



BALANCE
green and stable

Bringing Sustainability and Environmental Action
Together for Future



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

MODULE 5

Process Approach and Environmental Business Practices

UNIT 1

What is Process Approach?

Definition of the concepts of Environmental
Business practices and Process Approach

Setting Green objectives



Process Approach

What is it?

When an organization manages their business as a **system of processes** – not departments or people or products

What is its purpose?

Provide **consistent** products and services based on **requirements** of environmental legislation or even international standards (e.g. ISO 14001)



Process Approach-How to achieve it

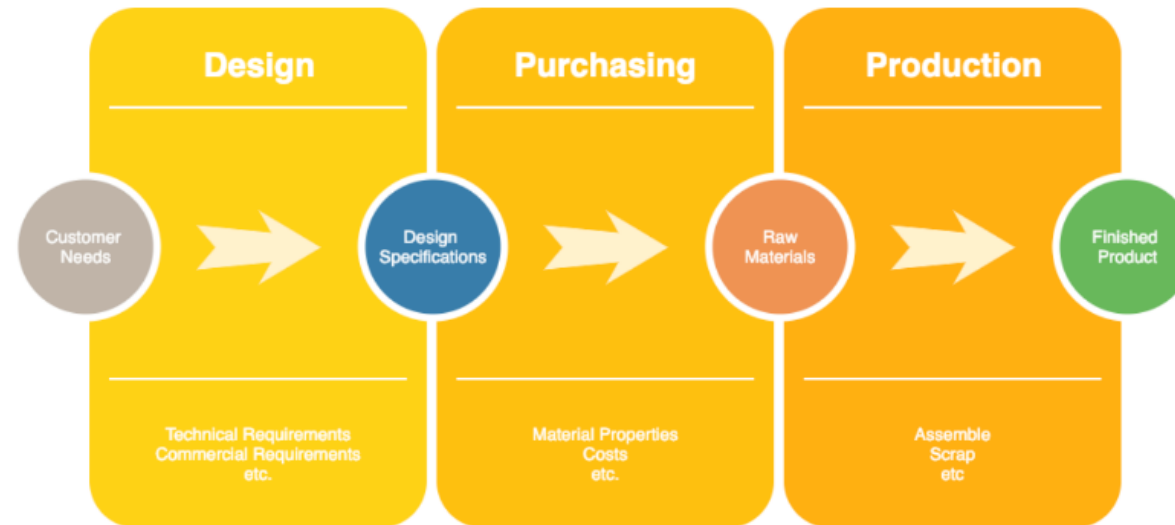
Five steps

1. Determine required **Inputs**- Expected **Outputs**
2. Determine **sequence** and **interaction** of the processes
3. Apply criteria and methods to ensure effective **operations**
4. Identify the **resources** and ensure their availability
5. Address **risk and opportunities** (SWOT analysis)-evaluate them in terms of effectiveness and success and implement changes for **improvement** according to your findings



Process Approach

Process Approach:
Processes are Connected

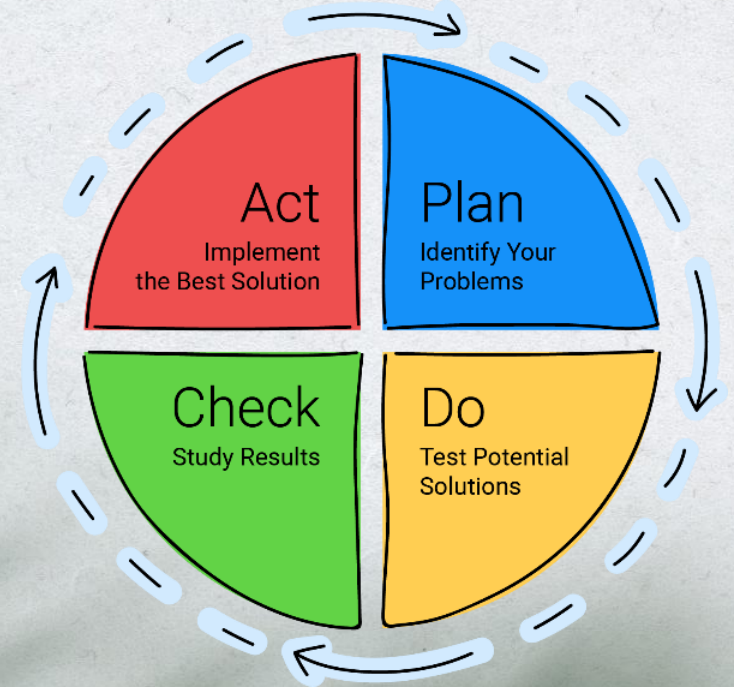


Plan, Do, Check, Act (PDCA) cycle

To apply the process approach, it is important to first understand the *Plan, Do, Check, Act (PDCA) cycle*, which helps identify processes and the different ways in which they interact and encourages problem-solving

The PDCA cycle consists of four steps, namely Plan, Do, Check, and Act.

1. **Plan**: Identify the main players and members involved in the process and identify the inputs and outputs of the process.
2. **Do**: Execute the plan.
3. **Check**: Ensure that the process is achieving the desired outcomes in the most effective manner.
4. **Act**: Modify or upgrade the plan to improve efficiency and effectiveness.





Benefits of Process Approach



Defining their processes using the Process Approach allows organizations to better define ownership, dependencies, risks, and opportunities for growth or improvement in an easy and efficient manner. This is essential information for the continuous improvement of any organization's quality management system.



Environmental Business practices

Definition

A business practice that is economically viable, socially responsible and environmentally friendly is usually regarded as being **sustainable**.

Purpose

Allows companies to reduce their negative impacts of the environment while still allowing the businesses to make a profit

Identification of sustainable practices

1. Internal (in-office) e.g. recycling program, reducing energy use at an office or factory, switching to natural gas
2. External (out-of-office) e.g. green vendors and suppliers, non-environmentally damaging materials



Environmental Business Practices

Best Business Practices for Environmental Sustainability

This slide represents environmentally sustainable business practices such as cleaner production, carbon finance etc.





