



Toolkit for Green Incubation and Acceleration



Project Partners



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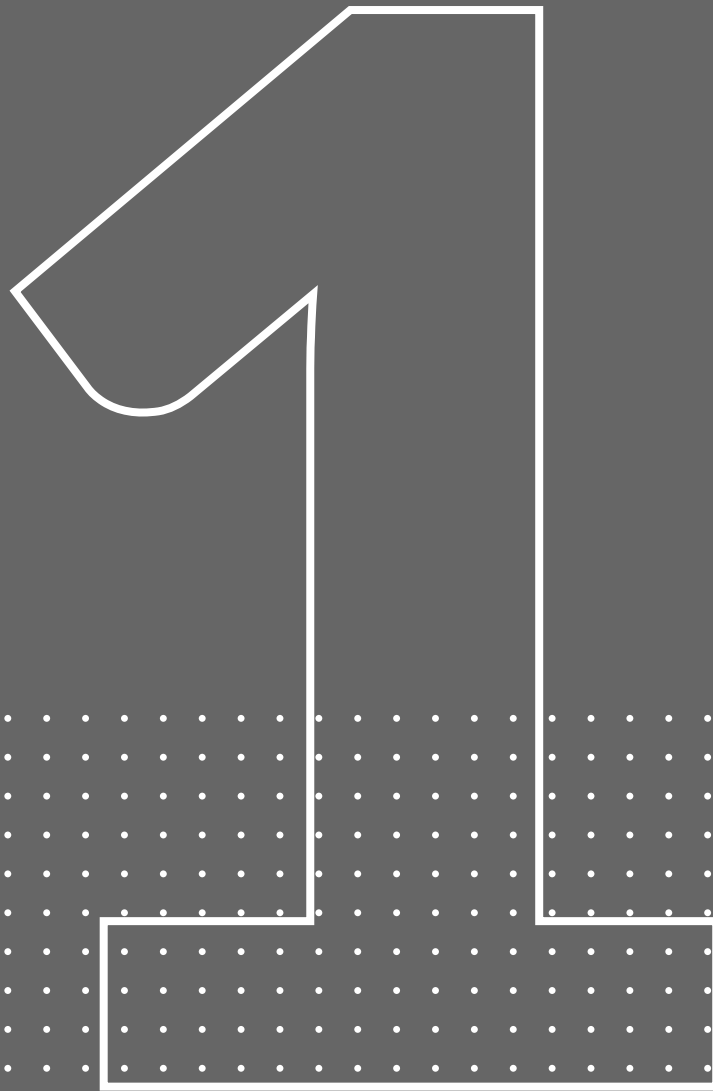
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INTRODUCTION

Introduction

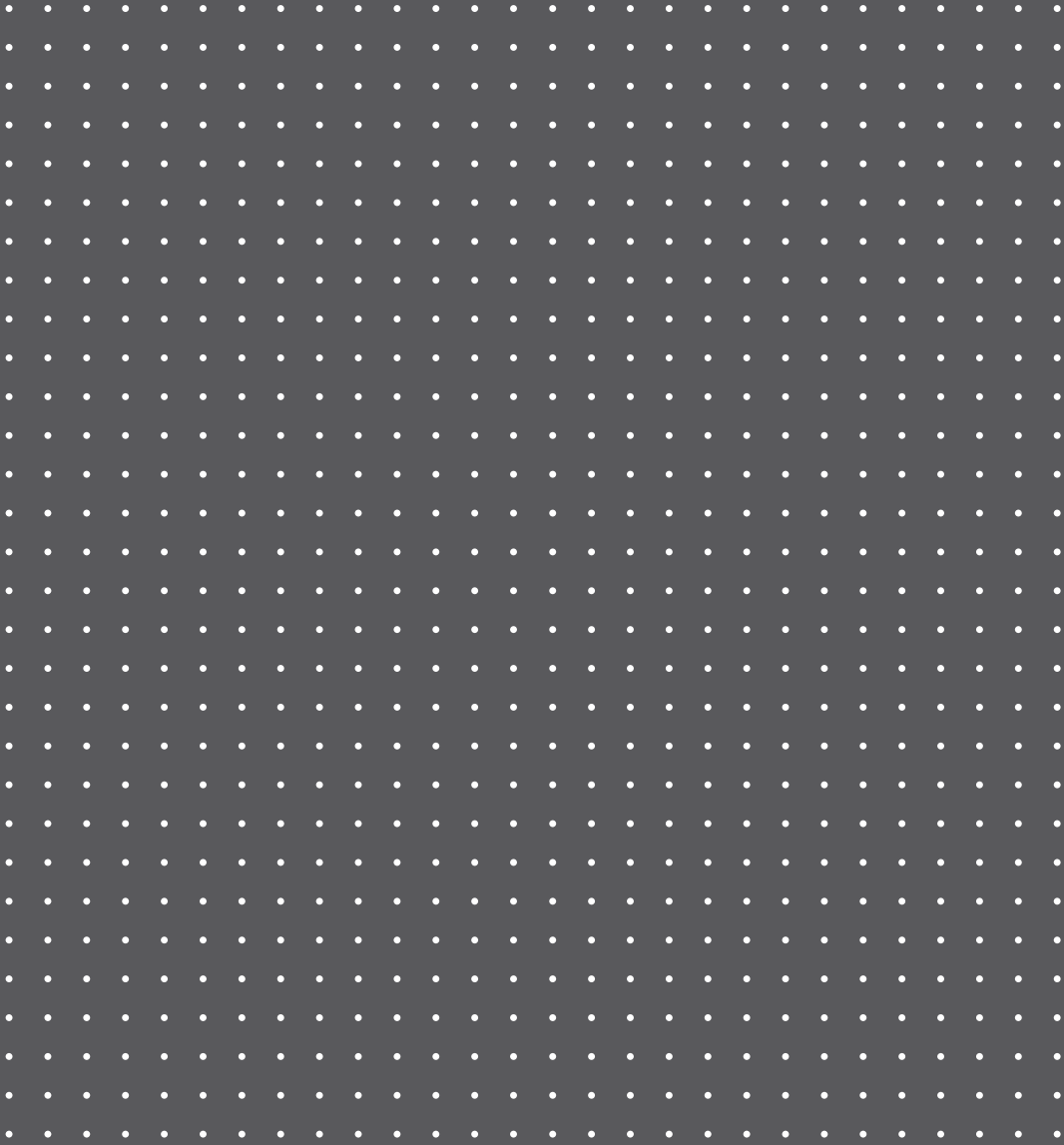
Why a Green
Entrepreneur-
ship
Toolkit

A Toolkit for
Green Business
Support
Organizations
and Green
Entrepreneurs

What the
Toolkit Covers

How to Use
This Toolkit

Bringing Green
Expertise on
Board



1.1

WHY A GREEN ENTREPRENEURSHIP TOOLKIT?

Welcome to the Toolkit for Green and Circular Entrepreneurship which covers developmental stages from ideation all the way to acceleration. With the methodologies, tools, and tips presented in this Toolkit, we aim to provide guidance to business support organizations like yourself to empower green entrepreneurs and SMEs in Lebanon and across the region, thus allowing them to successfully and sustainably grow their green innovative ventures to make a lasting impact.

PROTECTING OUR ENVIRONMENT

In Lebanon and countries across the Mediterranean region, the status of our economy and society impacts the health of the environment and natural resources. In turn, the effects of environmental degradation and climate change impact the health and livelihoods of the population. With a better understanding of the effects of human activity, communities and countries show a growing concern as to how to maintain and grow the economy while reducing its negative footprint and preserving and protecting environmental resources. Lebanon and the Mediterranean region are not the only ones faced with these concerns. The international community, private sector, civil society, and many others are working to maintain economic growth while sufficiently protecting the environment. It has now been several decades since scientists and some governments in more affected countries have been raising awareness, setting policies, and transforming operations to move towards a more sustainable way of life.

While efforts and successful case studies exist, we are still doing far too little to divert the course of environmental degradation from its current track, which will have devastating impacts on human life in the coming decades and generations. In our natural ecosystems, everything is connected. Over millennia, nature has demonstrated its ability to adapt to changes;

however, the accelerated speed at which the growing human population is impacting the environment disrupts nature's ability to absorb these influences. With ecosystems out of balance, we are witnessing the extinction of species, the loss of habitat, increased occurrences of extreme weather events, water scarcity, and depleted soils.

ALL HANDS ON DECK

Governments in Lebanon and countries in the region often lack the means and capacity to prioritize and swiftly adopt the necessary changes to implement or enforce environmental regulations. This leads to waste and wastewater being mismanaged, reliance on fossil fuels instead of renewable energy, excessive use of chemicals for food production, daily use of disposable items, and more. We cannot wait for governments to take action. Each one of us can contribute by adopting sustainable practices. As individuals, businesses, and organizations supporting entrepreneurs, we can drive a sustainable and circular economy.

SUSTAINABLE AND CIRCULAR OPPORTUNITIES

Circular business approaches not only positively impact our environment today and for future generations but also have the potential to save material, localize processes, and reduce costs.

In addition, a circular economy approach helps BSOs and entrepreneurs think along the entire value chain of a product, thus encouraging optimization at every level of the enterprise.

Designing and delivering a thorough green entrepreneurship program requires not only expertise in green business management but also sector-specific knowledge and networks. Therefore, BSOs that are planning to run a green entrepreneurship program for the first time should bring on board partners and experts who can provide such experience.

Countries in the Mediterranean region have repeatedly plunged into economic crises. Recovery through a green economy approach is crucial for a more sustainable economic future that protects resources and the environment for future generations while boosting the local economy and creating employment. Challenges for Green Entrepreneurs Starting and running a business is an ambitious endeavor, and doing it in the green or environmental fields comes with its own spe-

cific challenges. Entrepreneurs in the waste, renewable energy, and water and sanitation sectors, for instance, operate in an often monopolistic sector where public-private collaboration can take time and up-front capital investments and extensive R & D are necessary, often more so than in other business sectors. Enterprises that follow circularity at all stages of their business model might invest more time in researching local and sustainable suppliers. Although integrating these might take additional time and effort initially, it can pay off both in terms of showing the impact of the company and accessing unique and new markets. Business Support Organizations and the ecosystem overall need to take these challenges into consideration and adapt the nature of their programs accordingly, for instance by extending the length of a support program compared to conventional programs.



Bringing Green Expertise on Board:

Designing and delivering a thorough green entrepreneurship program requires not only expertise in green business management but also sector-specific knowledge and networks. Therefore, BSOs that are planning to run a green entrepreneurship program for the first time should bring on board partners and experts who can provide such experience.

1.2

A TOOLKIT FOR GREEN BUSINESS SUPPORT ORGANIZATIONS AND GREEN ENTREPRENEURS

The Green Incubation and Acceleration Toolkit is a resource for Business Support Organizations (BSOs) to better support and empower green entrepreneurs and SMEs in Lebanon and the region, allowing them to grow green ventures. It can also be a useful resource for entrepreneurs active in the environmental field or those who want to implement circularity in their enterprises and processes.

However, it is recommended that entrepreneurs apply the tools with the guidance of business support experts, coaches, and mentors. By supporting green enterprises through entrepreneurship programs, financing, and technical assistance at the ideation, incubation, and acceleration stages, BSOs can help spur economic development and create new opportunities for their communities. However, many young enterprises face significant challenges in accessing the resources they need to succeed.

While more and more entities are becoming active in creating and offering green support mechanisms, they run the risk of neglecting or missing key components of green and circular concepts and being inconsistent in the integration of green thinking as a cross-cutting and integrated part of the business model.

Green business plans and literature about circularity and sustainability are widely available online. With this toolkit, we want to save you the time of searching for the right tools at the right stage of enterprise development. The Toolkit thus brings together diverse resources, including methodologies, training materials, and platforms, briefly describes them, and provides links to access these existing resources. Numerous examples from Lebanon and the region help contextualize the tools.

WITH THE HELP OF THIS TOOLKIT

BSOs CAN:

- ✓ equip themselves with knowledge about the core green concepts that will help green enterprises thrive.
- ✓ facilitate the sharing of existing knowledge and best practices with others in the field.
- ✓ help to build a stronger community of support for green enterprises.
- ✓ ensure that all organizations have access to the resources and information they need to be effective.

ENTREPRENEURS CAN:

- ✓ access practical tools, exercises, guiding questions, and examples to structure and inspire their green ideation, incubation, and acceleration journeys.
- ✓ ensure that their business approach follows environmental, sustainable, and circular principles from the early stages of their enterprise and throughout its growth.

The Toolkit specifically focuses on green methodologies for enterprises and businesses, presented in the first part of the Toolkit, and referenced throughout. In the following chapters, we structured the Toolkit by stage of enterprise development, from ideation through incubation to acceleration. In these chapters, we follow the main business development steps that Business Support Organizations use, adapt them for green businesses and green business models, and highlight their relevance and potential differences for green enterprises. The business journey will take you through stages that will require assistance outside of what we describe, for instance, when it comes to marketing or business management and administration. The Toolkit covers these aspects only where they are relevant to green enterprise development.

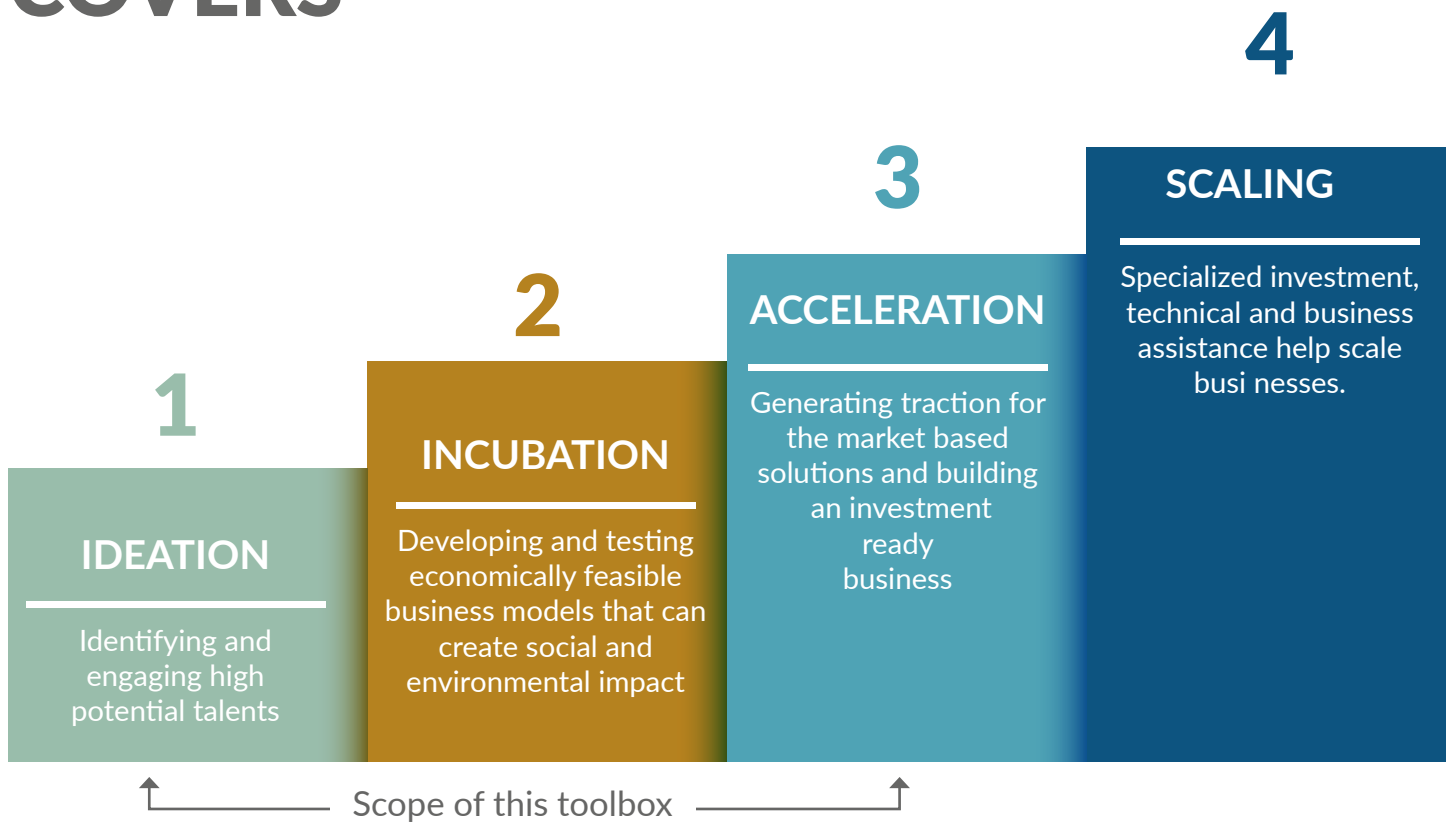
Our hope is that the Green Incubation and Acceleration Toolkit, through its multiple cross-references and engagement following its publication, will foster collaboration and partnership among Business Support Organizations and with other stakeholders in the field. This can lead to greater innovation, more effective programs, and better offers and outcomes for green enterprises.

DEFINITION OF BSOs AND IBSOs

Business Support Organizations (BSOs) assist and provide resources and services to businesses, entrepreneurs, and startups. These organizations can facilitate industry partnerships, networking, and information sharing. They also provide training programs and workshops that enhance business capacities and capabilities. Some BSOs render counseling, coaching, and mentorship to steer business development under the umbrella of incubators or accelerators. International Business Support Organizations (IBSOs) provide similar assistance as national or local BSOs. In addition, they are often equipped to bring in more international market research and can provide support with trade mission organization, export procedures and regulations, matchmaking with international partners, soft landing, and access to international funding sources.

In summary, BSOs provide regional support and resources to businesses within a specific region or industry sector for local economic development. IBSOs focus on assisting businesses engaged in international market access and global expansion.

1.3 WHAT THE TOOLKIT COVERS



The different stages of entrepreneurship typically include ideation, incubation, acceleration, and scaling. **Let's explore each stage!**

1 IDEATION Ideation is the initial stage of entrepreneurship where an individual or a team generates and develops business ideas. This stage involves brainstorming, identifying problems or opportunities, and coming up with innovative solutions. During ideation, entrepreneurs conduct market research, assess the feasibility of their ideas, and refine their concepts to create a solid foundation for their business.

2 INCUBATION Incubation is the stage where a business idea starts to take shape. Entrepreneurs focus on validating their concepts and developing a working prototype or minimum viable product (MVP). This stage usually involves conducting more in-depth market research, refining the business model, and testing the product or service in a controlled environment. Incubation may also include building a team, securing initial funding, and establishing partnerships or collaborations.

3 ACCELERATION

Acceleration is the stage where entrepreneurs aim to rapidly grow their businesses and gain traction in the market. This stage typically involves refining the product or service based on user feedback, implementing effective marketing and sales strategies, and scaling customer acquisition. Acceleration often requires additional funding to support expansion, hiring key personnel, and optimizing operational processes. Entrepreneurs may also seek mentorship, join start-up accelerators, and leverage networking opportunities during this stage.

4 SCALING

Scaling is the stage where the business experiences significant growth and aims to expand its operations and market presence. Entrepreneurs focus on achieving sustainable and exponential growth by optimizing processes, scaling production or service delivery, entering new markets or geographic locations, and potentially attracting larger investments. Scaling involves developing a strong organizational structure, building a robust team, implementing efficient systems, and establishing strategic partnerships or collaborations to support the growth trajectory of the business.



It is important to note that these stages are not always linear, and the timeline for each stage can vary depending on the nature of the business and various external factors. Additionally, some entrepreneurs may experience pivots or iterations of their ideas during the different stages as they learn from the market and adapt their strategies accordingly. green entrepreneurship program for the first time should bring on board partners and experts who can provide such experience.

1.4

HOW TO USE THIS TOOLKIT

THE BSO JOURNEY TO SUPPORT GREEN ENTREPRENEURS

The below graph shows an overview of the sections covered at the different stages of this Toolkit.

	Ideation	Incubation	Acceleration
Green Concepts	Introducing circular & eco-design thinking, and lifecycle thinking	Reviewing and adapting circular, eco-design and lifecycle thinking	Reviewing and adapting circular, eco-design, and lifecycle thinking
Target Market / Customers	5 Whys and Customer Persona, Problem Tree	Testing, and prototyping, and market validation	Enterprise Diagnostics
Green Business Planning	Circular Strategies for Business Models and Developing Ideas for Green Business Models	Development of the Green Business Plan and Circular Business Models	Business Model for Acceleration
Impact (& Indicators)		Impact through eco-design	Impact and ESG
Sustainable Branding & Marketing		Tips and strategies for sustainable branding and marketing	Access to market: Review Sustainable Branding and Marketing
Financials and Access to Finance	Access to initial start-up funding	Financials and Access to finance	Financial projections, Investment strategy and matchmaking
Collaboration and Partnerships		Collaboration and Partnerships to set up and strengthen operations	Collaboration and Partnerships for growth
Other			Transformation project, Green IPR

A wealth of information and hands-on tools already exist, many of them tailored to the Lebanese and Middle Eastern context. Rather than reinventing the wheel, this Toolkit gives access to existing tools and methods, guiding the reader through the different stages of green entrepreneurship with links to hands-on resources.

Introduction

Why a Green Entrepreneurship Toolkit	A Toolkit for Green Business Support Organizations and Green Entrepreneurs	What the Toolkit Covers	How to Use This Toolkit
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Why focus on green and circular?

Current Global Trends in Sustainable Entrepreneurship	UN Sustainable Development Goals (SDGs) and Sustainable Entrepreneurship	What is the Circular Economy?	Sustainable, Green, or Circular Business?	Creating Economic Value and Job Opportunities for Green Enterprises
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Ideation / Early Stage

Integrating Circularity and Eco-Design Thinking at Early Stage	Understanding the Green Customer	Life Cycle Thinking	Eco-Design and Circularity	Circular Strategies and Business Models
Developing the Green Business Model	Access to Finance at Early Stage	Green and Circular Enterprises Highlight		

Incubation Stage

Development of a Green Business Plan (GBP)	The Eco-design Journey	Choosing and Revision Green Business Models	Preliminary Impact	Financials
Prototyping, Testing and Validation in the Market (Green MVP Development)	Sustainable Marketing and Branding	Access to Finance at Incubation Stage	Green and Circular Enterprises Highlight	

Acceleration Stage

Enterprise Diagnostics	Acceleration Strategy for Green Business	Impact Indicators and Measurement for Sustainable Enterprises	Transformation of Operations and Circularity	Financials and Financial Projections
Investment Strategy and Matchmaking	Green Intellectual Property Rights (IPR)	Collaborations and Partnerships	Green and Circular Enterprises Highlight	

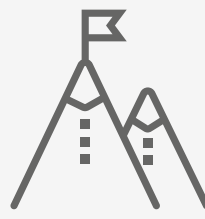
What's next?

Access to market and soft landing	Certifications
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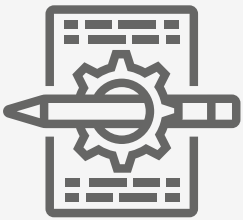
Throughout the Toolkit, the different tools, resources, tips, and highlights are marked with dedicated icons, to ease navigation. Each icon refers to a different type of information, of which we are providing a brief overview below.



Tools and
Worksheets



Green
Enterprise
Highlights



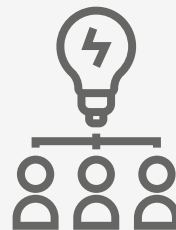
Knowledge
Platforms



Zoom in



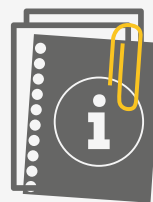
Knowledge
Resources



Support
Networks



Tips for Business
Support
Organizations



Interesting
Facts



TOOLS AND WORKSHEETS

are designed to help you with different aspects of green entrepreneurship, both on the business and on the green, circular and sustainability aspects, including tools that help you with business model planning, sustainability assessment, and impact measurement. We briefly explain the tool and if it is already available online, we link you on how to access it. They will help you gathering data and organizing information that will help you make informed decisions, ideally with the support of a coach, mentor or expert.



KNOWLEDGE PLATFORMS

contain references to websites dedicated to green entrepreneurship and sustainable business practices.

These platforms provide information, networks and resources related to environmentally sustainable business planning and management. Reference websites often offer a range of resources, including research papers, articles, whitepapers, guides, and Toolkits. These resources can help entrepreneurs gain a deeper understanding of specific topics, learn practical strategies, and access further tools to implement sustainability practices in their businesses. These platforms typically curate content from reputable sources such as research institutes or organization with long-standing experience in coaching green entrepreneurs, which ensures the reliability and credibility of the information available, allowing entrepreneurs to make well-informed decisions based on evidence.



KNOWLEDGE RESOURCES

could include articles, research papers, case studies, and e-books related to sustainable business practices, green technologies, and environmental regulations.

Browse through them to enhance your understanding of the key concepts and best practices in the field of green entrepreneurship. Use this knowledge to refine your business strategy and make informed decisions.



TIPS FOR BUSINESS SUPPORT ORGANIZATIONS

If you are a business support organization, pay close attention to the tips provided specifically for your role. These tips can offer guidance on how to effectively support green entrepreneurs, provide mentoring or coaching, and facilitate access to funding or networking opportunities. Incorporate these tips into your practices to better assist and empower aspiring green entrepreneurs.



GREEN ENTERPRISE HIGHLIGHTS

Explore the green enterprise highlights section of the Toolkit. This section showcases successful green businesses and their achievements and can help you understand their strategies, challenges, and lessons learned. Analyze how these businesses have integrated sustainability into their core operations and identify potential ideas or approaches that align with your own green entrepreneurship goals.



ZOOM IN

allows you to explore specific concepts more in-depth, for instance regarding topics such as Biomimicry, circular fashion, the sharing economy, and many more.



SUPPORT NETWORKS

could include industry associations, or green business networks. Join these networks to connect with potential partners, investors, or mentors who share your commitment to sustainable entrepreneurship.



INTERESTING FACTS

sections include statistics, trends, or environmental insights related to green entrepreneurship.

WHY FOCUS ON GREEN AND CIRCULAR BUSINESSES?



Why Focus on Green and Circular Businesses

Current Global Trends in Sustainable Entrepreneurship

UN Sustainable Development Goals (SDGs) and Sustainable Entrepreneurship

What is the Circular Economy?

Sustainable, Green, or Circular Business?

Creating Economic Value and Job Opportunities for Green Enterprises

The SDGs are interconnected



The Inertia Principle by Walter Stahel



Have You Heard about Urban Mining



Zoom on SDG 12



2.1

CURRENT GLOBAL TRENDS IN SUSTAINABLE ENTREPRENEURSHIP

Given widespread environmental concerns around the world—including unprecedented levels of water, air, and land pollution, substantial pressure on precious natural resources and raw materials, climate change, excessive biodiversity loss, and more—businesses, and in particular large corporations, are increasingly under pressure to become responsible producers and actors.

Whether due to new and stricter environmental regulations, increased public scrutiny for ethical production, investor requirements, or necessity, sustainability in conducting business is gradually becoming more prevalent in both developed and developing countries.

For start-ups and young businesses today, sustainable entrepreneurship can represent an enormous business opportunity. Indeed, with the development of technology and science and the increasing awareness about the climate crisis and resource scarcity, more effort and innovation are being put into solving the major environmental and social challenges the world is facing. Entrepreneurs are in many ways leading the way in finding, adapting, and implementing creative solutions to such challenges by proposing new products, services, and/or mechanisms that result in a lower environmental impact while being more ethical throughout their operations. Many such enterprises are “purpose-driven”, sometimes adopting models of social enterprises rather than being solely “profitability-driven”.

2.2

UN SUSTAINABLE DEVELOPMENT GOALS (SDGs) AND SUSTAINABLE ENTREPRENEURSHIP

“The Sustainable Development Goals (SDGs) were agreed to by the United Nations General Assembly in 2015 as a collection of seventeen broad-ranging global goals (and 169 associated targets) that define and frame global priorities to achieve sustainable and equitable development for all by the year 2030”. The 17 SDGs can be seen below and are detailed at this [link](#). They have been adopted by all United Nations Member States:

SUSTAINABLE DEVELOPMENT GOALS



Several SDGs promote and align with sustainable entrepreneurship, in particular:



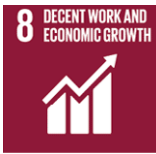
SDG 6: Clean Water and Sanitation

focuses on the provision of drinking water, wastewater, sanitation and hygiene, water quality, water use efficiency, water resource management, and the protection of water-related ecosystems. Apart from the water sector offering interesting opportunities for entrepreneurs, for instance, in non-revenue water, irrigation efficiency, and the provision of drinking water and wastewater services, the SDG is also tightly interlinked with other SDGs, such as SDG 7 and SDG 12.



SDG 7: Affordable and Clean Energy

This goal focuses on increasing the use of renewable energy sources, promoting energy efficiency, expanding energy infrastructure, and enhancing access to clean energy technologies. SDG 7 recognizes that access to affordable and sustainable energy is fundamental for eradicating poverty, improving healthcare and education, fostering economic growth, and combating climate change.



SDG 8: Decent Work and Economic Growth

This goal emphasizes the promotion of sustainable economic growth and productive employment. For businesses, it encourages the creation of inclusive and sustainable entrepreneurship opportunities, especially for young people and women, to foster innovation, job creation, and economic empowerment.



SDG 12: Responsible Consumption and Production

This goal aims to promote sustainable consumption and production patterns. It calls for businesses to adopt sustainable practices, reduce waste generation, implement resource-efficient production methods, promote and practice the concept of a circular economy. Sustainable entrepreneurship plays a crucial role in driving these initiatives. In other words, SDG 12 emphasizes the need to decouple economic growth from resource use and environmental degradation, promoting more sustainable as well as ethical practices throughout the value chain.



SDG 17: Partnerships for the Goals

This goal highlights the importance of fostering global partnerships to achieve the SDGs. Sustainable entrepreneurship is encouraged and vastly strengthened when collaborating across sectors, including governments, corporations, civil society, and academia, to leverage expertise, resources, and innovation for sustainable development.



SDG 9: Industry, Innovation, and Infrastructure

This goal focuses on promoting sustainable industrialization, fostering innovation, and developing resilient infrastructure. It encourages the adoption of sustainable practices in industries and supports entrepreneurship that drives technological advancements, responsible manufacturing, and sustainable infrastructure development.



SDG 13: Climate Action

This goal addresses the urgent need to adapt, mitigate, and eventually reverse climate change and its impacts. Sustainable entrepreneurship plays a significant role in developing and scaling innovative solutions to reduce greenhouse gas emissions, accelerate the adoption of renewable energy, promote clean industries, and help communities and society at large adapt to climate change challenges.



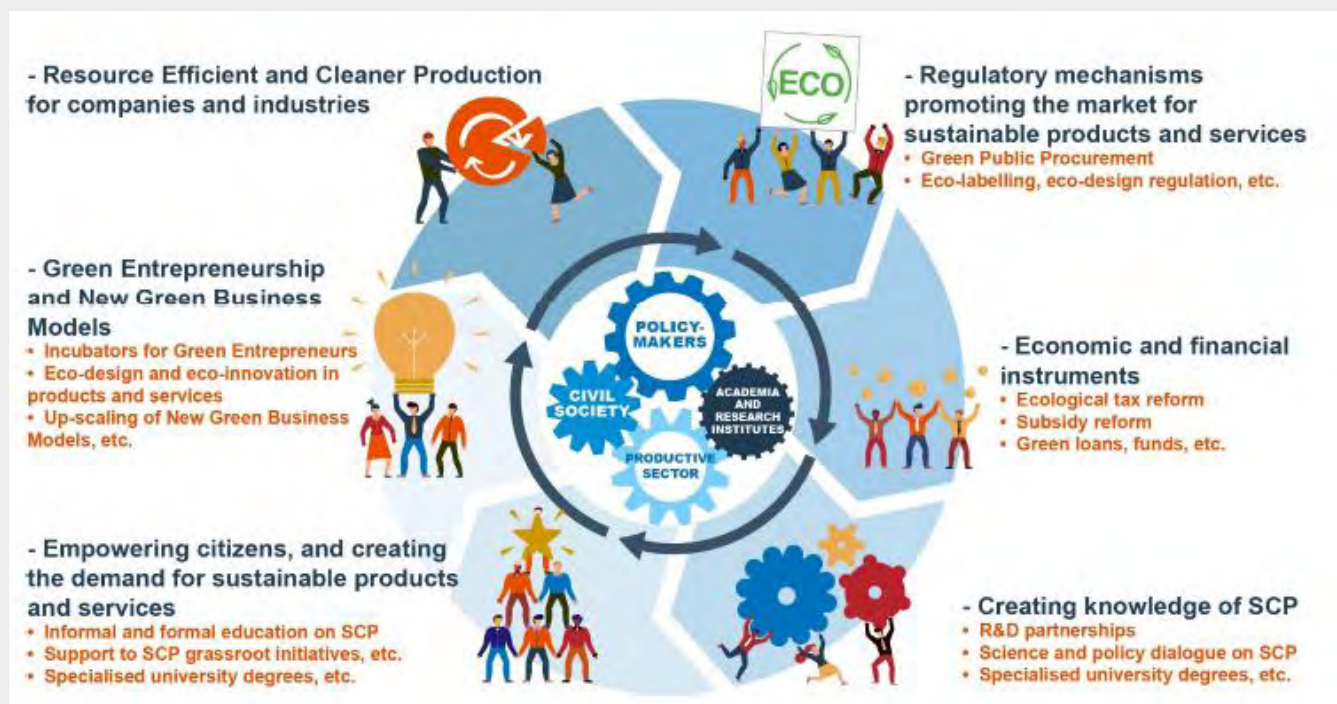
The SDGs are interconnected!

While these SDGs explicitly promote sustainable entrepreneurship, it's important to note that all 17 SDGs are interconnected, and progress in one goal can positively impact others. Sustainable entrepreneurship can contribute to various other SDGs, such as SDG 1 (No Poverty), SDG 2 (Zero Hunger), and SDG 5 (Gender Equality), through its innovative and sustainable approaches.



Zoom On SDG 12 - Responsible Consumption and Production

By 2050, it is expected that 3 billion new customers will enter the global market (noting that the population rose to 8 billion people at the beginning of 2022). With tremendous pressure on dwindling resources, fulfilling their needs poses a significant challenge. The intensifying competition between manufacturers and suppliers is impacting the price, quality, and materials used in linear systems. For instance, in the fashion industry, the average person in the UK is estimated to consume 60% more garments than decades before, while keeping them for shorter periods of time.



Raising awareness about conscious consumption as well as responsible production has become increasingly crucial, encompassing not only the origins of resources and products but also the labor involved in their production. The concept of fair and safe labor holds great importance in this context. The responsibility of promoting sustainable consumption and production rests upon a collaborative effort involving governments (through regulations), investors, companies, civic societies, academia, local communities, and consumers themselves, as depicted in the chart above.

Consumers and investors around the world are gradually becoming aware of and showing behavioral change towards many resource consumption challenges, especially in:

Renewable Energy Adoption: Consumers are increasingly choosing products and services that align with their values for sustainability and climate action. The International Energy Agency (IEA) reports that the number of renewable energy consumers has been steadily increasing, and that in 2019, the total number of renewable electricity customers reached 1.3 billion globally.



Conscious Food Choices: Sustainable food consumption is gaining traction. People are opting for organic, locally sourced, and plant-based food products to reduce their ecological footprint. The Food and Agriculture Organization (FAO) estimates that organic food sales reached \$97 billion globally in 2019, reflecting the growing demand for sustainable and healthy food options.

Ethical and Fair Trade Products: Conscious consumerism is on the rise, with more people seeking products that are ethically produced and sourced. A study by Nielsen found that 66% of global consumers are willing to pay more for products from socially responsible companies. This trend encourages businesses to adopt responsible sourcing practices, support fair trade initiatives, and ensure transparency in their supply chains.

