



SEN4CE Course Overview (EN)

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SEN4CE
Seniors for Circular Economy

1. Introduction SEN4CE

1.1 Welcome Page

Welcome to SEN4CE

Empowering Seniors in Circular Economy

An Erasmus+ Funded Project for Lifelong Learning & Sustainable Societies

We're on a mission to empower seniors (60+) with digital education on Circular Economy. Be part of the green transition, connect with younger generations, and extend your lifelong learning journey. Ideal for seniors and caretakers alike.



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SEN4CE

Seniors for Circular Economy

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1.2 Project partners

Meet our Project Partners

Empowering Seniors Through Collective Expertise

Our project is enriched by a diverse set of partners.

<p>Bit-Management Beratung (AT) (Project Lead)</p> 	<p>Asociación Empresarial de Investigación Centro Tecnológico del Mueble y la Madera de la Región de Murcia (ES)</p> 
<p>E-Seniors Association (FR)</p> 	<p>Future Balloons (PT)</p> 
<p>Johanniter-Unfall-Hilfe (DE)</p> 	<p>Here you can visit our SEN4CE website: https://sen4ce.eu/partners/</p>



1.3 Introduction to the SEN4CE course

Dear Senior Learner,

Welcome to our e-learning course on Circular Economy and digital tools!

This course is designed to provide you with a comprehensive understanding of the Circular Economy and how digital tools can help us achieve its goals.

Our accessible course is designed for all levels, even beginners. Choose your starting module on the next page.



Press this button to...

1.4 Overview of the SEN4CE Modules

Course Structure of SEN4CE

Glossary


Circular Economy for seniors and life-long learning

Digital Circular Economy tools for seniors

Circular Economy for caretaker in care and retirement sector



1.5 Module 1 Overview



Course Structure of Module 1

- Introduction to Circular Economy
- Responsible Consumption
- Product Lifetime
- Responsible Use of Resources

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1.6 Glossary

Glossary

As you journey through the SEN4CE course on Circular Economy, you may come across terms or concepts that are unfamiliar. To support your learning and ensure a clear understanding, we've created a comprehensive glossary tailored just for you.

Access the Glossary: The glossary is readily available on our website for your convenience. Simply click on the link provided below: [\[Link\]](#)

How to Use:

- Keep the glossary open alongside the course for quick references.
- Prefer a physical copy? Feel free to print the glossary to have it at hand.

Remember, the goal is to make your learning experience as smooth and informative as possible. Happy learning!

[Back to Module Overview](#)



2. Introduction to Circular Economy

2.1 Introduction to the Circular Economy

Introduction to the Circular Economy

Lesson One: What is a Circular Economy?

Lesson Two: Why do we need a Circular Economy?

Lesson Three: Can I actively contribute to the Circular Economy?


Lesson Four: Seniors 60+ in the context of a Circular Economy

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2.1.1 What is the “Linear Economy”?

What is the “Linear Economy”?

In nature, materials flow: one species' waste is another one's food, and when animals or plants die, nutrients return safely to the soil, allowing nature to prosper. This is a circular approach. Yet, as humans, we have adopted a linear approach, that we call the linear economy.



In the **Linear Economy**, we eventually discard all products as waste, following the “**take-make-consume-throw away**” model



2.1.2 Characteristics of the “Linear Economy”

Characteristics of the “Linear Economy”

- ✓ We **take** raw materials and resources from the earth;
- ✓ We **make** products, using these resources;
- ✓ The products are sold to individuals who **consume** them;
- ✓ Once individuals no longer need the product, they **throw it away**.



2.1.3 What is the “Circular Economy”?

What is the “Circular Economy”?

Conversely, the Circular Economy is a model of production and consumption intended to extend the lifecycle of products in order to reduce waste to a minimum.



Find out about the 3 Principles
of a Circular Economy



3 Principles (Slide Layer)

What is the “Circular Economy”?

3 main principles of a Circular Economy


1. To **eliminate waste and pollution**: allow materials to re-enter the economy at the end of their use.
2. To **circulate products and materials** at their highest value: to keep materials in use either as full products or raw materials.
3. To **regenerate nature**: allow nature to rebuild soils and increase biodiversity.

Close

2.1.4 The Circular Economy Model

The Circular Economy Model

The circular economy model:
less raw material, less waste, fewer emissions


Click here to watch a video
on Circular Economy!

Source:
[European Commission](#)

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EMF Video (Slide Layer)

“Explaining the Circular Economy and How Society Can Re-think Progress” - A Video by the [Ellen MacArthur Foundation](#)

Web Object

Address:
<https://www.youtube.com/embed/zCRKvDyyHml>

Close

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2.2.1 Why do we need a Circular Economy? (1)

Why do we need a Circular Economy?