Environmental Business practices

**DEVELOPING A
CORPORATE
SUSTAINABILITY PLAN:
SMALL BUSINESSES**

Corporate sustainability consists of three pillars: the environmental pillar, the social pillar, and the economic pillar. Each business is responsible for creating a sustainability plan that acknowledges all three. In addition to protecting the environment, sustainability measures can help small businesses gain favor with consumers by demonstrating social responsibility and business ethics.

Sustainable practices also positively impact a company's bottom line by reducing resource waste and improving productivity.

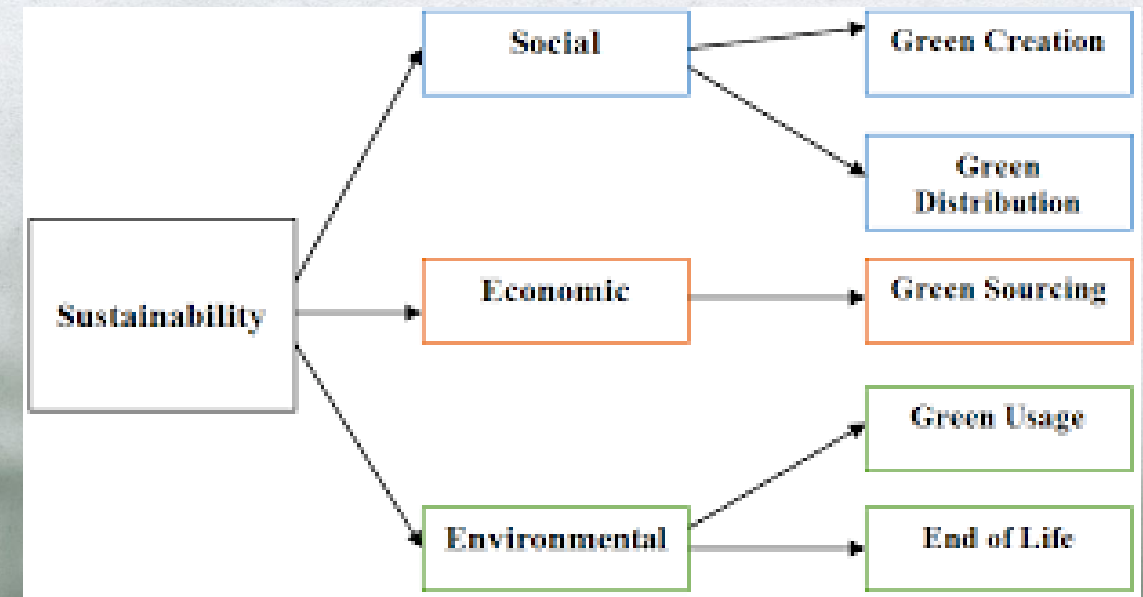
What is Corporate Sustainability?



Environmental Business practices

The environmental business practices derive from the Environmental Management System that the company chooses to apply. In order to implement an EMS and apply Environmental Business Practices there are some main requirements for the company.

- Determine and recognize the **company's environmental aspects** means to determine the ways you interact with the environment
- Look at each process in your business and see how that process **interacts** with the environment and how that aspect may **impact** the environment. If you don't approach each process at a time, you risk overlooking some of your **environmental aspects**





Environmental Business practices

The environmental business practices derive from the Environmental Management System that the company chooses to apply. In order to implement an EMS and apply Environmental Business Practices there are some main requirements for the company.

- Determine your environmental competence needs and then pair these with the competence needs of your processes
- If you need certain **employee competences** to operate a process that will produce conforming products and services, these employees will also need to meet the competences required to operate these processes so as to avoid environmental harm

Environmental Business practices

The environmental business practices derive from the Environmental Management System that the company chooses to apply. In order to implement an EMS and apply Environmental Business Practices there are some main requirements for the company.

- Identify the environmental controls necessary for your operations and this is where the process approach proves valuable. It is best to include the environmental requirements for control into your process control practices if you want the process to run well.
- Last but not least, while you may be addressing a problem that was identified in your EMS, you will invariably need to update or change a process in order to correct the problem and stop it from happening again. **In order to update and correct a process, you will need to apply the process approach**



Environmental Business practices

The environmental business practices derive from the Environmental Management System that the company chooses to apply. In order to implement an EMS and apply Environmental Business Practices there are some main requirements for the company.

Environmental Objectives and Controls

Low Carbon Economy

We will promote the voluntary adoption of new business practices that contribute to the transition to a low carbon economy, assuring the adaptation and resilience of the country's economic activities in the face of climate change

Protection

We will support investments, activities and projects that have a positive environmental and social impact, and good governance practices in order to protect the environment and social welfare.

Transparency

We will promote the creation and disclosure of sustainability reports in our companies, that show all the efforts the companies have developed in the environmental and social field

Knowledge

We will support the creation, and the strengthening of the capacities and knowledge of diverse sectors, to achieve sustainable development.

Partnerships

We will develop alliances with the the public and private sectors in order to accelerate the development of Green Economy in Costa Rica.



Environmental Business practices

The environmental business practices derive from the Environmental Management System that the company chooses to apply. In order to implement an EMS and apply Environmental Business Practices there are some main requirements for the company.

Tips

- 💡 Include all monitoring and measurement together for each process – environmental and quality. You may even find that when monitoring a process, you can reduce the amount of monitoring you do when you do all monitoring together.
- 💡 One more action that proves really helpful when trying to monitor and assess your practices is the **process of auditing** as it involves reviewing the outputs of a process and comparing them with the plans for the process to see if what is occurring is what was planned. In order to do this you need to look at a process, so understanding the process approach is an inherent part of the audit process.



Setting Green Objectives

Definition

What is a **Green Objective**?