Sustainable Packaging: Consumers are more concerned about packaging waste. According to a survey by GlobalWebIndex, 54% of global consumers consider environmentally friendly packaging an important factor in their purchasing decisions. This trend has led to a rise in demand for sustainable packaging alternatives, such as biodegradable materials and recyclable packaging.

Second-Hand and Sharing Economy: The popularity of second-hand and sharing economy platforms has surged in recent years. People are embracing the idea of extending the lifespan of products through resale, rental, and sharing services. According to ThredUp's 2020 Resale Report, the second-hand fashion market is projected to reach \$64 billion by 2024.

Although the above trends are more prevalent in highly developed societies, they are picking up in developing countries, sometimes due to the necessity to reduce costs and provide more affordable alternatives, or otherwise due to increased awareness from some consumers to switch to more sustainable options. In Lebanon and the Mediterranean basin in particular, international and European development funding is also increasingly channeled into impact-driven businesses. When start-ups and companies embrace sustainable or circular business models, they can retain value, enhance their brand image, attract early adopters of conscious products and solutions, and influence the purchasing behavior of their current and future customers.

2.3

WHAT IS THE CIRCULAR ECONOMY?

The concept of a circular economy aims to change the current “Take-Make-Dispose” or “Take-Make-Waste” extractive industrial model in which we operate, which is linear and results in the over-extraction of raw materials and resources, and a considerable amount of waste. Indeed, our current economies consume large quantities of virgin resources to make products, and we mostly permanently dispose of them at the end of their use. This represents a colossal loss of value in terms of the resources that the products contain, and the extraction, energy and processes invested in them.

Our present linear approach, initiated during the industrial revolution, was made possible because energy, materials, and credit were vastly available and cheap. However, with over-reliance and dependency on polluting fossil fuels, added pressure on rare earth materials and our natural resources, and the speed of extraction of these resources (greater than their regenerative rate), severe environmental damage and the effects of climate change on people, planet, and economy have become apparent everywhere. This has made the urgent need for a green transition and regulatory framework necessary. The circular economy is a shift from the current linear approach of material extraction and consumption to a circular system where resources are reused in closed loops, extending the value of the product and decreasing the pressure on virgin resources. Transitioning to a circular economy worldwide is our best-case scenario for a cleaner and non-destructive economy, while also representing a big part of the solution to escape the irreversible effects of climate change.



Built around the concept of “Make-Remake - Use-Reuse,” the circular economy aims to create and maintain product value even after its designed use stage, making waste a valuable resource for a new industry or product and adding life cycles to natural resources. This implies rethinking and redesigning the way products are sourced, designed, distributed, marketed, used, and remade into new products or materials for recirculation, as illustrated in the below diagram.

Below are some of the many principles of a Circular Economy:

- ✔ Waste becomes a valuable resource. Products are designed to be reused and disassembled at their end of life, with creative and effective ways to be recirculated, therefore keeping materials in circulation for the longest possible time at their highest value.
- ✔ The energy required to produce, operate, and distribute, is generated as much as possible from renewable resources.
- ✔ The choice of materials should be non-toxic and regenerative.
- ✔ Build resilience through diversity: A company can derive greater value from diversity by sharing strengths and having a greater pool of resources to draw on. This also allows it to better respond to economic crises. The same applies to collaborating, thinking in systems, and creating connections between diverse people and ideas to enable opportunities for additional social, environmental, and economic benefits.

Overall, the Circular Economy is a necessary and critical solution to our current environmental and climate crisis, and implementing its principles requires a collaborative effort from governments, businesses, academia, and individuals to achieve a sustainable future.



The Inertia principle by Walter Stahel

In 1982, Stahel issued a paper titled “The Product-Life Factor” describing the closed-loop economy, now referred to as the circular economy.

His work is based on the different procedures that can be put in place to extend the life of a product and keep it at its maximum economic and material value.

THE INERTIA PRINCIPLE

By Walter Stahel

Do not repair
what is not broken

Do not remanufacture
something that can be repaired

Do not recycle
a product that can be remanufactured

Replace or treat only the smallest possible part
in order to maintain the existing economic value

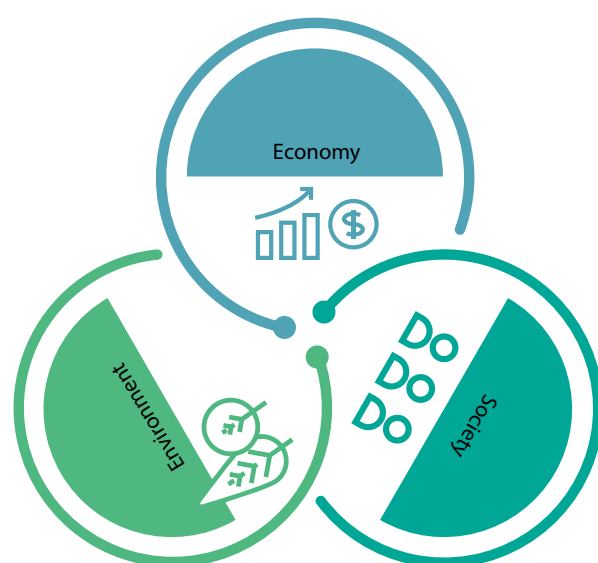
2.4

SUSTAINABLE, GREEN, OR CIRCULAR BUSINESS?

A distinction needs to be made between sustainable businesses, green businesses, and circular businesses (or enterprises).

SUSTAINABLE BUSINESSES

Sustainable businesses focus on reducing the negative impact of their operations on the environment and people in society. This can be achieved through measures such as reducing energy consumption, minimizing waste, using less toxic or sustainable materials in their products, or implementing health and safety measures for their workers. Any business recognizing its reliance on natural resources and operating in accordance with the principles of minimizing its environmental and societal damage is a more sustainable business and could be active in any sector (such as the food sector, textile sector, consumer goods sector, etc.).



CIRCULAR BUSINESSES

Circular businesses focus on creating a closed-loop system where resources are reused and recycled to minimize waste and maximize resource efficiency while eliminating or minimizing the use of toxic, non-biodegradable chemicals and relying on renewable energy. This can be achieved by redesigning products, innovating services, implementing take-back programs, and using recycled materials in the production process. Circular businesses go a step beyond

sustainability since they look at their whole lifecycle, and in principle, they also incorporate eco-friendly and ethical decisions in the entire way in which they operate and run their businesses (i.e., they do not solely focus on being circular in terms of the products they manufacture, but through everything they do and decisions they make). Circular businesses are key to the transition to a circular economy as they drive the change to rethink materials,

resources, and waste in a way to keep them being reused at their highest value for the longest time possible. However, a circular economy can only truly be achieved when the majority or all companies, as well as governments and other actors, operate together in a circular way (which will require regulations, enforcement, enabling environments, collaboration, and more).

On the other hand, a **GREEN BUSINESS** provides commercial solutions to environmental challenges, that, are economically viable and often socially empowering. This means that the “raison d’être” of the enterprise is to solve an environmental problem (such as providing clean energy through solar systems, or the transformation of organic waste into compost and soil amendments) or to offer a solution with a lower environmental impact (such as sheep wool insulation instead of petroleum-based insulation). Green start-ups and green businesses are essential for driving the change towards providing truly viable eco-products and eco-services for sustainable production and consumption.

BELOW YOU CAN FIND SOME KEY POINTS TO HELP YOU UNDERSTAND THE DIFFERENCE BETWEEN SUSTAINABLE BUSINESSES, GREEN BUSINESSES, AND CIRCULAR BUSINESSES, NOTING THAT THEY ARE NOT EXCLUSIVE:

Sustainable Businesses	Circular Businesses	Green Businesses
do not necessarily sell an environmental product or service	do not necessarily sell an environmental product or service, but focus on operating in a circular way	provide and sell specific eco-friendly products, solutions, or services
aim to reduce the negative impact of their operations on the environment and people	aim to also create a closed-loop system where resources are recirculated, reused, or recycled (or regenerated in the case of bio-resources)	are driven by eco-entrepreneurs, with their main raison-d'être being to solve an environmental problem or provide an environmental solution
tend to focus on reducing waste and energy consumption	focus on redesigning products and implementing take-back programs or recirculation measures.	are also considered sustainable if they follow measures to reduce their environmental and social impact throughout their operations (for instance, providing health and safety measures and fair compensation to their workers, while producing an eco-friendly product such as a solar panel)
may use sustainable materials in their products	prioritize the use of re-used, repaired, remanufactured, or recycled materials, with the lowest toxicity possible	can also be circular businesses if they follow circular approaches when designing, producing, and servicing their products, following a rigorous life cycle approach
aim to create sustainable business models	also aim to create sustainable business models, but take a more holistic approach by considering every step of the entire life cycle of a product	
are important for reducing environmental impact	are crucial for achieving a truly sustainable future in which resources and waste are valorised	

Note that while there are some distinctions between the three business types, they have been occasionally used interchangeably in this publication, as the process of going through the eco/sustainability/circular journey has similarities. The aim is to support as many start-ups and established businesses as possible to become sustainable and circular, even if their product or service does not specifically solve an environmental challenge.

HOW ARE GREEN ENTERPRISES DIFFERENT FROM BUSINESS-AS-USUAL START-UPS/SMES?

Green enterprises are enterprises that aim to solve an environmental challenge or provide an environmental benefit through the product(s) or service(s) they are offering. In terms of business models, business as usual SME focus solely or mainly on achieving financial return without environmental or social impact. Green enterprises differentiate themselves by their ecological mission, sustainability orientation, targeted market opportunities, access to specialized networks that are sometimes narrower than those of traditional commercial businesses, more rigorous impact measurement, or alignment with the SDGs. These distinctions reflect their commitment to environmental and social sustainability and their dedication to addressing global challenges through innovative and sustainable business solutions.

While some sectors that fall under the “green” umbrella have been increasingly attracting investments, such as those related to renewable energy, investors are often still reluctant to tap into others, including circular approaches, or sectors like water and sanitation, that are traditionally considered more tricky and less profitable in terms of financial Return on Investment (ROI). Precedent shows that businesses in those more “difficult” or less “commercial” sectors can very much succeed but may require specialized support and adapted financing instruments to take them to the next level.

As awareness of environmental and climate-related challenges grows, green start-ups can leverage market opportunities that arise from the growing demand for sustainable solutions.

They target niche markets related to renewable energy, clean technologies, eco-friendly products, circular products and solutions, and other sustainability domains. Regular start-ups may operate in more diverse or conventional markets without a specific emphasis on sustainability, while green start-ups not only offer a green solution to the market but also prioritize sustainability in their operations and business models. They aim to minimize negative environmental impacts, adopt sustainable practices, and integrate social and environmental considerations into their decision-making processes. This environmental focus in their offering, as well as their sustainability orientation, sets them apart from regular start-ups, which may not have a specific sustainability focus.



Have You Heard about Urban Mining?

Urban mining refers to the process of extracting valuable resources or materials from discarded products, buildings, and urban waste streams. It involves recovering, reusing, or recycling materials from existing urban infrastructure, such as electronic waste (e-waste) from electric infrastructure, construction and demolition waste, industrial waste, and consumer products. This includes materials such as precious metals (gold, silver, and platinum), base metals (copper, aluminum, and iron), rare earth elements, plastics, glass, and other reusable components. The concept of urban mining evolved from the recognition that cities contain vast amounts of valuable resources that can be reused or recycled, reducing the need for traditional invasive and polluting mining, minimizing environmental impacts, and adding economic value.

2.5

CREATING ECONOMIC VALUE AND JOB OPPORTUNITIES FOR GREEN ENTERPRISES

How can a push in the direction of a circular economy create enhanced economic value and more job opportunities for start-ups and SMEs in Lebanon?


































- ✔ By creating new business opportunities in valorizing waste and creating closed-loop systems. This can lead to the creation of new businesses specializing in recycling, maintenance, repair, and refurbishment. SMEs can take advantage of these opportunities since they are typically more agile and able to adapt to changing market conditions. Additionally, this can increase cooperation and partnerships between SMEs.
- ✔ By maximizing resource efficiency and minimizing waste creation. SMEs are often resource-constrained; therefore, they can find ways to reduce waste. This can lead to new products and services that are designed to be sustainable.
- ✔ By driving innovation in circular business models, product eco-design, and technologies that can open new business opportunities for SMEs.

All of the above can be vastly facilitated when start-ups and SMEs receive the right support, with funding channelled to adopt or develop circular solutions from all ecosystem actors: BSOs, government, donors, impact investors, and other.

IDEATION EARLY STAGE



Ideation / Early Stage

<p>Integrating Circularity and Eco-Design Thinking at Early Stage</p> 	<p>Understanding the Green Customer</p>	<p>Life Cycle Thinking</p>	<p>Eco-Design and Circularity</p>	<p>Circular Strategies and Business Models</p>	<p>Developing the Green Business Model</p>	<p>Access to Finance at Early Stage</p>	<p>Green and Circular Enterprises Highlight</p>
<p>Make sure to revisit the concepts and tools with your entrepreneurs!</p> 	<p>The 5 Whys</p> 	<p>What is a Life Cycle Assess</p> 	<p>Innovative Eco-Enterprises for Circular Cities</p> 	<p>What is the Butterfly Diagram?</p> 	<p>Green Business Model Canvas</p>	<p>Circularity in the Fashion Industry</p> 	<p>Nour Kays</p> 
<p>Build Your Problem Tree</p> 	<p>Customer Persona & Empathy Map</p> 		<p>Switcher EcoDesign</p>  	<p>Embrace Toolkit</p>  	<p>Green in Vision, Mission, Value Proposition</p>		<p>Climberspace</p> 
<p>Locality Mapping</p> 			<p>Start-Ups with a Physical Product</p> 	<p>Maintain, Repair, Reuse</p> 	<p>TheSwitchers.org Platform and Toolbox</p> 		
<p>What is biomimicry</p> 			<p>Engageing Environmental and Circular Economy Specialists</p> 	<p>The Sharing Economy</p> 	<p>The Switchers GBM Methodology</p> 		
					<p>The Resource, Recovery and Reuse Business Development MOOC</p> 		
					<p>Embrace Toolkit</p>  		
					<p>Remember the PESTEL</p> 		
					<p>Preliminary Market Testing and Early Prototyping</p>		
					<p>The Switchers Green Business Model Exercise</p> 		
					<p>What is Co-Creation?</p>  		
					<p>Value Proposition Canvas</p> 		
					<p>Remind Enterprises of Green Principles</p> 		
					<p>Open Eco-Innovation Manual</p> 		

3.1

INTEGRATING CIRCULARITY AND ECO-DESIGN THINKING AT EARLY STAGE

As previously explained, the circular economy refers to an economic state where resources are kept in a continuous cycle of use. It entails designing waste out of the production and consumption systems as much as possible. It also entails rethinking the way we operate, for instance by replacing the unnecessary overconsumption of goods by long-lasting products with services offered to maintain and repair them, as well as promoting a collaborative “sharing” economy whereby there is no need to own many goods, favoring leasing or rental models rather than purchasing them. Supported by a transition to renewable energy sources, the circular model builds economic, natural, and social capital.

Industries, corporations, SMEs, and start-ups play a crucial role in driving circularity since materials and products consumed are manufactured by industries and/or produced and/or supplied by enterprises. Start-ups in the ideation phase or early-stage enterprises have the luxury of designing their products from the start with circular and eco-design principles in mind, incorporating strategies for re-circulation from the onset. It is also usually more cost-effective to eco-design new products upfront rather than redesign existing products in order to adapt them to circular criteria such as biodegradable materials or the potential for easy disassembly at end-of-life. Start-ups and small enterprises are more flexible and agile in changing their design criteria compared to established businesses. Additionally, the possibilities offered to them for selecting new, less harmful materials, creative, out-of-the-box functional designs, and/or innovative business models are numerous. Once their business model and idea are validated, at a later stage, circular start-ups will be able to attract more impact investors as well as early adopters looking for eco-friendly innovative solutions.



Make sure to revisit the concepts and tools with your entrepreneurs!

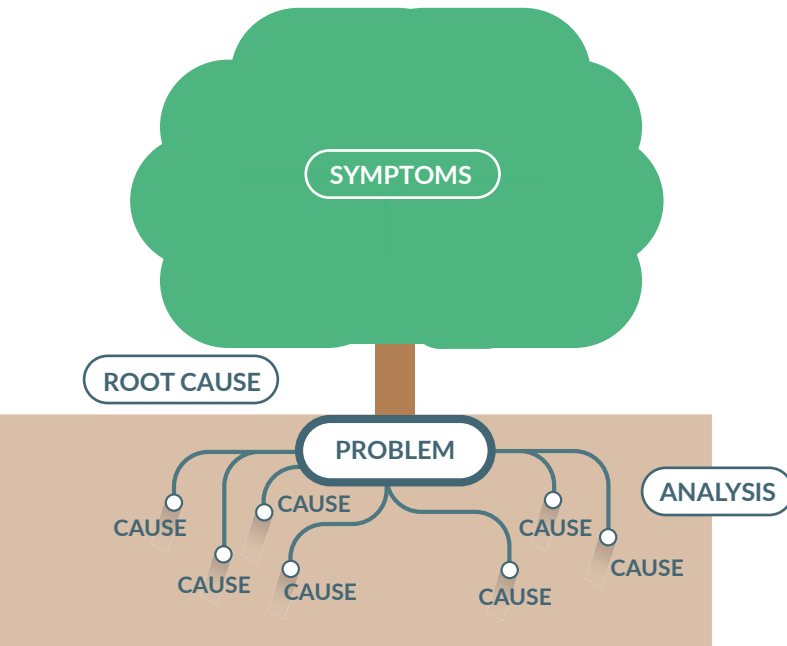
While some of these concepts on eco-design and circular business models are introduced early –and on purpose–in this Toolkit, they need to be revisited repeatedly at later stages. At the ideation stage, when a product or service idea is not clearly formed yet, fully applying the concepts might not be possible. However, learning and understanding them from the onset of the entrepreneurial journey is crucial and can help an entrepreneur at the ideation stage shift towards an idea or business offering that responds to their eco-principles.

ROOT CAUSE ANALYSIS: UPSTREAM VERSUS DOWNSTREAM SOLUTIONS

For start-ups in the ideation phase, addressing pro-actively and as much as possible the root causes of specific environmental problems rather than fixing them after they occur and cause environmental damage is very important.

For this reason, a variety of environmental impact assessment methodologies, tools, standards, monitoring, and reporting tools have been developed, in addition to environmental and circular design tools that allow designing from the start in a less harmful way. These methods and tools can be used by governments, corporations, institutions, organizations, academia, and by professionals as designers and researchers.

Indeed, how would you know if you were improving the performance and quality of a project or product? By doing a methodical assessment from an environmental point of view of the project you are working on, the startup you launched, the company you work for, or the product you are designing, you can gain a clear idea about its true environmental and social impacts, which will help guide you on how to be more sustainable. Starting at the initial stages of the project or product design enables you to carry out an environmental cost-benefit analysis.



As illustrated in the Problem Tree diagram above, this is done by analyzing the root causes of a problem instead of simply addressing its symptoms. This is also called taking “upstream” action in opposition to “downstream” fixing when it might become too late or even cause irreversible damage.

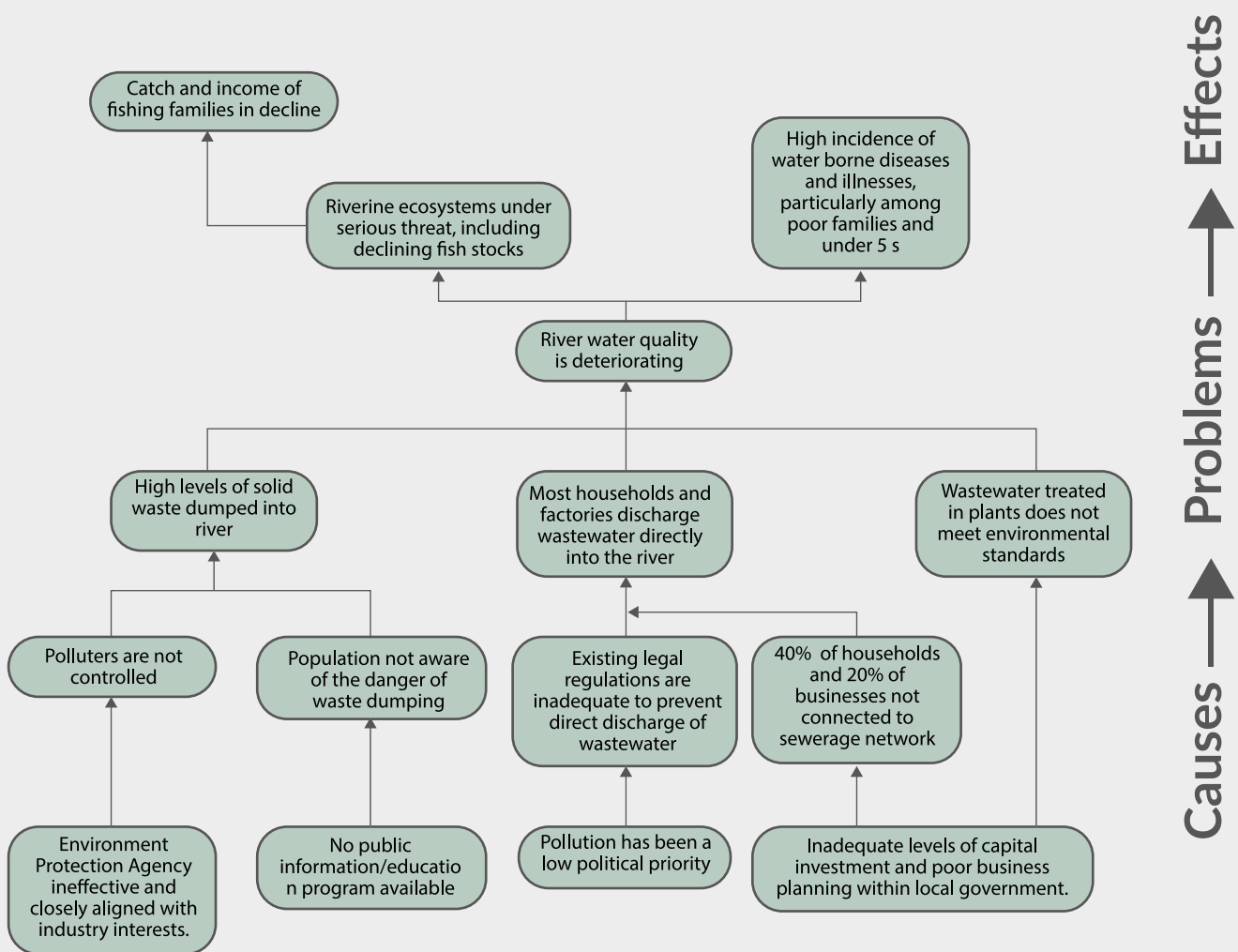
An example of downstream action is initiatives or enterprises for cleaning beaches and the oceans, but this will not stop the littering and pollution at source, meaning that the waste will continue pouring into our rivers and oceans! Of course, it is important to encourage cleaning campaigns as immediate short-term solutions and to raise awareness about environmental and health issues, but to really solve the problem, we need to go back to its root causes and ask ourselves: How do we reduce or eliminate single-usage products, how do we make them compostable, how do we address behavioral change to stop people littering, etc.? These types of questions and their related actions are essential to finding and implementing long-term, sustainable solutions.



Build Your Problem Tree

Analyse the problems of your system using the Problem Tree Analysis.

The problem tree analysis is one participatory tool for identifying main problems, along with their causes and effects, that can help project planners to formulate clear and manageable objectives and the strategies of how to achieve them. While building the Problem Tree, the negative aspects of a given situation are identified, establishing the cause-and-effect relationship between the observed problems. Like any other tree, the problem tree has three parts: a trunk, roots, and branches. The trunk is the main problem. The roots represent the causes of the core problem while the branches represent its effects. The following figure shows an example of a problem tree related to river pollution:



Problem trees do more than just identify the root causes of the problem. They provide a visual breakdown of problems into their symptoms as well as their causes, and furthermore, they create a visual output that can be understood by anyone. The process can be a useful method for building a community's awareness of the problem and how they and others contribute to the problem, and how these problems affect their lives. This may also be an important step when attempting to garner support for any interventions, new techniques, or improved technologies.



Locality Mapping

Locality Mapping is a visual tool used to map out geographic information on a socio-environmental level. The collected data identifies problems based on stakeholders' perceptions of them, with a focus on a specific issue or area of focus that revolves around political, economic, social, technological, environmental, and legal entities. As a green business, this tool helps in the process of identifying local resources, assets, and opportunities that you can capitalize on to support eco-friendly business operations.

By incorporating locality mapping into their green business strategies, companies can better understand the unique external environmental factors and socioeconomic assets, foster collaboration, reduce environmental impact, and support the community's sustainability while creating opportunities for business growth and resilience.



The Sustainable Sanitation and Water Management website describes locality mapping in detail:

<https://sswm.info/taxonomy/term/2646/locality-mapping>

Online tools and Templates can be found on Edraw: <https://www.edrawsoft.com/template-location-map.html>



What is Biomimicry?

Biomimicry is derived from “bio” for “nature” and “mimicry” for “imitation”, meaning the practice of imitating nature. In other words, it is the deep observation of nature that inspires us to find innovative solutions for complex human problems. The logic behind biomimicry is that living organisms have evolved over millions of years and have adapted to a wide range of conditions.

Nature has solved several engineering problems, such as resistance and tolerance to environmental factors, self-healing and self-assembling, the ability to harness solar energy, and water impermeability. By closely studying nature’s structures and interactions, we might find potential answers to human challenges. For instance, we might study the organization of an ant or bee colony to look for solutions to logistics problems, or we might examine the biological structure of certain species to inspire ideas for new materials.

Biomimicry can thus greatly help us in:

- discovering new natural materials and substances with different beneficial properties
- in the choice of materials, and how they interact together
- how to reduce or even eliminate products waste
- how to design more effectively with less harm to nature and society

The concept of Biomimicry is dedicated to peaceful and non-destructive solutions.

Vox YouTube Channel, [“The world is poorly designed. But copying nature helps.”](#), video, 6min 49sec, 9 November 2017.

National Geographic YouTube channel, [“How the Eastgate Center in Zimbabwe cools itself without air conditioning”](#), video, 3min 41sec, 29 May 2018.

3.2

UNDERSTANDING THE GREEN CUSTOMER

Ideation is when one's creativity is involved in generating, developing, and exploring one or more ideas. From a business perspective, idea formation from conception to implementation is an innovative solution to a problem. These innovative solutions are birthed by clear and structured thinking, best known as “design thinking”—thinking outside the box and using methods to put action behind one's ideas. The design thinking process involves thinking outside the box with creativity, innovation, and the end user's needs at its core to offer a solution to the problem-solving approach.

This process is clustered into five stages: empathize, define, ideate, prototype, and test. A more in-depth definition of design thinking and how it assists in incubation, relating to the prototyping and testing stages of enterprises, is provided in the section Prototyping, Testing, and Validation in the Market (Green MVP Development). The early stages of design thinking are dedicated to empathizing and defining. Building empathy is a cornerstone of making decisions derived from understanding the users' needs, wants, pain points, and frustrations.

At this phase, asking three main questions, ‘What’, ‘How’, and “Why” is vital. Firstly, when asking “what” you document the details of the incidents and not one's assumptions. Secondly, by asking “how” you can analyze the person's verbal and non-verbal communication and patterns. Lastly, asking “why” is to make educated guesses about the user's stimulants and sentiments, as seen in the 5 Why Analysis Tool.



The 5 Whys

One of these analysis tools is the 5 Why Problem-Solving Technique, developed by Sakishi Toyoda, the founder of Toyota. The 5 Whys is a question-asking approach utilized to outline and resolve the problem's root cause. As the name indicates, the technique permits asking - why - no more than five times to guide you and steer you to alternative problem-solving tools. Thus, you have a clear idea of which user problem you will solve; a problem is defined, and a statement is composed. The tool reveals the underlying causes of process roadblocks, such as product defects, and guides quality advancement efforts.

This tool, while typically applied in the ideation stage for all businesses, is particularly important for entrepreneurs that aim to venture into green entrepreneurship. Understanding the root causes of an environmental problem, based on the problem tree presented in the previous box and the 5 Whys will help the entrepreneurs consider solutions at the different stages of the problem, rather than just dealing with the result and end-of pipeline problem.

For detailed guidance on how to apply this tool, you can consult various online resources, including <https://www.mindtools.com/a3mi00v/5-whys> ; <https://kanbanize.com/lean-management/improvement/5-whys-analysis-tool>

Problem: Ran through a red light

Why?

Late for work.

Why?

Woke up late.

Why?

Alarm didn't work.

Why?

Exhausted battery.

Why?

I forgot to check it.

Root cause



Customer Persona

Understanding your audience requires the application of a user persona tool. A persona is a replica of a group of people that have common characteristics. It is a semi-fictional profile of your audience's background, goals, knowledge, and attitude. Through it, you can comprehend the psychology and effectively communicate with each person who uses your product.

There are three key questions to ask while developing the customer's persona: Who are they?, What do they do?, and How do they think?

1. Who are they? entails the users' identity, including age, gender, educational background, demographics, social status, and residence.
2. What do they do? entails the users' occupation, hobbies, and interests that they aim to achieve.
3. How do they think? entails psychographics such as attitudes, values, motivations, and pain points.

THE PERSONA CANVAS

PROFILE DATA	PERSONALITY	PRODUCTS/SERVICES	TRENDS
JOBS(S)	PAINS	GAINS	
POSITIONING STATEMENT	PAIN RELIEVERS	GAIN CREATORS	
BRAND	CHANNELS	COMMUNICATIONS	

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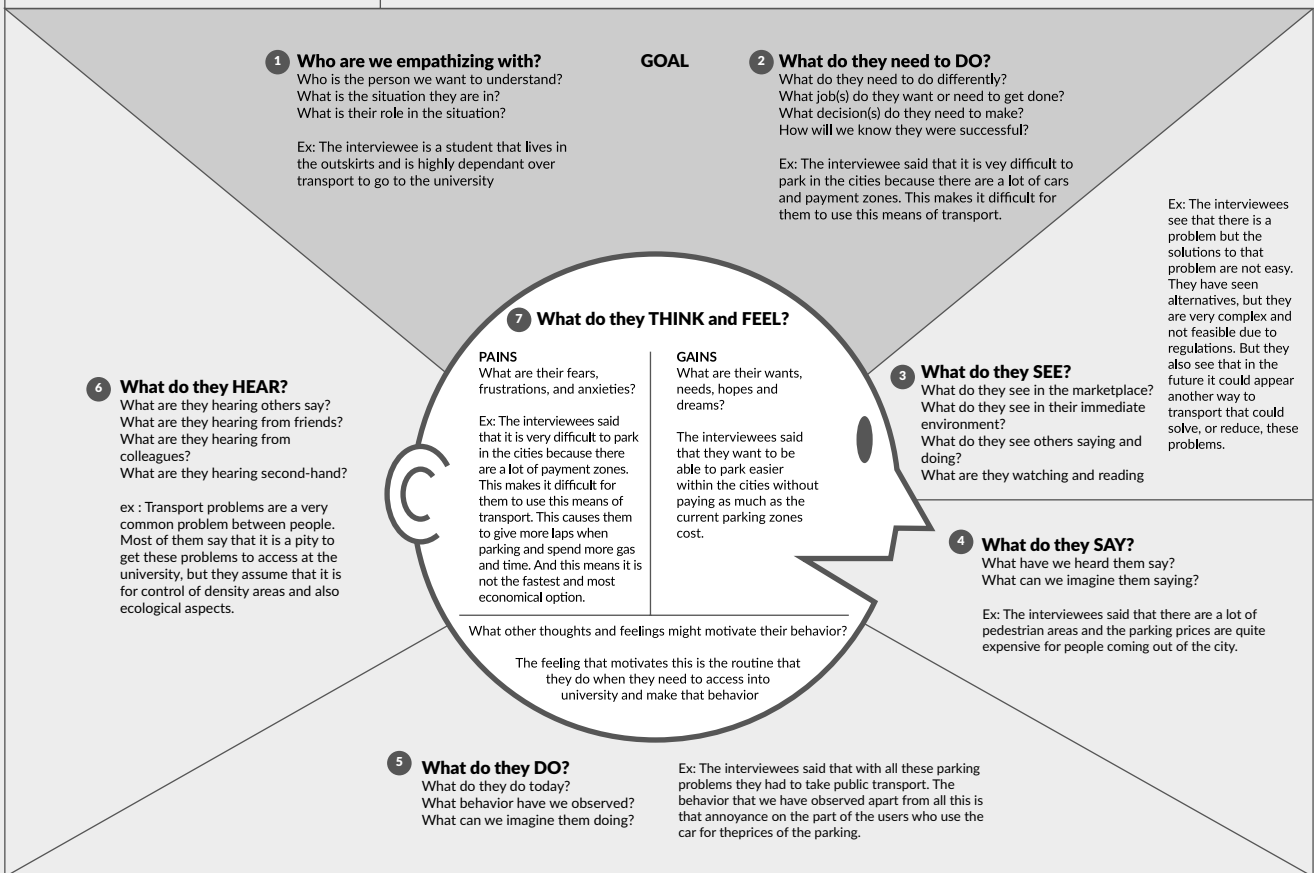


Green enterprises often target customers that already have a certain awareness or preference for green products, thus potentially reducing the target market. These preferences need to be well understood and taken into consideration, with consequences for product development, packaging, and marketing and many other aspects.

Examples of canvases can be found here: <https://www.garyfox.co/canvas-models/persona-canvas/> and https://sswm.info/sites/default/files/2020-12/Persona_0.pdf

To take your understanding of the Customer Persona to an even deeper level, you can apply the Empathy Map tool. With this tool, you will gain insight into your customer’s perspectives as derived from the persona canvas-mentality, emotions, needs, and behaviors.

Empathy Map Canvas



Multiple resources with detailed guidance on customer persona tools exist, for instance the ones developed by growthwheel: <https://www.growthwheel.com/innovationtool> or https://sswm.info/sites/default/files/2020-12/Customer%20empathy%20map_0.pdf

3.3

LIFE CYCLE THINKING

How can circular entrepreneurs make more informed choices, from conceiving new products and solutions or deciding on the choice of materials to use, to designing eco-friendly packaging and adopting low-impact operations? It all starts by adopting a Life Cycle Thinking approach from the onset.

Life Cycle Thinking is a holistic approach to thinking about the environmental impact of products beyond manufacturing to also include extraction, consumption, usage, and end-of-life. This way of thinking looks closely into the processes involved in the use of a product and its materials from the point of its creation to the end of its useful life.

Green entrepreneurs are encouraged to think in a circular way, first by realizing that everything we use or operate has a life cycle, as seen in this graph: From the extraction or usage of raw resources and materials to their processing and manufacturing into products and goods, to the packaging, distribution, and storage processes, and to their final usage.

However, contrary to the traditional way of business thinking, the cycle shouldn't stop at the point of sale!



A circular business needs to also figure out how to extend the usage phase of products as much as possible, and to care about the End-of-Life of products and objects (and even buildings and infrastructure), i.e. how to dispose of them or dismantle them safely, and ideally reintroduce them back into the productive life cycle to manufacture other goods, thus lessening the environmental impact associated with waste and reducing the pressure on virgin materials.

Indeed, tackling the issue of waste accumulation entails that designers and producers are aware of the impact of their products throughout their life cycle but also beyond their selling point and attempt to minimize it from the onset through smart eco-design.



What is a Life Cycle Assessment?

Life Cycle Assessment (LCA): A widely used technique defined by ISO 14040 as a “compilation and evaluation of the inputs, outputs, and potential environmental impacts of a product system throughout its life cycle”.

The results of LCA studies are strongly dependent on the system boundaries within which they are conducted (i.e., what is included versus excluded from the analysis). The technique is intended for the relative comparison of two similar means to select the most environmentally friendly and least health-hazardous alternatives.