To tackle climate change: the Circular Economy is a powerful tool to lower greenhouse gas emissions, responsible for global warming.

In fact, according to the European Environment Agency, industrial processes and product use are responsible for 9.10% of greenhouse gas emissions in the EU, while the management of waste accounts for 3.32%.

Source: <https://www.europarl.europa.eu/news/en/headlines/society/20180301STO98928/greenhouse-gas-emissions-by-country-and-sector-infographic>

Pollutant	Percentage
Carbon dioxide (CO ₂)	80%
Methane (CH ₄)	11%
Nitrous oxide (N ₂ O)	6%
Hydrofluorocarbons (HFCs)	2%
Perfluorocarbons (PFCs), unspecified mix of PFCs and HFCs, sulphur hexafluoride (SF ₆) and nitrogen trifluoride (NF ₃)	<0.2%

* Total greenhouse gas emissions excluding land use, land-use change and forestry (LULUCF)

Source: European Environment Agency (EEA)



2.2.2 Why do we need a Circular Economy? (2)

Why do we need a Circular Economy?



To minimise **environmental harm and biodiversity loss**: reusing and recycling products would slow down the use of natural resources and reduce landscape and habitat disruption.

2.2.3 Why do we need a Circular Economy? (3)

To provide for our **growing population's needs**: the world population is growing and earth resources are finite. The Circular Economy is necessary to **provide for everyone's needs**.



To increase **competitiveness, stimulate innovation, boost economic growth** and **create jobs!**

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2.3.1 Can I contribute to a Circular Economy? (1)

Can I contribute to a Circular Economy?

Implementing a Circular Economy means that our **entire current system needs to be rethought** and readapted to limit our resource use and reduce our waste.

Thus, governments and businesses have a big role to play: it is through legislation and a change in the way **we produce and consume** that our system can change.



2.3.2 Can I contribute to a Circular Economy? (2)



Individuals also have an important role to play. It is necessary to re-frame the systems of thought that currently dominate society in order to conduct transition towards a healthier and more sustainable mode of consumption. And this starts with the awareness of citizens, like you, and the daily actions that you can put in place in this direction.



2.3.3 Can I contribute to a Circular Economy? (3)



The responsibility of constructing a Circular Economy rests upon each person. In a Linear Economy, items are created to be used and discarded, encouraging the purchase of new items.

As a result, **consumer decisions** can have an influence on producer decisions and the **entire market**. Whether it's opting for products designed to **minimize waste or extending the lifespan** of items to enhance their value, every decision you make contributes to a more sustainable future.

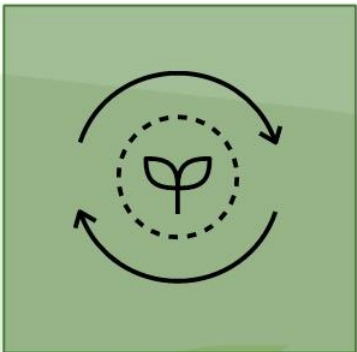
2.3.4 Building a Circular Economy

Building a Circular Economy: The Power of Individual Actions

Double-click on the fields below to find out what you can do for a Circular Economy!

To **reset** the Flipcards click here:

Reset



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Building a Circular Economy (Slide Layer)

Building a Circular Economy: The Power of Individual Actions

Double-click on the fields below to find out what you can do for a Circular Economy!

To **reset** the Flipcards click here:

Reset

Eliminating waste and pollution by buying second-hand, maintaining, sharing, reusing, repairing, refurbishing, remanufacturing, and as a last resort, recycling products as much as possible

Circulating products and materials by maintaining and reusing them as long as possible within your communities or finding organizations which propose leasing or sharing services

Regenerating nature by prioritizing buying from companies and brands which practice agro-ecology, conservation agriculture, and agro-forestry for instance

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2.4.1 Seniors in the context of a Circular Economy

Seniors in the context of a Circular Economy



Just like every citizen, seniors can make a difference and actively contribute to making the economy circular for the present and future generations. **Seniors have more life experience, and might have already applied Circular Economy practices in their lives**, maybe even without noticing that they were making a positive environmental contribution.



2.4.2 You can make a difference!

You can make a difference!

By making these contributions, **you can actively participate in the Circular Economy** which is a great way to promote good practices, and learn about new ones we might have forgotten or never heard about!

Join us in this curriculum to embark on your empowering **journey** towards a **Circular Economy future**.



