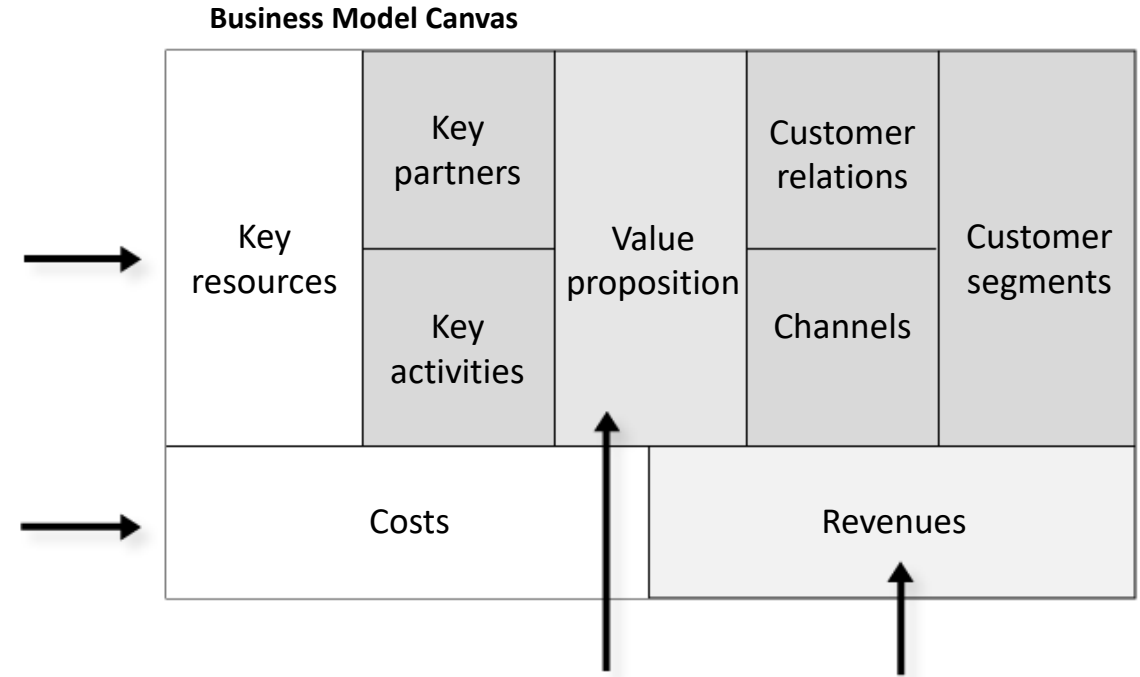
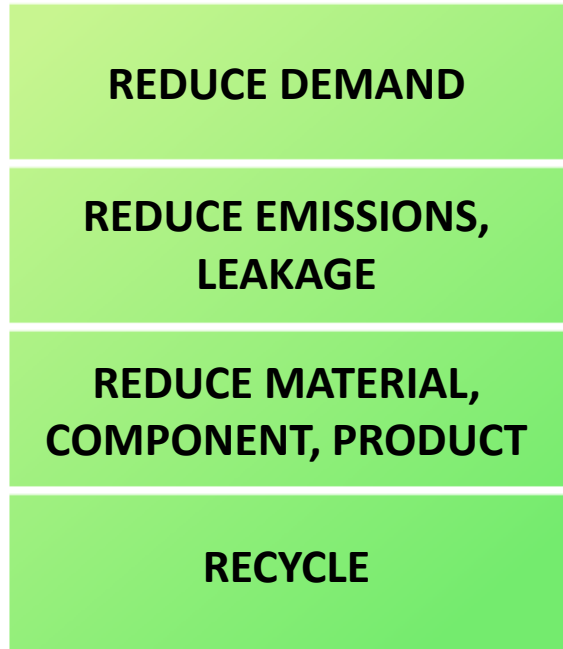
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Want to use this canvas in your project or business?  
 Want to support the project? See overleaf for details.



