



BALANCE

green and stable

GREEN POLICIES & FINANCIAL
SUSTAINABILITY
TRAINING PROGRAM

SME Decision-Makers

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Module 4

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Module 4

Introduction to the module

A widespread preconceived idea is that **implementing green practices has significant business costs**. In this module we will explore the possibilities in front of the SMEs decision-makers on how they can make their companies **greener without inflicting unnecessary financial stress** on their structures. Furthermore, we will show how environmental-friendly practices can even be cost-effective and beneficial for overall business development.

During the research the BALANCE consortium made among SMEs in 6 different EU countries (Belgium, Bulgaria, Cyprus, Greece, Ireland, and Spain), it became clear that many of the SME's decision-makers remain hesitant to make a step towards greener operations voluntarily due to fear that it would cost them too much and it will not prove the return on the investment on later stage. Moreover, a major part of them believed that the Green Deal and the following regulations would harm their operations rather to support them. When asked the majority answered that if they knew how financially to adopt green policies, they would not hesitate to implement them.

As presented in Module 1 "Introduction – Specificities of SMEs" which covers most of the aspects needed for holistic multisectoral greener transition, some of the factors remain that compliment it, remain out of the reach of the SMEs. However, as proven by the provided examples, an SME can independently re-structure their core business model or create a subsidiary business model in order to reduce its footprint and generate more profit at the same time.

In this module we will strictly explore those possibilities in front of SMEs that they can implement independently from the governmental policies, as well as such actions that could ensure that SMEs can become an active contributor towards Circular economy.

The module is divided into 2 units:

- 1) Green practices & financial stress
 - Potential financial challenges, risks and opportunities for SMEs internally and externally
 - Financial Modelling
- 2) Green financial tools
 - Footprint reduction and cost-effectiveness

Unit 1: Green practices & financial stress

Green Deal Objectives

As explained in detail in Module 2 “European SMEs and Environmental policies”, the EU Green Deal plays a major role as a roadmap for the upcoming EU regulations. The European Green Deal (EGD) is an innovative, developing strategy that proposes the transformation of the European Union (EU) into **an equitable and ambitious society, via the implementation of a resource-efficient and competitive economy.**

In order to overcome the environmental challenges, the European Green Deal will transform the EU into a modern, resource-efficient and competitive economy, ensuring:

- no net emissions of greenhouse gases by 2050
- economic growth decoupled from resource use
- no person and no place left behind

The European Green Deal is also our lifeline out of the COVID-19 pandemic. One third of the 1.8 trillion euro investments from the NextGenerationEU Recovery Plan, and the EU’s seven-year budget will finance the European Green Deal.



Source of the image: <https://www.compostnetwork.info/eu-green-deal/>

How does the Green Deal affect the SMEs?

Depending on the sectorial belonging of an SME, the Green Deal can have different ways and levels on which the impact of its regulations will be visible. Some sectors, as expected will be affected much more than others. (Example: Small agricultural business will face more direct impact than other sectors due to the policy for Transformation of agriculture and rural areas).

The food industry will be another example where the core strategy “Farm to fork” is going to have big impact.



The Farm to Fork Strategy is at the heart of the European Green aiming to make food systems fair, healthy and environmentally-friendly.

“The Farm to Fork” Strategy aims to to redesign the food systems which today account for nearly one-third of global GHG emissions, consume large amounts of natural resources, result in biodiversity loss and negative health impacts (due to both under- and over-nutrition) and do not allow fair economic returns and livelihoods for all actors, in particular for primary producers.

Source: [https://ec.europa.eu/food/horizontal-](https://ec.europa.eu/food/horizontal-topics/farm-fork-strategy_en)

[topics/farm-fork-strategy_en](https://ec.europa.eu/food/horizontal-topics/farm-fork-strategy_en)

Questions to the learners:

Looking at this figure which sectors do you consider will be more impacted than others by the strategies and policies based on the Green Deal?



Example of sector that will be majorly impacted is the energy sector due to one of the core components of the Green Deal “A clean energy transition”.

Under that strategy The European Green Deal focuses on 3 key principles for the clean energy transition, which will help reduce greenhouse gas emissions and enhance the quality of life of our citizens:

- ensuring a secure and affordable EU energy supply
- developing a fully integrated, interconnected and digitalised EU energy market
- prioritising energy efficiency, improving the energy performance of our buildings and developing a power sector based largely on renewable sources

Source: https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal/energy-and-green-deal_en

Even though most of the business involved in the Energy production sector do not classify as a SME, this sector is so important that every change in it, will imminently impact every SME in the European Union. Furthermore, the goal for net-zero emissions requires every business in the European Union will need to take relevant steps towards it within the next 10 to 15 years.

All of this might appear ambitions, but at its core the Green Deal is a roadmap of a transition, that we as a society have to implement in order to ensure our future. It serves as a base for upcoming regulations, but also creates a variety of possibilities for those entrepreneurs who want to lead the future. One of the main opportunities for financial support – “The Just Transition Mechanism” is set as a core of the Green Deal. By its essence the mechanism is a

tool that ensures that the transition towards a climate-neutral economy happens in a fair way. As well, due to the diverse funding opportunities combined into the Recovery Plan for Covid-19, the SMEs can benefit not only on EU level, but also on national level where the funds are more accessible.



Financial risks and opportunities

Every change holds both risks and opportunities. In the case of green transformation of the business, it requires careful assessment of both and development of new way of conducting business operations. Having clear view over the possible financial risks and challenges for our business in advance, will help us create a sustainable financial model and mitigate possible risks or turn them into opportunities.