An initiative that promotes healthy, active, **environmentally conscious** lifestyles that help the environment in one way or another

Purpose

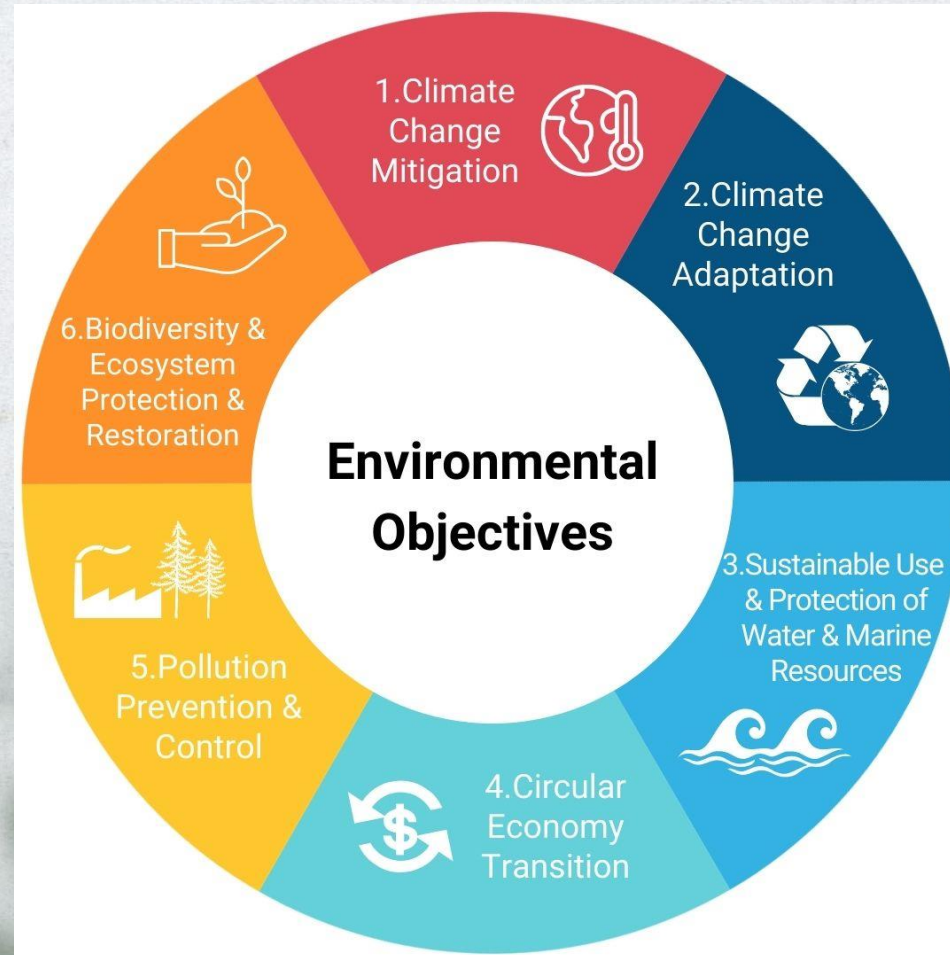
Improving the **local** environment and raising **environmental awareness**

Objectives-Targets

1. One objective can have several **environmental targets** (e.g. reduce waste by 10% the first year)
2. Targets: short-term goals to achieve environmental objectives
3. Based on environmental policy, initial review and register of legislation

Setting Green Objectives

Environmental objectives and targets should be based on your **environmental policy**, information gained from your **initial review** and your **register of legislation**. They should aim to address any significant environmental aspects and should incorporate specific legal requirements contained in regulations and consents.