flourishingbusiness.org

# BUSINESS MODEL CANVAS APPLIED TO CIRCULAR ECONOMY



- Do not use materials
- Use less material/energy
- Stop emission/leakage
- Use product longer
- Use product in new context
- Find 2<sup>nd</sup> customer
- Use component/modules in new product /other products
- Use recycled materials
- Recycle material

**RELATION BETWEEN: VALUE AND VALUE CARRIER**

**MODE OF SALES:**  
 SELL PRODUCT  
 SELL USAGE  
 SELL RESULT

Rietzen in Aagard et al. 2019

# KEY TAKEAWAYS OF THE BUSINESS MODELLING TOOLS



add an image of your choice that you have permission to use

add an image of your choice that you have permission to use

add an image of your choice that you have permission to use

**PURPOSE &  
COMPELLING  
VISION**

**ENGAGEMENT  
AND MEANINGFUL  
WORK**

**TRANSPARENT &  
ITERATIVE  
LEARNING  
PROCESS**

# Sources:

Aagard, A. Sustainable Business Models. Innovation, Implementation and Success. Palgrave MacMillan 2019.

Bocken, N., Short, S., Rana, P., Evans, S. (2013). A value mapping tool for sustainable business modelling. Corporate Governance VOL. 13 NO. 5, pp. 482-497.

Flourishing Enterprise. 10. Resources. Available:

<https://www.youtube.com/watch?app=desktop&v=vg3kvzGI3E0&list=PL6t17Kjg-WSdVEyqtgU1Zcq1yNQbb-KFB&index=11>

Flourishing Enterprise Innovation Toolkit. Available: <http://flourishingbusiness.org/>

InnovationTactics. Available: <https://innovationtactics.com/platform-business-model-canvas/>

Strategyzer. Available: <https://www.strategyzer.com/canvas>

Yang, M., Vladimirova, D., Evans, S. (2017). Creating and Capturing Value Through Sustainability, Research-Technology Management, 60:3, 30-39. Available: <http://dx.doi.org/10.1080/08956308.2017.1301001>





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# Thank you for your time!



## 5.6. SDG4BIZ M1 Business modelling tools, lecture script



# Video script of the 3/3 Video lecture: Business modelling tools

## **Slide 1:**

Welcome to the third video lecture of the Business modelling.

## **Slide 2:**

Here are the learning objectives of the third video lecture Business modelling tools.

## **Slide 3:**

Welcome to the Business modelling tools. This learning material includes a couple of examples of frameworks and visual models you can use for your business modelling. They are practical tools.

In the beginning you will concentrate on the value analysis and value mapping.

The remaining part of this learning material concentrates on the business model canvases.

There's the traditional business model canvas by Österwalder and Pigneur and its applications also towards sustainable direction.

You can find more learning material from the Sources.

## **Slide 4:**

Here we have the sustainable Value Analysis tool.

Remembering the triple bottom line challenge, you should build your analysis from the point of view of economic, social and environmental aspects.

Horizontally you can see that business opportunities can be recognized based on lifecycles, beginning of lifecycle, middle of lifecycle and end of lifecycle.

Please pay attention on the stakeholder layer as well.

The next one, value uncaptured, may include additional rows for value missed, value destroyed, etc. you remember from the earlier video lecture.

And finally at the bottom, after the value analysis, you may have recognized new value opportunities.

## **Slide 5:**

Here we have the Value Mapping tool.

Please pay attention that it's a multi-dimensional tool for value analysis.

At the center of this visualization, you can see the purpose, representing the normative layer of value innovation.

It's followed by the value captured, meaning the current value proposition.

Pay also attention that it's related to the multi-stakeholder perspective, including environment, customers, network actors and society.

The next layer is meant for the value uncaptured. As you can see, this tool has lots of similarities with the Value Analysis tool.

This is another learning and development opportunity for you. Obviously, you can modify and further develop the existing tools towards directions, which are the most suitable for your own, your team's or company's needs.