Financial risk

Financial risk definition.

Financial risk is the possibility of losing money on an investment or business venture.

The financial risk can take a variety of different forms such as: financial risk that the company does not have enough cash-flow to cover its or possibility the investments made into the company to have no return and etc.

Difference from business risk.

Financial risk is often confused with the business risk. The business risk is the possibility your business idea not to be able to prove working and to generate profit. The financial risk is concerned with the cost of the investments and the amount of debt one incurs to finance their operations.

Types of financial risks

There are different classifications of the types of financial risks. One that could be applied to the widest range of SME classifies the types as risks as follows:



1. Debt use and leverage
2. Interest rates (fixed or variable)
3. Capital lease commitments
4. Working capital and liquidity
5. Incomplete budgeting or investment analysis

<https://ag.purdue.edu/commercialag/farmrisk/understanding-risk-types/>

- Debt use and leverage – refers to the use of debt (borrowed funds) to amplify returns from an investment or project.
- Interest rates – This risk is extremely important while calculating the overall price of funding via bank institution or other credit institution. The possibility of change of the price of the loan can be well explored and considered in the financial planning.
- Capital lease commitments – in the case when contract entitling a renter to the temporary use of an asset and has the economic characteristics of asset ownership for accounting purposes.
- Working capital and liquidity – This risk refers to possibility the business to be profitable, but unable to meet timely financial obligations. Example: too long payment period of invoices and lack of financial reserves
- Incomplete budgeting or investment analysis – this is the most common risk of all when due to lack of financial planning, risks can not be foreseen and mitigated.

Another common way to classify the financial risks is the following:



<https://www.educba.com/financial-risk/>

- Market risk – appears from upgrades or innovation in technology, change in prices or change in consumption patterns of customers affecting business revenues.
- Credit risk – marks the possible inability of a borrower to repay the debt according to contractual obligations.
- Operational risk - shows the chance of operational failures such as mismanagement or technical failures, managerial decisions leading to bad outcome etc.
- Liquidity risk – marks the ability/inability of an individual or business to pay out its short-term financial obligations.

Financial risks and challenges in relation with green transformation.

For each business, depending on the sector, on the specific business and financial model, there will be different types of risk that can impact the SME while transforming its operations into more environmentally friendly.

Here are some examples of possible risk & challenges:

- Lack of liquidity to invest in new technologies/processes.
- Increased prices of eco-friendly goods over the regular alternatives – leads to reduced margin.

- Too high or expensive (when a loan is required) initial investment required for energy efficiency improvement.
- Focus on inefficient changes.
- Losing competitive price segment - your products become more expensive compared to competitors due to the improvements you have made.

Question to the learners:

What do you find as a possible risk/challenge?

Please, list down 3 financial risks that are relevant to your business. Try to classify them – what type of risks are they? Discuss in pairs.

The biggest risk.

The biggest risk of all is to transform your business too late.

The case of Die Bahn, Germany

The case of “Die Deutsche Bahn” can be presented as example of a marketing driven sustainability initiative that suddenly negatively impacts the core business of Die Bahn.

Die Bahn announced that their intercity train network is fully driven by 100% renewable energy. It didn't take long until journalists and interested people were asking, on what calculations those claim is based, as it is known, that “Die Bahn” also has long standing ongoing contracts with energy power plants that are operating on coal and ignite.

As Die Bahn did not publish their calculations, journalists asked experts and the more they looked into the matter, it became increasingly clear, that Die Bahn has quite a big part of their electricity consumption based on fossil energy sources.

The public awareness has in some part shifted, that “Die Bahn” is operated with a lot of fossil based energy, when “Die Bahn” wanted to establish itself as a good example by its claim of operating the inter city trains with 100% renewable energy. Now “Die Bahn” is under constant monitoring from public, how much fossil energy it is using. And whenever there are news with regards to the energy consumption of “Die Bahn”, the main question negotiated in the media, has become about how much energy from ignite and coal Die Bahn is consuming.

Risk mitigation

Depending on the type of risk, there are different strategies or actions that can lead to mitigation or management of the financial risk.

- Mitigation of the marketing risk can be achieved by:
 - o Having regular **feedback process** in place from stakeholders
 - o Having **established process monitoring** the market
 - o Having “Green job” position in charge to **research new technologies** that could be applicable to your business
 - o Having innovation process – KPIs that show that innovation is successful or not, milestones when to stop a new initiative and when to turn it into permanent asset to your business
 - o Having deeper relationship with your customers – including policies for incentive of brand loyalty
 - o Be first to market with innovative green products
 - o Having holistic marketing and brand presence communicating your actual commitment to more environmentally friendly operations
 - o Diversification of your business

- Mitigation of credit (which is the one who affects the most SMEs) and liquidity risks can be ensured by:
 - o Having in place system forecasting system (in some places it is called “rolling forecast system”) of your expected cash-flow levels
 - o Having established **cash-flow management**
 - o Having compared the **short-term assets to short-term liabilities**
 - o Having clear **Return on investment** KPIs or calculations for each innovation you are planning to launch

- Mitigation of operational risk can be implemented by:
 - o Having internal and external consultancy bodies who provides an additional perspective of the possible challenges ahead of the business.
 - o Having professionals in the right places with clear Job descriptions and field of responsibilities (example: environmentalist on a green position for calculating the environmental footprint, lawyer at legal position (or as external consultant) for evaluating possible legal risks)
 - o Having process of collaboration between different departments which oversee the green transition