An environmental Life Cycle Assessment (LCA) looks at the potential environmental impacts resulting from the extraction of resources, transportation, production, use, recycling, and discarding of products. Life Cycle Costing (LCC) is used to assess the cost implications of the life cycle of a product, while a Social Life Cycle Assessment (S-LCA) examines its social consequences.

Different Life Cycle Assessment techniques allow individuals and enterprises to assess the impact of their purchasing decisions or production methods along the whole value chain.

Because it is holistic, systemic, and rigorous, an environmental LCA is the preferred technique when it comes to compiling and assessing information about the potential environmental impacts of a product. It also allows you to compare and select between different material options based on their environmental performance and health impact.

LCA has been standardized and incorporated into the ISO 14040 and 14044 environmental quality standards and is applied globally by practitioners. In Europe and a few other countries, manufacturers, regulators, specifiers, and consumers have been using life cycle information to improve their product selections and product environmental profiles.

Explore the environmental impact of three types of bags (plastic, paper, and cloth) to find out how they're made, used and disposed of.

TEDEd YouTube Channel, [“Which bag should you use?”](#) - Luka Seamus Wright and Imogen Ellen Napper”, Video, 4min 52sec, 19 November 2020.







3.4

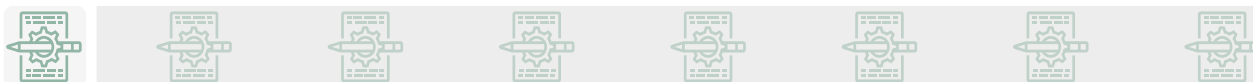
ECO-DESIGN AND CIRCULARITY

Today's linear 'Take, Make, Dispose' economy relies on large quantities of cheap, easily accessible materials and energy, and is a model that is wasteful and polluting. This is why it is imperative for green entrepreneurs to adopt, even at an early stage, eco-design and circular design principles that aim to tackle the root causes of many waste-related problems: It is indeed estimated that up to 90% of the environmental impacts of products happen or are a consequence of the design stage!

Designing a product or a service that creates no waste or pollution, or a business model that keeps products in use for years and years, requires a lot of research, creativity, innovation, and design thinking. The best way to start is to carefully look at the whole life cycle of the product, step by step, and assess at each phase the best alternatives and strategies to conceive eco-friendly circular products and to put in place the right mechanisms to enable their long-term usage, as well as their recirculation at end-of-life.

Here are some **Eco-design Strategies and Circularity Guidelines** to follow that will help green entrepreneurs throughout the process. But there are many more, as you will see throughout this Toolkit!

- 
Prioritize the highest value opportunities: Reuse, sharing, remanufacturing, and refurbishment should be prioritized over recycling, as recycling often downgrades –downcycles – the value of a material and requires more energy.
- 
Design products to be easily repaired or re-manufactured, or create new business models to easily facilitate sharing and renting.
- 
Reduce the resource requirements of your designs: Using the minimum amount of material possible while still meeting the functionality of the product. The product can sometimes be replaced by a service, such as digital services like Spotify and Netflix that do the same job as CDs and DVDs but without the hard product.
- 
Safe and circular material choices: Many products contain chemicals that are toxic to humans or the environment. Some hazardous additives are often used unintentionally or for performance reasons, such as improving flexibility or durability, but there are ways to design them out by choosing materials that are safe and circular or by exploring new non-toxic substitutes.
- 
Design products that last: Extending the life of a product allows it to remain in use for as long as possible. This means designing products that are both physically and emotionally durable, and thinking about products that adapt to a user's changing needs as time passes. An example is baby furniture that is designed to be disassembled and transformed into other furniture that is adapted to the growing kid's needs.
- 
Modular design: means allowing to remove only part of a product by making it easier to disassemble. It is an excellent strategy for making products easier to repair, remanufacture, and upgrade, while lowering the cost and effort to replace specific components when they are damaged. Modular systems can also be customized to adapt to varying and changing users' needs, preventing products from becoming quickly obsolete and keeping them in use for longer periods of time.



Introducing theSwitchers.org Platform and Toolbox

The Switchers platform is a Toolbox that contains many excellent tools and resources for green and circular entrepreneurs, and we are referring to it all through this Toolkit. It is based on the SwitchMed Support Programme for Green Entrepreneurship framework and methodology, which has been **developed by MedWaves**, the UNEP/MAP Regional Activity Centre for Sustainable Consumption and Production, and **funded by SwitchMed**, a programme funded by the **European Union**.



All the tools and exercises of the SwitchMed Support Programme for Green Entrepreneurship are available on [TheSwitchers.org](https://theswitchers.org) online platform.

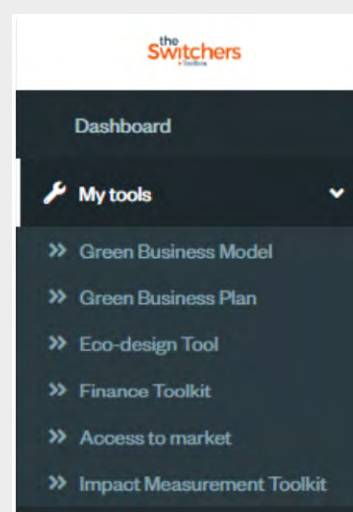
Registration and Login Instructions

BSOs and Entrepreneurs have free online access to these tools and exercises on [TheSwitchers.org](https://theswitchers.org) [Toolbox](#), respectively under the **Business Support Organization** and the **Green Entrepreneurs/Sustainable Business** categories.

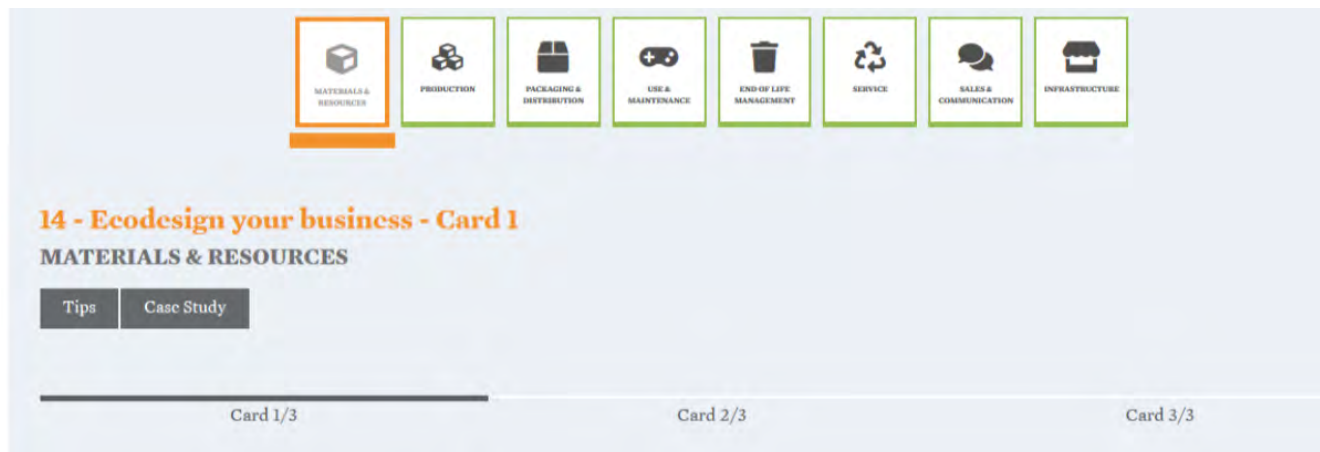
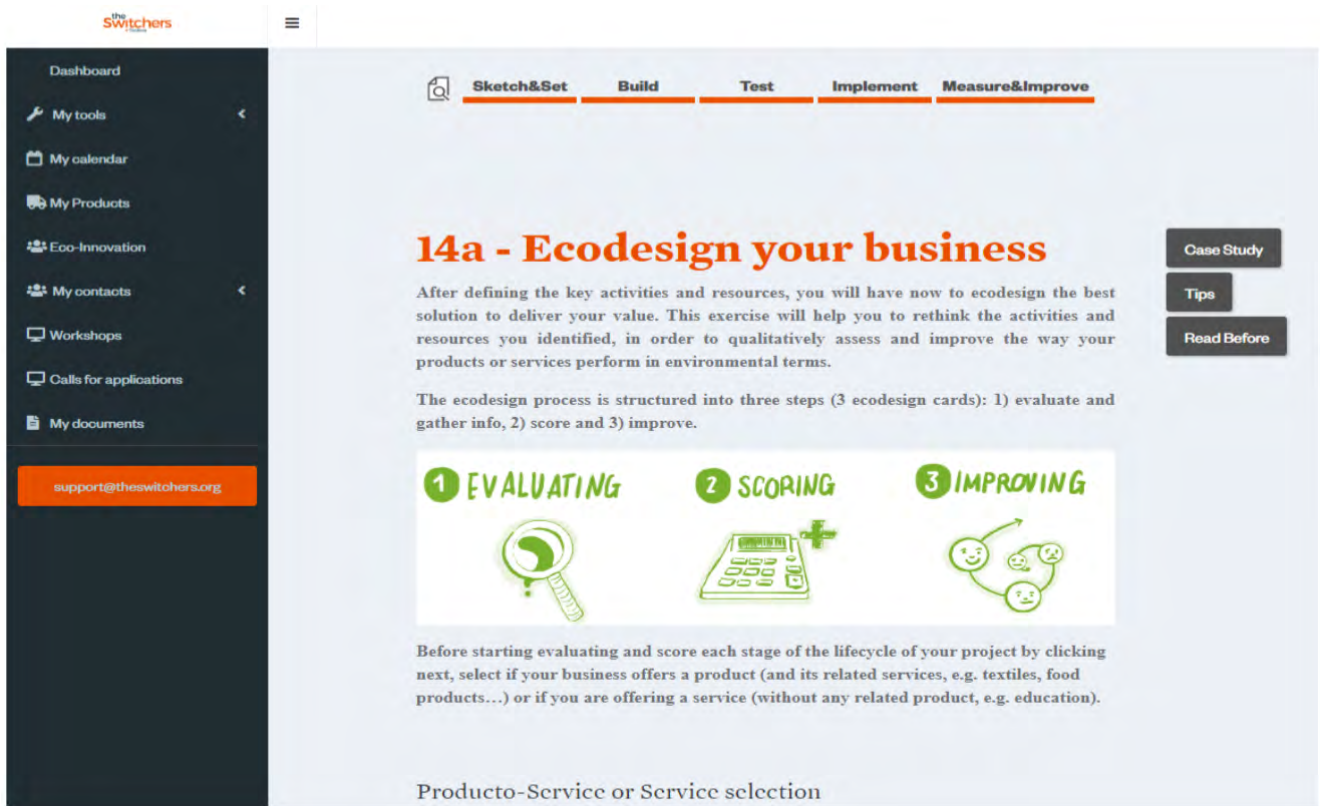
Click on Registration in the [Green Entrepreneurs/Sustainable Business](#) section, and follow the few simple steps to register. You will then be able to login at any time through your registered email and password by clicking on the Login "[Green Entrepreneurs/Sustainable Business](#)" link.

Switchers Tools

An innovative set of methodologies and tools for sustainable business development are accessible, with online step-by-step exercises and resources allowing green enterprises- or existing enterprises wishing to transition to circular businesses—to develop a complete **Green Business Model** followed by a **Green Business Plan**, in addition to important other tools: **the Eco-Design Tool, the Finance Toolkit, Access to Market, and the Impact Measurement Toolkit**.



The **Switchers Eco-design Exercise** is an excellent tool to use for a preliminary eco-design evaluation of the product or solution that a new green start-up is considering. **Eco-design Exercises 14a and 14b** are embedded into the **Green Business Model** methodology, under the Build tab, as seen in the screenshot below.

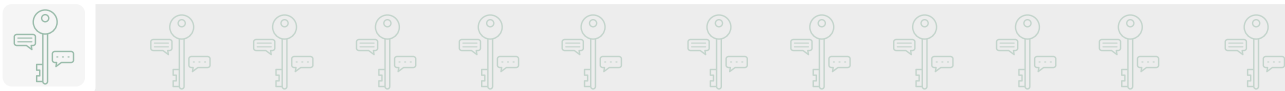


In this Eco-design exercise, each stage of the lifecycle, including running business operations and delivering the company's services, is thoroughly assessed based on three Cards:

Card 1: A qualitative evaluation of the phase is undertaken, with open-ended questions to answer such as: What are the type and number of different materials and resources used in your product; where and how do you source them from (distances from your facilities); are technical materials (such as plastics, metals, etc.) sourced with recycled content and are they recyclable; etc.

Card 2: Specific and more precise questions related to each phase of the lifecycle are to be answered by choosing Yes (y), No (n), or Other/Don't know (o) and contributing to the Eco-design scorecard.

Card 3: This card provides the opportunity to “eco-design”, by brainstorming and determining how to use less harmful materials and incorporating new eco-design strategies, ideas, and mechanisms at each lifecycle stage to improve the green enterprise's actual solution and eco-design score for the weak aspects of it. In the “Tips” box, entrepreneurs can find some helpful eco-design strategies and ideas at each lifecycle stage to improve their solution.



Switchers Eco-design Exercise 14

uses the life cycle approach, as described in this diagram.

It is important to note that:

- Phases 1 to 5 of the Life cycle apply to start-ups that have a physical product.
- Phases 6 to 8 apply to all start-ups whether they have a physical product or only services to offer. This is because product companies will also need to service, sell, run a team and communicate about their product(s).





Start-ups at Ideation and Early Stage with a physical product would benefit mostly from exploring the following stages:

- **Materials and resources**
- **Production**
- **Use and maintenance**
- **End of Life management**

It might be too early for most start-ups or entrepreneurs to look closely into packaging and distribution, infrastructure, services, sales and communication, however familiarizing themselves with the requirements and content of these stages in the eco-design exercise will give them good insights about what important parameters to consider and to focus on once their product(s) are established and eco-designed, in order to run their facilities and/or operations in an eco-friendly and socially responsible way.

It is also recommended that the entrepreneurs set realistic goals, with Short-Term, Medium-Term, and Long-Term strategies for improvement, based on their resources (time, human, physical, financial...) and any technological constraints or local availability.

In part b of Exercise 14, a scorecard will appear, similar to the one below, with the eco-design score achieved in each lifecycle stage, as well as the total score. By applying different eco-design strategies and improvements in Cards 3, entrepreneurs will be able to assess how much their score could increase, should they manage to practically execute and implement these changes to their materials, products, and business operations, in the short/medium term.





Engaging Environmental and Circular Economy Specialists

As a BSO, you are strongly encouraged to seek assistance from Environmental and/or Circular Economy Specialists to support green/circular entrepreneurs in the eco-design phase.

It is highly recommended to sub-contract their services for training and coaching entrepreneurs, or businesses transitioning to circularity, if you do not have staff with this expertise internally. Experts will be able to answer entrepreneurs' ecological and technical queries, share their knowledge, refer them to the right resources and co-experts, support them in using the necessary tools, put them in touch with like-minded entrepreneurs with whom they may mutually benefit from collaborating, and allow them to eco-design their ideas and solution in an effective way. This is equally advisable during the **ideation, incubation, and acceleration stages!**



Innovative Eco-Enterprises for Circular Cities

Circular design thinking also applies to designing houses, buildings, and cities. Urban planners, landscape designers, architects, engineers, interior designers, transport consultants, and even citizens all play a role in transitioning to circular cities!

Additionally, innovative or disruptive green start-ups can come up with new circular materials, such as building blocks or party walls that incorporate waste or biowaste, to reduce the high impact of concrete in construction.

3.5

CIRCULAR STRATEGIES AND BUSINESS MODELS

Circular strategies are different strategies that can be adopted by start-ups, enterprises, and businesses to either design from the onset products or mechanisms that will achieve more circular products, or to re-evaluate or re-design their products to integrate circular criteria into them. This could be integrated at any or, ideally, at all stages of the life cycle of the product or operations of the enterprise. For instance, selecting materials that are biobased and renewable or with low or little environmental impact, designing products without gluing different materials together, and, using materials with recycled content in products are all circular or eco-design strategies that can be adopted at the design and production stages. Incorporating clear instructions in the product's labeling about how to dispose of the product at the end of its life to enable its recirculation (for example, by explaining how and where to recycle it, who to donate to, or offering a take-back incentive) is a circular strategy at the end-of-life. The previous Eco-design exercise is a good starting point for this!

Another excellent way to start ideating and reflecting on circular strategies is to consult and understand the well-known **Butterfly Diagram** (see Resources box in the next page), which provides a blueprint of the best ways to prioritize closed-loop recirculation within businesses, but also between corporations and industries.

On the other hand, circular business models are different and often more innovative ways to operate a start-up or enterprise to enable material and product recirculation in the economic or industrial ecosystem. For example, a company that decides to adopt a subscription or leasing model instead of selling products favors a circular business model since ownership of the physical product remains its own, which provides an incentive for producing and keeping the product at its highest quality and durability, thus creating the need to be able to easily maintain and repair it. A few other examples of circular business models are enterprises that offer repair services, sell second-hand products or vintage clothes, create new upcycled products, or sell their leftovers to another industry that repurposes or reuses them. A circular business could also operate by combining different circular strategies with circular business models, such as selling an optimized, eco-designed product while also offering high-quality maintenance and repair services for it to keep it in use for as long as possible at its highest value.

There are many advantages to adopting circular strategies and business models. Indeed, in a circular economy mindset, renewable, recycled, or highly recyclable inputs are used in production processes and recirculated, allowing for partial or total elimination of waste and pollution. Waste becomes an asset, rather than a liability that needs to be disposed of (and in many countries businesses also need to pay for its safe disposal). Often, raw materials could be obtained for free or at a low cost as they are the result of a waste stream. This reduces the cost of production. Additionally, resource recovery at the final stages of the usage cycle, in particular the recovery of embedded materials, energy, and resources from products when they are no longer functional in their current application, is usually cost-efficient, especially if the product and operational system have been designed from the beginning for easy disassembly and recirculation.

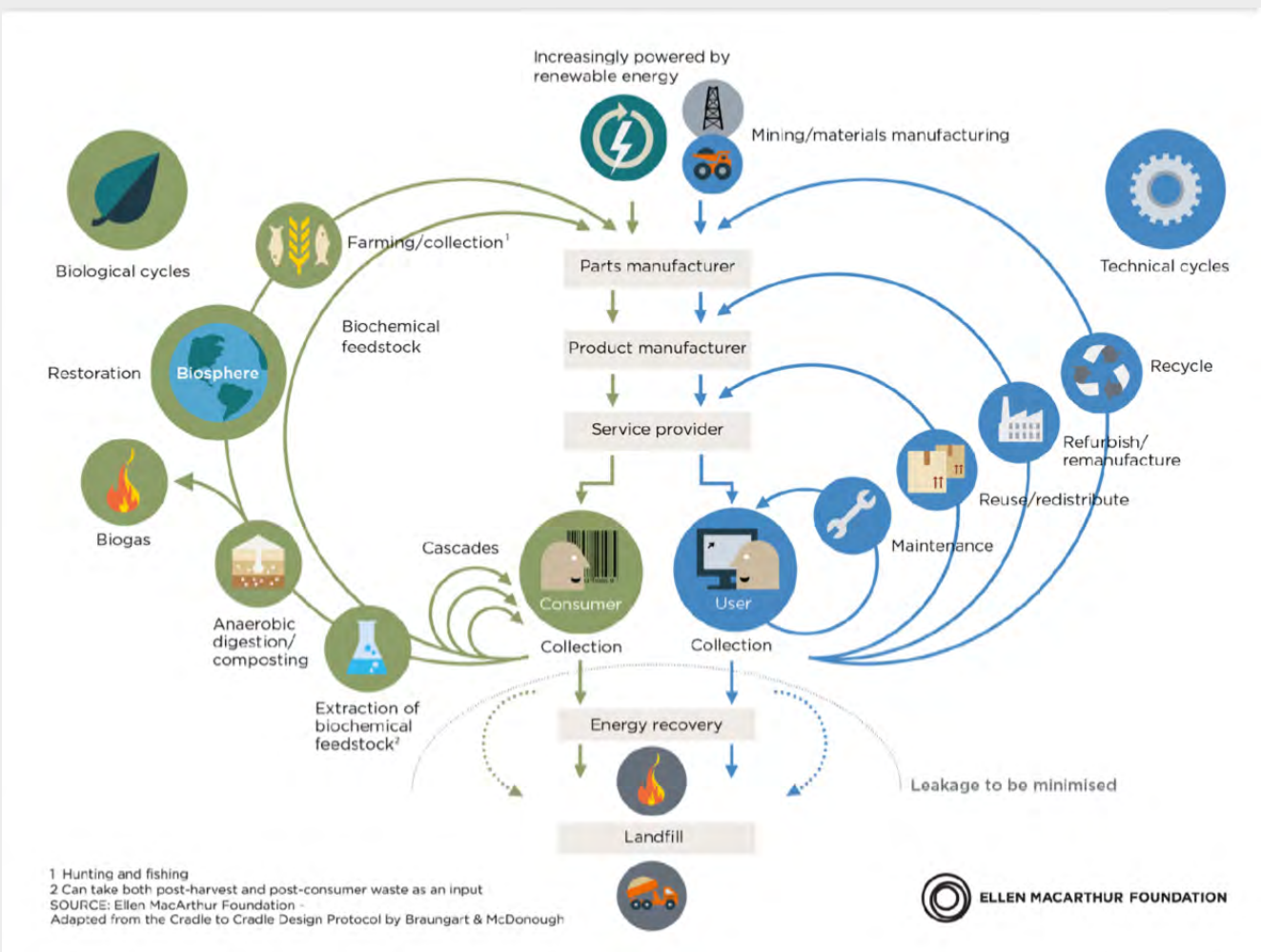
Furthermore, adopting the model of a **sharing economy** also decreases the costs of production and allows for longer usage of the same resources while creating continuous revenue streams throughout the life stages of the product. By sharing with other enterprises or start-ups, access to an expensive asset no longer requires buying or renting from traditional suppliers but is instead provided by individual people and companies.



What is the Butterfly Diagram?

The Butterfly Diagram is a visual representation supporting how, in a circular economy, industries and businesses could adopt a continuous flow of materials and resources (in opposition to the linear approach of extraction to disposal).

Biological (coming from organic or renewable materials) and technical (coming from non-organic materials such as metals and plastics) cycles represent how materials are retained at their highest value through closed-loop strategies. Such strategies need to be clearly elaborated during the design, production, and operational stages and often require the involvement and collaboration of a variety of stakeholders in order to be implemented and to succeed.



Learn more about the [Butterfly Diagram](#).



The Sharing Economy

Is ownership really necessary? Central to the concept of a circular economy is a shift from ownership to access. Very often, users only require access to a product for a short period of time, after which they can return it to the service provider or pass it on to a new user.

The sharing economy refers to an economic model in which individuals or businesses share access to goods, services, equipment, or resources with others. A sharing economy is one of the strategies to achieve a circular economy since it optimizes and maximizes the usage of resources and materials, using or reusing them for the longest possible time. It also enables people and businesses to monetize their underutilized assets (such as costly equipment and machinery, or even office spaces that are idle) or skills by connecting them with others who are willing to pay for temporary access or usage, or to co-share a space or warehouse.

In the sharing economy, traditional ownership is often replaced by a system of sharing, renting, or trading. The concept relies on the principles of collaboration, resource optimization, and peer-to-peer transactions. It is currently facilitated by digital platforms and online marketplaces to facilitate interactions and transactions between providers and consumers. However, it also presents challenges related to regulation, taxation, liability, and ensuring fair and safe transactions for all participants, which need to be carefully considered.

Examples of businesses or business models that adopt sharing economy principles include:

Ride-sharing services (such as Uber)

- Accommodation-sharing platforms (such as Airbnb or Homestay)
- Leasing equipment and appliances instead of selling them: This has the additional advantage of retaining ownership of the product, with an incentive to maintain and repair it to the highest standards, in order to maintain it in use the longest possible and recover its valuable materials at its end-of-life
- Co-working spaces (with affordable access to well-equipped workspaces and shared resources)
- Tool sharing (lend or rent tools and equipment to others, reducing individual ownership)
- Crowdfunding platforms (such as Kickstarter allowing individuals or businesses to raise funds for projects through small contributions from many)
- Peer-to-peer lending (platforms connecting borrowers directly with lenders, bypassing traditional financial institutions)



The **#EMBRACE TOOLKIT** and methodology incorporate a series of Circularity Strategies to prioritize and select materials with low or lower environmental impacts, as seen in the table below extracted from the Embrace Toolkit:

F0 · ECOCANVAS: CIRCULARITY STRATEGIES BUY



Deciding and managing circularity *If you have capacity to influence the procurement, production and selling of the product-service-business you are evaluating or launching, start from here, and find your inspiration. From top to bottom strategies or mindset are ordered in connection BUY · MAKE · USE areas of the overview scheme.*

Bio-based resources	Bio-based materials are those that are partially, or entirely made of biomass. The key element is that the carbon with which is used in the manufacturing process is derived from a renewable, biological process. Biomass can be used to create a range of material inputs, such as biopolymers, biofuels and bio-based chemicals.
Renewable resources	Renewable raw materials are not of fossil origin but are made, in most cases, from plants. Their use presents benefits, since other limited resources are not used and, in addition, it provides for adequate disposal.
Reused / reusable resources	Resource reuse means using a discarded product, component or material for the same function it originally served, with minimal processing. When purchasing a material, identifying those that have been used or those that are reusable may reduce the environmental impact of your product.
Easy to compost	Compostable materials can be deposited with biological content and decay into nutrient-rich material without leaving harmful residues. Materials may only be considered compostable if they: 1. Disintegrate and biodegrade rapidly in a composting environment - 2. Do not devalue the organic component of the soil - 3. Leave no eco-toxicity.
From local suppliers	Local procurement refers to the purchasing of goods or services from a local supplier. Local includes host communities, indigenous and previously disadvantaged communities, as well as at provincial, national and regional levels where appropriate
Ecolabelled & certified procurement	Select suppliers with certified ecologically responsible practices in business activities used to meet needs for materials, goods, utilities and services. The approach is one component of sustainable procurement, along with a dedication to social responsibility and good corporate citizenship.
Prioritize Recyclable resources as input	The proportion, by mass, of recycled material in a product or packaging, the highest, the better. Only pre-consumer and post-consumer materials shall be considered as recycled content.
Servitization: Pay per Performance	Purchasing services instead of products may be a financially attractive strategy that also results in less resource consumption for you and the supplier. There are multiple -unit models including pay-for-performance and pay-per-use.



Developed by Ass.For.SEO under the embrace Project (3182). Project co-financed by the European Regional Development Fund. The embrace project is implemented under the Interreg-Med 2014-2020 Programme.

Ecocanvas: Circularity strategies is under Creative Commons Attribution-ShareAlike 4.0 International License. By Nicola Cerantola (Ass For SEO) 2018. Inspired by <https://www.ceguide.org/Strategies-and-examples> World Business Council for Sustainable Development.



Additionally, the Embrace Toolkit describes numerous Circular Design Strategies (such as designing products that are easy to maintain and repair, easy to disassemble, easy to up-cycle, etc.), as well as circular production and operational models (such as energy and water efficient processes and, processes with fewer or no synthetic hazardous chemicals). These strategies are depicted in the two Tables below:



F0 · ECOCANVAS: CIRCULARITY STRATEGIES DESIGN 1



Designing circularity If you have capacity to influence the design stage of the product-service-business you are evaluating or launching, start from here, and find your inspiration. From top to bottom strategies or mindset are ordered to find a connection with the BUY · MAKE · SELL · USE and DISPOSE areas of the overview scheme.

Cradle to Cradle: think in metabolisms	Choose materials that belong to a biological (compostability) or technical (up-cyclability) metabolism. Choose C2C certified if possible. Avoid mixing if you are not able to separate them at the end of life.
Biomimicry: inspired by nature	Observe how natural systems solve their problems, copy their technologies, learn how to make, process and dispose inspired by living systems.
Green Chemistry / Safer chemicals	Green chemistry means designing chemical products and processes that minimize or eliminate the use or creation of hazardous substances.
Substitute rare earth metal	Rare earth metals are a group of 17 elements that are economically difficult to extract due to low concentrations in nature: Scandium, Promethium, Holmium, Yttrium, Samarium, Erbium, Lanthanum, Europium, Thulium, Cerium, Gadolinium, Ytterbium, Praseodymium, Terbium, Lutetium, Neodymium, Dysprosium
Substitute critical raw material	Critical raw materials are minerals that: 1. Have high supply risk due to high concentrations in specific countries - 2. Are vital for key sectors in the economy - 3. Do not have economically viable substitutes: Antimony, Fluorspar, Natural Graphite, Rare earth metals (Heavy), Beryllium, Gallium, Niobium, Borates, Germanium, Phosphate Rock, Rare earth metals (Light), Chromium, Indium, Silicon Metal, Cobalt, Magnesite, Tungsten, Platinum group metals, Cooking coal, Magnesium
Life Cycle Thinking	Life cycle thinking means accounting for economic, environmental and social impacts across all stages of a product or process life cycle. Perform LCA and SLCA.
Select waste free processes / technology	Choose processing methods that are not generating waste or generating a nutrient for other industries
Avoid chemical derivatives	Avoid generating chemical derivatives that are uneasy to be managed and disposed. Mitigate exposure risks through isolation or take-back programs, for example
Fewer hazardous chemical synthetic methods	Try to avoid choosing chemical processes that require consuming hazardous substances.
Choose Energy & Water efficient processes	Select production processes that are Energy & Water efficient, cold machinery, manual operations or BATs
Select lower energy and water footprints	Materials with low intensity or low embodied energy & water are preferable, since they reduce the cumulative demand of the offered product/service.
Dematerialization / Minimization	Dematerialization is the replacement of a physical product with a non-physical product or service, thereby reducing the production, demand and use of physical products; and reducing the end-user's dependence on physical products. It can be seen as Digitalisation. Minimisation refers to reducing as much as possible the materials used.

F0 · ECOCANVAS: CIRCULARITY STRATEGIES DESIGN 2



Designing circularity If you have capacity to influence the design stage of the product-service-business you are evaluating or launching, start from here, and find your inspiration. From top to bottom strategies or mindset are ordered to find a connection with the BUY · MAKE · SELL · USE and DISPOSE areas of the overview scheme.

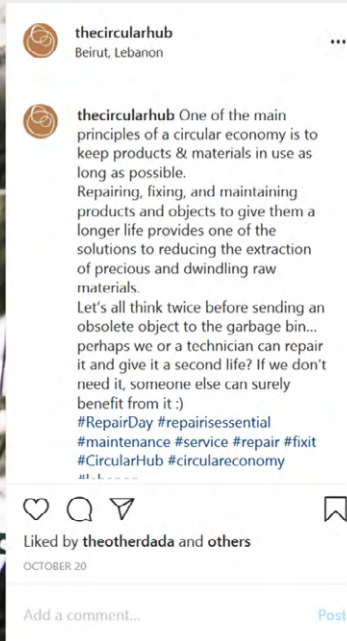
Servitization: from Product to Performance	Purchasing services instead of products may be a financially attractive strategy that also results in less resource consumption for you and the supplier. There are multiple -unit models including pay-for-performance and pay-per-use.
Educate and inform	Foster communication and information all along the supply chain, providing material identification to users, recyclers and other stakeholders
Openness, Modularity & Standardization	Openness refers to share information about a particular technology, process or material. It is a form of copyleft licensing where access is granted to others. Modularity can be easily understood thinking in LEGO bricks. Promote an interchangeability of functions, parts and replacements.
Promote Energy & Water Efficient consumption	Design to foster Energy and Water efficiency during consumption and use.
Enable Reutilization by users	Promote second hand markets and user reutilization
Design a timeless product: no obsolescence	A timeless product design is essential for achieving a reasonable lifetime of the product and avoid a premature transformation into waste because it has become old-fashioned.
Enhance durability and resistance	Choosing materials that reduce wear and keep the best appearance and highest quality of the product as long as possible.
Easy to Maintain and Repair	Design for maintainability or reparability prolongs product use, extending its useful lifetime.
Easy to Compost	Compostable materials can be deposited with biological content and decay into nutrient-rich material without leaving harmful residues. Materials may only be considered compostable if they: 1. Disintegrate and biodegrade rapidly in a composting environment - 2. Do not devalue the organic component of the soil - 3. Leave no eco-toxicity
Easy to up-cycle	Choose materials that are feasible to be up-cycle (recycled without losing quality) such as some plastics, metals.
Easy to disassembly	Design principle that calls for the end-of-life options of how the product, components and materials can be deconstructed.
Easy to Extract Cascade Value	Choose materials that can be recovered to extract value in cascade
Prioritize recyclable resources as input	The proportion, by mass, of recycled material in a product or packaging, the highest, the better. Only pre-consumer and post-consumer materials shall be considered as recycled content.
Limit the number of material types and composites / mono-materiality	In general, a reduced number of different types of materials is desirable, since it simplifies all life cycle stages (e.g. procurement of materials, production processes, management of wastes, etc.).
Limit use of adhesives, dyes, paints and coatings (types and colors)	Adhesives, dyes, paints and coatings make final value extraction (refurbishment, up-cycling, recycling or energy recover) extremely inefficient or even unfeasible
Limit or eliminate hazardous materials and contamination	Hazardous materials generate risks and increase waste management costs

The full **#EMBRACE TOOLKIT** is accessible through the following [link](#).



Maintain, Repair, and Reuse

In a circular economy, products and the materials they contain are highly valued, with Maintenance, Repair, and Reuse equally essential for extending material flow. Since most CO₂-eq emissions and other pollutants are produced upon initial manufacturing, a second-life device or product will reduce the burden on our planet. Maintenance services that extend the life of products (especially complex ones such as electronic appliances, machinery, and vehicles) are crucial and allow for an additional regular revenue stream for the companies offering them. The same goes for high-quality repair, renovation, refurbishment, and second-hand services, which result in fewer greenhouse gas emissions, less pollution, and less waste.



The Right to Repair is now gaining momentum worldwide, and the UN has even declared October 20th as World Repair Day. The below Repair Manifesto illustrates the Why behind Repairing, which goes against the concept of Planned Obsolescence that many companies, in particular international corporations, have adopted to incentivize continuous sales of new, slightly upgraded products (think Smartphones!). It is however very important to note that in most cases repairs should be performed by 3rd party experienced or licensed professionals to reduce any health hazards, ensure long-lasting, high-quality repairs, and increase the credibility and reliability of repairs. Poor repairs defeat the purpose of durability. Quality repair services offer many opportunities for new business models or to extend the services of an existing business towards circularity.

IF YOU CAN'T FIX IT, YOU DON'T OWN IT.

REPAIR IS BETTER THAN RECYCLING

Making our things last longer is both more efficient and more cost-effective than mining them for raw materials.

REPAIR SAVES YOU MONEY

Fixing things is often free, and usually cheaper than replacing them. Doing the repair yourself saves you money.

REPAIR TEACHES ENGINEERING

The best way to find out how something works is to take it apart.

REPAIR SAVES THE PLANET

Earth has limited resources. Eventually we will run out. The best way to be efficient is to reuse what we already have.



REPAIR **CONNECTS** PEOPLE AND THINGS | REPAIR IS WAR ON **ENTROPY** | REPAIR IS **SUSTAINABLE**

WE HAVE THE RIGHT: TO DEVICES THAT CAN BE OPENED | TO CHOOSE OUR OWN REPAIR TECHNICIAN | TO NON-PROPRIETARY FASTENERS
 TO REPAIR DOCUMENTATION FOR **EVERYTHING** | TO REMOVE "DO NOT REMOVE" STICKERS
 TO REPLACE **ANY & ALL** CONSUMABLES OURSELVES | TO TROUBLESHOOTING INSTRUCTIONS & FLOWCHARTS
 IN THE PRIVACY OF OUR OWN HOMES | TO ERROR CODES & WIRING DIAGRAMS | TO AVAILABLE, REASONABLY-PRICED SERVICE PARTS

3.6 DEVELOPING THE GREEN BUSINESS MODEL

3.6.1 GREEN BUSINESS MODEL CANVAS

Now that the green/circular entrepreneurs have understood the principles of a circular economy and the concepts of eco-design for the products or solutions they are looking into to solve specific environmental and sometimes accompanying social challenges, it is time to dive more into the business aspect, to validate the idea from a commercial perspective, to understand the market and stakeholders, the potential clients, how to reach them, their likes, wants, and needs, and more.