#### **Slide 6:**

Here we have the traditional Business Model Canvas by Österwalder and Pigneur.

This spreadsheet is from the website Strategyzer, where you can find also more valuable learning material for business modelling.

The business model canvas is used for multiple purposes - also for sustainable business model innovation, platform business models etc.

#### **Slide 7:**

Here we have an application of the traditional business model canvas. This one is a platform business model canvas.

You can create a multi-sided approach by presenting your stakeholders, such as customers and partners with specific colors or other visualizations.

The same applies obviously for other components of the canvas, such as the value proposition etc. Meaning with a specific color you can run through one customer segment and its impact and connections in other components of the canvas.

Remember that the strength of a business model canvas is very much based on its visuality and its impact on communication and fast-paced business development purpose.

#### **Slide 8:**

Here we have the Flourishing Business Canvas, which is co-created by the members of the Sustainable Business Model Group, which is a community of innovation practice.

It's an action research knowledge mobilization initiative of the Strategic Innovation Lab at Toronto's OCAD University, which is Canada's largest design school.

This community is evolving to become a planetary wide network of nodes that together form the Flourishing Enterprise Institute.

The Sustainable Business Model Group consists of business entrepreneurs, researchers and designers who are working together to produce a concrete vision to help all enterprises flourish through integration of social, environmental and economic factors.

The Flourishing Business Canvas emphasizes that every business is related to three contexts –the environment that enables society that creates the economy.

The perspectives of the Flourishing Business Canvas are process, value, people and outcomes. Please get acquainted with case examples and more video presentations through [Flourishingbusiness.org](http://Flourishingbusiness.org).

**Slide 9:**

This is the last example of the Business modelling tools.

It's a circular economy application of the traditional business model canvas.

As you can see, the order of the components of the canvas is somewhat different vs. the traditional business model canvas.

With this example we want to highlight a more sustainable approach to the Key resources and how they can have an impact on the costs.

Regarding the Revenue model, in addition to or instead of the traditional sale of the products, the revenue streams may be based on usage and actual performance, i.e. the customers don't necessarily have to own the product.

**Slide 10:**

Here are the key takeaways of the Business modelling tools.

In this learning material you have got acquainted with the traditional Business Model Canvas and its applications towards more sustainable direction, such as the Flourishing Business Canvas.

In addition, you have learned more about value analysis.

Here at the end of the Business modelling section, it's good to highlight a couple of important preconditions for successful business modelling.

First, every company should have a strong purpose and a compelling vision.

What is its place in this world? What is its contribution to society?

What does it want to be in the future?

Second, everybody should be involved! Try to engage the whole organization in this work.

It will improve the meaningfulness of the work. And last, business modelling should be transparent and an iterative learning process.

Maximizing learning is the key!

**Slide 13:**

This was the third and the last video lecture of the Business modelling section.

I hope you have enjoyed your learning journey.

Please get acquainted with the other learning material that you can find from the learning platform.

Have a look at the additional sources that you can find after each video lecture.

Thank you for your time!

## Links to video and audio material





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## D7 Module 1: Sustainable development goals in business opportunity recognition external links