In any case, preparation and research are the best companions when we speak about financial risk mitigation. There are also 3 main steps that should be applied BEFORE execution of any business change or green transformation:

1. IDENTIFY THE RISK – review your SME balance sheet or statement of financial position.
 - a. Understand your main sources of income (main clients that in case you might lose it will cause issues in your cashflow);
 - b. Evaluate your growth – is it stable? What did lead to your biggest daily/weekly turnovers during last year? Is it sustainable or easily copied event? If you transition to green operations how will affect it?;
 - c. Identify clients who represent more than 10% of your revenues;

2. ANALYSE THE RISK – once you have identified the financial risk/s, the next step is to determine the likelihood of the risk occurring and its consequence. Answer these questions for each of identified risks separately:
 - a. What is the likelihood of this risk occurring?
 - b. How much of an impact would it have on the business if this risk occurs?
 - c. What actions can the business take to recover?
 - d. What can the SME do to prevent this risk or prepare in advance of the risk occurring?

3. CREATE A PROACTIVE PLAN TO MANAGE THE RISKS - Once you execute the first 2 steps and understand better your SME's financial risks, you can plan how to meet those challenges **in cost-effective ways**. Select controls and milestone indicators which will help you to know when it is time to take action, start or continue with the regular business operations.

Before planning green transition, you should know your regular risks and the financial risks that are coming with the green transformation.

Question to the learners:

Having in mind how a risk should be identified, would you like to adapt your previously selected 3 financial risks that are relevant to your business?

Alalyse the risks.

For each risk prepare 2 mitigation actions based on it's time that you can implement.

Discuss in different pairs the mitigation actions and risks.

Opportunities

The discussion of the opportunities from a financial viewpoint to transform your SME or to take the first decisive steps in this direction aims to show the learners that there are plenty of new and exciting ways of doing business.

Start a discussion with the learners:

In your opinion what opportunities from financial point of view would be possible for you if you initiate green transition in your business?

Examples of opportunities related to green transformation from financial point of view:

- It has never been cheaper and to invest in sustainability practices than now.
- The technologies needed for climate neutrality currently exist in the market. They are settled and available today.
- Since every company needs to become climate neutral at one point, when a company has reached net zero emissions early, it can fully focus on its market situation, while their competition is still addressing the transformation towards net zero emissions. This can be considered a great competitive advantage, especially if a company goes with the assumption that transformation will become increasingly more difficult due to higher demands in relevant technologies and products.
- Business partners of companies need to transform towards net-zero as well. To do that they will at one point also evaluate the environmental impact of the products and services of their partners. It will become a relevant criterion for doing business between companies.
- The question of a company's impact on the environment will increasingly get attention from customers as they will evaluate and value a company by its footprint.
- Any form of carbon pricing will put a penalty on environmentally heavy products. Therefore, products and services produced with net zero emissions will get a price advantage.
- Companies that have transformed to net zero emissions and circular economy have reduced their dependency on potentially scarce products and materials. They are more resilient towards shocks in regard to such products and materials.

Financial modelling

Financial modelling definition

The process of creating a summary of company's expenses and earnings in a form that could be used to support decision making process or monitoring is **called financial modelling**. A financial model could be used for multiple purposes by the decision-making team and usually represents in numerical way company's operations.

Different financial models can be used for the purposes of estimation of business' evaluation or simply to compare different business in competitive market positions. There are plenty of financial models and each can serve different purpose depending on the wanted result. One of the main benefits of using a financial model in your business is that by its essence it is an objective way of evaluation of past, current or future decisions or actions of a company.

Ergo, financial modelling is a representation in numbers of a company's operations in the past, present, and the forecasted future. Such models are intended to be used as decision-making tools.

Vie the financial modelling a company can build its financial representation.

Categories of financial models

Depending on its purpose and the specific business need, there are different categories of financial models. The main task of a category is to solve a different business problem or to provide clear financial overview on it. The common categories are:

- Project Financial Model – Most of company's innovations start as a project of the company. This is because each new initiative should be measured in its trial period in order one to form a decision if it is proven reasonable and profitable. The construction of separate tracking system is essential in order a realistic evaluation to be achieved. When we separate our innovation projects in creates security for the core business and it is the right base for business diversification. However, project finance model is possible when the project is capable of producing enough cash to cover all operating and debt-servicing expenses over the whole tenor of the debt. The financial categories into project financial model might vary, but the following could be used as a base:
 - o Financing / Investment (initial funds needed the project to kick-off)
 - o Capital expenditures
 - o Forecasted revenues
 - o Forecasted expenses

- Pricing Models – Pricing models help defining a price of a product or service you are offering. In case you plan to launch a new environmentally friendly green product that is new to the market, and you need to evaluate the price points that are relevant to the product/service, you would need to use such a model. Price is one of the key variables for each product/service. There **are four general pricing approaches that** companies use to set an appropriate price for their products and services:
 - o cost-based pricing,
 - o value-based pricing,
 - o value pricing,
 - o competition-based pricing.

Usually in order to set a price the financial model should include components from the four approaches.