This is done by working on a Green Business Model (GBM), also called Green Business Canvas (GBC). Unlike the traditional Business Model, a Green Business Model, as its name indicates, puts a strong emphasis on the green and circular aspects of the product and enterprise, making sure it is addressing serious environmental challenges or providing solutions that limit environmental degradation while also being ethical and socially responsible.

The following is an extract from a GBM, describing the main aspects that the entrepreneurs need to focus on and understand in-depth to give a comprehensible summary of the start-up they are aiming to create or have just started.



Green in Vision, Mission, and Value Proposition: As a Business Support Organization assisting the green entrepreneurs in their journey to develop their GBM, it is very important to **keep the focus on the environmental and social added values** derived from their idea all along the way. These added values **should be explicit and visible in the Mission, Vision, and Value Proposition.**

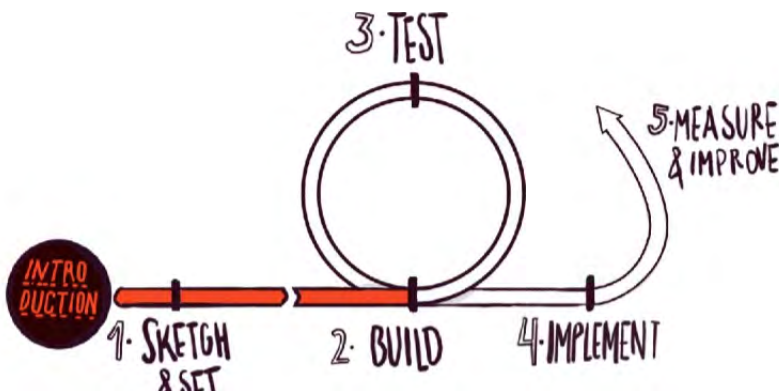
GREEN BUSINESS CANVAS

Mission		OBJECTIVES			NAME _____	
Vision					DATE _____	
KEY STAKEHOLDERS 	KEY ACTIVITIES & RESOURCES 	VALUE PROPOSITION 	CUSTOMER RELATIONSHIPS & CHANNELS 	CUSTOMER SEGMENTS 		
COST STRUCTURE 			REVENUE STREAMS 			

As a BSO, you can play a key role in supporting entrepreneurs to develop their start-up idea, and a good place to start is through the Switchers Platform and Toolkit, using the Green Business Model Toolkit!

3.6.2 THE SWITCHERS GBM METHODOLOGY

The SwitchMed Green Entrepreneurship methodology consists of a series of step-by-step exercises to assist entrepreneurs in sustainably developing their Green Business Model (GBM). The approach is divided in three steps:



Step one is about “Sketch and Set.” Entrepreneurs will understand the context in which they want and need to operate, in addition to the problems and needs being tackled by their start-ups.

Steps two and three are about “Building and Testing” their business ideas using the Green Business Model. It’s a tool to guide entrepreneurs to identify their stakeholders, understand their customers, build their environmental or circular value proposition to meet the needs of their customers, identify their main activities, resources, costs, and revenues, and eco-design their products and services.

Note that some of these concepts may have been previously addressed; they will be explored again here.

This methodology adopts the Lean Startup approach, which encourages entrepreneurs to test their business models and products or services from the very beginning, looking for feedback from potential customers and early adopters and continuously adjusting and “co-creating” the idea according to their input and reactions. This approach can reduce costs, risks, and time to validate a business model.








The green entrepreneur can make good use of the **Case Study, Tips, and Read Before** tabs that pop up with valuable examples and information about how to fill in various exercises and sections!

- **Case Study**
- **Tips**
- **Read Before**

In the Switchers tool, exercises are completed directly on the online platform and accessible at any time to help participants directly apply all the learning. At the end of the Green Business Model tool, eco-entrepreneurs should be able to answer questions relevant to their sustainable business idea namely, **“Why? Who? What? How?”** which allows them to develop a concise Green Business Model. TheSwitchers.org Toolbox also includes Tips and Case Studies along the way.

With the support of qualified BSOs and/or SwitchMed trainers, the methodology assists entrepreneurs to creatively design, describe, co-create, eco-design, and improve their value proposition and customize a sustainable green business model to offer and pitch their environmental and circular, social, and economic values to their stakeholders.

As this diagram explains, when working on the Green Business Model with the entrepreneurs, they will be able to gradually complete the:

- ✔ **WHY?** Summarized in their **Mission, Vision, and Objectives**
- ✔ **WHO?** Summarized in their **Key Stakeholder and Customer Segments**
- ✔ **WHAT?** Summarized in their **Value Proposition**
- ✔ **HOW?** Summarized in their **Key Activities, Resources and Customer Relationships and Channels**
- ✔ **HOW?** Summarized in their **Cost Structure and Revenue Streams**



Of course, the environmental, circularity, and social aspects should remain prevalent all along the journey of developing the Green Business Model! In the Switchers methodology, guiding questions highlight environmental attributes of their product or service to ensure entrepreneurs keep focusing on these principles, and ensure they are reflected in a distinct value proposition.



Alternative tools to the SwitchMed Green Entrepreneurship Methodology that draw on similar concepts include **The Resource, Recovery, and Reuse (RRR) Business Development MOOC**, which is a fully online-based, self-guided course designed for entrepreneurs and trainers who wish to deepen their knowledge of RRR business model ideas. The RRR ideas are based on the safe resource recovery from liquid and solid waste to help address food and energy security, cost recovery in the water, sanitation, and resource management sectors, as well as livelihood opportunities. The training equips participants with the needed technical and business strategy tools to support the entrepreneurial process when conceiving, launching, and growing a venture in the water, sanitation, or resource management sectors. Furthermore, participants learn more about technological options for the implementation of RRR systems, as well as promising business models for the reuse of water, nutrients, or energy recovery, keeping in mind health and integrity management issues. This course was developed by researchers at the International Water Management Institute (IWMI) and business development experts at cewas. Course business models were also supported by the CGIAR Research Program on Water, Land and Ecosystems (WLE). It is fully accessible through: <https://sswm.info/perspective/resources-recovery-and-reuse-rrr-entrepreneurship-online-course>

Module 1:
Identifying RRR
Business
Opportunities



Watch Preview

Module 2:
Scanning the
Business
Environment



Watch Preview

Module 3:
Blueprinting the
Business Model



Watch Preview

Module 4:
Planning
operations



Watch Preview

Module 5:
Planning
finances



Watch Preview

Module 6:
Launching
the Business



Watch Preview

3.6.3 EMBRACE TOOLKIT



The **#EMBRACE TOOLKIT** and methodology incorporate another alternative Business Canvas called the **ECOCANVAS**, which is more focused on circularity and is meant to be used for prototyping and early-phase entrepreneurs developing Circular Business Models. The canvas needs to be revisited and further refined at the incubation stage.

It incorporates additional sections compared to the conventional Business Model Canvas, namely:

- The Environmental Challenges solved by the product/project/service
- The Social aspects tackled or to be considered
- The Circular Value Chain
- The Circular Business Model and Innovation

The tool also keeps a specific focus on formulating a Unique Circular Value Proposition. The full **#EMBRACE TOOLKIT** is accessible through the following [link](#)

A · ECOCANVAS: CIRCULAR BUSINESS MODEL PROTOTYPING

 **Prototype your circular business idea.** It is important to start with the Problem / Need (PRO) block and continue defining Customer Segments (SCL) until reaching the Single Circular Value Proposal, although in reality there is no mandatory order. Follow your intuition!



Developed by Ass.For.SEO under the embrace Project (3182). Project co-financed by the European Regional Development Fund. The embrace project is implemented under the Interreg-Med 2014-2020 Programme.

A · Ecocanvas is under Creative Commons Attribution-ShareAlike 4.0 International License. By Nicola Cerantola, 2018. Originally inspired by Business Model Canvas de Osterwalder, Pigneur & al. 2010 (<https://strategyzer.com/>) & Lean Canvas A. Maurya. 2012 (<https://canvazim.com/new/lean-canvas>).





Remember the PESTEL!



A **PESTEL analysis** is a framework to analyze the key external factors (**Political, Economic, Sociological, Technological, Environmental and Legal**) influencing an organisation from the outside. It allows us to foresee opportunities, market trends and avoid potential threats. It is important to integrate in the PESTEL analysis the local, regional, and global contexts, when applicable.

Equally important to note that PESTEL external factors can affect our start-up or future business either in a **positive way**, which may lead to **Opportunities** that the enterprise can seize, or in a negative way, which may generate **Challenges**, meaning that the enterprise should think about pre-emptive measures or take action in order to alleviate or circumvent these challenges.

Below are some questions for entrepreneurs to address when working on their PESTEL exercise:

- What is the political situation of the country and how can it affect our business?
- What are the prevalent economic factors, how would they influence our market and customers?
- How much importance does culture and trends have in the market and what are its determinants?
- What technological innovations are likely to pop up and affect the market structure?
- What are the main environmental concerns and challenges and how are they driving impact investors, consumers behavioral change, exports markets, etc.?
- Are there any current legislations that regulate our start-up or can there be any change in the legislations that might affect our business?

The **PESTEL analysis** can also be found in the **#EMBRACE TOOLKIT** as shown below.



Foreseeing the changes. In this tool you are mapping and identifying those Political, Economic, Social, Technological, Environmental and Legal aspects that can affect the business and above all evaluate the impact of them that can be positive or negative. The objective is to try to respond to future situations and increase the resilience of the business. Once the different aspects have been described and evaluated, return to ECOCANVAS and fill in the AIA and AIS blocks with a summary of the main aspects found.

<p>ENVIRONMENTAL FORESIGHT</p> <p>What are they and how will the most important environmental aspects affect your business in the coming years? Think of global warming, scarcity of resources, etc.</p> <p><u>What environmental changes?</u></p> <p><u>Who will they affect the business?</u></p> <p><small>Need help? Go to the Circular Mapping tool to map the resources you currently use and identify potential areas of future vulnerability.</small></p>	<p>POLITICAL FORESIGHT <small>What are and how will the most important political changes affect your business in the coming years? Think of changes in national and European governments and policies, new ways of managing public resources, etc.</small></p> <p><u>What changes?</u> <u>How will they affect the business?</u></p> <p>ECONOMICAL FORESIGHT <small>What are and how will the economic dynamics (micro and macro) affect your business in the coming years? Think of sectoral crises, new monopolistic actors, tax variations, etc.</small></p> <p><u>What changes?</u> <u>How will they affect the business?</u></p> <p>TECHNOLOGICAL FORESIGHT <small>What are they and how will the new technologies affect your business in the coming years? Think blockchain, internet of things, nyteartechology, AI, home automation, etc.</small></p> <p><u>What changes?</u> <u>How will they affect the business?</u></p> <p>LEGAL FORESIGHT <small>What are the main legal aspects in the local, regional, national or transnational context that may interfere or influence your business value proposition and / or operations? Think about laws, labels, new policies.</small></p> <p><u>What changes?</u> <u>How will they affect the business?</u></p>	<p>SOCIAL FORESIGHT</p> <p>What are they and how will the most important aspects, related to society, affect your business in the coming years? Think of technology, culture, social networks...</p> <p><u>What social changes?</u></p> <p><u>Who will they affect the business?</u></p> <p><small>Do you need more help? You can use the Consumer Trend Canvas. For more information, consult www.trendwatching.com</small></p>
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3.7 PRELIMINARY MARKET TESTING AND EARLY PROTOTYPING

Once a preliminary Green Business Canvas is completed, and/or as soon as the new product or service is taking shape, the entrepreneurs you are working with really need to validate that their product, service, idea, and/or business model are actually viable, and have at least a potential market (i.e. potential customers willing to purchase it!).

This phase is like the preliminary testing phase of any business idea; however, the emphasis is again put on the environmental and circular aspects of the product or service, as well as its socially beneficial or ethical features.

Below are a few good reasons why entrepreneurs should spend time and effort researching, testing and validating their circular or green business idea :

Our Clients Are Not Us.

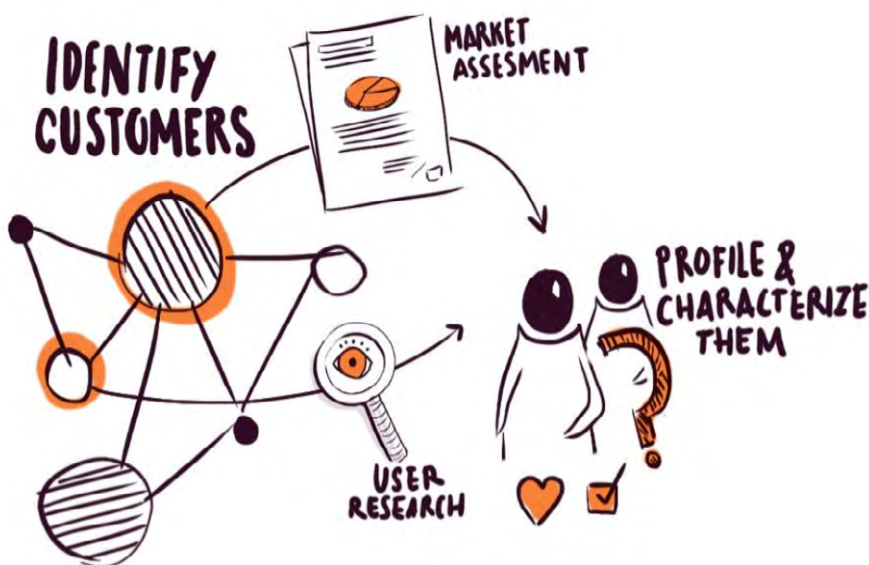
A common mistake is to believe that our customers will have similar taste, interests or needs than us. Often this is not the case, therefore we need to check it outside, in the real world.

Stay Hidden Is Not an Option.

We must go out, test our product or service and get feedback from our potential customers as soon as possible. No matter whether the product or service is

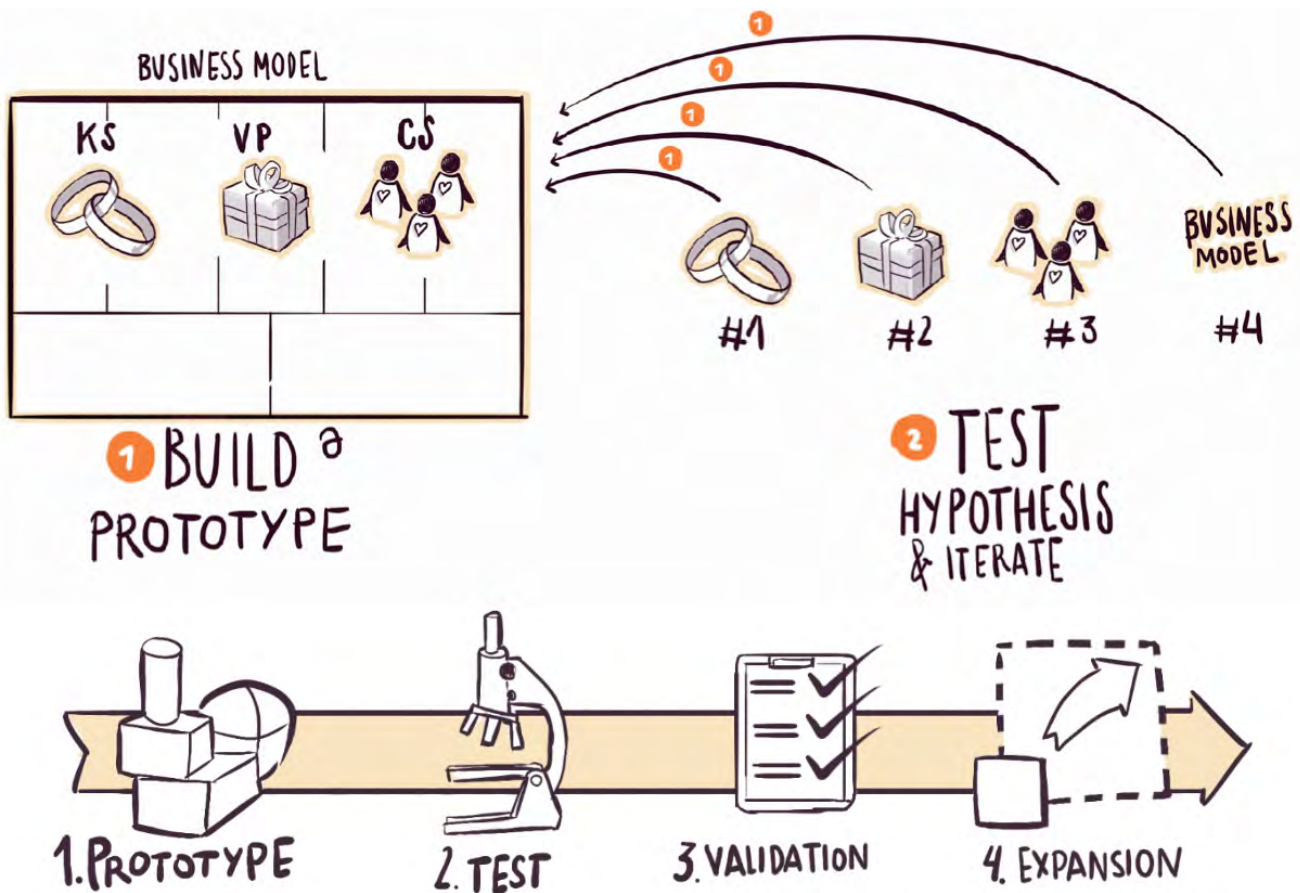
Make Sure We Know Our Client.

Who's our client? What does he/she want/need? Can we contact him/her directly? How does he/she live? where? Etc.



The first step is to undertake consumer research to understand what current consumers are doing with regards to the business idea being addressed as well as market research about the competition to understand the alternatives that their potential consumers may have. This also allows them to evaluate how their offering is better positioned from an environmental and social angle, and which attributes may give it a competitive edge.

The Switchers Green Business Model **Exercise 10** allows the green entrepreneurs to go through a series of questions and design cards to design their test, and is based on a step-by-step approach following the steps illustrated and described below.



Building a Prototype: A prototype will be needed to visually show the innovative or new product, service, or idea being offered. At the preliminary idea stage, this could simply be in the form of sketching or drawing it, creating a mockup or blueprint, visualizing it on software in 3D, etc, especially if the product is complex and expensive to produce. Of course, if the real product is easy to sample, it will be more optimal to produce it to get all the “senses” from it (i.e, a potential customer could touch it, feel it, smell it, taste it, etc. as needed).

Deciding on the Test Format: This could be in the form of online surveys, physical focus groups, on-line focus groups, individual face-to-face interviews, individual online interviews, participation in a pop-up event, and/or other methods. Each method has its pros and cons and needs to be evaluated considering time and budget constraints.

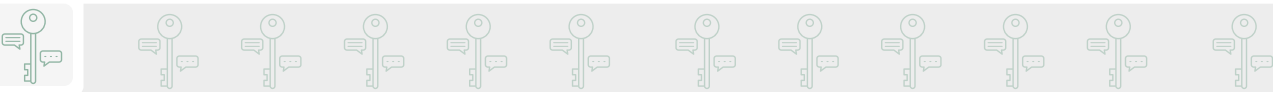
Designing the Test will follow: It requires carefully identifying the hypotheses that need to be tested (which still need to be validated) and formulating questions accordingly in a way and order that will influence the least possible responses.

Carrying out the Test: After selecting the best channels to reach customers and stakeholders (interviews, focus groups, observation, social networks, etc,) and designing the questionnaire or survey for it, entrepreneurs will need to go out and “talk” to their potential customers (the ones that fit the profile(s) of their customer segment(s)!) and stakeholders to validate the hypothesis they have or correct it. Testing allows entrepreneurs to integrate the knowledge they have gathered from customers and other stakeholders into their project or product. This process is also referred to as “co-creating” the product or service with stakeholders.



What is Co-Creation?

Co-creation is the practice of collaborating with other stakeholders to guide the design process. Participants with different roles align and offer diverse insights, usually in facilitated workshops. Designers can therefore get more holistic views of what a product or service should include.



In the Switchers methodology, BSOs and green entrepreneurs are constantly reminded about the **importance of “Co-Creating” their product/service or idea, by engaging their clients and stakeholders through co-creation processes**, gathering and incorporating their feedback about the features and characteristics of the idea as needed.

Based on the results of their Survey/Test, entrepreneurs will probably need to pivot their value proposition (or even reject the project if the results do not seem promising!):

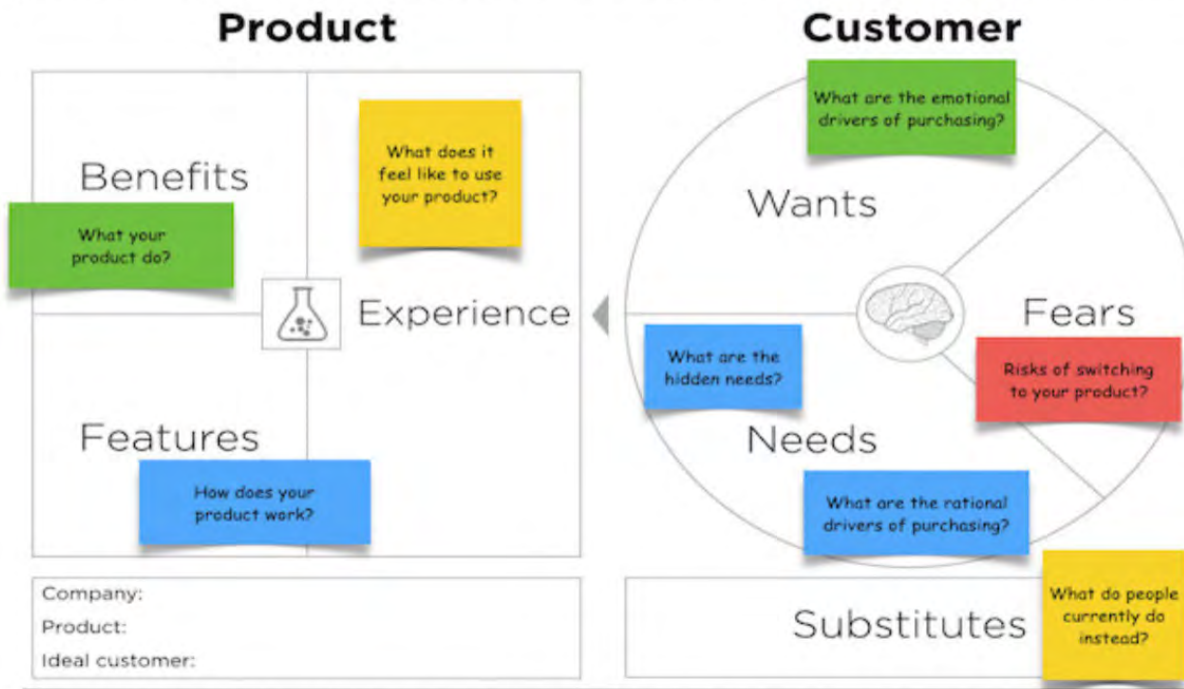
- In the Switchers **GBM Exercise 10** on the online platform, entrepreneurs collect main finding and data gathered by conducting the test in a “discovery card”.
- In the Switchers **GBM Exercise 11**, they subsequently modify/pivot their Value Proposition (as well as the identified customers segments and stakeholders Needs and Wants, or Pains and Gains) according to the results and findings of the test.

DEFINING OR REFINING A UNIQUE VALUE PROPOSITION:

After prototyping and carrying out their preliminary test, sustainable entrepreneurs should now be able to define, refine, and reword their value proposition to encompass the latest changes or characteristics they made to their idea based on the feedback received during the co-creation process.

As described in the diagram below, the Value Proposition will come as a result of a thorough process of understanding how the offered product or service will benefit the Needs and Wants, or the Pains and Gains of their targeted customer segment(s). The tools introduced in the previous sections pave the way for understanding and correctly targeting the customer segments, that will be integrated in the Value Proposition Canvas below.

Value Proposition Canvas



As you know, entrepreneurs should really try to highlight the unique features and/or competitive advantages of their product, service, or idea. This is why it is also called the **Unique Value Proposition**, and should address at a minimum:

- **What** is the solution the entrepreneur is offering? What problem is it solving, or what new value is it offering?
- **How** is the problem being solved or new value being offered? What makes it unique?
- **Who** has this problem or needs this new value?
- **Why** are these targeted customers going to care if their problem is solved or this value is offered to them?

Therefore, the value proposition should convince a potential customer why the entrepreneur's service or product will be of higher **value** to them than similar offerings or alternatives from the competition. It should explain how the product or service solves the targeted customers' problems (i.e, tackling their needs or pains) or improves their situation (i.e, creating a positive gain or new value), but it should also describe how **environmental and social value** is created by tackling ecological challenges and perhaps addressing social issues.

The uniqueness of the proposed solution can be derived from one or many Benefits and Features of the entrepreneurs' offering, such as:

- ✓ Novelty
- ✓ Quality and performance
- ✓ Eco-design or smart design
- ✓ Sustainable packaging
- ✓ Circularity
- ✓ Innovative business model or mechanism that makes the product or service circular or eco-friendly
- ✓ Convenience
- ✓ Accessibility
- ✓ Branding
- ✓ Emotional connections
- ✓ Customization
- ✓ Price



Open Eco-Innovation Manual

BSOs can access more information about eco-innovation and enabling circularity between entrepreneurs and established businesses, by checking this detailed SwitchMed publication on [Open Eco-Innovation Manual for Circular Economy Enablers](#)

The objective of this open eco-innovation manual is to help match companies and public institutions in search of green and circular business solutions with entrepreneurs solving eco-problems using an open innovation approach. The goal is to provide you, as a BSO, and as a future open eco-innovation enabler, with an understanding of the processes you will develop to facilitate connections between solutions seekers –private companies and public institutions–and entrepreneur providers.

The manual covers the whole corporate venturing process, from engaging solutions seekers and identifying open innovation challenges through to development of the solution, with the main services to assist the various stakeholders throughout this eco-innovation journey.



Remind Enterprises of Green Principles:

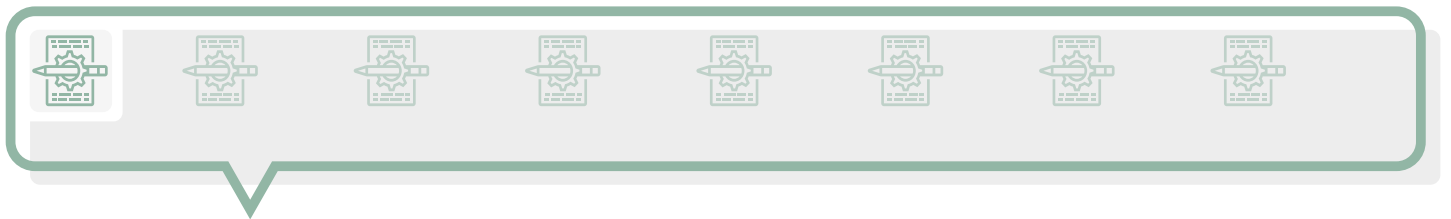
At this stage, as a BSO it will be important to tell or remind your green entrepreneurs about the following **Tips for Green Start-Ups...**

- You are an eco-innovator: sustainability and circularity are at the core of your business model!
- Think “green” and big, but within reason
- Be ready to modify your original idea; be flexible and make a change!
- Know yourself and your limits (passion, expertise, time, resources, constraints, weaknesses...)
- Set up a good team and get expert advice
- Offer a unique value proposition
- Be focused and know your market

3.8

ACCESS TO FINANCE AT EARLY STAGE

At ideation and very early stages, the main way to finance the development of a good business idea for your entrepreneurs is to integrate into local or international start-up support programs and/or bootcamps, which provide access to expert support and occasionally offer small grants. Participating in competitions may also lead to prizes for the winners. Additionally, for entrepreneurs looking for a seed fund at the ideation stage, their best chances for an initial investment may be from one or more of the sources known as the 3Fs: Friends, Family and Fools.



In the **Switchers toolbox**, a Toolkit named **“Finance Toolkit”** is also accessible. It allows entrepreneurs to discover financing opportunities and determine the right funding strategy for their green project, depending on the stage they are at. This is undertaken in four steps, as illustrated below:

- 1) Discover my business stage
- 2) Identify my best finance options.
- 3) My country’s opportunities
- 4) My funding strategy

In the first step, “Discover my business stage” a test or questionnaire is available for entrepreneurs to determine exactly at which of the following stages they are in their entrepreneurship journey, based on the score they receive: Ideation, Early Stage, Growth, or scale. More information about the business stage is then provided, along with some relevant information, recommended next steps, and tips for each stage.



The next steps in the Finance Toolkit allow entrepreneurs to identify the best financing options available for their stage after taking a second test or questionnaire. Potential funding sources are highlighted with a brief description of each.



Circularity in the Fashion Industry

The fashion industry is widely recognized as a major contributor to environmental pollution (currently around 10% of global CO₂ emissions) and social issues, particularly in relation to cheap labor practices, child labor, and sweatshops, which are often prevalent in Asian, African, and South American countries. Exploitative labor conditions in garment production have become a common concern among consumers. Environmental pollution, including the release of harmful chemicals and excessive resource consumption, significantly contributes to the industry's adverse impact on workers as well as on water bodies, natural resources, and biodiversity.



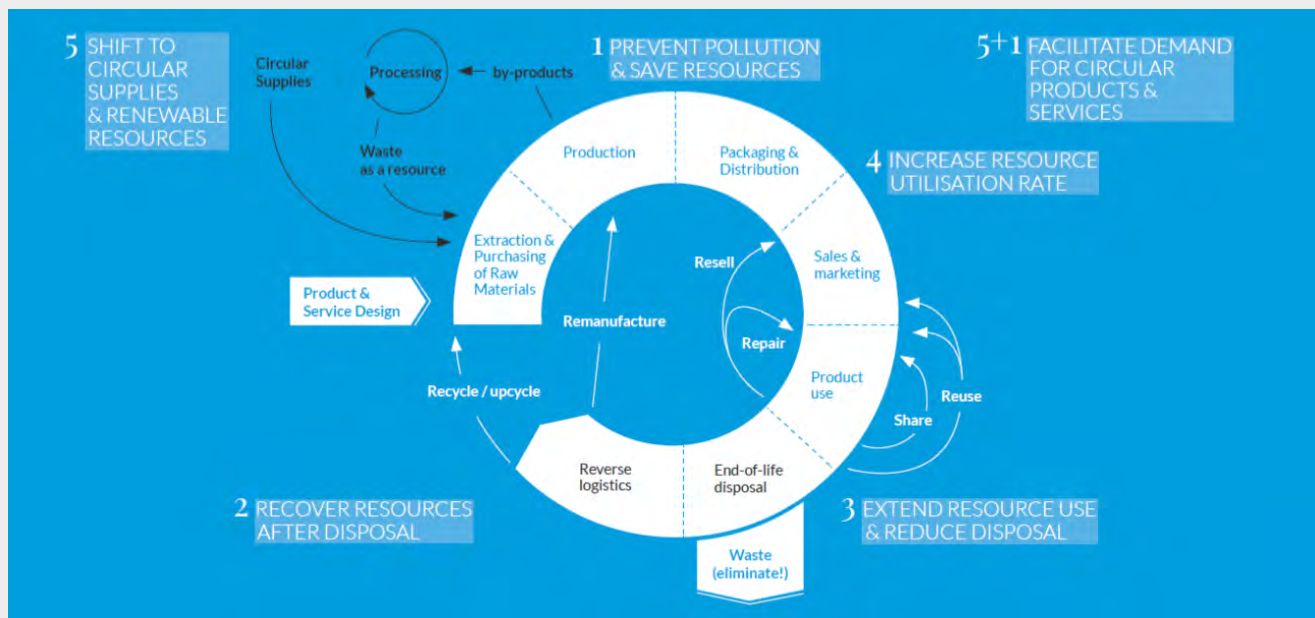
Industrial garment dyes pose a significant problem as a leading contributor to climate change in the textile industry. Dyeing and finishing processes currently account for 3% of global CO₂ emissions, and this figure is projected to exceed 10% by 2050, surpassing the combined emissions from shipping and aviation.

Furthermore, these processes are responsible for over 20% of global water pollution, without mentioning direct health hazards to workers exposed to toxic synthetic dyes without appropriate safety measures.



Circularity in the Fashion Industry

On a positive note, the fashion industry is witnessing a rise in conscious consumption, advocating for slow and responsible fashion. As a result, many companies, particularly in Europe, are embracing new circular business models, with some shifting their perspective on garment ownership. This trend reflects an ongoing effort to rebuild the fashion industry with sustainability in mind. New business models and take-back schemes are emerging. Technology contributes to advancing them towards a more sustainable design perspective. These new trends in the fashion industry indicate that sustainable circular models will become more popular in the future, including clothing resale, rental, repair, and refurbishment. Brands will increasingly enable the recirculation of clothing. Additionally, design emphasis is placed on design for disassembly, design for recycling, and upcycling, amongst other strategies, as described below:



Strategy 1: Prevent Pollution and Save Resources

Strategy 2: Recover Resources After Disposal

Strategy 3: Extend Resource Use and Reduce Disposal

Strategy 4: Increase Resource Utilization Rate

Strategy 5: Shift to Circular Supplies and Renewable Resources

For more information on circular strategies in the fashion industry, check:

- SwitchMed publication on [Circular Business Opportunities in the Fashion Sector](#)

- McKinsey and Company, Featured Insights, 2021, [website](#) on the "The Next Normal: The future of Fashion - Sustainable brands and 'circular' business models"

3.9 GREEN/CIRCULAR ENTERPRISES HIGHLIGHT



011



NK BY NOUR KAYS

Green Enterprise Name: NK by Nour Kays

Green Enterprise Sector: Sustainable Fashion and Accessories

Website: <http://nkbynourkays.com/>

Social Media:

[NK by Nour Kays Instagram](#)

[NK by Nour Kays Facebook](#)

[Video Link](#)

Brief Description: NK by Nour Kays's mission is to change the fate of "waste" materials by repurposing them into fashionable or eco-friendly accessories and products.

Its aim is to also raise awareness about waste, inspire upcycling into higher-value products, and encourage pollution reduction.



Green and Circular Highlights:

- ✔ Creating a range of fashionable, eco-friendly, water-resistant, and durable products out of used plastic (nylon) carrier bags, as well as other types of waste such as broken umbrella canopies and broken inflatable
- ✔ Small production leftovers are transformed into smaller items, such as key rings.
- ✔ Raising awareness about littering, plastic pollution, and its danger to marine life
- ✔ Employing local artisans



Green Enterprise Name: Climberspace

Green Enterprise Sector: Sustainable Textile and Accessories

Website: www.climberspace.com;

<https://climberspace.com/collections/workshop>

Social Media:

[Climberspace Instagram](#)

[Climberspace Facebook](#)

[Video Link](#)

Brief Description: ClimberSpace is an outdoor small business specializing in resoling outdoor shoes (climbing and outdoor shoes), giving them a new life. They also locally design and produce outdoor products and apparel. It was founded by three passionate climbers and brothers with the vision of creating an outdoor brand that shares the beauty of nature and people through locally crafted products. ClimberSpace's Mission is to help people enjoy the outdoors in a more sustainable and eco-friendly way.