section-block index	Block title	content	link	Own production
0.1.	Welcome to Module 1	Video, Every problem is an opportunity video	<a href="https://youtu.be/R38DkHYMeGk">https://youtu.be/R38DkHYMeGk</a>	x
1.1.	Welcome to the first section: the Sustainable Development Goals (SDGs)	Video Welcome to the first section: the Sustainable Development Goals (SDGs)	<a href="https://youtu.be/AYIly0woXQk">https://youtu.be/AYIly0woXQk</a>	x
1.2.	The Sustainable Development Goals (SDGs)	Website: United Nations presentation pages of SDGs	<a href="https://www.undp.org/sustainable-development-goals">https://www.undp.org/sustainable-development-goals</a>	
1.2.	Agenda 2030	Video: dimensions of Sustainable Development	<a href="https://youtu.be/pgNLonYoc9s">https://youtu.be/pgNLonYoc9s</a>	
1.2.	Agenda 2030	Video: Wedding cake	<a href="https://youtu.be/Wu8xvzIPRHM">https://youtu.be/Wu8xvzIPRHM</a>	
1.2.	Agenda 2030	Video: Agenda 2030	<a href="https://sdgs.un.org/2030agenda">https://sdgs.un.org/2030agenda</a>	
1.3.	Decades of Sustainable Development	website: Ten principles of Global Compact	<a href="https://www.unglobalcompact.org/what-is-gc/mission/principles">https://www.unglobalcompact.org/what-is-gc/mission/principles</a>	
1.3.	Decades of Sustainable Development	Website: Millennium Development Goals	<a href="https://www.un.org/millenniumgoals/bkgd.shtml">https://www.un.org/millenniumgoals/bkgd.shtml</a>	
1.3.	Decades of Sustainable Development	Video: climate change and sustainability	<a href="https://youtu.be/hakqRofpMFs">https://youtu.be/hakqRofpMFs</a>	
1.3.	Decades of Sustainable Development	Website: Decade of Action	<a href="https://www.un.org/sustainabledevelopment/decade-of-action/">https://www.un.org/sustainabledevelopment/decade-of-action/</a>	
1.3.	Decades of Sustainable Development	Video: The Decade of Action	<a href="https://youtu.be/vc8-7VnclbA">https://youtu.be/vc8-7VnclbA</a>	
1.3.	Decades of Sustainable Development	Video: TEDx: Leen Zevenbergen.	<a href="https://youtu.be/A7gZHzNOXBA">https://youtu.be/A7gZHzNOXBA</a>	



1.5.	Indicators of SDGs	Website: The Global indicator framework	<a href="https://unstats.un.org/sdgs/indicators/indicators-list/">https://unstats.un.org/sdgs/indicators/indicators-list/</a>	
1.5.	Indicators of SDGs	website: Measuring toward the Sustainable Development Goals	<a href="https://sdg-tracker.org/">https://sdg-tracker.org/</a>	
1.5.	Indicators of SDGs	Website: Sustainable Development Goal (SDG) Tracker.	<a href="https://ourworldindata.org/sdg-tracker-update">https://ourworldindata.org/sdg-tracker-update</a>	
1.5.	EU progressing SDGs	Website: Eurostat	<a href="https://ec.europa.eu/eurostat/web/sdi/key-findings">https://ec.europa.eu/eurostat/web/sdi/key-findings</a>	
1.5.	UN Country profile of SDGs	PDF: SDP2022	<a href="https://s3.amazonaws.com/sustainabledevelopment.report/2022/2022-sustainable-development-report.pdf">https://s3.amazonaws.com/sustainabledevelopment.report/2022/2022-sustainable-development-report.pdf</a>	
1.6.	Implementing SDGs	Website: Business commission 'Our work'	<a href="http://businesscommission.org/our-work">http://businesscommission.org/our-work</a>	
1.6.	Implementing SDGs	Video: Ecosperity 2017 Paul Polman	<a href="https://youtu.be/85EuBUJ_Cww">https://youtu.be/85EuBUJ_Cww</a>	
1.6.	Implementing SDGs	Website: SDG Compass	<a href="https://sdgcompass.org/">https://sdgcompass.org/</a>	
1.7.	GRI reporting	Video: Short Introduction to the GRI standards	<a href="https://www.globalreporting.org/media/wtaf14tw/a-short-introduction-to-the-gri-standards.pdf">https://www.globalreporting.org/media/wtaf14tw/a-short-introduction-to-the-gri-standards.pdf</a>	
1.7.	EU sustainability reporting	website of Corporate sustainability reporting in EU	<a href="https://ec.europa.eu/info/business-economy-euro/company-reporting-and-auditing/company-reporting/corporate-sustainability-reporting_en">https://ec.europa.eu/info/business-economy-euro/company-reporting-and-auditing/company-reporting/corporate-sustainability-reporting_en</a>	
1.8.	Ranking organizations	Webpage: Corporate Knights' index of the 100 world's most sustainable corporations	<a href="https://www.corporateknights.com/rankings/global-100-rankings/2022-global-100-rankings/100-most-sustainable-corporations-of-2022/">https://www.corporateknights.com/rankings/global-100-rankings/2022-global-100-rankings/100-most-sustainable-corporations-of-2022/</a>	
1.8.	Ranking organizations	Webpage (news) S&P 500 ESG Index	<a href="https://www.spglobal.com/spdji/en/education/article/the-sp-500-esg-index-defining-the-sustainable-core/">https://www.spglobal.com/spdji/en/education/article/the-sp-500-esg-index-defining-the-sustainable-core/</a>	