The main purpose of the pricing models is not only to select a price, but also to evaluate the potential of profitability of different price points. If we have to oversimplify this it would look like that:

Units × Price = Revenue

Revenue – Expenses = Profit

- Integrated financial statement models - This category of financial models is also known as a **three-way financial model**. The three kinds of financial statements included in the financial modelling of an integrated financial statement model are the following:
 - o Income statement, also known as a profit-and-loss (P&L) statement
 - o Cash flow statement
 - o Balance sheet

The main purpose is to evaluate the overall financial state of a company.

- Reporting Models – The reporting models present a condense history of revenue, expenses, cash flow etc. Reporting models are **often used to create actual versus budget reports**, which include forecasts and rolling forecasts, which in turn are driven by assumptions and other drivers.

Green financial modelling

Green financial modelling is serving to help us evaluate the financial potential of business changes (or subsidiary initiatives) of our green transitioning measures.

In order to create Green financial modelling, first you should decide on what type of green transition you are willing to undertake.

- **Core-business** - Establishing a new business from scratch that has green value proposition or transforming your core business into green one by changing the value proposition to a green one.
- **Side-business** - Setting up a side subsidiary green business that accompanies your current business. In that case, the new business can be observed as new green project. Often it this side-business can be connected to circular economy measures.
- **Optimization of resources** - Changing the operations and energy usage in a way that reduces the generated by your business emissions.
- **Subsidiary initiatives** - Having subsidiary green initiatives such as recycling, CSR campaigns and etc.

In one business could be united more than one type of green transformation, ideally all 4 of them.

Business & Financial modelling

Whenever we speak about transformation that appears in core or side business, we need firstly to change our business model, which will lead to changes into our financial one. In order to illustrate the changes into the business model we will use Business Model Canvas for Green Businesses. For the purposes of this module, we will focus only on the elements that are special to the Green Business Modelling compared to the regular one.

1. VALUE	2. CUSTOMERS	3. ACTIVITIES	4. RESOURCES
The bundle of products and services that create value for a specific Customer Segment	The type of relationship a company establishes with specific Customer Segments	Most important actions a company must take to operate successfully	Most important resources the company must acquire to complete its actions
5. PARTNERS	6. CHANNELS	7. GREEN IMPACT	8. RISKS & OPPORTUNITIES
The network of suppliers and partners that optimize the business model, reduce risk, or acquire resources	How a company communicates with and reaches its Customers Segments to deliver a Value Proposition (communication, distribution and sales channels)	Characteristics and metrics that show the business has a lower impact on the environment compared to a traditional business.	How the business will overcome the challenges it's facing and take advantage of the opportunities
9. COSTS		10. REVENUE	
All costs incurred to operate a business		The cash a company generates from each Customer Segment (costs must be subtracted from revenues to create earnings)	
11. ENABLING ENVIRONMENT			
Social-institutional environment in terms of policy and regulatory context, including both formal and informal institutions, as well as other available finance and incentive mechanisms that foster the discovery, uptake, and transfer of sustainability and climate strategies.			

Source: The Ground_Up Centre, based on A. Osterwalder, A. Upward

Value proposition.

By it's essence to change our core business means to change our value proposition, which is first element out of eleven elements of the Business Model Canvas.

In order to understand what value proposition is, watch this video:

https://www.youtube.com/watch?v=vA6TG4wMcUU&ab_channel=VentureWell

Knowing the value that the business provides is an essential first step in developing the business model and it is necessary to be able to complete the next dimensions of the canvas. Sustainable or green value proposition incorporates environmental aspects or indicators (energy efficiency of the product, low CO2 emissions during production, easier recycling process or etc) to the potential customers. In order to identify your value proposition, you need to answer the following questions:

- What need do you aim to address through your business?
- How do you aim to address this need? What is your product/service?
- Describe how your products/services provide or will provide a solution to your customers 'need.
- What product/service do your customers currently use to address the problem/need?

Green impact.

A green business model creates and delivers a significant amount of environmental value along with economic and social value. Types of positive environmental impact can include: reduced GHG emissions, reduced energy consumption, waste collection, recycling and upcycling, reduced raw material consumption or replacement of scarce raw materials, decreased water consumption, water purification, the distribution chain, positive impacts on biodiversity and conservation, changing patterns of consumption and many others.

Questions to identify the green impact of our business:

- What type of environmental impact does your business have?
- How do/will you measure this impact?
- How is this impact reflected in your business?
- What are the potential environmental trade-offs of the business?

The green impact can be divided into 2 subcategories: positive impact we want to maximise and negative impact we want minimize.

Enabling environment

In this component we include the existing and expect external factors relevant to our business. These factors may support or hinder the growth of the enterprise and include aspects related to market, regulation, taxes, social and cultural behaviour, prices, currency evolution, values, and trends etc. Entrepreneurs must be aware of how the enabling environment influences the business, what risks it poses and what opportunities it may create. As an example, we can give the Green Deal as enabling positive factor for greener transformation by providing legislation and funding opportunities.

The questions we need to answer to assess the environment of our SME's transition can be the following:

- What are the factors that encourage your business?
- How likely are they to change over time?
- Are there any factors that raise barriers to your business?
- How do they affect the development of your business?

Exercise:

Create green business model (or adapt your current one into a green one) using the provided template. Pay extra attention to the components of Value, Green Impact, Risk & Opportunities, Costs, Revenues and Enabling environment.

The execution of this exercise is mandatory for UNIT 2.

Unit 2: Green financial tools

Footprint reduction, cost-effectiveness and financial returns

Introduction

In this section we will connect everything we learned so far in Unit 1 as definitions of the different categories and we will present ways to track the effectiveness of the green measures implemented in our SME.