Green and Circular Highlights:

- ✔ Recirculating climbing and hiking shoes by resoling and repairing them to high quality, almost as brand-new shoes, not only gives them a second life but often a third or fourth life as climbers come back to them with the same shoes to re-sole
- ✔ Designing and selling accessories made from leftover textile
- ✔ Raising awareness about the outdoors, protecting nature, and creating a culture of hiking in Lebanon and the region including through an annual climbing festival

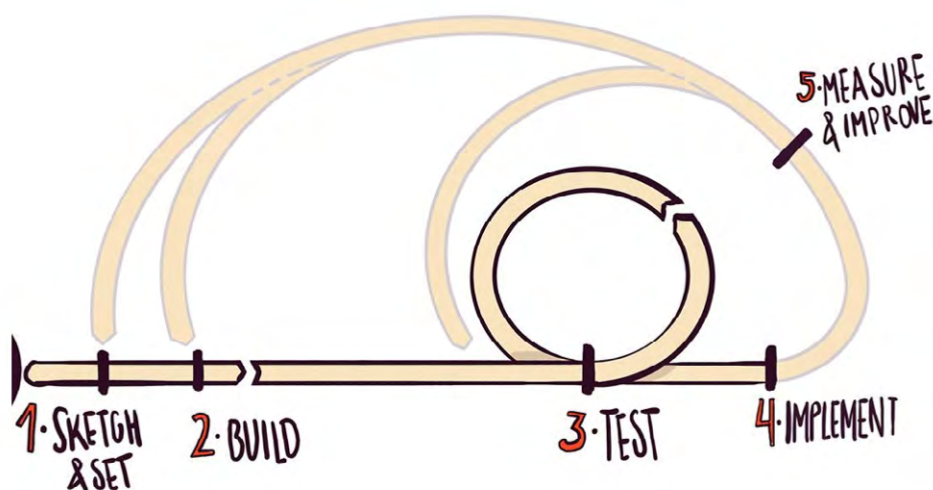


INCUBATION

Incubation Stage

Development of a Green Business Plan (GBP)Stage	The Eco-design Journey	Choosing and Revision Green Business Models	Preliminary Impact	Financials	Prototyping, Testing and Validation in the Market (Green MVP Development)	Sustainable Marketing and Branding	Access to Finance at Incubation Stage	Green and Circular Enterprises Highlight
Peer to peer	Switch to Eco-design Tool	Business Model Analysis	Why Do We Need Environmental Evaluation, Design, Measurement and Monitoring?	Financial Intelligence	Common Strategies for Prototyping	Access to Market	IndieGogo, Kickstarter and Seedrs	Wave EBikes
Building Trust is Key		Embrace Toolkit		Essential Financial Management Flows		Seeking Strategic Partnerships	Pitch perfect	Savvy Element
		Sustainable Packaging		SSWM Finance 101			Presentation tools	
				Crowd funding			Collaboration & Partnerships	
							EcoSwitch Coalition / SWEP	
							Green Networks for entrepreneurs	

4.1 DEVELOPMENT OF A GREEN BUSINESS PLAN (GBP)



At the incubation stage, typically phases 1 - Sketch and Set and 2 - Build in the above diagram have already been explored by the entrepreneur; some testing may have been initiated for an initial proof of concept, and more now needs to be done. We are entering phase 4 - Implement, while phase 5 - Measure and Improve can also be initiated but is especially relevant in the next stage, acceleration.

The incubation phase usually starts with a business plan. A written document that outlines the goals, strategies, and operational details of a business. It serves as a roadmap for the organization, providing information and guidelines on how the business will be structured, operated, and positioned in the market. It also includes a financial plan that outlines the projected sales and profits for the next 3 to 5 years. A well-written business plan helps entrepreneurs and business owners communicate their mission, objectives, and vision, attract investors or financing, and guide decision-making. The business plan is typically around 25 pages long but can be much longer for more complex businesses, providing technical information in appendices. A business plan is the very foundation upon which any successful venture is built.

The plan, which is often a vivid, living document, serves to outline the business' purpose, how it will generate revenues, and what kinds of resources it will require to achieve that. In addition, a Green Business Plan should convincingly showcase the circularity of the business' activities, its desired environmental impact, and measures to avoid harm. As a Business Support Organization, you will play a vital role in helping entrepreneurs generate a convincing green business plan by providing a wide range of services, including training, mentoring, market research, business planning assistance, access to funding and resources, and networking and partnership opportunities.

WHAT IS NEEDED FOR A GREEN BUSINESS PLAN?

Some key elements that should be included in the process are:

Articulate the Green Business Idea: The first step, which should already have resulted from the ideation stage, is to identify a business idea that addresses an environmental challenge or provides a sustainable solution. The idea should be well-researched, innovative, and have the potential to generate a positive environmental impact.

Establish the Value Proposition: The value proposition should clearly define the benefits of the green product or service for customers and the environment. Entrepreneurs need to articulate how their product or service addresses a specific environmental challenge and provides a unique and compelling solution for customers. Revisit here the tool presented in the ideation section on Value.

Conduct Market Research: Entrepreneurs need to conduct thorough market research to identify potential customers, competitors, and market trends. This information is essential to refine their business idea and develop a viable business plan.

Define the Target Market: Identifying the target market is essential to ensuring that the product or service is tailored to the needs of the customers. This includes understanding their demographics, preferences, and behaviors. Tools for this were also presented in the ideation section on Understanding Green Customers.

Develop a Marketing Strategy: A marketing strategy should be developed to effectively communicate the benefits of the green product or service to potential customers. This includes identifying key marketing channels and tactics to reach the target audience.

At the beginning of an incubation program, your entrepreneurs are likely bursting with excitement at being accepted into the cohort and ready to get started on their entrepreneurial journey. But of course, while their ideas might be great, the prospective start-up is still full of holes and inconsistencies. To get started, help the enterprises revisit their business model canvas.

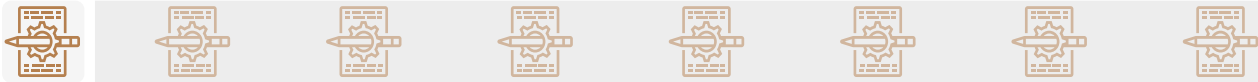


Peer-to-Peer Support

discussions among peer entrepreneurs can be a helpful tool for entrepreneurs to check their ideas for innovation and consistency. The BSO could group the entrepreneurs by two or three, having them explain their business models to each other, followed by constructive criticism. This might not only help them realize which areas they may still need to work on, but also foster trust between your cohort and might even lay the foundation for future partnerships!

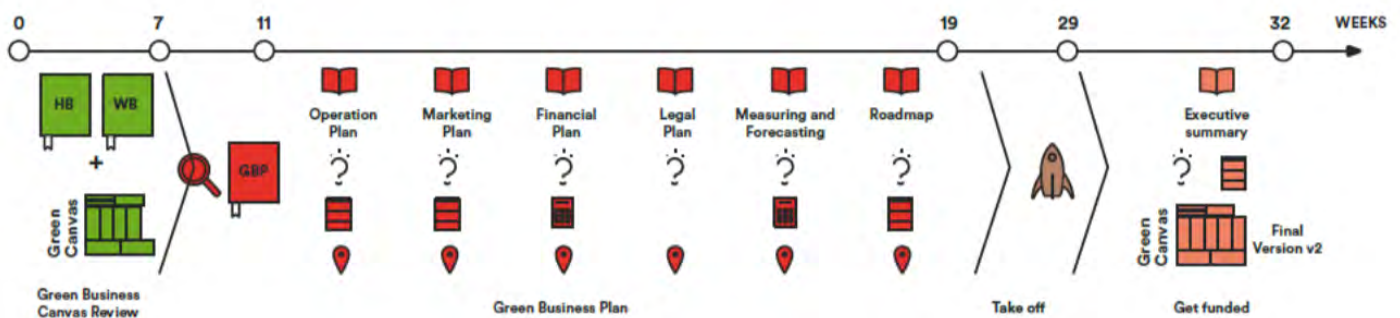
Learn from the Best! For many of your entrepreneurs, it may be the first time they are conceptualizing a business plan. It would thus be beneficial to introduce them to the topic by showcasing a selection of examples of successful green businesses and dissecting key elements of their business plan together, including their revenue streams and marketing strategy.

Examples can be found on the **Switchers Community website**. You can also encourage some of your successful and more established green entrepreneurs to become Switchers, this will give them additional visibility and allow them to become part of a community of like-minded people, while accessing regional opportunities for networking and collaborating.



The **Switchers Green Business Plan (GBP)** follows a step-by-step approach allowing entrepreneurs to develop their business plan, with leading questions clearly focusing on highlighting the environmental and social attributes and values of their enterprises. The below diagram illustrates the steps to be followed, starting with a full review of the Green Business Canvas or Model to update it based on the latest evolution of the idea or project, incorporating any valuable feedback from prototyping, stakeholders' surveys, or interviews. The rest of the GBP comprises the development of the business **Operation Plan, Marketing Plan, Financial Plan, and Legal Plan**, and ends with sections on **PESTEL, Impact Measurement and Forecasting**. A concise **Executive Summary** should clearly and concisely present the business plan and the company's main objectives.

Your role as a BSO is to provide the necessary support to the green entrepreneur on his or her journey of developing his or her GBP! This usually entails customized individual coaching sessions with the right experts or mentors. It is recommended to work with the entrepreneurs for approximately 8 months, making sure that proper research and prototyping are undertaken as needed, to end up with a high-quality business plan based on co-creation. Of course, depending on where they are at and how clear and tested their idea is, some enterprises may be able to navigate faster and develop their GBP in a shorter timeframe.



Building Trust Is Key

Keep in mind that at the incubation stage, many future businesses are reluctant to share too many elements of their idea with outsiders as they worry that their idea may be stolen by a third party. The likelihood of this happening is low; however, you should focus on building a trust-based environment and, if necessary, guide the businesses in setting up NDAs directly with externals such as mentors or experts you bring into training sessions.

4.2

THE ECO-DESIGN JOURNEY

During the incubation stage, once your entrepreneurs are more advanced in their product or service and have started selling at least informally, you can encourage them to revisit the **Switchers Eco-design Exercise**. They can review the first stage related to materials and resources; however, it now becomes important to also look closely at how they will produce, package, distribute, and operate their business in an eco-friendly, circular, and socially responsible way. Practically speaking, it is no longer only about looking at the product or service itself but also at the operational level and how they will deliver their value proposition in a sustainable way from all angles.

Stages 2 to 8 below are now highly relevant, with questions such as: what type of packaging is needed, how can we minimize its impact, can we implement a take-back policy, how are we going to source our energy for production, can we re-use production water in a closed loop, can we deliver by bike or e-bike, who can we partner with for this, and how are we going to build a strong team with an equal opportunity policy for all employees? These are a few examples, but there are many other considerations that are pinpointed in the eco-design exercise.

- | | |
|--------------------------------------|-----------------------------------|
| 1) Materials and Resources | 5) End Of Life Management |
| 2) Production | 6) Sales and Communication |
| 3) Packaging and Distribution | 7) Services |
| 4) Use and Maintenance | 8) Infrastructure |

Undertaking this exercise thoroughly should be done along with the development of the Green Business Plan, since many of the eco-decisions taken would be relevant in different sections of the plan (Operations, Suppliers, Human Resources, etc.), therefore highlighting their environmental, circular, and social aspects in the GBP is desirable.



Start-ups at Incubation Stage with a physical product would benefit mostly from exploring the following stages:

- **Production**
- **Packaging and Distribution**
- **Use and Maintenance**
- **End of Life Management**

Start-ups at Incubation Stage with a physical product or a Service would also benefit from exploring the following stages:

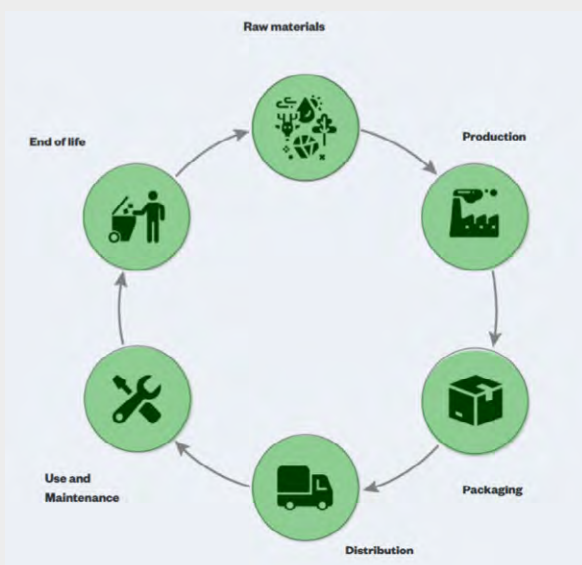
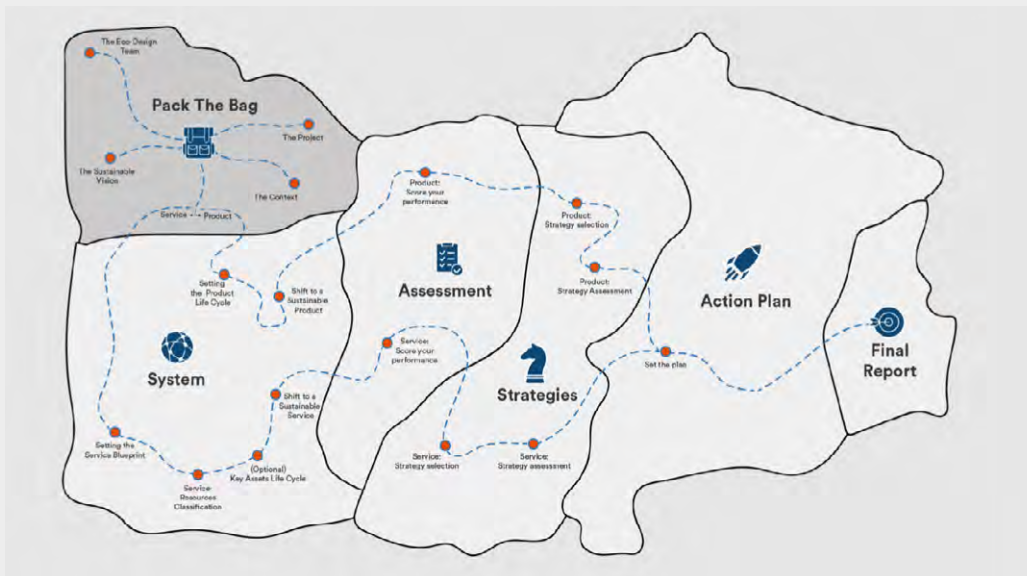
- **Sales and Communication**
- **Servicing**
- **Infrastructure**

It is also recommended that the entrepreneurs set revised realistic goals with short-term, medium-term, and long-term strategies for eco-improvement based on their resources (time, human, physical, financial, etc.) and any technological constraints or local availability.

Towards the end of the incubation stage (or at the beginning of the acceleration stage) enterprises should also be encouraged to review how they can further improve the environmental sustainability of their products and services. This can be done using the **Switch to Eco-design Tool**.

In the **Switchers toolbox**, you can access the **“Switch to Eco-design Tool”**: It has been designed as a journey to be undertaken by the entrepreneur to improve the environmental and circularity credentials of their product, service, or both. It will guide your entrepreneurs to re-think and redesign their current service or product to reduce its overall environmental impact and make it more sustainable.

This eco-design journey encompasses five steps, as illustrated below: Pack the Bag, System, Assessment, Strategies, and Action Plan. Each step consists of various tasks that yield a specific deliverable, the results of which can be compiled at the end of the journey in an action plan for eco-improvement. You should encourage the entrepreneurs to go through it with their business partner(s) or team; it will enrich the brainstorming process and the eco-design outcomes!



The “Switch to Eco-design Tool” uses a life cycle approach and proposes many attributes to investigate to improve a product’s environmental credentials.

Attributes refer to the specificities of items required throughout the life cycle of a product: materials, energy, and water used before and during the production process and at use; means of transport and distribution; the various ways of maintaining the product while used; and the means of disposal. Not all the attributes listed in the tool (such as recyclability, biodegradability, potential for disassembly, organic, etc.) are relevant to your entrepreneur’s product! You can assist the entrepreneurs in determining which ones are and deciding which aspects, functions, materials could be change for a more sustainable product outcome.

4.3

CHOOSING AND REVISING GREEN BUSINESS MODELS

In the case of green and circular enterprises, founders are often guided by their environmental principles or their vision for an innovative solution. Innovation in the business model is needed to turn an innovative technical solution into a green business that generates revenue, sustains itself, grows, and creates impact at scale.

It is useful for BSOs to understand the business model of the enterprise, identify strengths and gaps, and inspire them with innovative, business model elements. To compete on the market with conventional and green businesses tackling similar problems, enterprises should aim to not only focus on green product innovation, but also on business model innovation. For instance, multiple start-ups in the recycling sector have been initiated since 2015 in Lebanon, all with the same business model.

Typical business models for green enterprises include either a business that balances financial return and environmental impact, meaning that increasing its environmental impact decreases its financial returns, or the lock step model, where environmental impact and financial return are inextricably linked and move in parallel. In the lock-step model, as you increase your financial return, you automatically increase your environmental impact.

Here below are several innovative green business model ideas that enterprises can adopt or test:



Trash to Cash

This business model focuses on creating value by upcycling waste materials into valuable products. Start-ups often face challenges sourcing raw materials, and environmentally conscious entrepreneurs prefer to avoid using virgin materials due to their negative impact on ecosystems. By sourcing discarded materials and transforming them into new products, entrepreneurs can release the value of the material and contribute to reducing waste and environmental damage. This strategy not only provides cost advantages by acquiring materials at a lower cost or for free but also enhances the credibility and integrity of green start-ups. Additionally, sourcing waste locally helps reduce transportation emissions and supports a more sustainable supply chain. The aim is to maximize output and profitability by integrating waste materials into the start-up's business model and creating high-value products from the upcycled materials.

Even businesses that do not solely focus on trash to cash should pay particular attention to reducing and repurposing waste in the circularity of their business model to save costs and reduce their environmentally harmful impact. While greener ways of operating might come at a higher upfront cost, green entrepreneurs can create new value out of their waste and leftovers, which can compensate for the higher costs in some aspects of the cost structures.



The Nature Effect

is a strategy to create new or additional value advocates for the use of natural processes and ecological engineering as alternatives to conventional high-tech solutions in addressing challenges related to public services such as waste, water, sanitation, health, and resource management. The model emphasizes the importance of leveraging natural processes to create sustainable and resilient solutions. It promotes nature-based solutions (NBS) that are resource-efficient, adapted to local contexts, and aligned with the principles of sustainable development and resilience. By adopting NBS, the model aims to optimize water management and sanitation systems, close water, and nutrient cycles, and enhance ecosystem services. The advantages of NBS include cost-effectiveness, reduced investment and operational costs, utilization of local resources, and multi-functionality. Examples of NBS include constructed wetlands for water treatment and the use of soft, green areas for noise reduction and climate improvement.



Maintenance Mastery

is a strategy to reduce costs and efforts to deliver on your value proposition. The business model focuses on providing maintenance and repair services for existing infrastructure rather than investing in new infrastructure. The model targets underserved communities or areas where maintenance services are lacking, aiming to address the maintenance bottleneck and improve service quality without heavy investments in new infrastructure. To define this business model, the enterprise needs to look for niche services. By specializing in a narrowly defined area, the company can optimize workflows and tasks and reduce costs. This allows for a more effective approach compared to larger organizations juggling multiple tasks. This can be combined with a subscription model, which stabilizes revenues and enhances customer retention. Safa Group for Plumbing in Jordan, a company led by women plumbers, caters to the plumbing needs of households, NGOs, public institutions, and businesses. They address cultural challenges by providing female plumbers who can enter homes where male strangers are not allowed. The company also emphasizes customer education and trust-building, gradually expanding their services beyond plumbing to include water filters, air conditioners, and dishwashers.



Local Hero

This business model focuses on local sourcing and tailored value creation to eliminate dependencies on international suppliers and competitors. By sourcing materials and resources locally, businesses can benefit from stronger supply chain control, reduced logistics costs, increased flexibility, and a positive environmental and social impact. Local sourcing not only supports local economic development but also enhances brand image and competitiveness.

Solvillion, a Jordanian company founded in 2018, provides decentralized wastewater treatment systems using locally available materials. The company targets rural households and institutions that lack access to sewer systems and face water scarcity. By designing their treatment system with locally sourced materials, Solvillion can quickly validate suppliers, reduce import costs, navigate strict regulations, and continuously pilot and improve their product. Local sourcing enables them to maintain flexibility, optimize costs, and contribute to the local economy, making their business model more sustainable and competitive.



To analyze the enterprise's business model, you should regularly conduct a business model analysis, which is based on a Strengths, Weaknesses, Opportunities, and Threats (SWOT) approach. While the SWOT analysis is a widely available tool and not specific to green enterprises, the Business Model Analysis tool has been adapted for green enterprises. The tool will guide you through the thinking process of reviewing your business model on a recurring basis. For this, you should first identify problems with your business model, understand the results of the problem, and prioritize if there are too many. Next, you need to understand the reason for the problem and the concerning area of the business model to turn the problem into a solution. Through this tool, green businesses gain insights into their competitive advantages, identify areas for improvement, use the opportunity to innovate, and assess the viability and sustainability of their business model in the face of market dynamics and upsets. This analysis is the cornerstone of informed and strategic decision-making.

Link: <https://sswm.info/sites/default/files/2021-01/Worksheet%20business%20model%20analysis.pdf>


When formulating strategic actions, businesses should ensure their tactics align with their overall strategic objectives, particularly for green businesses. If solving a problem in your business model means that you would have to shift away from your green focus, which is the core of your business, you might want to think more deeply to stay true to your original objectives and principles. This might mean that you need to shift your business model several times, which is highly encouraged in the ideation and incubation stages of business development.


Another tool that is also useful to review with your entrepreneurs at this stage, which may enhance the start-ups circular practices, is the set of Circularity Strategies and Circular Business models that are described within the **#EMBRACE TOOLKIT**. All of them are summarized in the table below, extracted from the Toolkit, which describes each of them in more details.

Discussing each will require time and effort, however some new ideas and circular ways to operate may emerge from this exercise, and could be highly beneficial, even financially! Your entrepreneurs will most probably need support from a circular expert to understand and deep dive into each alternative, evaluating how relevant and feasible it is for their business.

This may also lead to entirely pivoting the start-up's value proposition by, deciding for instance, to start leasing products or offering them as a monthly subscription, instead of selling them.

Fo · ECOCANVAS: CIRCULARITY STRATEGIES OVERVIEW

 **The circularity strategies** helps you to start applying principles and strategies from the areas you are able to influence the most in your organisation. Here you can have an overview of existing approaches, strategies and recommendations in order to make Circular Economy a reality. If you have any doubt about some of the specified items go to the DESIGN, BUY · MAKE · SELL, USE · DISPOSE, FINANCE and finally SUPPORT · REGULATE sheets, where the concepts are explained or ask to the session facilitator for further examples.

 <p>DESIGN</p> <ul style="list-style-type: none"> Cradle to Cradle: think in metabolisms Biomimicry: inspired by nature Green Chemistry / Safer chemicals Substitute rare earth metal Substitute critical raw material Life Cycle Thinking Select waste free processes / technology Avoid chemical derivatives Fewer hazardous chemical synthetic methods Choose Energy & Water efficient processes Select lower energy and water footprints Dematerialization / Minimization Servitization: from Product to Performance Educate and inform Openness, Modularity & Standardization Promote Energy & Water Efficient consumption Enable Reutilisation by users Design a timeless product: no obsolescence Enhance durability and resistance Easy to Maintain and Repair Easy to Compost Easy to up-cycle Easy to disassembly Easy to Extract Cascade Value Prioritize recyclable resources as input Limit the number of material types and composites / mono-materiality Limit use of adhesives, dyes, paints and coatings (types and colors) Limit or eliminate hazardous materials and contamination 	<p>Bio-based resources</p> <p>Renewable resources</p> <p>Reused / reusable resources</p> <p>Easy to Compost</p> <p>From local suppliers</p> <p>Ecolabelled & certified procurement</p> <p>Prioritize Recyclable resources as input</p> <p>Servitization: Pay per Performance</p> <p>BUY</p>	<p>Assess creditworthiness risk</p> <p>Assess ESG risk</p> <p>Assess linear risk</p> <p>Crowdfunding</p> <p>Crypto & community based currencies</p> <p>Emphasize relationship-based financing</p> <p>Extend investment time horizon</p> <p>Factoring</p> <p>Green bonds</p> <p>Impact loan</p> <p>Incentivize end-of-life returns</p> <p>Integrate circular value in models</p> <p>Natural capital valuation</p> <p>Prioritize cash flow: ensure payment</p> <p>Purchase order finance: building trust</p> <p>Stranded asset management</p> <p>Supply chain financing</p> <p>FINANCE</p>
<p>Real-time analysis for pollution prevention</p> <p>Additive manufacturing</p> <p>Kanban (just-in-time), no stock</p> <p>Prefabrication</p> <p>Refurbishing & Remanufacturing</p> <p>Resource efficiency policies</p> <p>MAKE</p>	<p>Packaging Minimization</p> <p>Co-branded services</p> <p>Digitization and virtualization</p> <p>Leasing & Servitization</p> <p>Sharing platforms</p> <p>Traceability and information</p> <p>Green Marketing, no washing</p> <p>Take-back programs</p> <p>SELL</p>	<p>Industrial symbiosis</p> <p>Resources marketplaces</p> <p>Clustering & networks</p> <p>Incubators & accelerator programs</p> <p>Sharing information</p> <p>Intersectoral cooperation</p> <p>Cooperation: competitive cooperation</p> <p>Fostering generosity</p> <p>Building trust</p> <p>New collaboration schemes</p> <p>SUPPORT</p>
<p>Easy to Maintain and Repair</p> <p>Informing about how to dispose</p> <p>Easy to use / inclusive</p> <p>No Planned Obsolescence</p> <p>Sensorization / data collect</p> <p>Responsible Use / Consumption</p> <p>Educate and inform</p> <p>USE</p>	<p>Safe to biodegrade</p> <p>Cascade value or recycling</p> <p>Secondary material marketplaces</p> <p>Composting</p> <p>Reverse logistics</p> <p>Compatibilizers</p> <p>Selective extraction</p> <p>Energy recovery for biomass</p> <p>DISPOSE RECOVERY</p>	<p>SDG alignment and policy integration</p> <p>Durability & reparability incentives</p> <p>Tax schemes based on environmental performance</p> <p>Defy legal bottleneck and barriers</p> <p>Enforcing stricter regulations towards safer chemicals</p> <p>Fostering ecolabelling & integration of existent certification</p> <p>Educate and inform</p> <p>Reward traceability and transparency</p> <p>Exploring new economies</p> <p>Banning and punishing: the last chance</p> <p>REGULATE</p>



Developed by Ass For SEO under the embrace Project (318). Project co-financed by the European Regional Development Fund. The embrace project is implemented under the Interreg-Med 2014-2020 Programme.

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Note that the “Regulate” section lists desired governmental policies and actions to support green businesses; it is not to be reviewed by the entrepreneur at this stage.



Sustainable Packaging in a Circular Economy

"The world is drowning under the weight of plastic pollution, with more than 430 million tonnes of plastic produced annually. Two-thirds are short-lived products that soon become waste, filling the ocean and, often, working their way into the human food chain in the form of microplastics or nanoplastics." UNEP



Read more about the threats posed by microplastics in this [article](#) on "Microplastics: The long legacy left behind by plastic pollution".

Packaging is considered a fast-moving commodity because, most of the time, it's designed to have a short life span. In a linear economy, packaging materials have a value drop at the end of their life cycle. They become waste and end up in landfills or in the seas and oceans. Some of the environmental concerns associated with packaging include resource depletion, greenhouse gas emissions, waste generation, pollution, and microplastic pollution.

Adopting a circular approach for packaging items enables value retention for packaging materials and their reintroduction into different loops of the circular economy, allowing product life extension and decreasing environmental harm. Design strategies for circular packaging focus on rethinking the product functions to come up with better solutions and alternatives that address the need to make packaging reusable and recyclable (and occasionally eliminate the need for packaging entirely!). It also entails using recycled content upfront in packaging materials and/or using renewable materials (biobased products like recycled paper and carton, bioplastics, and natural fibers) to make them biodegradable.

According to the Sustainable Packaging Coalition (SPC), the following 8 criteria for packaging should be taken into consideration for packaging to be considered fully sustainable:

- Is beneficial, safe, and healthy for individuals and communities throughout its lifecycle.
- Meets market criteria for performance and cost.
- Is sourced, manufactured, transported, and recycled using renewable energy.
- Optimizes the use of renewable or recycled source materials.
- Is manufactured using clean production technologies and best practices.
- Is made from materials that are healthy throughout the life cycle.
- Is physically designed to optimize materials and energy.
- Is effectively recovered and utilized in biological and/or industrial closed-loop cycles.

Another important element to add is that the use of biomaterials should not compete with food production and not entail deforestation for their production. Consequently, agricultural waste or recycled biomaterials should be prioritized.

Watch a TedEx about the [Ooho! edible water bubble](#) to eliminate plastic packaging :)

4.4

PRELIMINARY IMPACT

The overall goal of the impact logic for a green enterprise is to optimize their activities and operations to minimize negative environmental impact while at the same time creating outcomes that benefit society and the planet. We can differentiate between three main pillars where impact thinking becomes relevant:

1. Inputs, such as raw materials, water, energy, and other resources.
2. Processes, including manufacturing, distribution, and waste management.
3. Outputs, which concern products, services, and waste.

WHY ARE IMPACT INDICATORS IMPORTANT?

Impact indicators are crucial for monitoring and evaluating the success and effectiveness of activities aimed at achieving desired outcomes. Optimizing a green enterprise's impact by tracking measurable variables and metrics based on data resulting from specific interventions may involve reducing greenhouse gas emissions, conserving natural resources, reducing waste or disposing of it in an environmentally conscious way, and promoting sustainable manufacturing practices. Further, an emphasis should be placed on fostering social and economic development in local communities.

Throughout an incubation program, you can provide guidance and support to green enterprises on how to measure and report on their impact using SDGs and impact indicators. This can help enterprises develop a clear understanding of their impact and how to effectively communicate it to stakeholders. However, at a relatively early stage of development, the enterprises may not have the resources and capacity at their disposal for full impact measurement and reporting, which should be picked up again during the acceleration stage.

Thus, at this stage, it would make sense to familiarize the enterprises with the Sustainable Development Goals and guide them in identifying where their solution fits.

The SDGs with the most obvious links to the environment are SDGs 6, 7, 12, 13, 14, and 15. However, environmental impact can just as well manifest itself in other areas. Each goal also comes with a set of sub-targets, and they are often heavily interlinked. Recognizing which SDGs it contributes to is crucial for a green enterprise to position itself and attract the right kind of support for its venture.



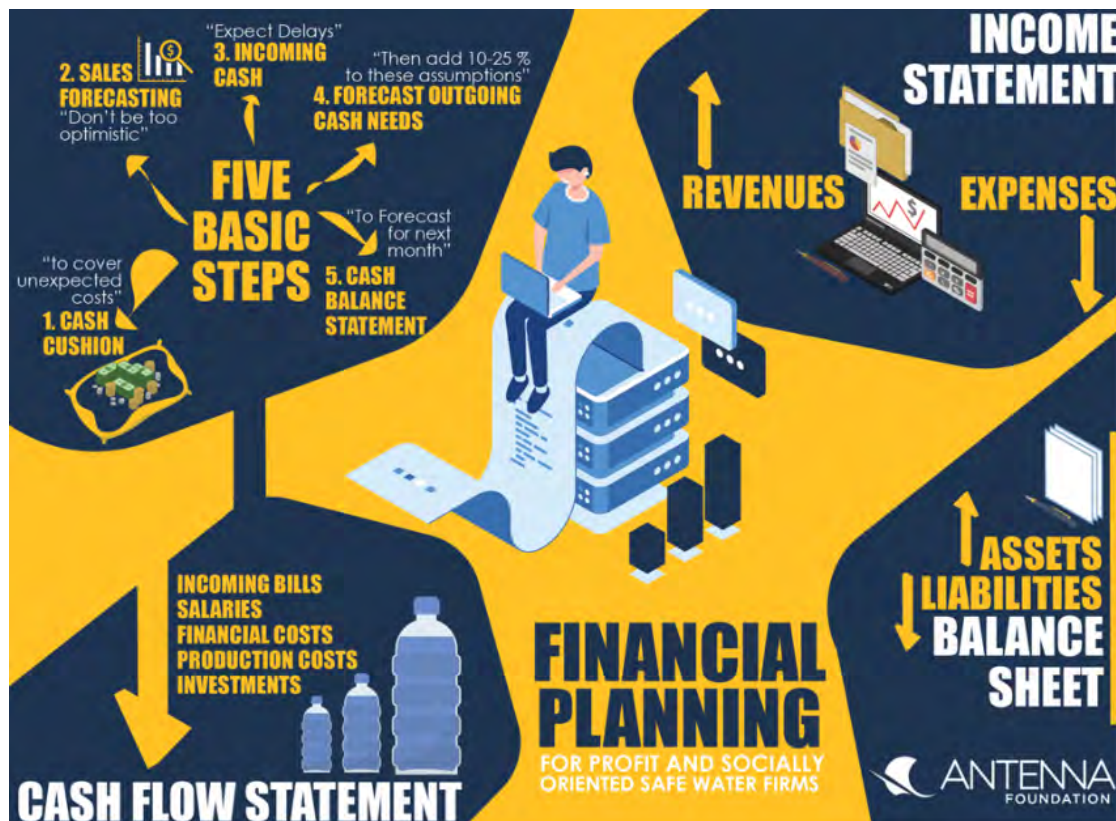
Why Do We Need Environmental Evaluation, Design, Measurement, and Monitoring?

For any project or product to be sustainable, with the lowest ecological and social impact possible, it is important to:

- Assess its potential or existing environmental and social impact(s)
- Evaluate different options or solutions to mitigate and eventually eliminate this impact
- Design new projects/products in an eco-friendly, circular, and socially responsible way from the onset –or re-design existing projects/products in the same manner
- Measure and monitor the environmental and social impacts once new solutions are implemented, in order to evaluate their effectiveness and improve them along the way Indeed, as the famous quote says, “If You Can’t Measure It, You Can’t Improve It”

4.5 FINANCIALS

For a green enterprise, making a massive profit might not always be at the core of their objectives. However, even the most honorable business idea will quickly disappear if it is not also financially sustainable. To avoid this, sound financial planning allows for anticipating the financial viability of a business, which means that green start-ups need to be familiarized with best practices of financial management as early as possible in the incubation stage. The most important aspect of sound financial planning for a start-up is to establish a solid foundation that aligns with the company's goals and ensures sustainable growth. This includes accurate financial projections, effective cash flow management, thorough cost analysis, prudent budgeting, and a clear understanding of revenue streams. Additionally, maintaining financial discipline, seeking expert advice, and adapting plans as needed are crucial for navigating the uncertainties and challenges of the early stages. By prioritizing these elements, start-ups can enhance their financial stability, attract investors, and position themselves for long-term success.