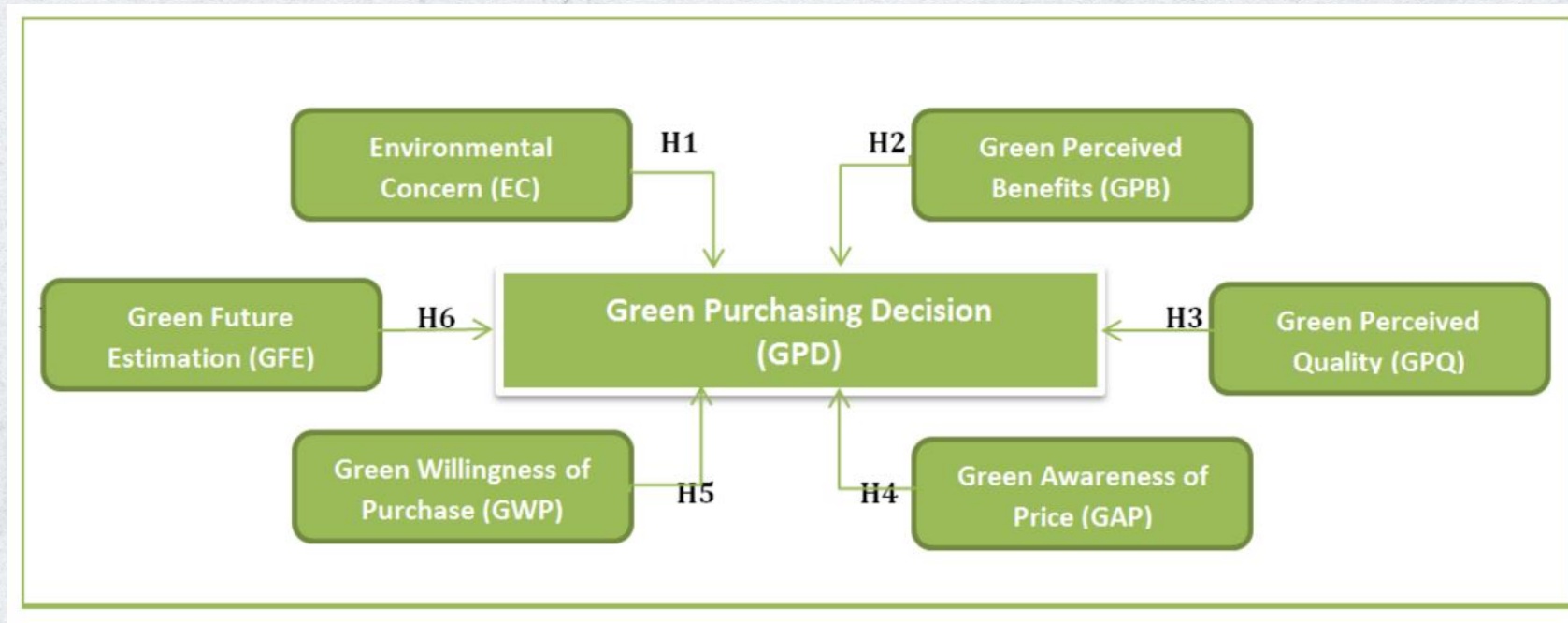
Setting Green Objectives

GOAL-SETTING

- One of the most important processes of the business and is linked with the sustainability of the business itself.
- It clarifies the observable and measurable results to be achieved within a specific timeframe and helps everyone understand the direction of the business and the role they have to play to achieve them.
- It's absolutely essential to set clear, achievable and measurable goals in order to achieve your desired results in sustainability.

Sustainability has become the standard for system-wide innovation. Failure of organizations to pursue sustainable business practices has severe consequences in a time of imminent climate change. Ultimately, **sustainability means survival for organizations**. When aligned with the missions of improving quality and productivity, reducing costs, improving efficiency and enhancing reputation, sustainability is a force impacting the way organizations think, act, manage and compete.

Setting Green Objectives



Setting Green Objectives

Here are the main directions that you should follow in order to set valuable and reachable green objectives

- 1. Set big and daring goals.** Big goals require big changes. This way the business is encouraged to think and operate in a radical and innovative way, thus improve their business model.
- 2. One step at a time.** Support your big goals by setting smaller ones to achieve in a measured period of time according to assigned categories e.g. supplies, sales, packaging etc.
- 3. Educate yourself.** Green objectives can cover a large area of issues not only plastic waste and carbon emissions. Take the time to educate yourself and decide where you can contribute. A very helpful tool for this process is the *UN seventeen Sustainable Development Goals (SDGs)*.





Setting Green Objectives

Here are the main directions that you should follow in order to set valuable and reachable green objectives

4. **Identify your company's most meaningful impact.** Think through your main activities and map them out so that you can clarify if the greatest environmental impact of your company happens upstream or downstream from you. (This If the negative impact comes from raw materials, manufacturing processes, packaging or at the end of the product's life e.g. litter)

5. **Measure.** Identify your measurement methods and tools and develop them in a way that is understandable and helpful for you. This way you can achieve noticeable progress and stay fully aware of the situation.



Setting Green Objectives

Here are the main directions that you should follow in order to set valuable and reachable green objectives

6. **Be in accordance with local, national and international regulations.** Following suggested regulations can help set your limits and boundaries and set quantitative indicators to your goals.
7. **Think positive.** Approach your goals not only from the negative perspective assessing what you are doing wrong but also from the positive one assessing how you are contributing positively on the planet. This innovative way of planning and operating can lead to a truly sustainable business.



Setting Green Objectives

Green objectives can vary depending on the business but here are some examples:

- **Carbon intensity**: Achieve X carbon emissions per product sold (or even carbon neutrality or being carbon negative)
- **Chemicals use**: Eliminate all chemicals of concern to health and environment
- **Pollutants and discharge**: Eliminate all pollutants and discharge upstream from the production and manufacturing of products
- **100% certified organic**: Source only 100% organic and sustainably grown inputs and eliminate all nitrogen and phosphorus runoff that is typically associated with inputs.
- **100% recycled**: 100% of non-food utilized by company / building (including products, warehouse supplies, office supplies, packaging, etc) is recycled with 50% post-consumer waste



Setting Green Objectives

Green objectives can vary depending on the business but here are some examples:

- **Green commute**: 100% of employees are carpooling, using public transportation, telecommuting, or biking / walking to work.
- **Green freight / shipping**: Emissions associated with freight and shipping products are cut by 90%.
- **Fresh water use reduction**: Fresh water needed to produce products and run operation is cut by 90%.
- **Zero Waste**: Waste generated across supply chain (upstream and downstream) per product sold is cut by 90% and company is at 99% landfill diversion
- **Eliminate plastic and other pollutants**: Eliminate the use of all materials and substances that have a chance of becoming litter or being dumped into the environment (Traditional or bioplastics that aren't capable of biodegradation in the open environment as well as materials such as silicone and heavy metals).

UNIT 2

Environmental Business Practices

Internal Adjustments

Utilization and enhancement of resources



Environmental Business Practices- Internal Adjustments

Sustainable business practices can be **internal** and external.

Internal efforts might include beginning an in-office recycling program, reducing energy use at an office or factory, switching to natural gas or electric fleet vehicles, or mandating that purchases give preference to “green” options (such as recycled paper and electric cars).



Environmental Business Practices- Internal Adjustments

Even **small businesses** can make significant strides to become **more sustainable**:

Invite your gas and electric utility providers to visit your place of business and conduct an **energy audit**

Adding **energy-efficient light bulbs, ceiling fans, low-flow toilets and programmable thermostats** can help you reduce your energy use.

Reviewing your regular purchases can identify products you can buy that offer green options.

Starting a **recycling plan** is simple, low- or no-cost helps employees feel they are engaged.

Environmentally friendly organizations often offer to pay all or part of commuter passes to encourage employees to reduce their commuting impact on the environment.



Environmental Business Practices- Internal Adjustments

More and more companies are embracing the concept of the [triple bottom line](#)

A business concept that suggests firms committing in measuring their **social and environmental** impact—in addition to their **financial performance**



This realization has led to the development of a whole new business model known as the **Corporate Social Responsibility (CSR)** and the development of the renewed international standards of Environmental Management (**ISO 14001:2015**) that lead even for-profit businesses to work for achieving their social and environmental goals.



Environmental Business Practices- Internal Adjustments



Environmental Business Practices- Internal Adjustments

Corporate Social Responsibility (CSR)

Concept of conducting business activities—according to which the companies, in strict compliance with law, and while still making profits—voluntarily take into consideration the impacts of their operations on the environment in their business decisions.