There are multiple examples in the world when an investment or new policies that haven't proven successful. Sometimes it might take long to recognize the actual consequences of the implemented by us measures or actions, because they need time to occur and become truly visible.

When we track the success of our environmental policies and investments, **we need consider two main categories:**

- **Financial indicators**
- **Non-financial indicators**

The financial category shows us the financial results of our actions and it can be measured via financial methods and tools. But in the context of green transformation this would not be enough to tell us, if our actions produce the needed outcome.

Example:

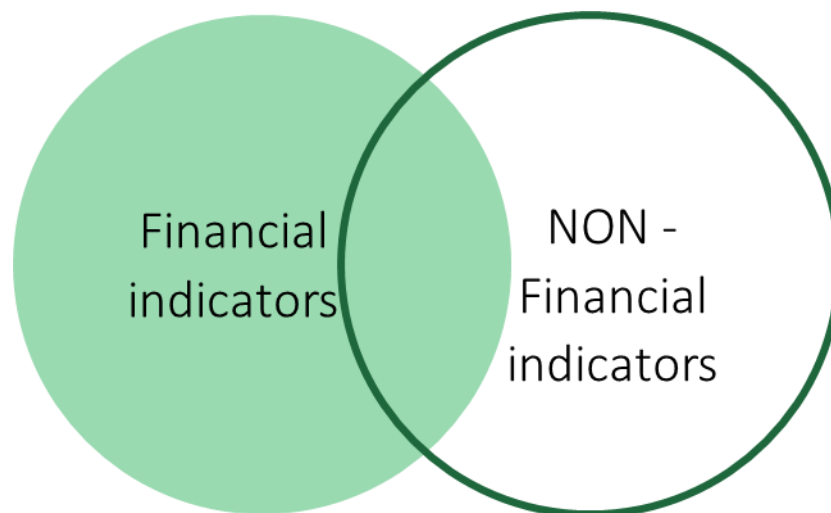
We have invested EUR 10.000 into new machine that manufactures our product faster and consumes less energy. Because this new machine produces more products per hour, we were able to sell 400 units more of it this year compared to the previous one (we consider the other factors between the two years equal for the purposes of this example) which has increased our revenue with EUR 4.000. Moreover, due to the lower energy consumption we have decreased our power costs with EUR 2.400 compared to the previous year.

If we use only financial indicators, we would be sure that our investment was good given the fact that it will return in less than 2 years and we will be able to direct the free assets to other investment. But it does not show us if it makes positive environmental impact overall. The

machine could cause extra pollution in the local area, it could also use more raw materials for production of 1 unit of product, etc.

At the same time while any sustainable initiative targets a non-financial goal (circular economy, energy-use, etc.), the only way the initiative to be sustainable is by being financially positive and/or within the provided financial budget. This means that we need to measure the success of the green initiatives by their non-financial goal - Less waste/excess, own energy production, etc. And also measure the sustainability of the initiative by monitoring the financial impact of the initiative.

That is why we need to combine both type of indicators when we evaluate our investment in green practices, initiatives or/and transformation.



In Module 3 we explored different ways of measurement of the environmental impact in detail. We would need to consider this system when we work with our business model and reflect on the section of Green/Environmental Impact from the previous unit. During this module we will focus on the financial once without forgetting the importance of the first.

Some environmental changes can be achieved by investment and others by monitoring and optimization of our business costs. In both cases we track financial and non-financial indicators.

What is green investment?

Green investment is type of investment that serves to support business practices with positive impact on the environment. As any investment it is an action or a process of investing money for expected profit, but the green investment focuses on the conservation of natural resources, pollution reduction, or other environmentally-conscious business practice – profit + environmental benefit.