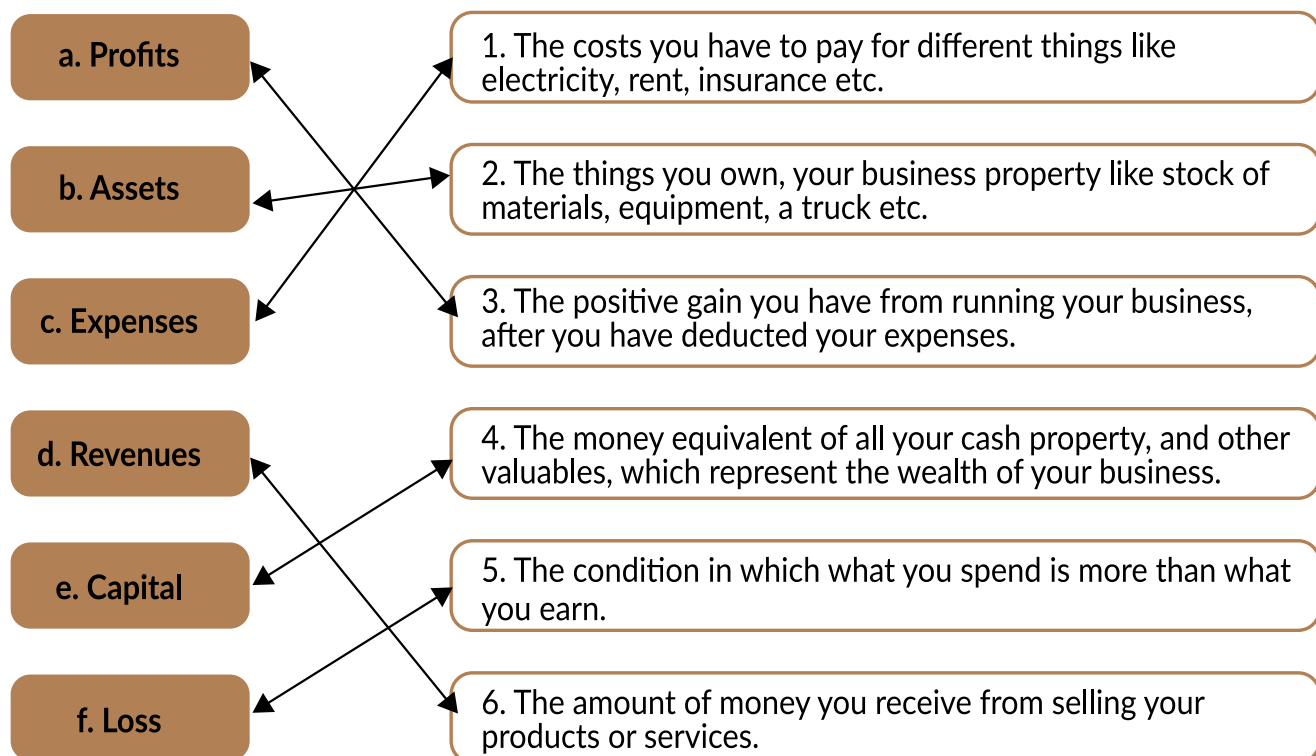
An incubator can serve as a valuable resource for a young green company, offering financial expertise, access to funding opportunities, specialized training, and a supportive ecosystem that can contribute to the company's financial success and sustainability. As a BSO, you can offer a variety of services to the companies you support, including financial planning workshops, mentoring, and guidance to help develop comprehensive financial plans. You will assist in creating realistic financial projections, identifying key metrics, and setting financial goals aligned with the company's objectives.



Financial Intelligence: A Guide for Social Enterprise: Demonstrating Value (2013):
Financial Intelligence: A Guide for Social Enterprise. [Accessed: 29.06.2023]

<https://www.demonstratingvalue.org/sites/default/files/resource-files/Financial%20Intelligence%20Guide%20Dec%202013.pdf>

As not all green entrepreneurs have a business background, you will need to initially focus on familiarizing them with common terms in the financial world. A basic first exercise could be to let them match terms with their explanations, as shown in the example below. On this basis, you can elaborate more on what each of those terms encompasses.



In the next step, start-ups can be invited to ask themselves the following questions:

1. How do you generate revenue?
2. What are the different revenue streams you expect to generate from different customer segments?
3. How many customers could you acquire / reach (based on assumptions about the market size and your market share)?
4. Cost Structure: What costs do you expect your business to have (consider both expenditures, e.g., rent, production or transportation costs, etc. – and costs for activities, e.g., salaries)?

This will allow them to better understand the fundamental logic behind financial management, narrow down profitable customer segments, and start considering alternative revenue streams. When breaking down their costs, you should pay special attention to helping them see the full picture. While many will initially only consider the material costs for their product and perhaps salaries, they tend to forget about other important aspects of their cost structure such as logistics, rent, transportation, promotional costs, etc.



Essential Financial Management Tools

Four basic tools are needed at this stage to make sure that a young company can hit the ground running when it comes to sound financial management. While it is likely that the green start-ups, at this stage, will be working with estimations and assumptions, they already need to familiarize themselves with the fundamental structures of these tools, which will need to be continuously updated as the companies develop.



Plenty of templates, from business to financial planning, can be found here:

Business Planning and Financial Statements Template Gallery (2017), SCORE [Accessed: 29.06.2023]

<https://www.score.org/business-education/business-planning-financial-statements-template-gallery>

Profit and Loss Statement:

The profit and loss statement (P&L) provides a summary of a company's financial performance over a specific period by comparing its expenses with its revenue. It shows whether the company made a net profit or a net loss during that time. The P&L dynamically reflects the firm's profitability over time. To calculate the net profit or loss, the entrepreneur includes all income sources like sales revenue, rent, investments, and interest and subtracts various expenses such as the cost of sales, salaries, and other expenses. It's important to clearly state the period covered by the income statement. For service-providing companies, there is typically no cost of sales. However, manufacturers, wholesalers, and retailers calculate the cost of goods sold by adding purchases to the beginning inventory and subtracting the ending inventory.

Balance Sheet:

The balance sheet is essentially a snapshot of a business's financial status on a specific date. It shows what the business owns (assets) and what others claim against those assets (liabilities and owner's equity). The key idea is that everything on one side of the balance sheet should equal everything on the other side. So, any changes to assets or liabilities affect the balance sheet's balance, and the owner's equity acts as the balancing factor.

Numbers in US\$		31.12.2015	
Revenues			
Sales of ceramic filters	35,000	}	Add Revenues
Sales of maintenance services	5,000		
Total revenues	40,000		
Expenses			
Cost of production	14,500	}	Subtract Expenses
Sales and administration	8,700		
Salaries	12,325		
Other	75		
Total costs and expenses	35,600		
Operating income	4,400		
Income tax provision	660		
Net income	US\$ 3,740		= Net Income

		31.12.2016		31.12.2017	
ASSETS					
<i>Current Assets</i>					
Cash	\$ 45.00	\$ 40.00			
Marketable Securities	\$ 65.00	\$ 60.00			
Accounts Receivable	\$ 35.00	\$ 70.00			
Notes Receivable	\$ 45.00	\$ 40.00			
Inventories	\$ 85.00	\$ 80.00			
Total Current Assets	\$ 325.00	\$ 290.00			
<i>Long-term Assets</i>					
Land	\$ 85.00	\$ 80.00			
Buildings	\$ 100.00	\$ 90.00			
Machinery	\$ 30.00	\$ 25.00			
- Accumu. Depreciation	\$ 4.00	\$ 3.50			
Net tangible Assets	\$ 211.00	\$ 191.50			
<i>Intangible Assets</i>					
Goodwill	\$ 15.00	\$ 5.00			
Patents	\$ 20.00	\$ 19.00			
Trademarks	\$ 15.50	\$ 13.40			
Organizational Costs	\$ 24.00	\$ 22.90			
Total Intangibles	\$ 74.50	\$ 60.30			
<i>Other Assets</i>					
Investments	\$ 25.00	\$ 23.00			
Deferred Charges	\$ 50.00	\$ 45.00			
Total Other Assets	\$ 75.00	\$ 68.00			
Total Long-term Assets	\$ 360.50	\$ 319.80			
Total Assets	\$ 685.50	\$ 609.80			
LIABILITIES and EQUITY					
<i>Current Liabilities</i>					
Long-Term Debt	\$ 12.00	\$ 11.00			
Notes Payable	\$ 15.00	\$ 14.00			
Accounts Payable	\$ 13.00	\$ 10.00			
Taxes Payable	\$ 11.00	\$ 10.00			
Accrued Expenses	\$ 21.00	\$ 20.00			
Other current Liabilities	\$ 10.00	\$ 9.00			
Total Current Liabilities	\$ 82.00	\$ 76.00			
<i>Long-term Liabilities</i>					
Notes Payable	\$ 30.00	\$ 27.00			
Bonds Payable	\$ 60.00	\$ 52.00			
Total long-term Liabilities	\$ 90.00	\$ 79.00			
<i>Other Liabilities</i>					
Pension Obligations	\$ 90.00	\$ 82.00			
Deferred Taxes	\$ 70.00	\$ 82.00			
Minority Interest	\$ 15.00	\$ 12.00			
Total other Liabilities	\$ 175.00	\$ 156.00			
Total Liabilities	\$ 347.00	\$ 311.00			
<i>Equity</i>					
Preferred Stock	\$ 60.00	\$ 50.00			
Common Stock	\$ 97.50	\$ 89.00			
Capital Surplus	\$ 111.00	\$ 99.00			
Retained Earnings	\$ 120.00	\$ 105.80			
- Treasury Stock	\$ 90.00	\$ 45.00			
Total Common Equity	\$ 278.50	\$ 248.80			
Total Equity	\$ 338.50	\$ 298.80			
Total Liabilities and Owner's Equity	\$ 685.50	\$ 609.80			

Cash Flow Statement:

A cash flow statement for a green enterprise tracks the movement of cash in and out of the business over a specific period. It shows where the cash comes from and how it is used. For a green enterprise, the statement focuses on cash flows related to sustainability efforts, such as income from green products or services and expenses for eco-friendly initiatives. It helps the company assess its ability to generate and manage cash, make sustainable investments, and meet financial obligations.

Financial Indicators

allow analyzing the financial viability and health of a business by comparing it with others or by comparing different scenarios for different technologies and production scales. They are numerical measures that provide insights into profitability, liquidity, efficiency, debt management, growth, and market performance. These indicators help investors, lenders, and analysts assess the company's financial position and make informed decisions. Examples include profitability ratios, liquidity ratios, efficiency ratios, debt ratios, growth indicators, and market performance indicators.

4.6 PROTOTYPING, TESTING AND VALIDATION IN THE MARKET (GREEN MVP DEVELOPMENT)

If a picture is worth a thousand words, a prototype is worth a thousand pictures. At the incubation stage, the green start-ups should have already undergone various prototyping exercises and might even have a working prototype of their solution.

At the incubation stage, it is crucial for the start-up to ground truth into its solution (as highlighted at the early stage) by iterating based on customer feedback and testing. A prototype is a simplified version of the solution that allows the green entrepreneur to test it and gather feedback. It can be a physical model, a digital mock-up, or even a storyboard. Of course, entrepreneurs shouldn't be encouraged to be wasteful, but a lot of reusable material can be deployed for prototype creation. At this stage, the prototype should be easily modifiable and will be elaborated and built up over time. This is to avoid excessive effort and investment before testing has been thoroughly conducted to make sure that the prototype can easily be modified based on feedback and that emotional attachment remains as low as possible.



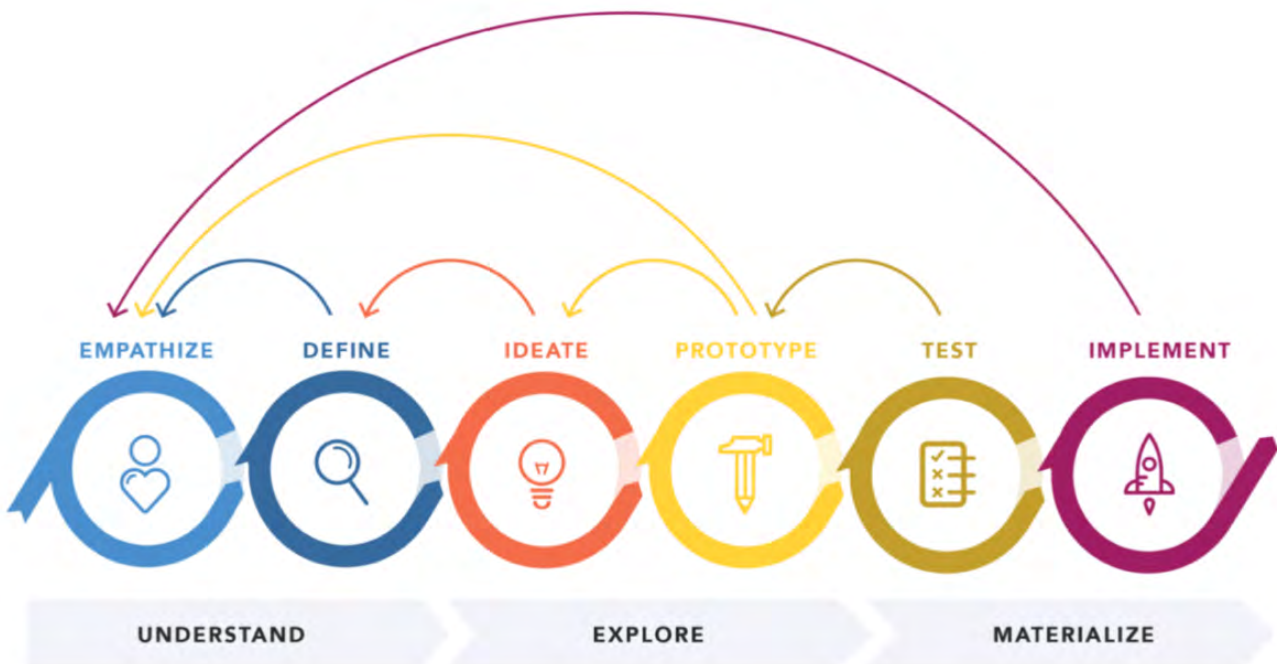
Examples of easy-to-build prototypes and MVPs

There are two common strategies for prototyping: the Concept Prototype and the Working Prototype.

A Concept Prototype involves creating an early sample or model of your project to test its main concept and its impact on the targeted problem. Examples include cardboard or scrap material models, digital mock-ups, simulations, and surveys for collecting feedback. On the other hand, a Working Prototype focuses on building an early functional sample of your project to be tested by end-users and presented to potential investors and marketing companies to raise funds for a full-scale version.

DESIGN THINKING AT INCUBATION STAGE

In the prototyping and testing process, we return to Design Thinking, which is a fantastic methodology to guide start-ups through.



DESIGN THINKING 101 NNGROUP.COM

The fundamental principles of design thinking allow for iterative and lean project or product implementation. Through a sequence of steps that can be looped back as needed, it allows the enterprise to iterate based on the results of prototype testing.

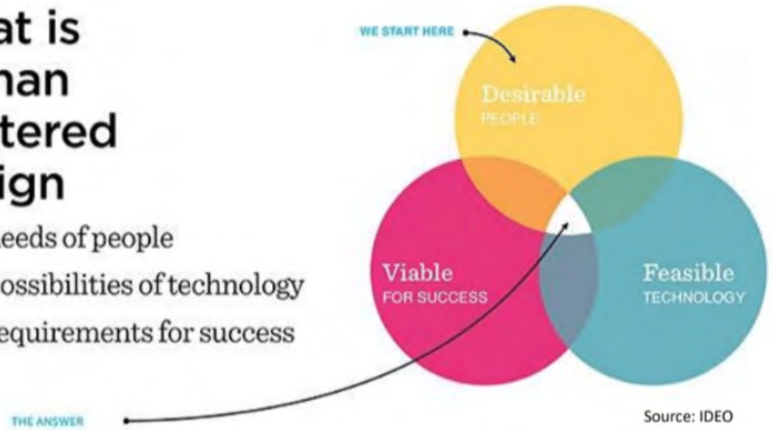
At the outset of every design thinking process, the start-up should be thoroughly introduced to the concept of empathy. Empathizing with the targeted customer base is crucial to ensuring that the solution tackles a real issue that puts the human being at the center. Based on the ideation process that the enterprise underwent previously, the most promising ideas can be selected to create prototypes. The focus is on quickly building something tangible to bring ideas to life.

After having gone through sufficient iteration and feedback loops, it should be realistic for the green start-up to conceptualize and design a first green minimum viable product (MVP), in other words, a functional but stripped-down version of the final product that goes beyond a cardboard prototype and addresses the main pain points or user needs. And now the testing process starts all over, but in a more realistic way: trying to sell an MVP will allow the enterprise to validate and test their product or idea with real users quickly and cost-effectively. The primary objective is to gather feedback, learn from user interactions, and validate assumptions to make informed decisions about further development or modifications.

As the green start-up enters the testing phase, it helps to first sketch out a set of assumptions on how the customers will interact with the solution, as well as some questions that the creator wants to clarify or that emerge from the feedback process. Further, the entrepreneur should monitor and track any risks, their prioritization, and their likelihood of occurring, ranging from supply chain disruptions to policy changes that might impede the success of the solution. On this basis, it will be possible to create an action plan that is broken down into detailed steps to address those issues.





What is Human Centered Design

- the needs of people
- the possibilities of technology
- the requirements for success



But nothing beats conversations with real people—especially those that would later make up the customer base, but also anyone else, from business experts to family and friends! Start-ups might be reluctant at this stage to talk too much about their idea, either because they are afraid someone might steal it or because they feel like it is still too basic, but it is a fundamental part of incubation and should not be neglected. Also, talking to potential customers will help the entrepreneurs understand through which channels their customer segments can generally be reached, as promoting a green product might not always be as simple as a Facebook ad when targeting customer segments in remote areas.

The questionnaire below can help guide those conversations:

 Customer	 NEED	 PRODUCT	 PROMOTION
Strategy: Your plan and assumptions			
<p><i>To which market segment does your solution cater? How much will the customer pay for your product or service?</i></p>	<p><i>What problem does your solution solve? What are your customer's needs?</i></p>	<p><i>What is your product or service? What are its features, benefits, and what experiences will the customer have when using it?</i></p>	<p><i>How will you communicate and promote your solution?</i></p>
Reality check			
<p><i>Is the market segment really interested in the product? What feedback did you receive?</i></p> <p><i>Does the customer have payment capacity? How much is the customer willing to pay for your solution?</i></p> <p><i>Do you really have access to your customer?</i></p> <p><i>What is the preferred form of communication?</i></p>	<p><i>Does the customer truly have the problem that you hope to solve? What are the real challenges your customer is facing?</i></p>	<p><i>Does your product or service really have the features, benefits and experiences that your client requires? What changes would be necessary to better suit the real needs?</i></p>	<p><i>What are the channels that your customer really utilizes through which you can communicate and promote your solution?</i></p>

4.7

SUSTAINABLE BRANDING AND MARKETING

Once your green entrepreneurs are well advanced into the incubation stage and are getting ready to start selling their first products or services, it becomes essential for them to think about creating a **visual identity** and **brand image** for their start-ups. This includes selecting a catchy and representative company name, creating a logo that relates to what they will offer, and putting together the full branding package, which comprises visual branding and alignment in fonts, colors, and other elements in all their communication, including letterheads, business cards (or even better, e-cards!), proposals, presentations, and more.

But in addition to this visual identity—which is important in our modern virtual and physical worlds—the branding and the communication that will go with it also need to encompass the right sustainability messages that really describe the enterprise’s value proposition. This includes a company’s green mission statement, marketing and/or communication slogans, a company’s sustainable manifesto, having a compelling sustainability story, and more. All of which should highlight the start-up’s environmental characteristics, such as the challenges it is solving, its social impact, its circularity practices, etc. This entails thoroughly developing the right sustainability narratives and company key messages.

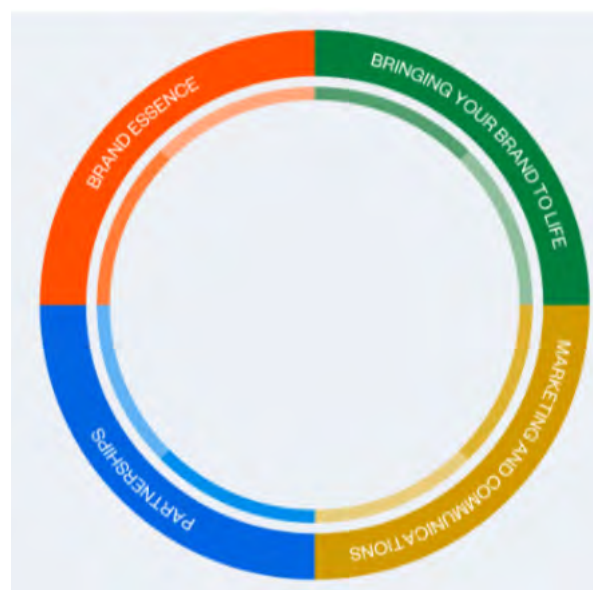
The next step for your green entrepreneurs will be to develop a **marketing strategy** and establish the right mix of digital and offline channels that they will use to reach their key target audience(s).



Another very thorough tool, that is readily available in the Switchers Toolbox is the Access to Market tool which is organized around four sections:

- 1) Brand Essence
- 2) Bringing your Brand to Life
- 3) Marketing and Communications Channels
- 4) Partnerships and Internationalization

Each section contains two modules with ideas, concepts, tasks, exercises, or worksheets to assist green entrepreneurs in developing their branding strategy and marketing plan. Emphasis is again placed on bringing out and highlighting the environmental and social attributes at the core of their business to better position it on the market, especially when it is saturated with less responsible alternatives. Indeed, green businesses have a competitive advantage now that environmental concerns are pushing at least part of the market towards new consumption habits and standards. For this reason, clear brand differentiation is key to success.



The below table highlights all the topics covered in each section of the Access to Market tool. Many templates are downloadable, which allows you—or branding experts—to proactively work with the entrepreneurs to help them articulate their key messages and develop their brand essence.

Brand essence	Bringing your brand to life	Marketing and communications	Partnerships
<p>Your brand must be a reflection of your business goals. Find out how to align your green business with your brand essence and positioning.</p>	<p>Developing the visual and verbal identity of your brand is a must if you want to stand out and make your sustainable business proposal appealing and engaging to your customer.</p>	<p>Find out how to reach your key audiences. The following Modules equip you with the key tools for establishing the offline and digital channels you'll use.</p>	<p>Want to go for more? Learn how to create powerful partnerships to amplify your brand and grow your business.</p>
<p><i>Plant the seed!</i></p>	<p><i>Make it real!</i></p>	<p><i>Reach out to your audiences — wherever they are!</i></p>	<p><i>Explore the magic of partnering up and go beyond your borders!</i></p>
<p>↓</p>	<p>↓</p>	<p>↓</p>	<p>↓</p>
<p>ALIGNING BRAND AND BUSINESS GOALS</p>	<p>CREATING YOUR VISUAL IDENTITY</p>	<p>OFFLINE COMMUNICATIONS</p>	<p>STAKEHOLDER MAPPING FOR PARTNERSHIP CREATION</p>
<p>Make sure your branding strategy is consistent with your green business objectives.</p>	<p>Transform your sustainable brand essence into a tangible visual form. Understand the importance of a logo and create your sustainable brand style guide.</p>	<p>Learn how to put together a creative brief for a communications campaign and produce sustainable promotional materials. Go over the basics of communicating through sustainable packaging.</p>	<p>Learn how to identify and prioritize your key external stakeholders and create your key stakeholder map.</p>
<p>DEVELOPING YOUR BRAND ESSENCE AND POSITIONING</p>	<p>DEVELOPING YOUR NARRATIVE AND KEY MESSAGES</p>	<p>DIGITAL COMMUNICATIONS</p>	<p>PARTNERSHIP ACTIVATION</p>
<p>Find what is truly unique about your sustainable brand, discover your positioning space in the competitive branding landscape and write your brand manifesto.</p>	<p>Craft your brand's green narrative and key messages to engage your key audiences and share a compelling sustainability story.</p>	<p>Build or enhance your website and social media strategy. Get the tips you need to promote your sustainable brand in the digital world!</p>	<p>See what you need to set up a strategic partnership and learn how to evaluate it.</p>

Below is an example of a template in the Brand Essence section that helps the entrepreneurs define their sustainable branding strengths, weaknesses, opportunities, and threats (SWOT) and compare them to those of their main competitors. Note that in this context, the SWOT is focusing mostly on the company brand (not the whole business operation), what is already available in terms of brand identity versus what is missing or not strong enough, and how it could be improved.

The template is titled "ACCESS TO MARKET TOOL" and "EXERCISE 3". It is titled "Brand essence" and "Developing your brand essence". It is divided into two main sections: "Yours" and "Competitors". Each section contains a 2x2 SWOT matrix. The top row is for "Internal factors" (Strengths and Weaknesses) and the bottom row is for "External factors" (Opportunities and Threats). A "Download the template" button is at the bottom.

Note that the last section focuses on Partnerships and is typically more relevant at late incubation or even more so during growth or scaling stages: it gives guidelines to the entrepreneurs on how to map key stakeholders specifically for partnership creation and steps to be taken to activate win-win partnerships with some of the identified and prioritized stakeholders.

A Glossary of Key Concepts, with definitions of terms used for branding, is also accessible in the Resources Tab of this tool, at the top right.

Seeking Strategic Partnerships

A strategic partnership is a relationship with a key stakeholder in pursuit of common goals aligned with your green entrepreneurial purpose and values. There are different types of partnerships, but a typical one involves short-term projects or alliances that bring together multiple partners for a specific project. They can range from co-branding partnerships to commercial ventures, or even alliances or clusters that share access to new markets or suppliers.

4.8

ACCESS TO FINANCE AT INCUBATION STAGE

At the incubation stage, green enterprises generally have a hard time accessing types of funding such as loans or credit as they still lack collateral and a stable track record of sales and revenues. However, diverse financing options exist. As a BSO, your role includes educating and sensitizing the entrepreneurs on available funding types and, of course, introducing and connecting them with entities that have a declared interest in or a history of investing in early-stage green start-ups.

Types of Finance Available at the Incubation Stage

On paper, there are no limitations to what kind of finance an incubation-level green start-up can access. In practice, however, both their capacity to process larger sums of money, the high risk associated with new enterprises, and the small ticket sizes that aren't favored by traditional investors make it difficult for a young enterprise to unlock loans, venture capital, or other traditional investments. While impact is becoming more important to a growing number of investors, deviations from more "mainstream" business models in commercial sectors could still alienate some. However, the pool of traditional and non-traditional financing entities that have caught on to the potential of sustainable entrepreneurship is consistently growing, and more and more funders are willing to provide early-stage funding for entrepreneurs with a convincing idea, a sound green business plan, and a bulletproof pitch.

Grants:

Grants are non-repayable funds that are typically provided by governments, foundations, or other organizations to support specific projects or initiatives. Green entrepreneurs can apply for grants to fund their research and development activities, prototype development, or other early-stage activities. However, "free money" sounds easier than it is; when working with donors, entrepreneurs can expect various hurdles that may impede the innovation process, such as delays in project implementations, heavy reporting requirements, bureaucratic procedures, and limitations to the possibilities to use the funds.

Seed Funding:

Seed funding is typically provided by angel investors or early-stage venture capitalists to help start-ups get off the ground. Ideally, the investor already knows and has previous experience supporting enterprises at this growth stage, so they can manage expectations and

account for possible pivots or even failures. As a BSO, you can support the green entrepreneurs in deploying their seed funding to build an initial team, develop a prototype, and hopefully launch their first product or service. In countries affected by economic and financial instability, investors consider these markets too risky for seed or commercial investments. Seed funding often comes from family, friends, and personal contacts that believe in and are willing to support the entrepreneur, know the local context, and will provide funding despite the heightened risk and early stage. It needs to be considered that many traditional investors may be reluctant to breach into the green entrepreneurship space, especially if they may have to surrender some of the usual expected profit margin. Thus, BSOs play a huge role in building links and educating both sides.

Crowdfunding:

Crowdfunding is a fundraising model in which many people contribute (often small) amounts of money to support a project or venture. Green entrepreneurs can use crowdfunding platforms to raise funds from a large and diverse group of individuals who are passionate about environmental issues. However, running a successful crowdfunding campaign takes time and resources, ranging from outreach efforts to a potential reward scheme, which the entrepreneur shouldn't underestimate. It would thus be beneficial to exchange with other start-ups that have previously gone through this process. Also, entrepreneurs should keep in mind that it is difficult to reach beyond personal networks, so if personal networks are limited or cash-poor, this might be challenging.

One way to review financing opportunities is to encourage your green entrepreneurs to revisit the Switchers previously described in the

You can go through the tests with them to figure out some of the funding opportunities available to them at the late incubation stage.

Entrepreneurs will also be able to browse available financing or program support opportunities in the country in which their enterprise is established. The toolkit lists financing opportunities for nine countries in the Mediterranean basin, including Lebanon. Lastly, a "Fundraising Readiness Checklist" will be available for downloading, as illustrated below.



Indiegogo, Kickstarter and Seedrs are popular, cross-sectoral crowdfunding platforms. However, there are other platforms, albeit sometimes less popular, that are in part or fully geared towards environmental and/or social projects. Those include GoGetFunding, StartSomeGood, SunFunder (for solar projects) and Mosaic (for energy projects).

Impact investment: Impact investors are individuals or organizations that invest in companies with the intention of generating a positive social or environmental impact as well as a financial return. Green entrepreneurs can seek out impact investors who are interested in supporting businesses that have a positive impact on the environment. Yet, similar to seed funding, the impact investor must be aware of what an incubation-stage enterprise can realistically deliver.

Finance Toolkit

Fundraising Readiness Checklist

How to review your fundraising strategy before starting to contact potential investors.

The key to any successful fundraising strategy is to get ready before starting: much of the work has to happen in advance. Check your investor readiness position before contacting any potential investors.

Here is what you need to know to kick-off the process of fundraising for your green business. Consider the following bullet points and try to cover all before kicking off your fundraising strategy:

1. You have a clear business mission
2. You have a strategic plan that outlines what you intend to achieve as a business
3. You have a clear action plan for running your fundraising strategy, including timelines and milestones
4. You have identified major potential investors and prepared your introduction/pitch according to their needs.
5. You have created your pitch/introduction. You will use your pitch/ introduction or your executive summary in meetings with investors. You'll also use it when you tell your friends and family why they should support you in this exciting journey. Your pitch should be a very concise PowerPoint presentation that tells your vision for the business and the strategy you'll use to achieve it.

Once you have a solid version, it is important to **continue fine-tuning it as you receive feedback from investors.**

You should be open-minded during this process and try to incorporate their comments.



For more information about financing for green enterprises globally, go to <https://sswm.info/financing-water-impact> under the section Financing Instruments. You will also find an Investor Map, including opportunities for grants, impact investment, seed funding and other sources.

HOW TO FACILITATE ACCESS TO FINANCE FOR GREEN START-UPS?

Incubators, through both their training programs, and the physical spaces that they often offer to their supported enterprises, come equipped with the ideal facilities to enable first encounters between green start-ups and investment stakeholders.

- ✔ One-on-one matchmaking is one of the most straightforward ways for a BSO to connect an incubation-stage green enterprise with a potential investor. It is thus crucial for you to foster strong relations and track records with the investment sphere, build trust, and set a precedent of successful matchmaking. Over time, you will monitor and learn the interests and priorities of key investors, understand how their decision-making process functions, and how to best prepare your high-potential entrepreneurs for those first encounters.
- ✔ Peer support is essential during the fundraising process. Bring enterprises together to exchange best practices, learnings, and (crucially) failures or mishaps in approaching investors. Have them critique each other's pitches and build a sense of community and mutual support.
- ✔ Demo days are a great opportunity for enterprises to showcase their products or innovations, thus providing investors to see them in action and evaluate their potential for success.
- ✔ Fairs or marketplaces are great places to meet potential investors. Use your network and leverage to secure a booth or exhibition space (sometimes grouped), or ideally even speaking slots, for your enterprises.
- ✔ At networking or pitching events, incubators can bring together green entrepreneurs and potential funders and investors in a structured environment for entrepreneurs to present their ideas and network with interested potential funders.



Pitch perfect

A sharp, crisp, and concise pitch deck that contains all relevant information but does not overwhelm the audience is the bread and butter for all young enterprises as they look for funding and partners. As entrepreneurs at this stage often lack the ability to see the forest for the trees, you will be conducting intensive work on refining the pitch deck, tailoring it to specific audiences, and cutting useless information. Prepare for long hours of practising the pitch with your supported green enterprises until they can deliver it confidently, smoothly, and convincingly. Try to source and introduce them to best-in-class examples, either from among their peers or even other sectors.



Among the dozens of pitch decks that investors review on a regular basis, it is important to stand out. Innovative tools can help start-ups craft pitches that may help them differentiate themselves, both visually and in terms of the information contained. Examples include [Prezi](#), [Slidebean](#), [Beautiful](#) or [Visme](#), some of which have free or low-cost plans available. When reviewing enterprises' pitch deck, make sure that the content is tailored to who they are presenting to: a pitch to a potential investor should differ from one to the general public, or a potential partner.



Zoom In: Collaboration and Green Partnerships

Nobody can exist in isolation; that goes for a green business just as much as for a BSO. Healthy, ever-evolving relationships and participation in networks are essential to staying on top of sector trends, expanding the pool of consultable experts (such as mentors or coaches for your start-ups), and, in the spirit of this Toolkit, exchanging with other BSOs on new or proven methodologies, tools, events, and resources.



EcoSwitch Coalition

The EcoSwitch Coalition is a network of organizations that support eco-entrepreneurs in Lebanon. Created in 2020 as part of the Switchers National Partnership initiative, the Coalition now encompasses around 30 members, mainly entrepreneurship support organisations supporting green businesses. An important part of the Coalition is the exchange between BSOs, which allows them to access more resources, spread their offers more widely, coordinate and provide information about their programs, and pool their resources in order to more effectively support green entrepreneurs. The EcoSwitch Coalition is a partnership of over 25 well-established institutions, NGOs, and companies, meeting regularly and working hand-in-hand to provide events, support, entrepreneurship labs, and other activities to eco-entrepreneurs, including its annual EcoSwitch Festival. More information on the EcoSwitch Coalition website. It also offers green entrepreneurs the opportunity to showcase themselves to donors, investors, and clients. A recent tool developed by the EcoSwitch Coalition is a detailed mapping of all laboratories for testing, which is particularly relevant for entrepreneurs operating in the green and environmental fields, and FabLabs for creating and testing. <https://ecoswitchcoalition.creation.camp/>

The Switchers National Partnerships have also been created in Algeria, Egypt, Jordan, Morocco, Palestine, and Tunisia. <https://switchmed.eu/startups-green-entrepreneurship/start-ups-national-partnerships/>. Additional networks exist in some countries in the region, for instance the Green Enterprise Network in Jordan and Iraq, led by cewas.



Sanitation and Water Entrepreneurship Pact (SWEP)

The SWEP is one of the first global coalitions pooling expertise and resources to support environmental entrepreneurship, specifically water and sanitation entrepreneurship. The SWEP was founded in 2017 and focuses on exchange, collaboration, and fostering synergies to support entrepreneurial solutions to realizing access to water and sanitation for all (Sustainable Development Goal 6). The group of water- and sanitation-related business support organizations ([cewas](#), [Toilets 4 All](#), [Young Water Solutions](#), [WASTE](#) and [Viva con Agua](#)) works on a multitude of layers, including Research and Development, Technical Assistance, funding, policy, and advocacy, for the benefit of water entrepreneurs all over the world. The vision is to become an open and collaborative network that links together financing and supporting organizations for the benefit of entrepreneurs who are tackling water and sanitation challenges. The SWEP members get together in regular bimonthly meetings to exchange information about new developments and opportunities. Further, they pool resources for dedicated communication activities, including a widely read newsletter.

4.9 GREEN/CIRCULAR ENTERPRISES HIGHLIGHT



Green Enterprise Name: Wave eBikes

Green Enterprise Sector: Sustainable Mobility

Website: [Wave](#)

Social Media:

[Wave eBikes Instagram](#)

[Wave eBikes Twitter](#)

[Video Link](#)

Brief Description:

In the absence of proper infrastructure and public transport in Lebanon, Wave is on a mission to provide a transport solution to get their communities' backs covered! Wave blends the Dutch cycling culture with the local and offers a traffic-free and healthy lifestyle with a tailor-made e-bike subscription, accompanied by the Wave app that supports a safe drive.