Environmental Business Practices- Internal Adjustments

Corporate Social Responsibility (CSR)

- Contributes to improving the quality of life and implementing the concept of sustainable development.
- Socially responsible entities assume responsibility for ecological ramifications of their activities, strive to eliminate pollutions and emissions of harmful substances → increase the efficiency of using natural resources → ease their ecological footprints.
- Remember: **Fast economic growth connected with intense exploitation of natural resources is in overt contradiction with the need to preserve these resources for future generations.** In fact, every nation can use available resources for the benefit of its people; however, nations are also responsible for their protection and preservation for the generations to come.



Environmental Business Practices- Internal Adjustments

Corporate Social Responsibility (CSR)

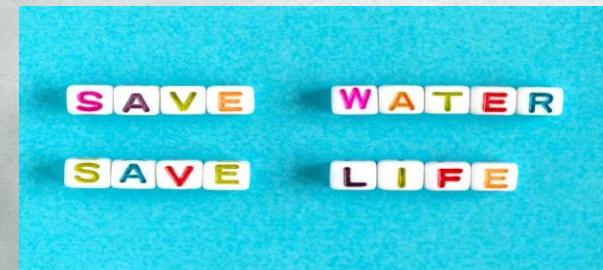
- According to the World Business Council for Sustainable Development, CSR is crucial to sustainable **economic development** and the well-being of societies.
- This is the reason why there is a need for **in-depth studies** on the profitability of socially responsible activities towards the silent stakeholder, the environment.
- Eco-management is aimed at **reducing negative impacts** the businesses exert on the environment. Increasing social awareness is forcing businesses to **reduce their environmental burden**.

- Environmental management can yield numerous **benefits** for enterprises: costs and resources savings, increased satisfaction and loyalty of customers and morale of employees.
- Relationship between corporate responsibility and its impact on **financial results**:
Achieved through effective management of the company's intangible resources, such as innovation, human capital, goodwill, and culture, value for stakeholders, including consumers, and measurement of consumer perception of the company's socially responsible activity in different areas.

Environmental Business Practices- Internal Adjustments

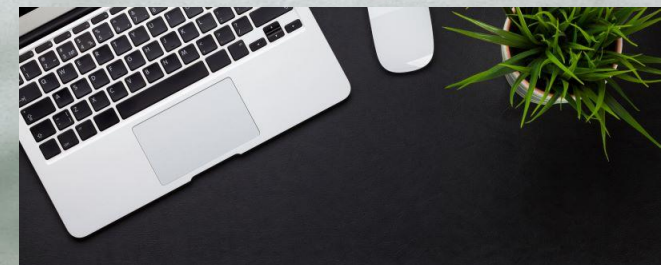
Examples

- Switch All Lighting infrastructure to **LEDs**
- Implement a Comprehensive **Recycling** Program
- Use **No-VOC** Interior Paints
- Allow Flexible Work-From-Home Options
- Eliminate Paper Use
- Strive for **Zero Waste** Break Rooms
- Install **Water-Saving** Fixtures
- Consider **Renewable** Energy
- Choose a **Green Web** Hosting Service for Your Website
- Recycle or Donate Your Office E-Waste



Environmental Business Practices- Internal Adjustments

- Replace Unnecessary Business Trips with Video Calls
- Install **Motion-Sensors** for Office Lighting
- Encourage Employees to Choose **Greener Commute** Options
- Eliminate Phantom Power with Programmable **Power Strips**
- Buy Remanufactured Ink and Toner Cartridges
- Apply **Window Film** to Block-Out Heat in the Summer
- Use **Non-Toxic** Cleaning Products
- Introduce **Plants** Into Your Office Space
- Buy Second-Hand Office Equipment When Possible





Environmental Business Practices- Internal Adjustments

Green Teams

- Possibly one of the most under-utilized strategies for embedding sustainability in your business
- Increases employee engagement and focuses more minds on tackling tough problems and coming up with creative solutions, thereby gaining more buy-in from employees and creating a stronger culture of sustainability
- Consists of a group of employees who are engaged in advancing sustainability within an organization. Green teams will often focus on two broad areas. One focus is on the company's own operations, on examining the sustainability opportunities within the organization. The second is on educating employees on sustainability and engaging them in actions that they can do at home.



Environmental Business Practices- Internal Adjustments

Green Teams

Reasons to have a green team:

- Effective way of engaging employees at work.
- Greater diversity of ideas and support for your sustainability initiatives. Rank and file employees have insights into what is happening on the front lines of customer service, production, and other key areas and can identify opportunities that might otherwise go unnoticed.
- Ensure that any sustainability relatable work that is done will be maintained (If there is only one person with this information, when he leaves information leaves too)



Environmental Business Practices- Internal Adjustments

Green Teams

Eight Ways to Engage Employees in the Company's Sustainability Journey

- Define the company's long-term purpose
- Spell out the economic case for sustainability
- Create sustainability knowledge and competence
- Make every employee a sustainability champion
- Cocreate sustainable practices with employees
- Encourage healthy competition among employees
- Make sustainability visible inside and outside the company
- Showcase higher purpose by creating transformational change



Environmental Business Practices- Internal Adjustments

Green teams

Some **green team activities** include:

- Organizing brown bag lunches on topics related to waste & recycling, climate change, water conservation, etc.
- Identifying and organizing volunteer opportunities for the staff
- Working on environmental certifications
- Organizing activities for Bike to Work Day and Earth Day, for example
- Setting up green purchasing policies and evaluating the company's purchases to identify more sustainable alternatives
- Providing training on proper sorting of items for landfill, recycling, and compost

Utilization and Enhancement of Resources

- Resource efficiency is **essential** for sustained economic growth.
- Sustainable utilization of natural resources is the proper management of natural resources for the benefit of the entire human community.
- The main aim of sustainable development is to provide resources for present generations **without compromising the needs of future generations**. In short, raw material extraction and processing always impact on the environment, resulting as they do in soil degradation, water shortages, biodiversity loss, damage to ecosystem functions and global warming exacerbation.