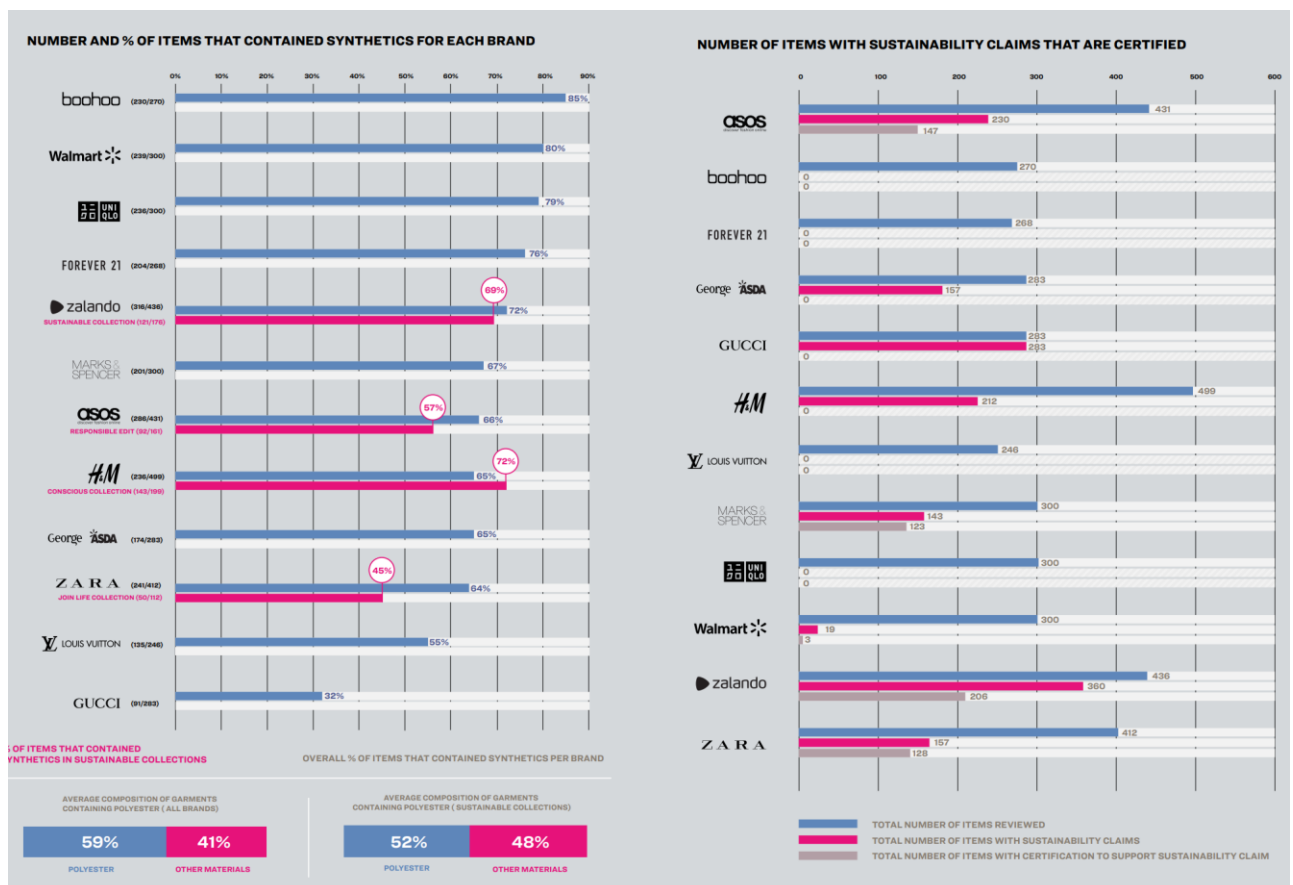
Green investment vs Greenwashing

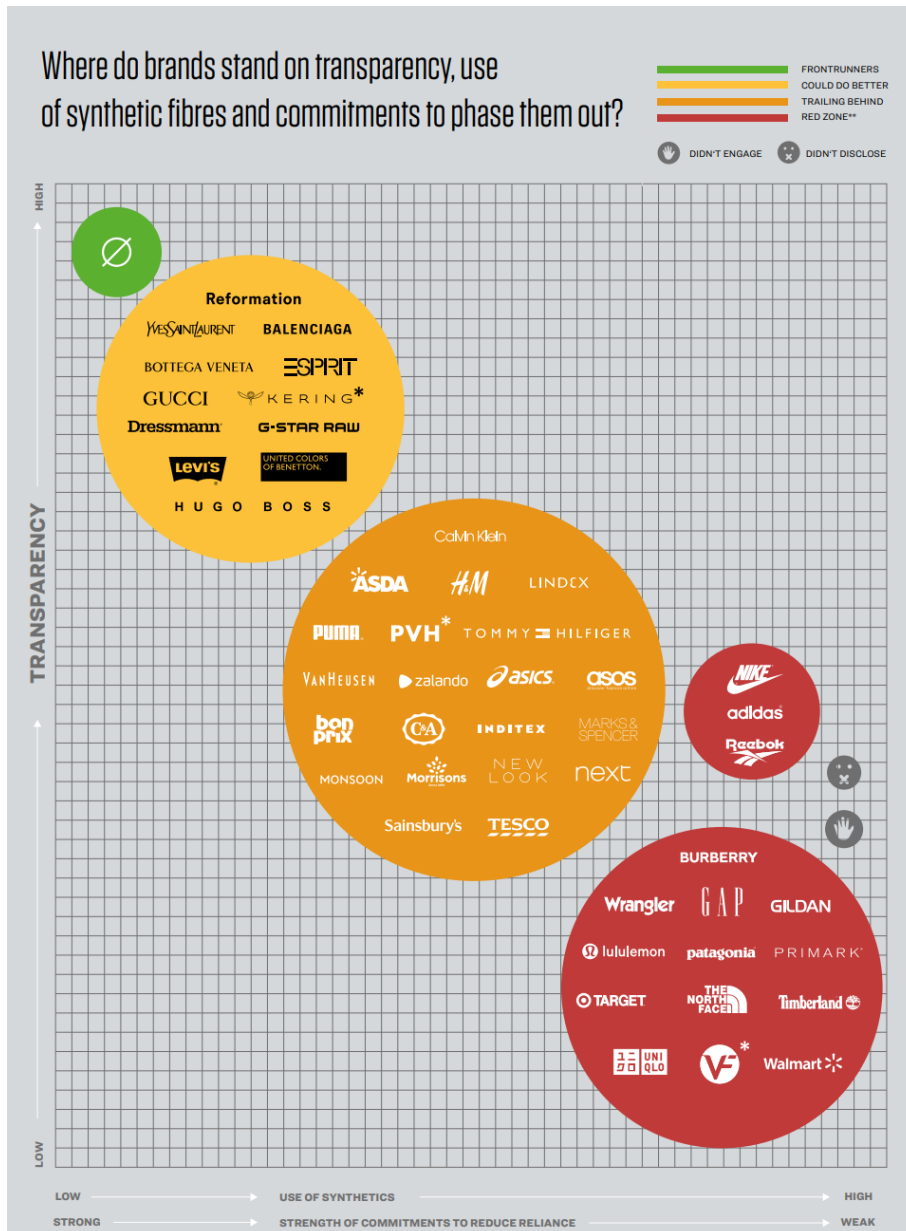
"Greenwashing" refers to the practice of branding a company or product as "environmentally friendly" in order to capitalize on the growing demand for sustainability. While green marketing is often sincere, many companies have overstated the impact of their environmental practices or downplayed the ecological costs of their products.