Wave started its operations in 2021 in Beirut and has grown its fleet to more than 300 bikes, available in different locations in Lebanon. Since then and up until March 2023, their subscribers, mostly recurrent clients with an average retention of 6 months, had already avoided over 200 thousand kilometers of car usage.

Wave is now also focusing on further growth in other regions in Lebanon (Tripoli, Batroun, and others) and then on a roll-out in the greater MENA region so that other citizens can benefit too.



Green and Circular Highlights:

- Circular Business Model: Subscription Model to retain ownership of the eBikes
- eBikes are designed for durability and high quality, taking into account the rough roads and terrain in Lebanon.
- High-quality maintenance and repair to keep bikes at their highest value possible for the longest time.
- Batteries should be repurposed for usage with a solar array when performance diminishes and is not sufficient for cycling to increase their end-of-life. Batteries are to be recycled once they are completely unusable.

Wave office and leasing facility powered by solar PVs and adopting high sustainability operational practices.



Green Enterprise Name: Savvy Element
Green Enterprise Sector: Green Cleaning and Eco-friendly Selfcare

Website: WWW.SAVVYELEMENT.CO

Social Media:

[Savvy Element Instagram](#)

[Savvy Element Facebook](#)

Video Link

Brief Description: Savvy Element is an ecological Lebanese brand and manufacturing company for self-care and home-care products that are green and environmentally sustainable. Savvy Element was born in the heart of Beirut with the aim of making clean and sustainable self-care and home care

accessible for everyone. It is a brand that takes every element into account, making sure that all its operations, from sourcing to disposal, do not harm the environment. Merging the high performance of their products with the nourishing and healing properties of wild-harvested botanicals and minerals, their biodegradable formulas are designed to organically decompose back into the earth.

Currently, Savvy Element distributes its products in Lebanon at 10 physical points of sale and 5 online stores, including its own website. Operations at Savvy Element take place in Beirut and are currently undergoing the ISO 22716 certification process. Savvy Element started operating in March 2019 and currently offers two product lines:

- Home Care, which includes four products (dish soap, laundry soap, surface cleaner, and air purifier).
- Self-Care, which includes seven products (solid shampoos, hair serum, sunscreen, face serum, face cream, hand cream, and face cleanser).



Green and Circular Highlights:




























Circularity in biodegradability: ensures full biodegradability of its products, including its cleaning line (in contrast with many mainstream detergent brands that contain toxic, non-biodegradable synthetic chemicals).

- Favors locally produced, high-quality essential oils and botanicals whenever available.
- Refill policy: cleaning products are available in refillable large gallons at a lower price when returned for a refill. Cosmetics in refillable glass jars
- Recycling policy: All cleaning products come in locally recyclable plastic.

ACCELERATION



Acceleration Stage

Enterprise Diagnostics	Acceleration Strategy for Green Business	Impact Indicators and Measurement for Sustainable Enterprises	Transformation of Operations and Circularity	Financials and Financial Projections	Investment Strategy and Matchmaking	Green Intellectual Property Rights (IPR)	Collaborations and Partnerships	Green and Circular Enterprises Highlight
Acceleration Enterprise Assessment 	Consistency is key 	UNDP Self-Assessment Tool 	Business Development Project	Financial projections sheet 	GIIN 	Zoom In: IPR in the Textile Industry in Lebanon 	Zoom In: Clustering 	Taqqa Snacks 
External Assessment 	Prioritizing 	Measuring and Monitoring Impact 	Transformation Project 	Financial Projections Sheet 	Innovative Financing Instruments 	Venture Building industry entrepreneurs 	Compost Baladi 	
	Acceleration Milestones 	Switchers Impact Measurement Toolkit 	Circular Transformation	Switchers Finance Toolkit 	SSWM Investor Map 	Expert Databases 		
	cewas Acceleration 	ESG 	Embrace Toolkit 		Switchers Finance Toolkit 	Match Established Companies with Entrepreneurs 		
		Theory of Change 						

Before embarking on the Acceleration journey, enterprises should make sure that they meet the following basic criteria for the acceleration stage:

- The enterprise completed, or at least initiated, legal registration.
- The enterprise has been operational in your target country for at least one year.
- The enterprise has a clear ambition to scale your solution.
- The enterprise has a dedicated team to reach the business objectives for at least one year.
- The enterprise team is solution-oriented, diverse, and perceptive to feedback.
- The enterprise is a market-based enterprise with a clear revenue model.
- The enterprise is generating sales.
- The enterprise has a scalable offer that has the potential to generate demand.

The enterprise is generating an environmental impact.

5.1

ENTERPRISE DIAGNOSTICS

Decision-making for entrepreneurs at the Acceleration stage needs to be based on a thorough analysis. We recommend that BSOs conduct a detailed enterprise assessment at the beginning of the Acceleration stage with the enterprise to understand the key elements of the business model, structure, and market in which it operates. The results of the enterprise diagnostic will serve as the basis for building the Acceleration strategy.

Most Acceleration programs apply the following steps to conduct the assessment:

- 1) Assessment based on a detailed questionnaire or survey focused on the internal aspects of your enterprise
- 2) Assessment of the market surroundings, target markets, and key success factors
- 3) Derive the key strengths and weaknesses of your business.

1) INTERNAL ASSESSMENT

The internal assessments cover all aspects important for business development in general, but focus specifically on green businesses through questions relating to end-users, environment-related SDG indicators and impacts, circular business models, and more. Each domain consists of specific questions and criteria for evaluation, covering various aspects of the enterprise's operations and impact in the water sector.

- **Proof of Business Concept:** The tool assesses the commercial viability of the business model, including customer segmentation, market potential, and competition.
- **Impact Potential:** This domain focuses on evaluating the enterprise's contribution to solving development problems, identifying beneficiaries, measuring impact, mitigating impact-related risks, and managing impact.
- **Market Success through Innovation:** This section examines the innovative power and capability of the enterprise, including business model innovation, process innovation, and product innovation.
- **Management and Financing:** focuses on evaluating the operational and strategic planning, financial management, and financing strategies to ensure the development of financially viable business models.
- **Capacity to Deliver:** This domain assesses the enterprise's capacities and resources, including team composition, corporate governance, and operational capacity, to meet the objectives outlined in the business plan.

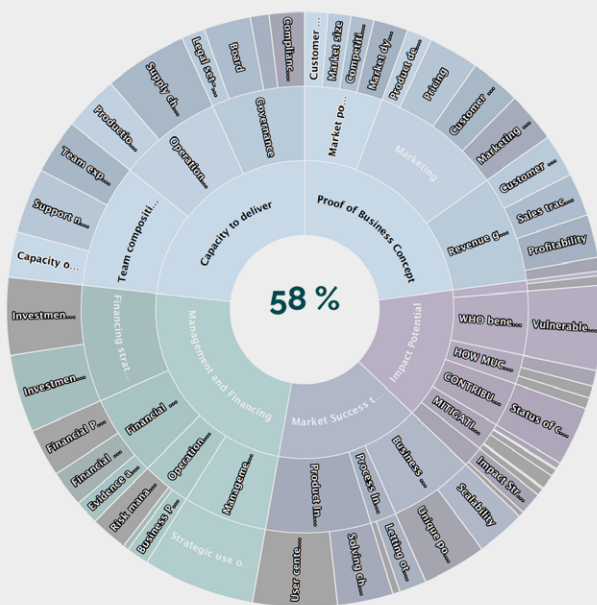
The analysis should then be reviewed and discussed with a coach and mentor to define priority areas that the enterprise needs to work on to accelerate the business. It is recommended to involve the core management team of the enterprise in this process, as it will not only give all of you a better understanding of your operations and processes but will also increase identification and ownership of the acceleration process by the whole team.



Acceleration Assessment

Since these tools are recommended to be discussed with experienced coaches and, in some cases, the evaluation result depends on the review by an expert, they are only available with a login and assistance from a business support organization. However, you can contact them in order to receive access.

Cewas, the Enterprise Assessment Online Tool, is organized around five domains that are relevant for impact enterprises in the water, sanitation, waste, and agriculture sectors. By answering the different questions and sub questions, you will generate an overall picture of your company and establish the basis for the steps to follow.



To gain a comprehensive understanding of your performance, each domain examines the vital success factors of a green enterprise. After you have entered your data, an experienced coach will validate your answers, and then you will receive your final scores.

It is important to note that it is not necessarily about scoring 100% but rather evaluating how a score in a certain area compares to another area and conducting discussions around the assessment in follow-up coaching sessions, which are more important than the final score.

You can get in touch with www.cewas.org if you want to conduct the full assessment, which will then be validated by one of our experienced coaches.

Other similar assessments have been developed by other organizations in the Lebanese entrepreneurship ecosystem, including Bloom, through their Enterprise Capacity Assessment Tool ECAT (<https://bloom.pm/ecat/>). This tool is based on the McKinsey Organisational Capacity Assessment Tool: <https://tools4dev.org/resources/assessing-organisations-with-the-mckinsey-organisational-capacity-assessment-tool-ocat/>

2) EXTERNAL ASSESSMENT

The text discusses market analysis and benchmarking in the context of a business. It emphasizes the importance of staying updated with market developments, continuously revisiting and updating market analysis, and learning from successful competitors. The process of benchmarking is explained as measuring products, services, and processes against industry leaders to identify areas for improvement and gain knowledge. The text also suggests identifying key success factors and leveraging strengths while addressing weaknesses. It encourages reflection on achievements, strengths, and areas for improvement to make strategic decisions.








Market Analysis: The section on market analysis emphasizes the importance of understanding the market environment in which a business operates. It highlights the need to monitor and stay updated with market develop-

ments, including market size, growth, prices, costs, and returns. It encourages businesses to revisit and update their market analysis regularly. The text suggests consulting sector experts, researching key trends and drivers in the market, and studying successful competitors to gain insights. It also mentions the importance of gathering information about the market and filling knowledge gaps to position the business effectively.

Benchmarking Your Company Against the Best in Class: This section discusses the concept of benchmarking and its significance in positioning a company in relation to its competitors. It explains that benchmarking involves measuring products, services, and processes against organizations considered leaders in the market. By studying the performance, processes, strategies, and opportunities for improvement of successful companies, a business can learn and identify areas to enhance its own performance. The text advises gathering information about the market, studying successful competitors, and using them as a reference to understand what is relevant to the business. It also mentions that although a startup may not directly compete with larger players, they can still gain insights from them.

Analyzing Key Strengths and Weaknesses: In this section, the text suggests reflecting on the overall insights obtained from the enterprise diagnostic. It advises selecting 2–3 core strength areas to continue building upon and leveraging competitive advantages. Additionally, it recommends prioritizing 2-3 areas of weakness that need to be addressed to accelerate business growth. The text poses questions to guide the reflection process, such as identifying relevant achievements, assessing areas where the enterprise outperforms others, recognizing valuable aspects of the enterprise, acknowledging concerns from the assessment results, identifying missing or underdeveloped key resources, clarifying next steps, and identifying evidence needed to validate the business model. The section acknowledges that strategic decision-making can be overwhelming at this stage but assures that it is a normal part of the process.

DIAGNOSTICS

 <h3>Enterprise Assessment</h3> <p>What surprises you from the results of the enterprise assessment and why? What remains unclear?</p>	 <h3>Market Analysis</h3> <p>Where do you compete? How do you monitor relevant market developments? What are key trends and drivers in your market and what do these mean for your enterprise?</p>		
 <h3>Key Strength</h3> <p>What are your strategically most relevant achievements? Where is your enterprise setup to outperform others? Why? What do you value most about your enterprise?</p>	 <h3>Priority Gaps</h3> <p>What bothers you most about the overall assessment results? Which key resources are you missing / are underdeveloped? Where is the way forward unclear? Which proof / evidences are missing to validate your business model?</p>	 <h3>Success Factors</h3> <p>What are your current key success factors? How do they help you? How will you win in the fields where you compete? Which KSFs do you need to establish or strengthen? Why? How will these KSIs help you scale, become profitable, generate impact?</p>	 <h3>Target Market</h3> <p>Who are the customer segments that you currently target? Why? How much could you expand in your current target market? Why? Which other customer segments could you expand to? Why & how could you succeed? What channels & mechanisms do you need to enter (new) target markets?</p>
 <h3>Key Risks</h3> <p>Which assumptions have you not validated yet? What are the worst case scenarios for the development of your enterprise, how would they unfold and why?</p>			

5.2 ACCELERATION STRATEGY FOR GREEN BUSINESSES

An acceleration strategy is an individualized, sequenced plan of actions and interventions to help the BSO guide the supported enterprise through the acceleration process. The strategy should be designed to achieve both environmental and financial goals in a sustainable and scalable manner. This step builds heavily on preceding chapters, and the enterprise must have reached a sufficient level of maturity to ensure that they can meet the strategy's set milestones within a defined period. This timeframe can vary based on the parameters of the acceleration program, which also influences the scope of the milestones accordingly. Before commencing work on the strategy, you and the green enterprise should agree on a clear mission and vision that articulate the business's environmental goals and objectives.

OBJECTIVES

Update the business model to showcase where the enterprise plans to go and how it will get there.

- Define convincing business KPIs that provide a path toward growth using measurable indicators and a set timeframe.
- Determine milestones for the acceleration phase that showcase how the enterprise will be accompanied towards the growth stage, possibly tied to payments.

In the next chapter, the focus will be on the impact-related objectives, logic, KPIs, and Milestones.

The recommended steps to follow to reach these objectives consist of:

- a) Review and update the Business Objectives and related KPIs.
- b) Clarify the Impact Model and related targets as a reference for external partners and investors.
- c) Based on these first two steps, define several areas of action (Acceleration Milestones) for your acceleration journey. These actions will help tackle growth barriers and should be linked to specific achievements and milestones.



Tip:

Consistency is key during the acceleration process. Besides curriculum-related technical inputs by trainers and coaches, we recommend providing a mentor for each enterprise, either in-house or externally, who accompanies the entire process while asking the difficult questions and providing inputs or even connections to keep the enterprise on track towards meeting their KPIs.

BUSINESS MODEL

At this stage, green enterprises should already be equipped with a sound business model. The acceleration support will serve to refine this business model and create a tangible, measurable trajectory for growth.

It becomes crucial once again at this stage for the green enterprise to engage with potential customers in new markets, receive feedback from industry experts, and identify gaps or opportunities in the market. Your role will be to support the enterprise in analyzing and processing market feedback and insights to potentially pivot its business model to better align with customer needs or changing market trends.

Further, the program may help identify new, possibly additional revenue streams that align with the company's business goals and objectives and help identify strategies and resources for scaling, such as new partnerships, funding opportunities, or marketing interventions. This should go hand in hand with optimizing the cost structure to identify cost-saving measures.

BUSINESS OBJECTIVES AND KPIS

Achieving growth requires setting clear business objectives and Key Performance Indicators to effectively communicate and track progress.

- Define clear business objectives: set specific, measurable, attainable, relevant, and time-bound (SMART) goals.
- Identify measurable outcomes: determine measurable indicators that track progress towards your objectives.
- Categorize KPIs: divide KPIs into business KPIs (financial, sales, marketing) and impact KPIs (social, environmental).
- Select a manageable set of KPIs: choose 10–20 meaningful metrics that align with your goals.
- Monitor KPIs regularly; establish a system to track and analyze KPIs on an ongoing basis.
- Align stakeholders: communicate KPIs to key stakeholders and regularly update them on progress.
- Adapt and refine: continuously review and adjust KPIs as your business evolves.

Following these steps will help you set clear objectives, track performance, and engage stakeholders effectively.

ACCELERATION MILESTONES

Acceleration milestones are essential for guiding the growth of your business and achieving your impact and business objectives. These milestones represent the desired accomplishments necessary for your business to progress in the next 6–12 months. They involve a range of activities, both internal and external, that require investment and resources. It is recommended to work with a coach to define these milestones and prioritize the most relevant ones. Focus on the milestones that are currently important and carefully consider the resources needed. Creating a lean internal workplan with activities, resource allocation, and deadlines can help organize and visualize the milestones. Transformational milestones, which have the potential to significantly impact the



While it is tempting to try to do it all, you are also a voice of reason for the enterprise by bringing them back to reality when needed. Exciting new businesses are often presented with a buffet of opportunities and thus overstretch themselves. As a BSO, you can help them realize and tackle bottlenecks in their business plans and refocus attention on priority areas.



business and require substantial planning and resources, should be approached strategically and one at a time. Avoid committing to multiple transformational milestones simultaneously.

Examples of acceleration milestones that could be considered transformational:

- 1) Testing a new customer segment (i.e., expanding water monitoring system sales from utilities to farmers).
- 2) Developing a financing service or new payment system for private households interested in purchasing a decentralized wastewater treatment system
- 3) Expanding the business model from selling hardware systems to providing maintenance services and testing a new revenue model for this respective service.

The below summary chart takes us from the Business and Revenue model through the objectives, KPIs, and finally Acceleration Milestones, which are guiding questions that can help you in your analysis.

The Road to Acceleration

<h3>Revenue Model </h3> <ol style="list-style-type: none"> 1) Describe your current revenue Model in max 100 words 2) Analyse your revenue model and identify options for improvement. <p>The following guiding questions are helpful to reflect upon:</p> <ul style="list-style-type: none"> - What will make your revenue model profitable? By how much do you need to increase your sales to break even? How can you reduce costs to increase profitability? - How did you validate your target customers ability and willingness to pay? Could end-user financing increase your revenues? Can you develop different revenue models for different customer segments? - Can you (prospectively) generate revolving revenues? - What evidences do you need to substantiate your revenue model? <ol style="list-style-type: none"> 3) Describe your envisaged revenue model and explain the main aspects that will make it feasible in max 150 words 	<h3>Business Objectives </h3> <ol style="list-style-type: none"> 4) Define 2 - 4 high-level business objectives you want to achieve. Here we talk about economic and strategic business goals. Describe each objective this is one or two sentences. <p>Guiding questions: What are the pillars of your transformation? What are your realistic economic goals (revenue growth, etc.)? What are your goals when it comes to the strategic positioning of your business?</p> <p>Example cewas: "Until 2024 we want to become the global market leader) for supporting impact-oriented water and sanitation enterprises."</p> <h3>Business KPIs</h3> <ol style="list-style-type: none"> 5) Define 5 - 10 meaningful KPIs that will track whether you will be achieving your business objectives. 6) Answer the following questions: How will your business KPIs help you track whether you meet your business objectives? How will you measure, track and use these KPIs? 	<h3>Acceleration Milestones</h3> <ol style="list-style-type: none"> 7) List the key achievements related to your business and revenue model that you need to achieve to transform and accelerate your business throughout the coming 12 month. <p>Think of what you need to achieve to:</p> <ul style="list-style-type: none"> GENERATE TRACTION: customers come to you instead of you chasing them INCREASE EFFICIENCY: optimize the profitability of your business model ENHANCE CAPACITIES: deliver your offer in line with your objectives BUILD WILLINGNESS TO PAY: generate growing revenues from customers FACILITATE ABILITY TO PAY: ensure targeted customers are enabled to pay
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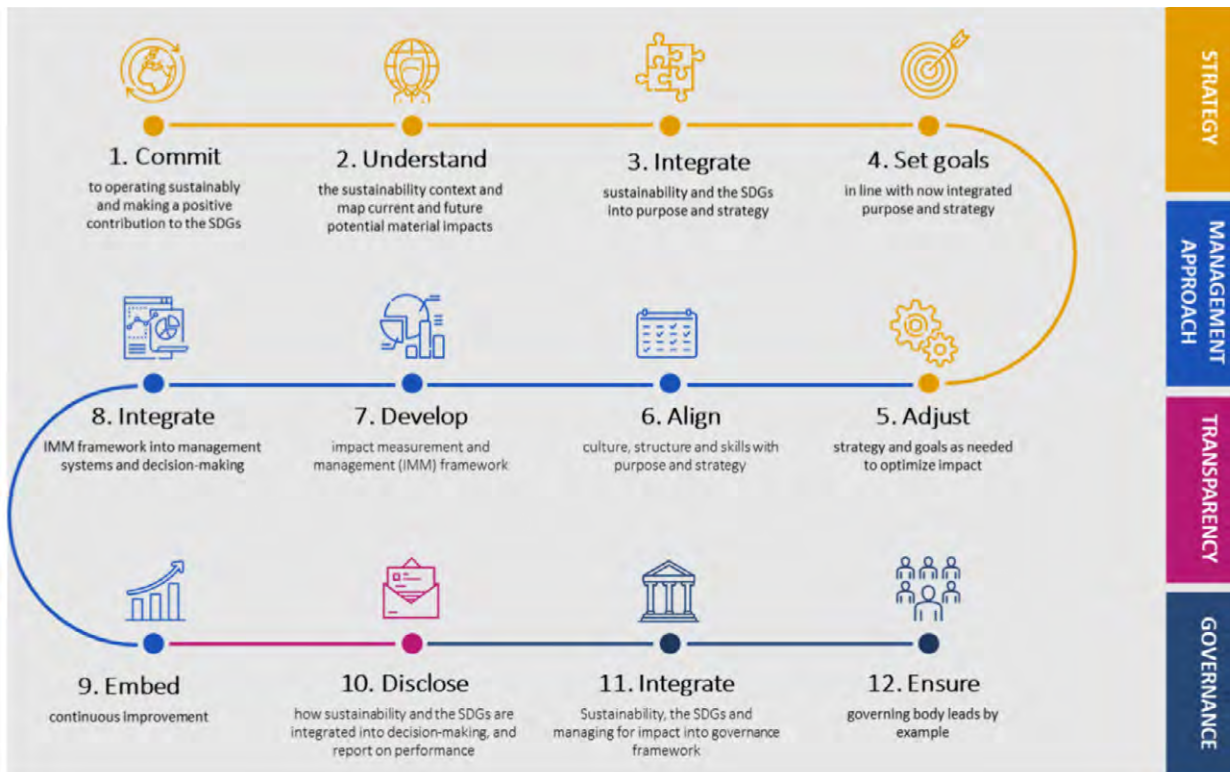


cewas' Acceleration Handbook provides a set of examples for convincing business KPIs that can be adapted by the green enterprise to fit its needs.

<https://www.cewas.org/entrepreneurship-business-development/accelerating-water-businesses>

5.3 IMPACT INDICATORS AND MEASUREMENT FOR SUSTAINABLE ENTERPRISES

(Environmental, social, governance, economic, and other indicators): relate them to international SDG trends



Encourage green entrepreneurs to utilize the UNDP's [self-assessment tool](#) for businesses to measure their adherence to the [SDG Impact Standards](#).

Impact Measurement

One of the aspects most socially and/or environmentally oriented enterprises struggle with is impact measurement. Yet, while assumptions on the desired impact are a good starting point, evidence is needed to truly convince potential partners and supporters. Granted, young enterprises might not have the capacity in place yet to fully monitor their impact with elaborate tools; however, at the acceleration stage, they should already familiarize themselves with several ways to do so and work out an impact monitoring system that works for them.

When measuring its impact, the green enterprise should keep an eye on the following parameters:

1. The audience and purpose for metrics
2. Are there standards they want to align with, such as the SDG Impact Standards?
3. Critical outputs and outcomes
4. Metric diversity: quantitative and qualitative metrics



Some common tools that green enterprises may use to measure and monitor their impact include:

- Sustainability reporting frameworks provide a standardized framework for measuring and reporting on sustainability performance. These frameworks cover a wide range of impact areas, including ESG data. Examples include the [Global Reporting Initiative](#) and the [Sustainability Accounting Standards Board](#).
- Carbon footprint calculators allow businesses to measure and report on their greenhouse gas emissions. These tools can help businesses identify opportunities to reduce their carbon footprint and combat climate change.
 - Carbon footprint calculators:
 - [Normative](#) | [Worldfavor](#) | [Watershed](#)
- Biodiversity assessments serve to measure and understand the biodiversity and ecological value of a business or project. By assessing the variety, abundance, and distribution of living organisms, as well as the overall health and functionality of ecosystems, this can help businesses identify opportunities to protect and preserve natural ecosystems.

Examples for impact measurement software include [SocialSuite](#), [rio](#), and [SoPact](#).

The purpose of a green start-up often goes beyond purely environmental components and also includes intended benefits for local communities and empowerment aspects, for example, for women and people at the Base of the Pyramid (BoP). Social impact assessments can support your green enterprises in measuring the social impact of their business or project. These assessments can cover a wide range of impact areas, including job creation, community engagement, and the social inclusion of vulnerable segments of the population. In addition, it can help an enterprise avoid unintended negative impacts by identifying and managing potential risks and opportunities, ideally before they occur.

Impact measurement software can help with centralizing and streamlining information on a green business' impact, which is crucial to being able to facilitate reporting and present the data to (potential) partners and investors. While often tied to costs that need to be evaluated on an individual basis, specialized software provides businesses with a platform to measure and report on their impact using a range of indicators and metrics.



In the Switchers ToolBox, a tool called the **Impact Measurement Toolkit** is available and has been developed specifically for green businesses. In this impact measurement methodology, a set of 46 indicators has been defined, mainly in the Environmental category (34 indicators), but also in the Social (8 indicators) and economic (4 indicators). The environmental impact indicators are spread between **Energy, Greenhouse Gas emissions, Materials, Waste, Land, and Water**. Guidelines are provided on how to calculate each indicator when it is relevant to the company.

As a BSO and with the help of an environmental specialist, you can assist your entrepreneurs in identifying the key impact indicators that are meaningful for them to report on and reflect the positive impact of their business. You can help them put together the right mechanism, tools, equipment (such as electric or water meters), and files to be able to track systematically the important indicators and quantify them. By inputting their yearly data into the Switchers Impact Measurement tool afterwards, they will be able to compare their progress from one year to another and set targets for subsequent years. An impact report is also downloadable, summarizing the enterprise's key environmental, social, and economic impacts. Note that additional customized indicators for the enterprise could be created, if needed, to reflect a specific positive impact.

ESG (Environmental, Social, and Governance) Data

If you are active in the (green) entrepreneurship space, you will likely have heard the expression “ESG” increasingly come up in conversations in recent years. And this is not surprising: sustainability has become a key focus for investors and businesses alike, in line with a series of policies culminating in 2015's Paris Agreements, as the business world moves from viewing sustainability as an idealistic nice-to-have to a necessity. This development is evident; in fact, as of 2020, 92% of SP 500 companies will publish a sustainability report, compared to only 20% in 2011. ESG data is the bedrock for those numbers; given that this data is science-based, it is also nearly impossible to falsify or embellish.

While all investors look at the profitability of a venture, traceable ESG data has now also become a key factor of consideration for many of them, and the share is ever-growing. It is thus crucial that you familiarize your enterprises with the concept and guide them towards setting up a sound ESG monitoring and reporting system.



Image Source: <https://www.holdingredlich.com/environmental-social-and-governance-esg-explained-five-important-considerations-for-companies-and-their-lawyers>



IMPACT RATING is a tool developed by the ANIMA network that allows you to evaluate the impact of a company or an investment project on its territory through a questionnaire based on 33 criteria. The criteria assess the soundness of a company or project in four categories: Economic Impact, Environmental Impact, Social Impact, and Territorial Impact, and provide a rating at the end with a score in each category. Questions can be reviewed to set up a strategy and action plan to improve the company's score in each category, when appropriate, in the short and long term.

Focus Area: Impact Logic

Impact should be firmly engrained in the DNA of a green enterprise's business model, rather than just being an afterthought. It is often also the driving factor behind the entrepreneur's motivations for starting their business. As a BSO, you can help them stay on track towards achieving their desired impact while also ensuring that the company reaches financial sustainability. In the ideal green business model, impact and profit go hand in hand.

Throughout your acceleration program, it is essential to establish impact objectives alongside a measurement mechanism and return to them periodically to ensure that the enterprise stays on track towards reaching its desired impact. Being able to show convincing figures and numbers will make it possible for the enterprise to unlock crucial financing resources, such as those provided by impact investors.

As outlined in the incubation stage, when it comes to an enterprise's impact, it is important to differentiate between direct and indirect impact: the former is usually much easier to quantify, whereas indirect impact is harder to measure and justify but nonetheless important.

By using a Theory of Change model, you will be able to guide the green enterprise in making assumptions, which can then be verified, about how impact will be created and for whom. This will also support the process of defining what long-term change the enterprise contributes to. As entrepreneurs often struggle to look this far ahead for their businesses, you can guide them towards envisioning the bigger picture and the role their enterprise may someday play for the benefit of people and the planet.



Impact logic using a Theory of Change model (adapted from Alfanar)



Alfanar provides a thorough explanation of the concept of Theory of Change, alongside a useful worksheet that can guide enterprises through defining their own TOC. Theory of change: <https://www.alfanar.org/toc> (incl. template: <https://www.alfanar.org/Handlers/Download.ashx?IDMF=-71fa5edb-f58b-44f8-8de5-d841acbca57d>)

5.4

TRANSFORMATION OF OPERATIONS AND CIRCULARITY

5.4.1

BUSINESS DEVELOPMENT PROJECT

While a transformation or business development project is not a required component of acceleration programs, it is recommended, particularly for programs that provide funding or a grant to the enterprise. Based on the previous stages in the Acceleration program, entrepreneurs and business support organizations would jointly define what assumptions the enterprise needs to validate or what new aspects should be tested and piloted. In principle, the Transformation project is like prototyping and testing, but for acceleration-stage businesses.

The objectives of the transformation project are to:

- Generate evidence that supports the Acceleration Strategy, including validation that you can generate:
 - Traction
 - Recurring business (referrals, repeats)
 - Scalability
- Improve enterprise capacities to deliver on value propositions.
- Establish a solid reference (also regarding investors) with your new client(s).

The timeline should be between 3 and 4 months for full implementation (in addition to project development time). A draft concept is to be developed with a coach. The financial contribution could come in the form of a grant or micro-investment by the Acceleration program or partners, depending on resource needs and relevance. Contributions should ideally be matched by the enterprise or a customer.



Transformation Project:

Use this worksheet template to guide the development of the Transformation Project.

Tips for the implementation

- You have a new client! It's you, your partner, and your potential investor: develop a convincing project concept based on the template provided.
- Start with the strategic questions and then go into the operational planning. Use bullets instead of lengthy texts.

Write down key questions that you want to get feedback on from other enterprises,

Transformation Project

Short description of the business development project

Strategic considerations



Link to relevant business/impact objective

Mention the business / impact objective that this project shall contribute to.



Customers and Partners

Who will you involve and how? What's their benefit?
 Why is the customer relevant for your business?
 How will you develop the customer into a new market segment?



Envisaged Result

How will the project substantiate your revenue and impact model? How will the project contribute towards your differentiation?
 How will the project show that you can grow?
 What assumptions will you validate?
 Which business resources & capacities will the project yield?
 How will the project strengthen your team?

Operational planning



Timeline



Resources/Budget



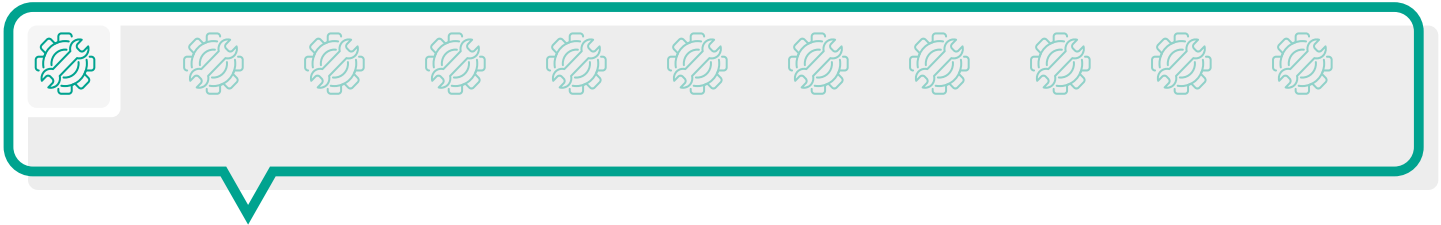
Implementation Plan (Activities, Outputs)



Documentation


What data, information and testimonials do you (plan to) derive from the project? How will these be documented?

5.4.2 CIRCULAR TRANSFORMATION



The **#EMBRACE TOOLKIT** allows businesses at a more advanced stage to go through a series of exercises in order to evaluate how their established practices could be modified and improved to transition towards better circularity. All the steps are described in the Toolkit. A circular expert can assist your entrepreneur, for instance, in Mapping Lifecycle Ins and Outs, identifying circular opportunities, evaluating them, and coming up with a Circular Transformation Roadmap. Below are some tables extracted from the Toolkit illustrating the process.

D2 · ECOCANVAS: MAPPING LIFECYCLE INs & OUTs

 **All the INs & OUTs of the lifecycle of your product, service or process.** Starting from the first row: the 1st step of the lifecycle you are evaluating, fill the first 3 columns with all you need to generate your product, service or process leaving for the 4th column, what comes out in terms of outputs. You can customize all the rows as you wish in order to get closer to your real lifecycle. Good work!

Your customized lifecycle!

Write below your own customized steps. If you need a more detailed or inspiring Mapping go to the D1 or D2 to have a look.

Check the first row example:

STEP 1. For example EXTRACTION

  RE-SOURCE BILL (INPUT) <small>For each step of the life cycle list (adding all the information you might have: weight, volume... etc) the type and amount of resources used. Don't forget additives, oils, other substances etc used in the processes.</small> List of RESOURCES entering the system during step 1 Now list of TECHNICAL RESOURCES ...	 ENERGY BILL (INPUT) <small>For each step of the life cycle list (adding all the information you might have: KW, hours of use... etc) the type and amount of energy used. Don't forget energy losses such as heat dissipation etc. In this case list them in the last column (outputs).</small> List of energy types coming in step 1	 WATER BILL (INPUT) <small>For each step of the life cycle list (adding all the information you might have: m3, usage... etc) the type and amount of water consumed. If is disposed list it in the next column (outputs).</small> Now, list of water types coming in...	 BY-PRODUCTS, WASTE & EMISSIONS (OUTPUT) <small>For each step of the life cycle list (adding all the information you might have: m3, CO2 tons, Kg... etc) the type and amount of byproducts, waste and emission to air, water and soil your processes generate.</small> List of waste, emissions etc coming out of the system getting back to nature (biosphere) List of those that go back to tech. metabolism (technosphere)
 			 

E · ECOCANVAS: IDENTIFYING CIRCULAR OPPORTUNITIES



From linear to circular In this tool you can observe and evaluate the flows of resources, life cycles, capacities and value that are wasted in your current product-service model. Once you have mapped them, try to answer the questions and generate new ideas on how to give a second "life" or a better use. If you have difficulty in any of them you can go back to the Circular Mapping tool and check the flow of elements in input and output.



