













Description of the main objectives of the Module

A widespread preconceived idea is that implementing green practices has significant business costs. This module demonstrates how SMEs decision-makers can make their companies greener without inflicting unnecessary financial stress on their structures. Furthermore, it shows how environmental-friendly practices can even be cost-effective.





Learning Outcomes

The decision-makers should:

- Understand well the financial risks and opportunities connected with the green transition
- Understand in depth the concept of financial risk and its types
- Engage actively in creation of risk mitigation strategies
- Practice financial and business modeling
- Know how to measure financial indicators of the green transformation





Units

Unit 1

Green practices & financial stress

- Potential financial challenges, risks and opportunities for SMEs internally and externally
- Financial Modelling

Unit 2

Green financial tools

Footprint reduction and cost-effectiveness











Green Deal Objectives

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

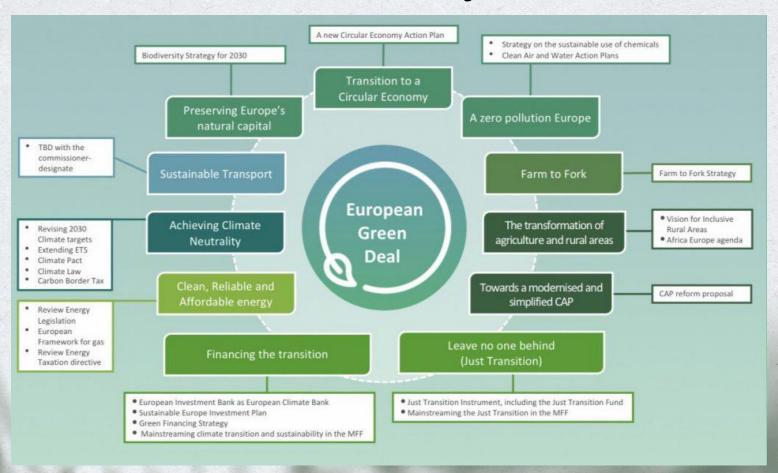
- no net emissions of greenhouse gases by 2050
- economic growth decoupled from resource use
- no person and no place left behind

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.





Green Deal Objectives



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





How does the Green Deal affect the SMEs?



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?

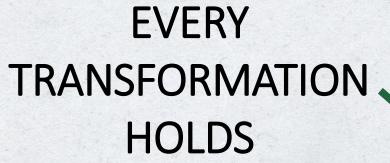




FINANCIAL RISKS AND OPPORTUNITIES







RISKS

OPPORTUNITIES





Financial RISK & Definition

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





Financial RISK & 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.





Common types of financial risks



- 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

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





Common types of financial risks



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





Financial RISKS & CHALLENGES in regards the green transitioning

- 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 initial investment required for energy efficiency improvement
- Focus on inefficient changes
- Loosing competitive price segment





Financial RISKS & CHALLENGES

What do you find as a possible risk/challenge?





Financial RISKS & CHALLENGES

Exercise:

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 is to...

...transform your business to late ...

and it is **no longer relevant** on the market. or you **can not keep up** with the regulations.





The case of "Die Bahn"

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.









MITIGATION OF THE MARKETING RISK CAN BE ACHIEVED BY:

- ✓ Having regular feedback process in place from stakeholders
- ✓ Having established process monitoring the market
- ✓ Having "Green job" position in charge to research new technologies that
 could be applicable to your business
- ✓ 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
- ✓ Having deeper relationship with your customers including policies for incentive of brand loyalty
- ✓ Be first to market with innovative green products
- ✓ Having holistic marketing and brand presence communicating your actual commitment to more environmentally friendly operations
- ✓ Diversification of your business





MITIGATION OF **CREDIT** (WHICH IS THE ONE WHO AFFECTS THE MOST SMES) AND **LIQUIDITY** RISKS CAN BE ENSURED BY:

- ✓ Having in place system forecasting system (in same places it is called "rolling forecast system") of your expected cash-flow levels
- ✓ Having established cash-flow management
- ✓ Having compared the short-term assets to short-term liabilities
- ✓ Having clear Return on investment KPIs or calculations for each innovation
 you are planning to launch





MITIGATION OF **OPERATIONAL** RISK CAN BE IMPLEMENTED BY:

- ✓ Having internal and external consultancy bodies who provides an additional perspective of the possible challenges ahead of the business.
- ✓ 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)
- ✓ Having process of collaboration between different departments which
 oversee the green transition of your business





3 MAIN STEPS





1. IDENTIFY THE RISK

Review your SME balance sheet or statement of financial position.

- ✓ Understand your main sources of income (main clients that in case you might lose it will cause issues in your cashflow);
- ✓ 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?;
- ✓ Identify clients who represent more than 10% of your revenues;





2. ANALYZE 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:

- ✓ What is the likelihood of this risk occurring?
- ✓ How much of an impact would it have on the business if this risk occurs?
- ✓ What actions can the business take to recover?
- ✓ 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.





Exercise:

- 1. 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?
- 2. Alalyse the risks.
- 3. For each risk prepare 2 mitigation actions based on it's time that you can implement.
- 4. Discuss in different pairs the mitigation actions and risks.