1.8.	Changing attitude and culture	Video: Emmanuel Perakis; What's the relation between Excellence & Sustainability'	<a href="https://youtu.be/DW7LDMY_XsQ">https://youtu.be/DW7LDMY_XsQ</a>	
1.8.	Changing attitude and culture	Video: Geoff Norby, TEDxThe Economics of Sustainability	<a href="https://youtu.be/BfQeXnjljgP0">https://youtu.be/BfQeXnjljgP0</a>	
2.1.	Introduction to the Context section	Video: Introduction to the Context section	<a href="https://youtu.be/ZHvUFRzXDpg">https://youtu.be/ZHvUFRzXDpg</a>	x
2.3.	Role of organizations in achieving the Sustainable Development Goals	Video: Triple bottom line, Sustainability Illustrated	<a href="https://youtu.be/2f5m-jBf81Q">https://youtu.be/2f5m-jBf81Q</a>	
2.4.	Stakeholders (Organization's perspective)	Video: Todd Cort ,Yale school of management, The importance of stakeholders engagement in sustainability	<a href="https://youtu.be/d3A000-XMAI">https://youtu.be/d3A000-XMAI</a>	
2.4.	An example about the meaning of context and the big picture	Green step, Interview of Pirjo Virtanen	<a href="https://youtu.be/ZLhV4k4hoz5g">https://youtu.be/ZLhV4k4hoz5g</a>	
3.1.	Welcome to the Motivation section	Video: Welcome to the Motivation section	<a href="https://youtu.be/olGK6pA-SVE">https://youtu.be/olGK6pA-SVE</a>	x
3.3.	Motivational drivers towards sustainable b	Webpage: LEGO 2021 Sustainability reporting	<a href="https://www.lego.com/en-my/sustainability/reporting/">https://www.lego.com/en-my/sustainability/reporting/</a>	
3.8.	Various ways to build sustainable business	Weblink: Definition Social enterprises	<a href="https://tem.fi/en/social-enterprises">https://tem.fi/en/social-enterprises</a>	
3.8.	Various ways to build sustainable business	Weblink: Sitra 2021. 41 pioneering Finnish circular economy companies	<a href="https://www.sitra.fi/en/articles/41-pioneering-finnish-circular-economy-companies/">https://www.sitra.fi/en/articles/41-pioneering-finnish-circular-economy-companies/</a>	
4.1.	Welcome to the Resources and Networks section	Video: Welcome to the Resources and Networks section	<a href="https://youtu.be/gaAFqSZUD6k">https://youtu.be/gaAFqSZUD6k</a>	x
5.1.	Welcome to the Business modelling section video	Video: Welcome to the Business modelling section	<a href="https://youtu.be/512XZhEoSUc">https://youtu.be/512XZhEoSUc</a>	x
5.2.	Value proposition canvas (Uber example)	Video: Value proposition canvas (Uber example)	<a href="https://youtu.be/kiWkRiynPAo">https://youtu.be/kiWkRiynPAo</a>	