That is why we need to be sure that our investments in our SME lead either to maximizing positive green impact or to minimalizing the negative one. Whenever not sure about it, we can reevaluate the Green Business Model.

The 'Synthetics Anonymous' report by the Changing Markets Foundation assesses brands across the spheres of fast fashion, luxury fashion and online retailing based on their sustainability claims. The brands analysed are Asos, Boohoo, Forever 21, George at Asda, Gucci, H&M, Louis Vuitton, Marks & Spencer (M&S), Uniqlo, Walmart, Zalando and Zara.

Across all of these brands, **39% of products assessed came with sustainability-related claims such as "recycled", "eco", "low-impact" or simply "sustainable"**. The Foundation assessed whether these claims stood up against the Competition and Markets Authority's (CMA) new guidelines on avoiding greenwashing; **59% did not**.





Source: http://changingmarkets.org/wp-content/uploads/2021/07/SyntheticsAnonymous_FinalWeb.pdf

Question to the learners:

Can you give examples for Greenwashing?

Financial Risks & Return on Investment (ROI)

In the previous module we discussed in detail the financial risk and the ways that it could be mitigated. As described above the financial risk is the possibility of losing money on an investment or business venture. Every investment contains financial risks.

Whenever evaluate an investment we need to identify its risks, analyse them and construct a proactive plan for mitigation.

However, besides the financial risk, every investment has another quality important characterising asset – possibility of return on investment.

The return on investment (ROI) is the ratio that divides the net profit (or loss) from an investment by its cost.

ROI measures the performance of our investment over period of time. It help us evaluate the efficiency or profitability of an investment or compare the efficiency of a number of different investments. It also serves as a profitability metric used to evaluate how well an investment has performed.

Usually, it is represented in percentages. Depending on the type of investment it can be calculated via two formulas:

$$\text{ROI} = \frac{\text{Current Value of Investment} - \text{Cost of Investment}}{\text{Cost of Investment}}$$

Source: <https://www.investopedia.com/terms/r/returnoninvestment.asp>

Or

$$\text{ROI} = (\text{Net Profit} / \text{Cost of Investment}) \times 100$$

For the needs of evaluation green investments made in SMEs we would prefer the second formula. The Net profit indicates the total profit after costs that is added as a value because of the investment.

The ROI cannot eliminate risk or uncertainty. When you use ROI to decide on future investments, you still need to factor in the risk that your projections of net profits can be too optimistic or even too pessimistic. And, as with all investments, historical performance is no guarantee of future success.

As a good ROI is considered 7% or higher on an annual base.

MONITORING & OPTIMIZING

The second major way of bringing green transition in your business is through optimization of resources or costs and monitoring. This method is applicable when you do not need to make a drastic change in your core business model or value proposition, but you want to improve the efficiency of your business and at the same time reduce the caused footprint.

Resource usage optimization is a set of processes and methods to match the available resources with the needs of the organization in order to **achieve established goals**.

When we want to reduce our carbon footprint by resource optimization, we need to remember the three R-s: **reduce, reuse, recycle**.

The first step in implementing resource optimization is to identify the current resource usage and to research for more sustainable alternatives.

Every SME may have its own set of categories. But usually for most companies there are three categories, that lead to reducing the emissions and footprint.

- Energy Management
- Materials and their life cycle assessments
- Other (electric/non-electric vehicle park, public transports, flight/transportation-policy, digitalization, office material reductions, etc.)

FUNDING OPPORTUNITIES

There are plenty of ways to attract funding for our green transformation. We will separate the opportunities into non-refundable and refundable.

The most common non-refundable opportunities in the EU are:

- Green Deal funding applications, Just Transition mechanism

- National/regional governmental funding opportunities from the Recovery fund provided by the EU or from independent country policy
- Non-governmental public funding opportunities

Other opportunities for SME who can not fit into the selection criteria of non-refundable opportunities are:

- Bank loans – Some banks have preferential interest rates for investment in green initiatives/businesses
- Increase of Own Capital / use of reserves or other own capital funds
- Obligations / Financial Market Instruments

Other funding opportunities are:

- Venture capital investors / external investors
- Crowdfunding
- Other (refundable) governmental support (loans)

Circular economy action plan (CEAP) of the EU – a short recap from Modules 2 and 3

(Read more in modules 2 and 3)

The European Commission adopted the new circular economy action plan (CEAP) in March 2020. It is one of the main building blocks of the European Green Deal, Europe's new agenda for sustainable growth. The EU's transition to a circular economy will reduce pressure on natural resources and will create sustainable growth and jobs. It is also a prerequisite to achieve the EU's 2050 climate neutrality target and to halt biodiversity loss.

The new action plan announces initiatives along the entire life cycle of products. It targets how products are designed, promotes circular economy processes, encourages sustainable consumption, and aims to ensure that waste is prevented and the resources used are kept in the EU economy for as long as possible.