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





Examples:

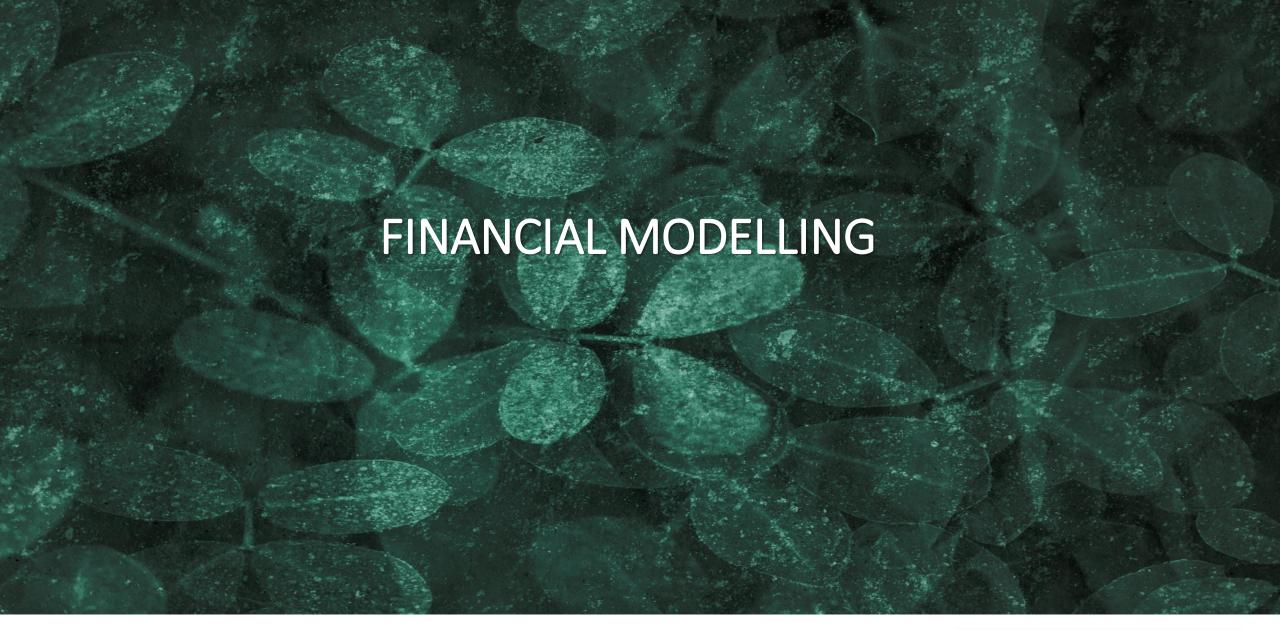
- ✓ It has never been cheaper and to invest in sustainability practices than now.
- ✓ The technologies needed for climate neutrality currently exist in the market. They are settled and available today.
- ✓ Since every company needs to become climate neutral at one point, when a company has reached net 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.





Examples:

- ✓ 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 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.





Financial modelling is a representation in numbers of a company's operations in the past, present, and the forecasted future.





Depending on its purpose and the specific business need, there are different categories of financial models:

- ✓ Project Financial Models
- ✓ Pricing Models
- ✓ Integrated financial statement models
- ✓ Reporting Models





Project Financial Models

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 financial categories into project financial model might vary, but the following could be used as a base:

- Financing / Investment (initial funds needed the project to kick-off)
- Capital expenditures
- Forecasted revenues
- 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:

- cost-based pricing,
- value-based pricing,
- value pricing,
- competition-based pricing.





Pricing Models

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:

- Income statement, also known as a profit-andloss (P&L) statement
- Cash flow statement
- 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

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





GREEN FINANCIAL MODELLING

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. It that case, the new business can be observed as new green project.





GREEN FINANCIAL MODELLING

- **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.



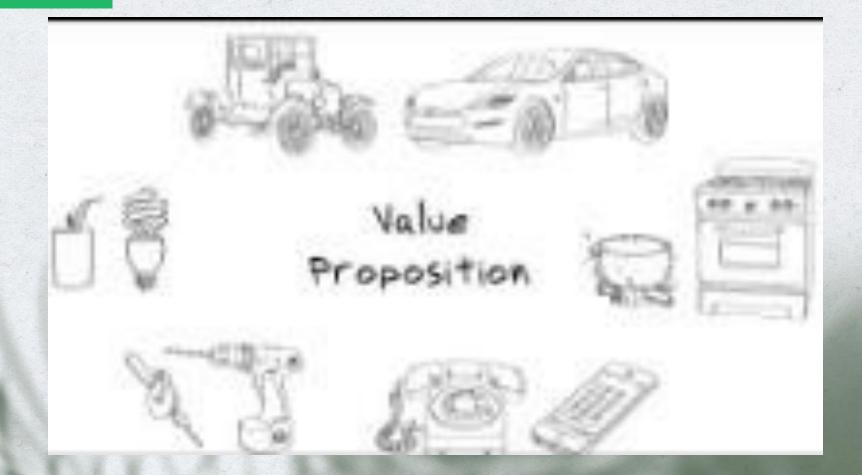


1. VALUE	2. CUSTOMERS	3. ACTIVITIES	4. RESOURCES	
The bundle of products and services that create value for a specific Customer Segment	The type of relationship a company establishes with specific Customer Segments	Most important actions a company must take to operate successfully	Most important resources 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 The cash a company generates from each Customer Segment business (costs must be subtracted from revenues to create earnings)				
	_	1. NVIRONMENT		
	nt in terms of policy and regulato and incentive mechanisms that f			





VALUE PROPOSITION







GREEN VALUE PROPOSITION

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

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, 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 maximize 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 behavior, 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.