5.2.	Business Modelling with Business Model Canvas: General/incumbent approach	Video: Harvard Business Review; Osterwalder: Business Model Canvas	<a href="https://youtu.be/dh0h-tryXOG">https://youtu.be/dh0h-tryXOG</a>	
5.2.	Business Modelling with Lean Canvas: Startup approach	Video: Ash Maurya, Capture Your Business Model in 20 Minutes - Lean Canvas	<a href="https://youtu.be/7o8uYdUaFR4">https://youtu.be/7o8uYdUaFR4</a>	
5.4.	The impact of "Imagine" of the Sustainable	Video: TED Ray Anderson, the business logic of sustainability	<a href="https://youtu.be/jP9QF_IBoYA">https://youtu.be/jP9QF_IBoYA</a>	
5.4.	An inspiring example of a sustainable business model innovation: Interface Inc. (carbon neutral carpet tile and resilient flooring)	Webpage: Facility Executive (Magazine) Interface Report Highlights 25 Years Of Sustainability Initiatives	<a href="https://facilityexecutive.com/2019/11/interface-report-highlights-25-years-of-sustainability-initiatives/">https://facilityexecutive.com/2019/11/interface-report-highlights-25-years-of-sustainability-initiatives/</a>	
5.4.	An inspiring example of sustainable business model innovation: Riversimple (Mobility as a Service, MaaS)	Webpage: riversimple, How the business works	<a href="https://www.riversimple.com/how-the-business-works/">https://www.riversimple.com/how-the-business-works/</a>	
5.6.	Business Models Inc: Including case company examples and free templates of business modelling and design tools	Business Models INC.	<a href="https://www.businessmodelsinc.com/en/inspiration/tools">https://www.businessmodelsinc.com/en/inspiration/tools</a>	
5.6.	Flourishing Business Canvas	Video: Flourishing Business Canvas	<a href="https://youtu.be/Cv6mn3J6OGI">https://youtu.be/Cv6mn3J6OGI</a>	
5.6.	The triple layered business model canvas	Webpage: Sustainable business model.org; Tripple layered business model canvas	<a href="https://sustainablebusinessmodel.org/2015/04/17/the-triple-layered-business-model-canvas-a-tool-to-design-more-sustainable-business-models/">https://sustainablebusinessmodel.org/2015/04/17/the-triple-layered-business-model-canvas-a-tool-to-design-more-sustainable-business-models/</a>	
5.6.	Sustainable business model innovation tools by a digital hub called "TBD**"	webpage: tbd.community 6 Tools for Sustainable Product and Business Model Innovation	<a href="https://www.tbd.community/en/a/6-tools-sustainable-product-and-business-model-innovation">https://www.tbd.community/en/a/6-tools-sustainable-product-and-business-model-innovation</a>	
5.6.	Multisided Platform Business Model Canvas: The Business Model Analyst	Webpage: multisided platform business model	<a href="https://businessmodelanalyst.com/multisided-platform-business-model/">https://businessmodelanalyst.com/multisided-platform-business-model/</a>	

5.7.	Circular Economy (CE) case 1: Nutrinity/Extraverd Oy	PDF: White Paper “Business Model Innovation for the Circular Economy” by the St. Gallen University	<a href="https://www.alexandria.unisg.ch/259076/1/Circular%20Ecosystems%20Takacs%20%20Stechow%20%26%20Frankenberger%20%282020%29.pdf">https://www.alexandria.unisg.ch/259076/1/Circular%20Ecosystems Takacs%2C%20Stechow%20%26%20Frankenberger%20%282020%29.pdf</a>
5.8.	Circular Economy (CE) case 2: Renewable diesel, Neste Oyj	Webpage: Neste MY Renewable Diesel™	<a href="https://www.neste.com/products/all-products/renewable-road-transport/neste-my-renewable-diesel#3b023127">https://www.neste.com/products/all-products/renewable-road-transport/neste-my-renewable-diesel#3b023127</a>