It introduces legislative and non-legislative measures targeting areas where action at the EU level brings real added value.

Source: https://ec.europa.eu/environment/strategy/circular-economy-action-plan_en

Link to the action plan: <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1583933814386&uri=COM:2020:98:FIN>

Objectives of the CEAP

- Measures that will be introduced under the new action plan aim to:
- make sustainable products the norm in the EU
- empower consumers and public buyers
- focus on the sectors that use most resources and where the potential for circularity is high such as: electronics and ICT, batteries and vehicles, packaging, plastics, textiles, construction and buildings, food, water and nutrients
- ensure less waste
- make circularity work for people, regions and cities
- lead global efforts on circular economy

Examples of measures in different sectors based on CEAP

ELECTRONICS and ICT



Electrical and electronic equipment is one of the fastest growing waste streams in the EU.

Two in three Europeans would use their digital devices for longer provided performance is not significantly affected.



Products placed on EU market will be designed to **last longer, to be easier to repair, recycle and reuse.**

Providing incentives for **product-as-a-service**: companies will keep the ownership and responsibility for the product throughout its lifecycle. **Eco-design** will apply to a broader range of products.

TEXTILES



Worldwide, a full truck of **textiles** is sent to incineration or landfilled every second. It is estimated that less than 1% of all textiles worldwide are recycled into new textiles.



Driving new business models will boost sorting, reuse and recycling of textiles, ensure circularity in the sector and allow consumers to choose sustainable textiles.



PLASTICS



Consumption of plastics is expected to double in the coming 20 years.

By 2050, plastics could account for 20% of oil consumption, 15% of greenhouse gas emissions, and there could be more plastics



Single-use products will be **phased out** wherever possible and replaced by durable products for multiple use.



Acting on microplastics - restricting intentionally added microplastics, increasing the capture of microplastics at all relevant stages of the product lifecycle.

FOOD and PACKAGING



In 2017 packaging waste reached in Europe a record of **173 kg per inhabitant.**



New legislative initiative on reuse to **substitute single-use packaging**, tableware and cutlery by reusable products in food services, as well as targets for reducing packaging waste will be proposed.

WASTE

 <p>Each citizen produces nearly half a tonne of municipal waste per year.</p> <p>© European Union, 2020</p>	  <p>Measures will be introduced for waste prevention and reduction, increasing recycled content, minimising waste exports outside EU.</p>
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European Commission, Directorate-General for Communication, Circular Economy Action Plan : the European Green Deal, Publications Office, 2020,
<https://data.europa.eu/doi/10.2775/855540>

Action plan for implementation of CIRCULAR ECONOMY and INVESTMENT EVALUATION IN YOUR SME (exercise)

The learners shall combine for this exercise the knowledge from modules 3 and 4 in order to create an action plan. Once they are familiar with the concept of circular economy and the financial risk, modelling and measuring the return on investment they can start building the plan. We ask them as well to take again their filled in Green Business plan, which they have created at the end of Unit 1.

VALUE	CUSTOMERS	ACTIVITIES	RESOURCES
PARTNERS/NETWORK	CHANNELS	POSITIVE ENV./GREEN IMPACT	NEGATIVE ENV./GREEN IMPACT
RISK AND OPPORTUNITIES		ENABLING ENVIRONMENT	
COSTS		REVENUES	

We ask them to:

Step 1.

Identify which components of your Green Business Plan contain elements of linear economy and which of circular.

Step 2.

Answer the following questions:

What type and estimated quantity of waste my business will produce? How can my SME reuse the generated waste? Could it be sold or reused internally?

In which areas of my business technology can be implemented in order to save resources?

What are the local communities with which my SME can collaborate in order to establish new partnerships?

How can my SME advertise and reach to potential customers generating as less as possible pollution?

Can my SME introduce renewable energy sources to its production? (Example: solar panels)

Does my SME use single-use plastic in its operations? What alternatives can be introduced?

What packaging can my SME introduce in order to decrease the pollution?

How the recycling will be established into process of operations?

What innovation can be introduced in my SME in order to optimize its efficiency?

Step 3.

Create an action plan for implementation based on your answers by setting clear goals and clear actions that will lead to their achievement. Give timeframe and trail period.

Goal	Actions	Timeframe	Measurement
Needed resources		Expected benefits	

Step 4.

Calculate sustainability and evaluate the needed investments.

Once the action plan is ready the participants can create their financial and non-financial evaluation of the needed investments in order to fulfil the previously created plans.

In order to execute this, they will need to fill in the template “Investment Evaluation”.



Amount of the investment	Source of the investment	Cost of the investment	Annual return percentage	Return in years	Purpose of the investment
Expected non-financial benefits					

Under “Amount of the investment”, it should be filled a number in the appropriate currency.

Under “Source of the investment” is meant the type of funding this investment comes from. It could be refundable or not refundable, national or international grant, bank or private loan, investment from own capital and etc. As previously discussed each source has different pros and cons.

Under “Cost of the investment” is meant the amount due besides the amount of the investment itself. In case a bank loan this will be the interest and taxes that the bank applies.

Under “Annual return percentage” is meant the financial amount that the investment brings back to the company each year. Check ROI calculation in the previous section.

Under “Return in years” calculate how many years will be needed in order the investment to be paid off including all its costs.

Under “Purpose of the investment” list down the goals that one wants to achieve making this investments.

Under “Expected non-financial” benefits list down the desired environmental indicators as they are explained in module 3.

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