Utilization and Enhancement of Resources

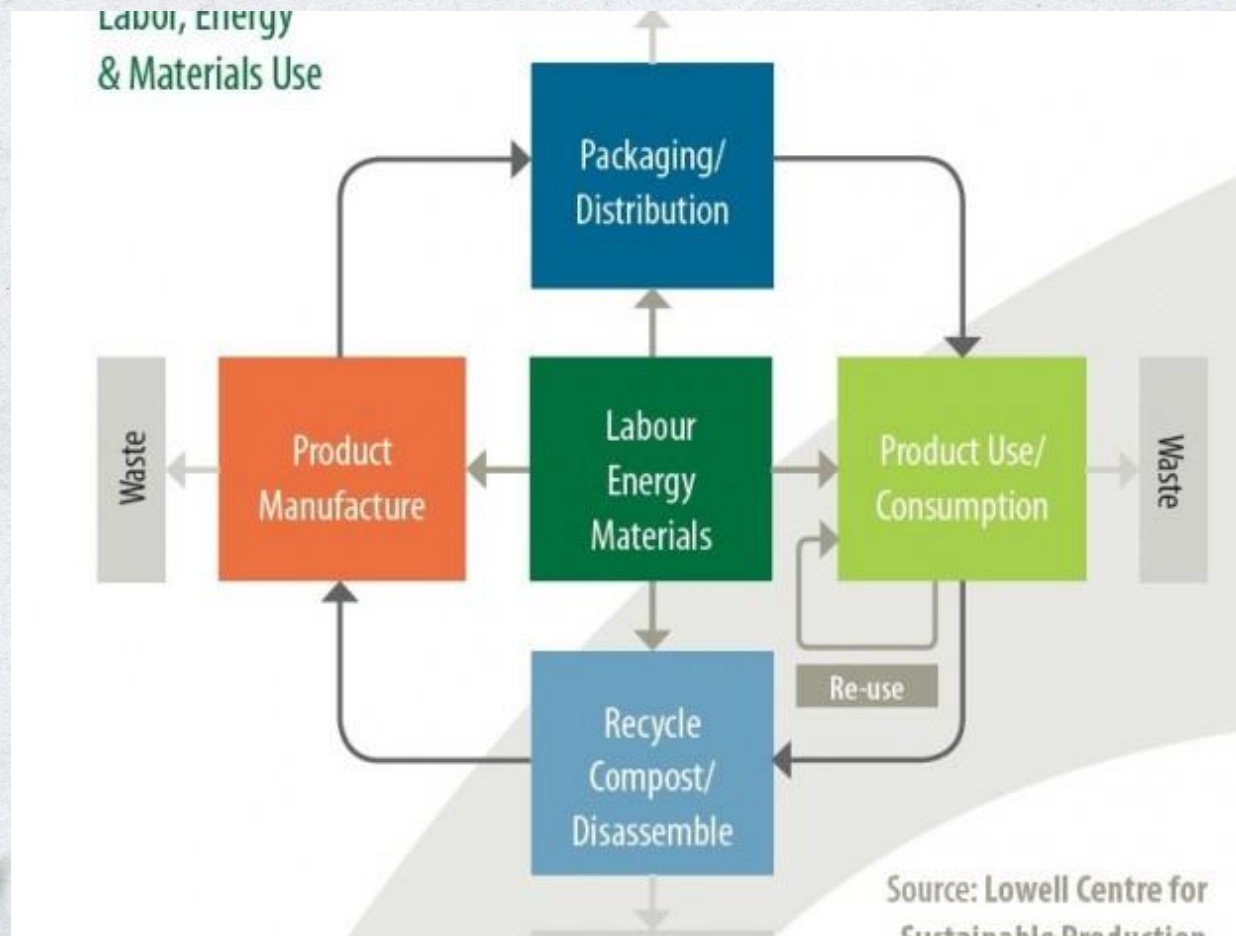
- Resource utilization is **the measure of how much of your available resources you are currently using**. It can help you to plan how to utilize your resources more effectively to ensure that your organization is being as productive as possible.
- Effective utilization of resources can be helpful for both employees and employers as it ensures that **specific resources are not being over- or under-utilized** striving for balance between these dimensions: maintaining the long-term use of resources while maximizing social benefits and minimizing environmental impacts.
- Conserving resources and reducing pollution are key to operating more sustainably and minimizing your environmental impact as a business. You'll need to evaluate your operations across a range of areas, from energy efficiency to cleaning chemicals.



Utilization and Enhancement of Resources

- Resource efficiency is one of the **main drivers of companies' competitiveness** since, reportedly, European manufacturing firms spend, on average, 40% of their costs on raw materials, with energy and water pushing this to **50% of the total manufacturing costs**.
- Improving the resource efficiency of SMEs offers enormous potential for **reducing production cost and increasing productivity** while, at the same time, making a significant contribution to addressing environmental challenges.
- So-called **circular economy** enhances resource and cost savings by maximising the time that resources, products and components are used.

Utilization and Enhancement of Resources



Labor, Energy and Materials
Use

Utilization and Enhancement of Resources

Main principles of resource efficient circular economy:

- More sustainable management of natural resources or creating higher value with less materials
- Involving companies and consumers in the process of becoming more environmentally friendly
- Implementation of the “polluter pays” principle
- Gradual elimination of subsidies that are harmful to the environment
- Green and innovative public procurement
- Eco-design and eco-innovation

Utilization and Enhancement of Resources

Examples of changes regarding utilization and enhancement of resources:

1. Energy efficient lighting
2. Reducing the waste
3. Usage of recycled paper products
4. Water conservation
5. Strategy development

Utilization and Enhancement of Resources

Energy efficient lighting

As mentioned above, **replace the lighting** can be one of the easiest changes that can be implemented. This change can save energy and money to the company.