2.4.3 References - Introduction to Circular Economy

References

- Circular Economy Introduction
Available on: <https://ellenmacarthurfoundation.org/topics/circular-economy-introduction/overview>
- European Commission: Circular Economy: Definition, Importance and Benefits (2023)
Available on: <https://www.europarl.europa.eu/news/en/headlines/economy/20151201STO05603/circular-economy-definition-importance-and-benefits>
- European Environmental Agency (2019)
Available on: <https://www.europarl.europa.eu/news/en/headlines/society/20180301STO98928/greenhouse-gas-emissions-by-country-and-sector-infographic>

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3. Responsible Consumption

3.1 Responsible consumption (RC) - Menu

Responsible Consumption

Embark on an enlightening journey through this module, crafted to introduce you to the concept of Responsible consumption. Let this module serve as your stepping stone to a robust understanding of Responsible Consumption, and inspire you to explore this important subject further.

Responsible Consumption - Introduction

Scenario 1: Responsible Consumption (Beginner)

Scenario 2: Responsible Consumption (Intermediate)

[Back to main menu](#)

3.1.1 RC Introduction

Responsible Consumption - Introduction

Welcome to this unit on responsible consumption! Here, you will learn about different practices you can apply in your daily life to consume more responsibly, and understand their benefits, both for the environment and yourself.



"Responsible consumption means that buyers, whether involved in the economy as a private or public entity, or as citizen consumers must make their choice taking into account environmental impacts at all stages of the product life cycle (for both goods and services)" - ADEME (French Agency for the Ecological Transition).



3.1.2 RC Introduction

Responsible Consumption - Introduction

To be a responsible consumer, you can for instance:

- Look at where the products are made when you buy them
- Buy locally and sustainably
- Consume less!

To be a responsible consumer, consider practices such as checking the origin of products, supporting local and sustainable options, and simply consuming less. Intrigued by what "buying sustainably" means? Don't worry, we'll delve into this vital concept and more in the upcoming module, offering you the tools to make impactful choices in your everyday life.



3.1.3 RC - Overview Level

Responsible Consumption levels

Beginner

Intermediate

[Back to Responsible Consumption menu](#)



Responsible Consumption – Beginner level

3.2 Avoiding Waste (1)

Avoiding waste - Learn to consume less and better!

Why should we avoid waste?

Most of the waste created by our consumption **ends up in landfills or incinerators** and is **lost**. This is a huge loss of raw material, which we are taking from Earth and not giving back. However, **resources on our planet are finite**, so we cannot go on like that forever!

Waste can also affect our ecosystems: poor management of **waste severely affects ecosystems and our health**, by increasing the risk of animals injuring or killing themselves by interacting with some of our waste, both in the oceans and on land.

Therefore, it is essential that we try to **reduce our waste**. So, here are some tips to help you limit your waste production!

3.2.1 Avoiding Waste (2)

Avoiding waste - Learn to consume less and better!

Earth Overshoot Day is an illustrative example of how our current consumption patterns make the planet run on deficit every year, liquidating stocks of resources and accumulating waste, primarily carbon dioxide in the atmosphere. Earth Overshoot Day is the date when humanity's demand for ecological resources and services in a given year exceeds what Earth can regenerate in that year.




"This year's Earth Overshoot Day fell on August 2" (2023) find more information on <https://www.overshootday.org/>



3.2.2 Food Consumption

Food consumption

Double-click on the fields below to find out what you can do for a Circular Economy!
To **reset** the Flipcards click here: [Reset](#)

Food Consumption (Slide Layer)

Food consumption

Double-click on the fields below to find out what you can do for a Circular Economy!
To **reset** the Flipcards click here: [Reset](#)

Prepare a meal plan for the week and make a shopping list based on it. This way, you can make sure you have just the right amount of food and none will go to waste!

Purchase in bulk rather than buying your products by the unit in plastic packages. Many shops now offer this opportunity: you can invest in fabric bags to collect food items in shops and jars to store them at home.

More and more initiatives have come to life allowing stores to sell boxes of food items that are about to perish or be thrown away at a much lower price. This is a very effective and cost-saving way to avoid food waste!



3.2.3 Cloth Consumption

Cloth consumption

Double-click on the fields below to find out what you can do for a Circular Economy!

To **reset** the Flipcards click here: [Reset](#)









Cloth Consumption (Slide Layer)

Cloth consumption

Double-click on the fields below to find out what you can do for a Circular Economy!

To **reset** the Flipcards click here: [Reset](#)

Of course, the first thing you can do to reduce your clothes consumption is to buy them only when you need them. This will also allow you to save money!

Buy second hand! To do this, you can browse thrift stores, or find out about local or national clothing resale initiatives. There are more and more of them! By doing this, you keep clothes out of landfills for longer.