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

TEMPLATE







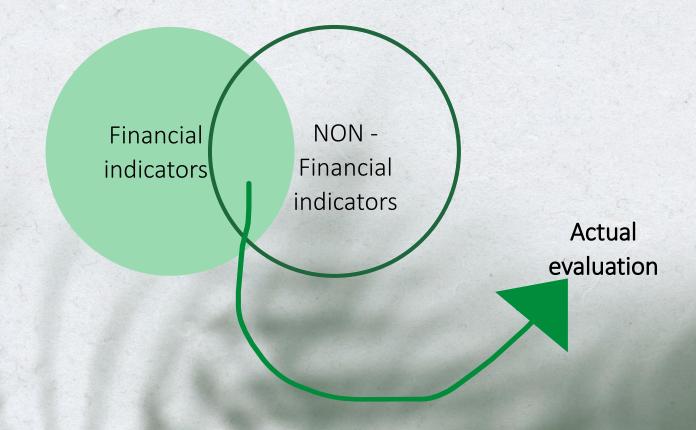
















We have invested EUR 10.000 into new machine that manufactures our product faster and consumes less energy. Because this new machine produces more products per hour, we were able to sell 400 units more of it this year compared to the previous one (we consider the other factors between the two years equal 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.

Is this a good green investment?



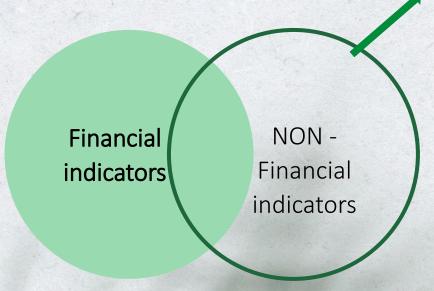


We don't know because we have only financial indicators for evaluating it.

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.







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.





Financial indicators

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.





PROFIT + ENVIRONMENTAL BENEFIT

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.





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





Green investment vs Greenwashing

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.

39% of the products have labeled as eco-friendly.

Only 41% from those 39% actually have base according to the standards to be less harmful to the environment.



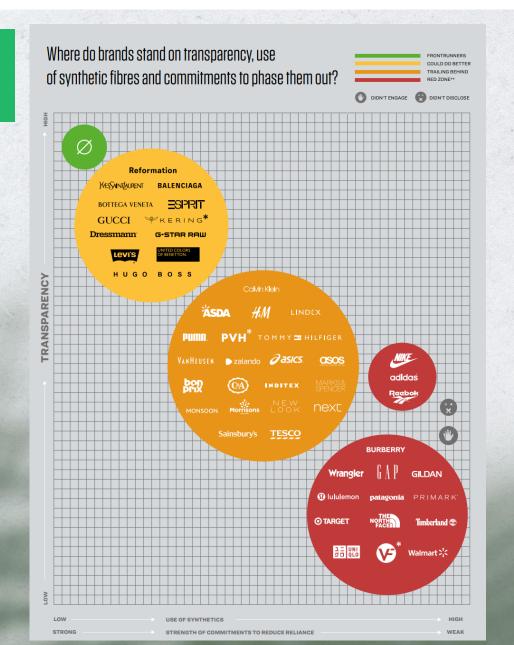


Green investment vs Greenwashing



Jource. Hittp://changingmankets.org/wp-

content/uploads/2021/07/SyntheticsAnonymous_FinalWeb.pdf







Green investment vs Greenwashing

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 characterizing asset – possibility of return on investment.





RETURN ON INVESTMENT (ROI)

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

It measures the performance of our investment.





RETURN ON INVESTMENT (ROI)

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





RETURN ON INVESTMENT (ROI)

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





OPTIMIZATION & MONITORING

The second major way of bringing green transition in your business is though optimization of recourses 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.





OPTIMIZATION & MONITORING

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





OPTIMIZATION & MONITORING

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





OPTIMIZATION & MONITORING

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.)





TYPES OF GREEN 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 form the Recovery fond provided by the EU or from independent country policy
- Non-governmental public funding opportunities





TYPES OF GREEN 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





TYPES OF GREEN FUNDING OPPORTUNITIES

Other funding opportunities are:

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





Step 1.

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

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





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 safe 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)





Step 2.

Answer the following questions:

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 measurement indicators.





Goal	Actions	Timetrame	Measurement	
Needed resources		Expected benefits		
_		_		





Step 4.

Calculate sustainability and evaluate the needed investments.

Fill in the template and present in front of the group.





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						