The classic screw-in light bulbs can be replaced easily and quickly by two different types of lights. These are:

- *Incandescent*: traditional light bulbs (inefficient and need to be replaced)
- *CFLs*: more efficient, commonly used, contain small amounts of mercury that harm the environment and the people)
- *LEDs*: Efficient, do not contain mercury, diversity of shapes and sizes)



Incandescent



CFLs (compact
fluorescent lights)



LEDs (light
emitting diodes)

Utilization and Enhancement of Resources

Waste Management

Reduce, Reuse, Recycle.

1. Conduct a waste audit.
Check the everyday waste and the materials → what is the waste based on specific products → evaluation to ensure they include minimum amount of waste in terms of packaging
2. Identify the products that can be reused.
Replace all disposable items with reusable ones (paper/plastic plates and utensils used in the kitchen).
3. Identify the materials that can be recycled (paper, plastic, glass and even food waste)
Provide employees with fitting bins and signs to recycle each type of material.

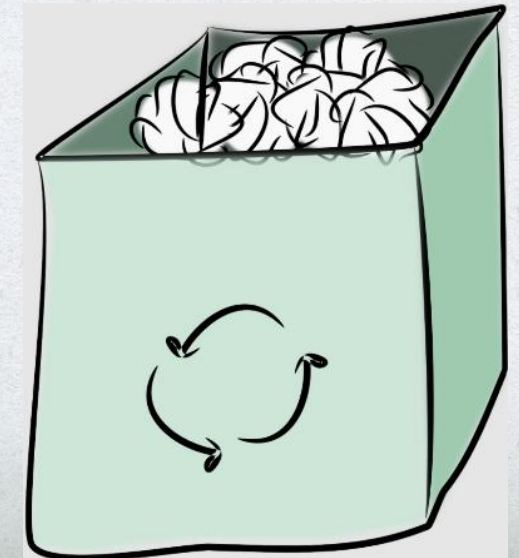


Utilization and Enhancement of Resources

Usage of recycled paper products

Four types of recycled paper that can be used:

- Recycled: When paper is recycled and turned back into paper again.
- Post-consumer waste: Paper that was used by the consumers and then disposed in recycled bins.
- Recyclable: The paper can be recycled
- Processed chlorine-free/unbleached: Bleach was not used to make the paper take its white color (not pure white). Bleach is harmful for the environment when tossed and certain recycling companies adopt a policy of chlorine-free recycled paper.



Mythbuster: Many companies avoid using recycled papers thinking it blocks printers. This is untrue.

Utilization and Enhancement of Resources

Water conservation

While considering water conservation, toilets are the primary source of water usage of an office building. For older buildings and facilities, toilets use higher amount of water up to 13 liters of water per flush. During the recent years this amount of water has been reduced to 6 liters per flush, which is equivalent of less than half that it used to be.



Utilization and Enhancement of Resources

Strategy Development

Address greenhouse gas emissions and the actions taking place to manage these emissions (identify and monitor). Setting reduction targets and implementation of changes. In order to establish such strategy the organization should:

- Get advised in terms of global warming.
- Commit to the sustainable practices
- Calculate the carbon footprint
- Develop the reduction strategy
- Share results and practices: the environment is a matter of all regions and communities. Sharing the knowledge help to develop further the tools to fight climate change.

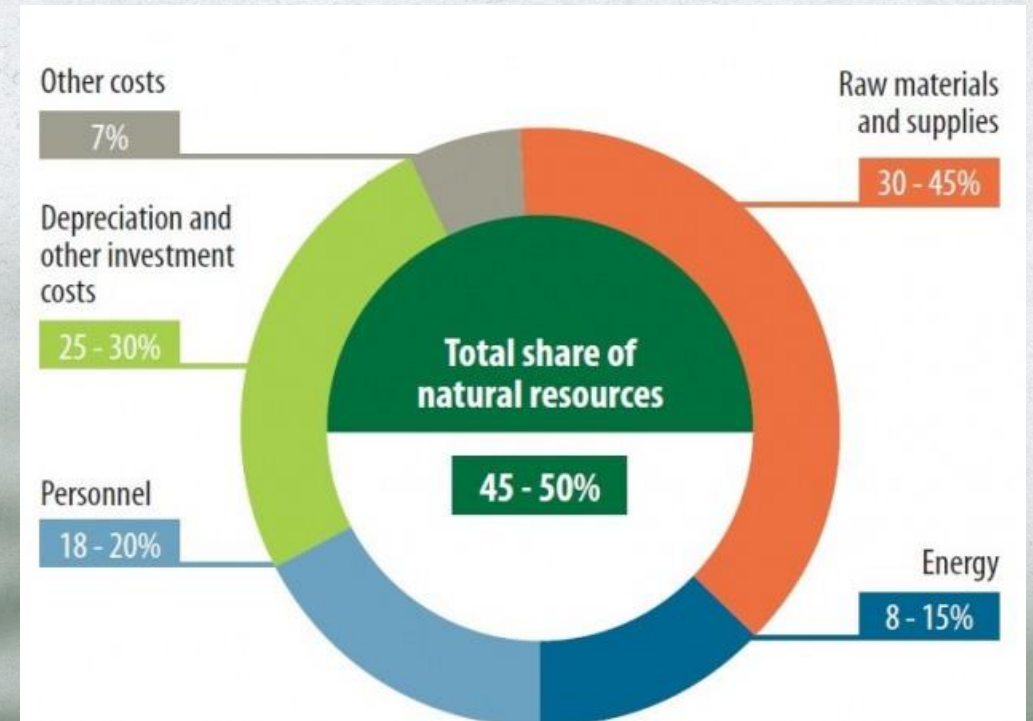




Utilization and Enhancement of Resources

Europe is using an increasing amount of materials. The average annual use of material resources among the EU-27 is **16 tons per person**.

Demand for materials has long exceeded Europe's ability to independently generate what it needs. **The continent imports over six times more resources than it exports**, and its economy is now threatened by approaching shortages in primary materials.