Prioritize clothes made from natural materials such as hemp, linen, cotton, silk, wool, leather, and cellulose fibers, which are generally preferable over synthetics like polyester, or nylon. Natural fibers are biodegradable and can compost cleanly back into the soil, unlike synthetic fibers!

Buy clothes which are long-lasting! They might be more expensive, but you won't have to replace them as often, which might save you money in the long run.



3.2.4 Household Appliances

Household appliances

Double-click on the fields below to find out what you can do for a Circular Economy!
To **reset** the Flipcards click here: [Reset](#)





Household Appliances (Slide Layer)

Household appliances

Double-click on the fields below to find out what you can do for a Circular Economy!
To **reset** the Flipcards click here: [Reset](#)

Only buy necessary household appliances. For instance, don't invest in a tumble dryer if you have the space in your home to hang your laundry to dry.

Buy second hand! The market for secondhand and refurbished products is growing. This is a good way to save money while saving appliances from the waste disposal center!

Buy resource efficient appliances. They might be more expensive, but in the long run, they will significantly reduce both your energy spending and greenhouse gas emissions!



3.2.5 All about Labels

All about labels – Shopping more responsibly

Looking at **labels** is **essential for choosing the right products** when shopping. This is because they can **provide valuable information**, for example on the **origin** of the product or its **sustainability**, which is key to implementing Circular Economy practices. First, let's have a look at **eco-labels**.

What are eco-labels?

Eco-labels are symbols found on products which **ensure minimum environmental and health standards**. They are meant to communicate when a product has been manufactured in a way that is **considered sustainable from an environmental, economic, and social standpoint**. Thus, eco-labels take into account the **whole product's lifecycle**, from the **material extraction to the manufacturing and transportation**.

3.2.6 Organic Labels

How are eco-labels different from organic labels or pictograms?

Organic labels

Organic labels apply to **products that are "biological"**, meaning that they have been organically grown. It is **different** from a product labeled **"ecological"**, which means that its **design, conception, wrapping, distribution and recycling** are thought in a way that **minimizes the environmental impact**.

Therefore, **products can be biological without being ecological**, and vice versa. Take an organic potato, for example: it might have been grown organically, without using pesticide, but if it grew in a far away country and is wrapped in plastic packaging, it will not be considered ecological.

Ideally, it is great if you have the possibility to choose an **eco-label that has both biological and ecological standards!**



3.2.7 Difference in Labels

How are eco-labels different from organic labels or pictograms?

Beware of pictograms! They can convey a false image of the sustainability of a product. If not accompanied by an official label, pictograms are little to not at all controlled and therefore anyone can use them. Moreover, their exact meaning is often difficult to determine. Here are a few examples:

Reset



3.2.7 Difference in Labels

How are eco-labels different from organic labels or pictograms?

Beware of pictograms! They can convey a false image of the sustainability of a product. If not accompanied by an official label, pictograms are little to not at all controlled and therefore anyone can use them. Moreover, their exact meaning is often difficult to determine. Here are a few examples:

Reset

The Möbius strip generally means that the product or the packaging that carries it is recyclable, not that the product or packaging has been made from recycled material! This is a technical characteristic of the materials and does not presuppose that the product will be recycled after use. However, effective recycling depends on many other factors, such as the existence of a separate collection system, a recycling channel, industrial outlets, etc.

The "Tidy Man" logos, like this one, are simply intended to invite the consumer to respect the environment in his daily actions. This is the case of the "Tidy man", a simple invitation to throw away the product packaging in a trash can: it has no relation with the ecological characteristics of the product that bears it.



3.2.8 Trust Eco-Labels (1)

How do I know that I can trust an eco-label?

To ensure that an **eco-label is reliable**, two aspects are important:

- It complies to a **certain standard**, a **set of rules** that state which **environmental criteria the product respects** to deserve this label. It is the **compliance with these rules** that allows a brand to have eco-labeled products.
- It has a **certification!** A good eco-label must **guarantee that the product has gone through control** and inspection from an **independent body**. The label must **not be self administered** by the brand which sells it.

3.2.9 Trust Eco-Labels (2)

How do I know that I can trust an eco-label?

When you go shopping and come across a product that has a seemingly eco-label on it, **the following questions are important:**

- Has the label been **inspected by an external independent control body**?
- Are there **clear specifications and strict criteria** to protect the environment?
- Does the label **cover the whole life-cycle of the product**, from design to waste?

Usually, this information can be **found online, on the label's website**. Do not hesitate to take your smartphone out when shopping, or to do a quick Internet search when you get home to check this information!