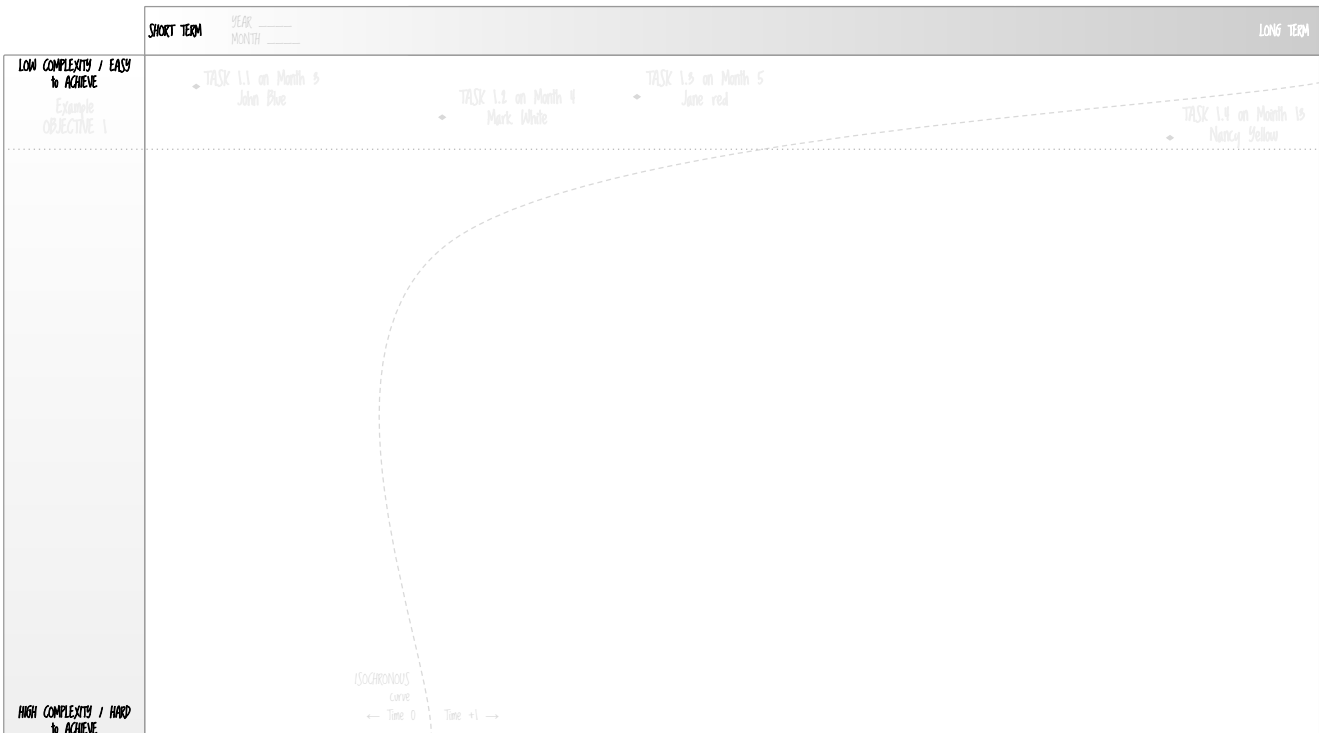
Write down potential ideas here. Need inspiration? Go to the **Circularity Strategies**

<p>WASTED RESOURCES</p> <p>What are the resources you use for the production, promotion, distribution and after-sales of your products and services?</p>	<p>Among them are elements that can be useful / valuable for other manufacturers / sectors? Is there a possibility that it substitutes some of the resources you use with others that at the end of their useful life may be valuable to you or yearther company? How could you monetize this new resource flows to other organizations?</p>
<p>WASTED LIFE CYCLES</p> <p>How many life cycles does your product / service fulfill? Could you change your design so that the user could use / use it a greater number of times?</p>	<p>This increase in cycles, how could it benefit you in terms of new revenue streams? How would these new cycles / extended life be monetized?</p>
<p>WASTED USE OR CAPACITY</p> <p>What is the rate of use of your product / service? How much time is left without activity? What would be other forms of use / use / provision to make it work longer?</p>	<p>How would you monetize this increase in capacity / use? How would you generate new revenue streams through new services, sharing etc?</p>
<p>WASTE ADDED VALUE</p> <p>How is the end of life of your product / service? Is it recycled, incinerated or landfilled? What materials / values could you recover at the end of the useful life? If you need help you can go to the Circular Mapping tool to perform a qualitative analysis of your life cycle.</p>	<p>How would you recover the materials / energy at the end of life of your products / services? Would you be able to extract value from the components / products? Could it generate some economic value after its recovery from the client ?</p>

G · ECOCANVAS: CIRCULAR TRANSFORMATION ROADMAP



From paper to action Break down your circularity proposal into milestones & tasks to achieve. In the upper gradient bar, define the timescale from short term at the left to the long term at the right. It could be months or years. Then draw the correspondent time curves (ISOCHRONOUS means same time) (in the current examples in light grey dot lines can be ignored to set up your own schedule. Then fill the first column, with your proposal main objectives / activities. Order the level of transformation increasing from LOW to HIGH. Finally write all the necessary Tasks it in the right time position with the most detailed information including who is gonna perform the specific task.



5.5

FINANCIALS AND FINANCIAL PROJECTIONS

The financials at the Acceleration stage are based strongly on the profit and loss statement, balance sheet, and cash flow, which are the basic financial tools you should start utilizing during the incubation and post-incubation stages. These should be regularly updated and reviewed, and they will be developed in more detail in the Acceleration stage, including using past data for financial projects for future years. Thus, the financial statements become a planning tool as well as a basis for understanding how much and what type of investment you need to grow.



Constantin Salameh, an experienced business coach, has developed a video and training module for understanding financials and financial projections:

<https://vimeo.com/568555229>

<https://vimeo.com/568555490>

The [Ground Vertical Farming Finance Model](<https://docs.google.com/spreadsheets/d/1HWnzNFO-LOeh9wM--J1rwu5jca8p4UWdg/edit#gid=2142405851>) spreadsheet serves as a practical illustration of a robust financial model, featuring all the essential elements that you can utilize as a blueprint.

The tool goes into detail on your revenues and costs per product or service and produces an output sheet with an Income Statement, Balance Sheet, Cash Flow Statement.

One way to review financing opportunities is to encourage your green entrepreneurs to revisit the **Switchers Finance Toolkit** previously described in the Switchers toolbox. You can go through the tests with them to figure out some of the funding opportunities available to them in the acceleration or growth phase.

5.6

INVESTMENT STRATEGY AND MATCHMAKING

As outlined above, the environmental sector and its sub-sectors are not always the easiest for young businesses to successfully break into. Part of this is related to a significant financing gap. While many grant programs are geared specifically at new green ventures, those ventures then have a long way to go before they become interesting for commercial investors, thus running the risk of getting stuck in the “Valley of Death”. The acceleration stage is likely when an enterprise will struggle with this the most, meaning it is thus within the BSO’s responsibilities to get the business as investment-ready as quickly and smoothly as possible.

Additionally, businesses operating in the water and related sectors often face the challenge of ensuring long-term demand and willingness to pay from end customers or establishing strong relationships with public authorities. These endeavors require significant time and effort, potentially resulting in an increased need for long-term capital or accepting returns below the market rate. If investors are hesitant due to these barriers, it can restrict the flow of necessary capital, exacerbating existing issues within the water crisis and missing out on the opportunity for high-impact returns.

While investment opportunities in advanced economies are growing, emerging markets lag behind in developing viable pipelines for investable firms and assets that could benefit those in urgent need. Consequently, the majority of investors, including venture capitalists and angel investors, concentrate their efforts in North America and Europe. These regions deploy greater risk and flexible capital through various channels within the innovation ecosystem.

In contrast, emerging economies like Africa and the Middle East have more grant providers and, more recently, a new wave of seed and early venture capital. The surge in support for climate-related investments has already mobilized a considerable amount of sector-oriented finance. This financing aims to mitigate greenhouse gas emissions and assist in adapting to the effects of climate change.



Currently, only around 1% of impact investors are based in the Middle East and North Africa region, according to the [Global Impact Investment Network](#). However, at the same time, investment in impact-driven start-ups in the MENA region experienced a growth rate of 15% between 2016 and Q3 2021.

This is where blended finance becomes key: different financing mechanisms, including governmental and commercial capital, can be combined to create a melange that is tailored to the specific needs of a green enterprise and may de-risk an investment for traditional investors.

1

QUASI EQUITY

- ▶ SAFE
- ▶ Revenue-based Finance Loan
- ▶ Convertible Note
- ▶ Mezzanine
- ▶ Venture Debt

2

BLENDED FINANCE

- ▶ First loss Capital
- ▶ Concessional Debt
- ▶ Subordinated Debt
- ▶ Technical Assistance Facility
- ▶ Guarantee

3

RESULTS-BASED FINANCE

- ▶ Impact Bond
- ▶ Performance-based Contract
- ▶ SIINC
- ▶ Performance-based Loan
- ▶ Carbon Credits

In its [Acceleration Handbook](#), cewas outlines the following key questions that (future) green accelerators should ask themselves to help the nascent community of impact investors successfully engage in water entrepreneurship and collaborate to leverage more investments:

1. Initiating conversations with impact-driven investors can help them understand different motivations for investing in green businesses, investment criteria, due diligence processes, etc. These insights can be used by an accelerator to guide businesses and coach them towards relevant financing sources and criteria.
2. Investors that are particularly interested in growing their impact enterprise pipeline might be ready to involve themselves in an enterprise's acceleration journey in order to better understand it. They could provide expert sessions related to investment readiness and get in touch with businesses that are not yet investment ready but that have an interesting profile, possibly providing mentorship support and/or micro-investments.

If there are a good number of investors keen to be connected to similar investors locally or internationally, it might be a good idea to establish a community of practice (CoP). Alongside the acceleration journey, the accelerator can also facilitate meetings for interested investors and use these meetings to cover different topics of interest, such as discussing blending finance to lower risk, etc. A community of practice can also create investment structures (referred to as "special purpose vehicles") to allow small investments to be aggregated into a larger investment in order to reduce complexity and costs.

Overview of All Instruments

	Purpose	Key Feature	Involved Parties	Requirements	Enterprise	Investor/ Lender/ Outcome funder	Maturity	Collateral	Evidence of Impact	Complexity	Stage	Can Replace
Debt	Creditors lend money in exchange for interest payments over a predefined time frame	Higher protection in case of bankruptcy - Senior debt	- Lender (e.g., bank) - Borrower	- Proven model - Ability to service debt (recurring revenue is a plus)	Interest payments necessary	- Lender holds low risk - Is compensated by interest payments and collateral - Highest liquidation priority	Up to 20 years	Yes	No	Low	Early-growth to Later stage	Equity, Quasi-equity
Revenue-based Loan	Creditors lend flexible capital which interest rate depends on the revenue generated	Ability to accommodate seasonality or market conditions	- Lender - Borrower	- Proven model - Ability to service debt (recurring revenue is a plus)	Interest is calculated and paid as a percentage of revenue	Investor shares risk with the enterprise	Flexible	Usually unsecured	No	Low	Early-growth to Later stage	Equity, Debt
Subordinated Loan	Public investors or donors provide junior capital as a way to attract private debt capital	De-risking investments by taking first loss	Public lender (e.g., DFI, MDEB) Private lender (e.g., bank, fund) Borrower	- Proven model - Ability to service debt (recurring revenue is a plus)	Interest payments necessary	- Public lender (subordinated loan) takes higher risk - Compensated by higher interest payments	Varies	Secured or unsecured	No	Low	Early-growth to Later stage	Grants, Equity Guarantees
Venture Debt	Creditor provides debt capital in exchange for regular interest payments and warrants right after equity financing round	- Option to convert to equity through warrant - Raised right after VC equity financing round - Used as cash runway	Lender (venture debt firm) Borrower	- Proven model - Ability to service debt (recurring revenue is a plus) - Backed by equity funding - Strong growth trajectory	- Strengthens balance sheet - No valuation of the business necessary - Interest payments necessary	- Lender holds medium risk - Compensated by high interest payments - Can be converted to equity (warrant)	3-4 years	Yes	No	Medium	Early-growth to Later stage	Convertible note
Convertible Note	Simple & flexible source of capital that allows investor to convert loan into discounted future equity upon triggering event in unsecured seed round	- Option to convert to equity through warrant - Raised right after VC equity financing - Has interest rate and maturity date	- Investor - Investee	- Proven model - Ability to service debt (recurring revenue is a plus) - Growth potential	- Equity dilution in case of conversion - Flexible terms - Interest payments necessary	- Investor holds high risk for potential high return - Can be converted to equity	Varies	Usually unsecured	No	Medium	Seed stage	Equity, SAFE, Debt
SAFE	Simple, quick, flexible source of funding that allows investor to convert capital into discounted future equity in unsecured seed round	- Option to convert to equity through warrant - Raised right after VC equity financing - Has no interest rate and maturity date	- Investor - Investee	- Product-market fit - No revenue necessary but clear plan on how to reach revenue in the short-term	- Equity dilution in case of conversion - Flexible terms	- Investor holds significantly high risk for potential high return - Can be converted to equity (warrant)	No fixed maturity; Conversion at triggering event	Usually unsecured	No	Low - Medium	Seed stage	Equity, Convertible note
Preferred Equity	Investor provides capital in exchange for dividends and shares in the company	- Equity with dividends - No voting rights	- Investor - Investee	- Promising BM & Product-market fit - Growth potential - No revenue necessary but clear plan on how to generate revenue in the short-term	- Equity dilution - Costly - Can be called by the business at any time - Have to pay dividends	Investor holds full risk for potential high return	Perpetual	No	No	High	Seed to Later stage	Common stock
Equity (common stock)	Investor provides capital in exchange for voting rights and shares in the company	- Equity without dividends - Voting rights - Lowest protection in case of bankruptcy	- Investor - Investee	- Promising BM & Product-market fit - Growth potential - No revenue necessary but clear plan on how to generate revenue in the short-term	- Equity dilution - Ownership and control are affected through voting rights - Costly	- Investor holds high risk for potential high return; Lowest liquidation priority	Perpetual	No	No	High	Seed to Later stage	Preferred stock
Impact Bond	Investors provide pre-financing for social or environmental projects while return and principal is paid back when predefined impact targets are met	Improve risk/return profile of the investee - Improved seed round - Concessionary capital - Outcome focus	- Investor - Investee (e.g., enterprise, NGO) - Outcome funder (e.g., dev. Agency, DFI)	- Proven model - Track record - Ability to deliver measurable outcomes within short timeframe	- Low risk for the business receives upfront capital with no return obligation - Concessionary capital for impact	Investor provides upfront capital therefore holds main risk - Compensation by outcome funder according to impact performance	3-4 years	No	Yes	High	Early-growth to Later stage	Grants, Public contracts
Social Impact Incentives	Private investment backed enterprise receives premium payments from outcome funder for achieving impact targets	- Concessionary capital - Outcome focus	- Outcome funder (e.g., development agency, foundation) - Investee	- Proven model - Track record - Ability to scale - Backed by repayable funding - Ability to deliver measurable outcomes	- Payment according to impact performance (no mission drift) - Needs to be backed by repayable investment (equity or debt)	- No upfront capital paid by the outcome funder - Improved risk/return profile for investors	2-4 years	No	Yes	High	Early to Growth stage	Grants, catalytic capital
Performance-based Loan	Investee receives loan conditional to achieving impact while terms can improve depending on the impact performance	- Concessionary capital - Outcome focus	- Investor (e.g., Impact fund) - Outcome funder (e.g., development agency) - Investee	- Proven model - Track record - Ability to service debt - Ability to deliver measurable outcomes	- Better terms for better impact incentivized to maximize impact - No mission drift - Concessionary capital for impact	- Investor holds high risk due to upfront capital - Impact first investors	Varies	No	Yes	High	Seed-early to Later stage	Traditional debt, grants
Performance-based Contract	Outcome funder provides capital when impact targets are met. Possibility to receive benefits if investee outperforms on impact	- Improve effectiveness of the project - Concessionary capital - Outcome focus	- Outcome funder (e.g., development agency, foundation) - Implementer	- Ability to deliver measurable outcomes	- Enterprise pre-finances the intervention (full risk) - Receives payments upon reaching impact targets	Outcome funder only pays if impact targets are met (no risk)	Varies	No	No, but clear plan on how to create impact	Medium - High	Seed to Later stage	Impact bond, grants, public contracts
Carbon Credit	Enable businesses to offset their emissions by buying measurable emission reductions from certified climate action projects	- Additional revenue stream - Outcome focus	- Emitter (e.g., MNCs) - Carbon off-setter (e.g., enterprise) - Verifier (e.g., gold standard)	- Proven model - Track record - Ability to deliver measurable outcomes, independent verification - Full specific eligibility criteria - Ability to fulfill reporting requirements	- Carbon off-setter needs to carefully measure emissions reduction - Gets paid by emitting company	Emitter can offset its carbon emissions by purchasing carbon offset certificate	Credit is permanently retired	No	Yes	High	Growth to Later stage	
Grant	Non-repayable funds provided by the grant funder with the aim to achieve overarching goals (e.g., innovation, sustainability)	Overarching goal	- Grant funder - Implementer	- Full specific eligibility criteria - Ability to fulfill reporting requirements	- Free capital - no need to repay investment - Eligibility criteria are hard to meet	Grant funder holds the risk that outcome will not be achieved	No	No	No, but clear plan on how to create impact	Low - Medium	Seed to Early-growth stage	Impact bond, performance-based contract



Worksheet for finance model product: <https://www.dropbox.com/s/43dmbxp2m36wihf/Finance-Model-Product-template-cewas-new%20%281%29.xls?dl=0>

Tool: <https://sswm.info/perspective/financing-water-impact%23investment-readiness/investment-readiness>

As a Business Support Organization focusing on acceleration, one of the major functions you have is to help green enterprises connect and build relationships with key stakeholders in the success of their businesses, such as investors.



cewas has developed an elaborate tool that covers various stages of a green enterprise's growth journey and is available to partners to help with a thorough investment readiness assessment. Further, the Sustainable Sanitation and Water Management platform offers an open-source, global investor map that is regularly updated and lists dozens of financing and investment opportunities, with a focus on green and water-related businesses.



Another way to review financing opportunities is to encourage your green entrepreneurs to revisit the Switchers Finance Toolkit previously described, in the Switchers toolbox. You can go through the tests with them to figure out some of the funding opportunities available to them at acceleration / growth.

5.7

GREEN INTELLECTUAL PROPERTY RIGHTS (IPR)

Intellectual Property Rights (IPRs) play a crucial role in promoting sustainability and driving innovation, specifically in relation to green businesses. IPRs provide legal protection and exclusivity over inventions, designs, and artistic works, fostering an environment that encourages creativity and innovation.

Types of Intellectual Property Rights (IPRs) include:

- **Patents** grant exclusive rights for inventions, offering protection for new ways of doing things or technical solutions to problems. They prevent unauthorized use, sale, or importation of the patented technology and require novelty and industrial utility.
- **Trademarks** protect the right to market goods and services under specific names and symbols. Unique trademarks help avoid consumer confusion and reduce search costs.
- **Copyrights** safeguard literary, artistic creations, and computer software. They provide exclusive rights to copy and sell specific expressions of ideas in a medium after distribution.
- **Industrial designs** refer to patterns, configurations of lines or colors, and shapes used in industries or hand-craft trades. This includes textile designs that enhance the visual appeal of industrial commodities or hand-crafts, whether created manually or mechanically.

Lebanon has a history of prioritizing IPR protection and has actively participated in international IPR conventions. However, the use of IPRs by businesses and the adoption of sustainable practices face challenges. Complex registration processes, a lack of stability and economic support, payment fees, and low awareness among innovators hinder the effective utilization of IPRs. Innovators often feel discouraged from registering their intellectual property due to limited enforcement, lengthy court procedures, and insufficient penalties for infringement.

To leverage the benefits of Green IPRs, it is crucial to identify and protect eco-friendly innovations through appropriate intellectual property rights (IPRs). By securing legal protection, innovators can safeguard their unique green solutions and ensure their commercial viability.

Conducting a comprehensive analysis of existing green IPRs is essential to determining the novelty and distinctiveness of innovations in the market. This analysis helps identify gaps and opportunities for further innovation and ensures that the proposed solutions are truly novel and valuable.

Collaborating with experts in the field of green technology and sustainability can help the enterprise strengthen the technical aspects of IPR applications by leveraging the knowledge and expertise of these professionals. This will enhance the quality and credibility of the enterprise's innovations, making them more attractive to potential investors and partners. Once moving towards implementation, it is important to integrate sustainable practices and innovation throughout the value chain.

It is crucial to stay updated on evolving green regulations and market trends to maximize the value and strategic positioning of green IPR assets. By keeping abreast of industry developments, innovators can adapt their strategies and ensure that their innovations remain relevant and aligned with sustainability goals.

Particularly for green enterprises, a green IPR portfolio can be instrumental in attracting investments, partnerships, and collaborations with organizations that share a similar focus on sustainability. By showcasing their commitment to eco-friendly practices through IPRs, businesses can position themselves as valuable partners in the sustainability space.



Zoom In: IPR in the Textile Industry in Lebanon

The textile industry globally has been recognized as having significant negative environmental and social impacts. Throughout the value chain, the fashion industry relies heavily on fossil fuel and coal-based energy use, which contributes to water scarcity, habitat loss, and chemical and water pollution. From a social perspective, child labor and excessive working time, governance risks, and economic value concentration have been observed.

In recent years, there has been an increase in awareness among young entrepreneurs who are finding innovative ways to reuse textile waste and reduce environmental impact. They aim to tackle sustainable fashion through the sourcing of materials and addressing the issues of wastewater and fabric waste generated during manufacturing. Overall, awareness of the risks of overproduction and low-quality fast fashion and their contribution to waste and environmental impact is on the rise. The impact of the COVID-19 pandemic has also prompted a re-evaluation of the textile industry's environmental impact and the need for a shift towards sustainability and circularity due to disruptions in value chains. The concept of upcycling and recycling textile waste into new fabrics has gained traction, and some companies have embraced eco-friendly solutions. In Lebanon, designers have started focusing on eco-innovation lines and offering sustainable fashion at a lower cost to consumers.

Intellectual Property Rights (IPRs) can help protect the environment in the textile sector by incentivizing environmental innovation, promoting sustainable product design, facilitating technology transfer, and enabling market differentiation. However, it is important to balance IPRs with other regulations and collaborative efforts to ensure broader environmental goals are met. In Lebanon, in the textile industry, IPRs have been seen as relatively unimportant so far in setting business strategies. Despite the development of the clothing industry in Lebanon and its commercial market in the last decades, it has not kept pace with the development of textile innovation protection. The lack of policies, procedures, and control in the industrial sector continues to pose challenges and highlights the need for industrial innovation in Lebanon's clothing and textile sectors, where intellectual property rights can help the enterprise differentiate itself from its competitors.

<https://berytech.org/national-intellectual-property-rights-report-in-lebanon-in-the-textile-sector/>

5.8

COLLABORATION AND GREEN PARTNERSHIPS

Collaboration and partnerships are crucial for green entrepreneurs at the acceleration stage to provide access to expertise and resources that entrepreneurs may not have on their own, as well as allowing for shared costs and risk mitigation as entrepreneurs can pool resources and expenses with partners, alleviating financial constraints and increasing the chances of success.

Partnerships open up market access and expansion opportunities for green entrepreneurs. By collaborating with other organizations and companies, entrepreneurs can leverage existing distribution channels, customer bases, and market presence, facilitating faster market entry, increased brand visibility, and growth prospects.

Furthermore, partnerships foster innovation and co-creation by combining expertise and technologies from different sectors, leading to breakthrough sustainable solutions with a more significant environmental and social impact.



Zoom In: Clustering

Clustering refers to the practice of grouping similar businesses or organizations together in a specific area. This proximity allows for increased collaboration, knowledge sharing, and resource optimization among the clustered entities. Clusters often specialize in a particular industry or sector and create a supportive ecosystem that fosters innovation, competitiveness, and growth.

Through clustering, green enterprises can benefit from shared resources, expertise, and support, resulting in stronger supply chains since, for instance, it becomes easier to source raw materials, components, and services locally. This reduces transportation distances and associated carbon emissions, leading to a more sustainable supply chain. Green enterprises can also collaborate on waste management and recycling initiatives, further enhancing the environmental sustainability of their operations.

Moreover, a concentrated hub of green enterprises can attract attention and interest from customers, investors, and other stakeholders, enhancing visibility and marketing opportunities. Clusters often organize joint marketing efforts, participate in trade fairs, and attract eco-conscious customers who prefer to support businesses that are part of a sustainable ecosystem. There is also potential for stronger policy advocacy to drive change when working together in a cluster rather than with an individual voice.

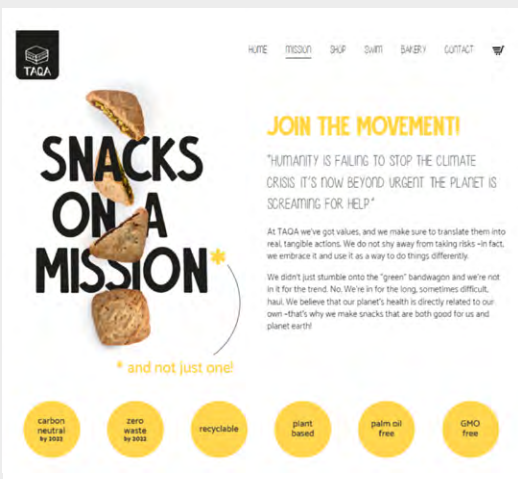
Clustering is particularly interesting in the context of agriculture. The goal is to benefit all parties involved by connecting small-scale farmers and other small businesses with larger markets and providing them with networking opportunities, financing options for new technologies, and increased yields. The strategy involves creating clusters or networks of smaller businesses and acting as an in-



terface between producers and markets. By collecting inputs from multiple partners and selling them to premium markets, the business can generate additional profits while supporting others to improve their income and market position. The business can monetize the clustering services by positioning itself as an intermediary that provides consistent-quality products to premium markets. This approach benefits both the business and smaller partners, creating a win-win situation. Clustering clients and selling products to several users can help reach new customer segments with limited ability to pay. Innovative financing models, such as cooperatives or shared financing, can reduce risks for all parties involved. The core offering of the business can be complemented with additional services, such as tailored coaching support and capacity-building efforts.

In Lebanon, the Agrifood Innovation Cluster QOOT is the first consortium bringing together agrifood stakeholders to catalyze and innovate the sector. Its objective is to bring the Lebanese agrifood industry on par with the most innovative economies in the world. You can find out more on the QOOT website: <https://qoot.org/>.

5.9 GREEN/CIRCULAR ENTERPRISES HIGHLIGHT



Green Enterprise Name: Taqa Snacks

Green Enterprise Sector: Sustainable Food

Website: <https://www.taqasnacks.com/>

Social Media:

[Taqa Snacks Instagram](#)

[Taqa Snacks Facebook](#)

Video Link

Brief Description:

TAQA is a young Lebanese bakery that produces healthy, natural, and vegan snacks that are GMO-free, palm oil-free, and dairy-free. The modern bakery facility is certified to ISO 22000:2018. While some of their ingredients are imported, they prioritize local suppliers and work closely with them to help the local economy while cutting their carbon footprint.

Green and Circular Highlights:

- <https://www.taqasnacks.com/on-a-mission/>
- Favoring local ingredients and local suppliers.
- Dairy-free translates into reduced GHG emissions and water usage for farming.
- Palm-oil-free means TAQA does not contribute to the devastating deforestation happening as a direct result of palm oil production.
- 30% of TAQA's packaging in 2023 will be recyclable, and they are also working on switching from a 3-layer film for their cookies to a single file while keeping the cookies fresh.

- TAQA undertook a carbon footprint analysis in January 2021 to better understand the CO2 and other GHG emissions associated with its raw materials, its production, and its operations. The aim was to identify the measures that can be taken over time to decrease these emissions through short-term and long-term improvements.
- TAQA offsets its remaining emissions through local tree-planting schemes



Green Enterprise Name: Compost Baladi

Green Enterprise Sector: Sustainable Agriculture / Waste management

Website: <https://compostbaladi.com/>

Social Media:

[Compost Baladi Instagram](#)

[Compost Baladi Facebook](#)

[Compost Baladi LinkedIn](#)

Brief Description: Compost Baladi is a Lebanese enterprise specializing in the repurposing of organic waste into compost at different scales. With solid expertise ranging from

waste management and natural resource management to environmental science, public policy, and construction, the Compost Baladi team tackles waste mismanagement in Lebanon by solving municipalities' challenges and responding to the critical need and demand for local biowaste solutions and services. The company offers bio-waste collection services, on-site composting, soil amendment products, and education about composting.



Green and Circular Highlights: Compost Baladi has particularly interesting experiences when it comes to innovative approaches in times of crisis and investment approaches for green enterprises.

They have received investments at an early stage from an impact investor focused on supporting green enterprises, competition prizes, and grants totaling USD 200,000, which have contributed to their growth and establishment.

The challenges they faced during the economic and financial crisis in Lebanon included currency devaluation and reduced purchasing power among their core customers. Despite these challenges, Compost Baladi has identified opportunities:

- The company shifted as soon as possible to solar-powered operations.
- The company collaborates with multiple partners that provide them with a larger product range and allow for more decentralized operations (collaboration with a smaller enterprise, Cultiva, that operates in a remote region and focuses on coco-pit).
- Compost Baladi has developed an investment offer that allows people with money stuck in the banking system to invest in the company through a Lollar-cheque, providing bonus shares and a discounted valuation of the company. A detailed case study is available in the [Never Let a Crisis go to Waste](#) publication.

WHAT'S NEXT?



What's Next?

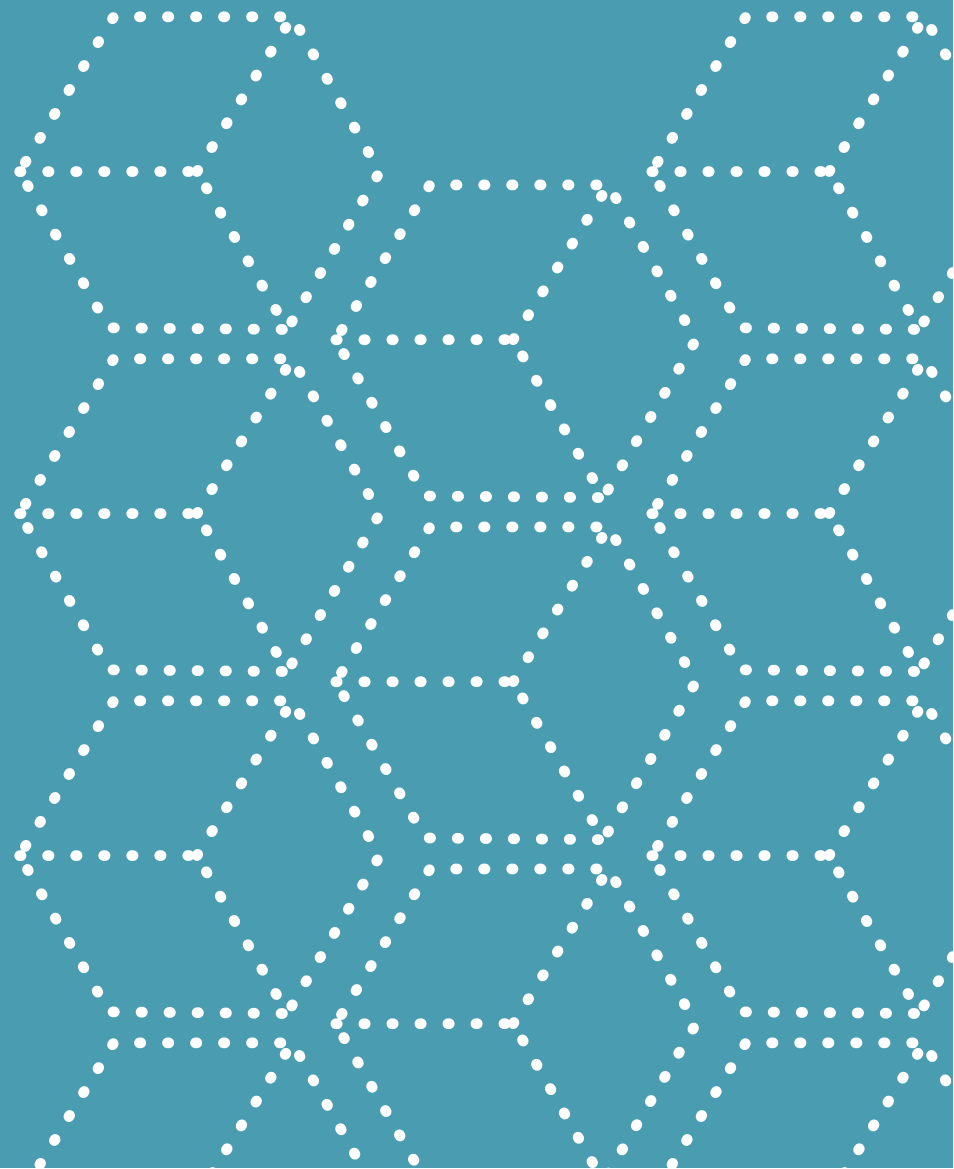
Access to market
and soft landing

Certifications

Cradle to Cradle
Certification



Environmental
and Health
Product
Declaration
(HPD)



6.1

ACCESS TO MARKET AND SOFT LANDING

Access to markets and a soft landing for green enterprises at the late acceleration and early scaling stages are critical for their success. At this stage, enterprises might look towards expanding to new markets, exporting, or establishing their operations in more than one country.

Working towards this means revisiting the principles of market research and segmentation that the enterprise underwent in its earlier stages of development, but this time for the new market that it aims to access.

Entering a new market is not easy, and an enterprise will need assistance to understand the regulatory and policy landscape and localize its operations to the cultural context. Enterprises will need to understand and stay updated on the regulations and policy landscape related to green industries and sustainability, as well as incentives and certification requirements. Compliance with local laws and regulations is crucial for market access and building trust with customers and stakeholders. For localization, factors such as language, traditions, values, and consumer behavior need to be taken into consideration. It may involve product customization, branding adjustments, and communication tailored to the local culture.

The next step is to ensure sustainable supply chains to ensure a reliable flow of inputs and materials. The enterprise needs to assess suppliers for their sustainability practices, ethical sourcing, and environmental footprint. It is recommended to prioritize local suppliers to reduce transportation emissions, support local economies, minimize supply chain risks, establish long-term relationships with suppliers, and explore circular economy principles to minimize waste and maximize resource efficiency.

Finally, forging strategic partnerships and collaborations with organizations, institutions, or networks that have an established presence and influence in the target market. This can provide access to distribution channels, customer networks, and industry knowledge. Collaborating with like-minded entities can also enhance the enterprise's credibility, visibility, and market reach, enabling a soft landing in new markets and facilitating smoother entry and growth. A soft-landing approach enables a smoother transition, mitigates risks, and fosters long-term growth and sustainability.

6.2

CERTIFICATIONS

At the Acceleration level, it is time to start professionalizing the operations, products, and services of an enterprise. Customers and investors will look for certifications as a guarantee for the quality of your product, while for investors, it can contribute to lowering their risk for the investment.

Numerous certifications exist that have become indispensable for green enterprises to operate. Most enterprises at this stage will have already obtained certifications for their product quality, such as organic certification for agricultural products by a green enterprise or laboratory testing results for the quality of soil fertilizers, water, cosmetics, or any other product. This might be a good time to think about eco-certifications such as International Organization for Standardization (ISO) certification or other environmental labels such as a well-recognized organic certification, the Cradle-to-Cradle certification, or an Environmental Product Declaration (EPD).



Cradle to Cradle Certification

Cradle to Cradle Certified™ is a globally recognized measure of safer, more sustainable products made for the circular economy.

To receive certification, products are assessed for environmental and social performance across five critical sustainability categories: material health, material reuse, renewable energy and carbon management, water stewardship, and social fairness. A product is assigned an achievement level (Basic, Bronze, Silver, Gold, or Platinum) for each category. A product's lowest category achievement also represents its overall certification level. The standard encourages continuous improvement over time by requiring certification renewal every two years.



What are the Environmental Product Declaration (EPD) and the Health Product Declaration (HPD)?

An Environmental Product Declaration (EPD) is an independently verified and registered document that communicates transparent and comparable information about the life cycle environmental impact of a product. The foundation of any EPD is a lifecycle assessment (LCA), which allows for evaluating a product's environmental performance over its entire life cycle. It typically takes into consideration the full value chain, from material extraction through the manufacturing stage, its usage phase, and its end-of-life. Issuing an EPD for a product is usually voluntary. However, having an EPD does not imply that the declared product is environmentally superior to alternatives. For more information about EPD, check out [this link](#).

The Health Product Declaration (HPD) is an open standard specification for the accurate, reliable, and consistent reporting of product contents and associated health information, mostly for products used in the built environment. For more information about HPD, check out [this link](#).

Green entrepreneurs are encouraged to investigate obtaining an EPD and/or HPD when they are at a phase where their products are well established, tested, and proven, and in particular if they are looking into export opportunities to countries in which these types of certifications are a competitive added value.