Utilization and Enhancement of Resources

Using natural resources more efficiently has clear economic benefits for companies:

- ✓ It improves productivity, reduces costs and enhances competitiveness, creating employment opportunities.
- ✓ It also provides a more attractive and healthier living environment for regions and municipalities. For example, an overall savings potential of €639 bn per year in manufacturing can be translated into substantial gains in each manufacturing company.
- ✓ European manufacturing firms spend on average 40% of their costs on raw materials, with energy and water pushing this to 50% of total manufacturing costs. This compares to a share of only 20% for labor costs.



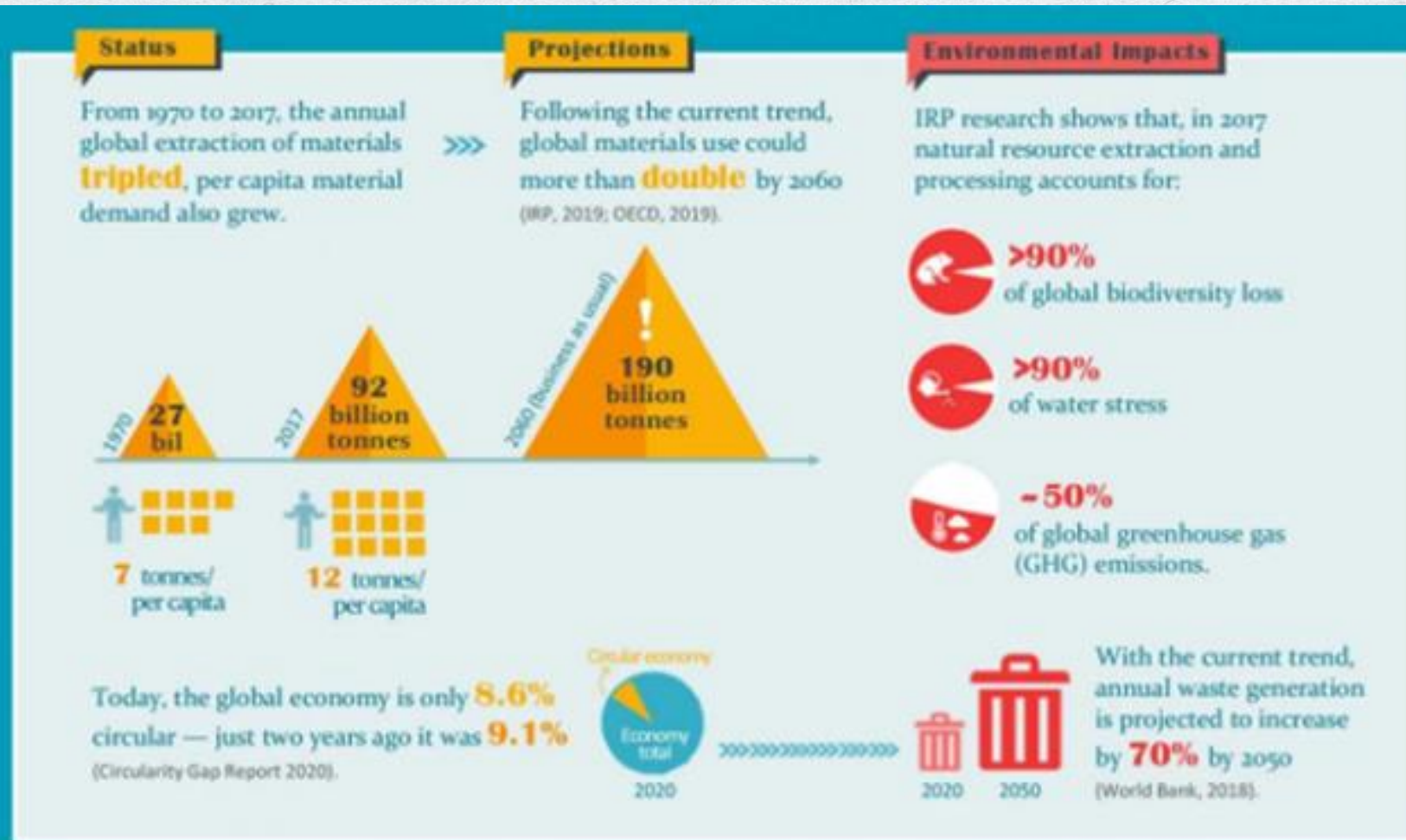
Utilization and Enhancement of Resources

Using natural resources more efficiently has clear economic benefits for companies:

- ✓ Resource efficiency can unlock large potential for innovation and growth, encouraging the emergence of new technologies and driving job creation. This relates to the optimization of value generation across the full life-cycle, design of eco-efficient products and recycling and reuse of waste streams.

Resource-efficiency products and processes therefore positively impact the profitability of any company.

Utilization and Enhancement of Resources



Source: UNEP and IRP (2020). Sustainable Trade in Resources: Global Material Flows, Circularity and Trade. United Nations Environment Program

Utilization and Enhancement of Resources

Solutions: Decoupling, Resource Efficiency, and Circular Economy

Decoupling natural resource use and environmental impacts from economic activity and human well-being is essential to aid the transition to a sustainable future.

Research from UNEP's IRP indicates that investments in resource efficiency represent one of the least-costly approaches to help meeting the **Sustainable Development Goals** and the **Paris Climate Agreement**.

By 2060, **resource efficiency** and sustainable consumption and production measures could globally:



By 2050, adopting **circular economy** methods for 4 key industrial materials (cement, steel, plastic and aluminium) could globally:



Reduce 40% GHG emissions. If include food systems, a total of **49%** GHG emissions can be reduced.

Overall such reductions could bring emissions from these areas **45%** closer to their net-zero emission targets (Ellen MacArthur, 2019).



Biomass Fossil fuels Metals Minerals

Global Materials Use Key Facts



Source: UNEP and IRP (2020). Sustainable Trade in Resources: Global Material Flows, Circularity and Trade. United Nations Environment Program



BALANCE
green and stable

THANK YOU



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