3.2.10 Examples of Eco Labels

Examples of some Eco and Organic Labels

In Europe, there is **only one official EU voluntary label** for environmental excellence: the EU eco-label. It guarantees that **goods and services meet high environmental standards** throughout their **entire lifecycle**, and it encourages companies to **develop innovative products that are durable, easy to repair and recyclable!**



1 2 3 4 5 6

Austrian Labels (Slide Layer)

Austrian Labels

Austrian eco label for products: provides information on the environmental impact of consumer goods during production, usage and disposal.



1

klimaaktiv: rating system for the sustainability of buildings, with a special focus on energy efficiency, climate protection and resource efficiency.



Bio Austria: stands for compliance with the requirements of the EU Organic Regulation and more on animal welfare, environmental, climate and biodiversity protection.



2 3 4 5 6




French Labels (Slide Layer)


1 2

French Labels

NF environment: issued by AFNOR Certification, this label certifies the conformity of various products or services to certain specific requirements of quality of use and ecological quality.



Label français agriculture biologique: created by the Ministry of Agriculture. It certifies that a product contains at least 95% of certified organic agricultural ingredients.



3 4 5 6

German Labels (Slide Layer)

1 2 3

German Labels

Blauer Engel: eco label of the German Federal Government, it is an independent and credible label that sets stringent standards for environmentally friendly products and services.



The Green Button (Grüner Knopf): a government seal for sustainable textiles. What makes it special: It is the first seal that systematically checks whether companies take responsibility for respecting human rights and environmental standards in their supply chains.



4 5 6



Portuguese Labels (Slide Layer)

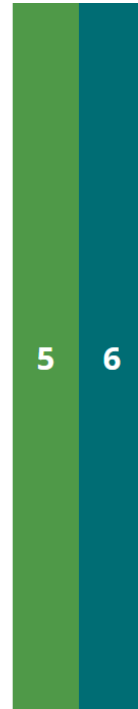


Portuguese Labels

The **Green Point Symbol** indicates that the product's packaging is recyclable and part of a national sustainability cycle. Manufacturers with this symbol are clients of Sociedade Ponto Verde and contribute financially to ongoing recycling efforts.



Biological agriculture: The Organic Production Mode uses techniques and products compatible with economically viable agriculture and the obtaining of quality products.



Spanish Labels (Slide Layer)



Spanish Labels

Certificación Residuo Cero y Desperdicio alimentario cero: recognizes organizations that valorize the different fractions of waste they generate, within the defined scope, preventing them from being disposed of in landfills.

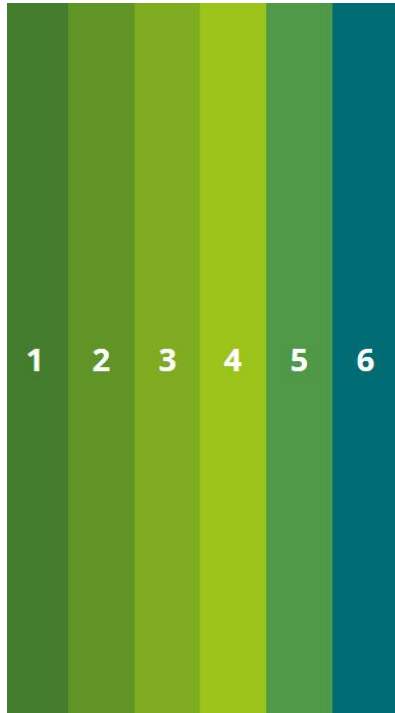


Environmental labels for cars:





Conclusion (Slide Layer)



Conclusion

In conclusion, the existing eco-label and organic labels in the EU are vital for promoting sustainable consumption. Eco-labels guide consumers toward eco-friendly products, encouraging businesses to reduce their environmental impact. Meanwhile, organic labels supports organic farming, enhancing biodiversity and animal welfare. Both types of labels drive demand for responsible products, fostering a greener and more ethical future.



3.2.11 Think Global, Act Local! (1)

Think global, act local!

Buying locally supports both community growth and sustainability, making it a key step toward a Circular Economy.

How does it work?

- By **reducing the distance** between the **production site and your plate**, you **reduce the amount of transports** needed for your product to reach its destination, therefore **reducing greenhouse gas emissions** and contributing to improving our carbon footprint.
- A lot of packaging is needed for transportation and distribution. **Buying locally means less packaging**, and less waste!
- It facilitates **tracking the supply chain** back to the point of origin to evaluate ecological practices. It's easier to obtain information on how **items are produced in your town, region or country** than when it is scattered around the world.



3.2.12 Think Global, Act Local! (2)

Think global, act local!

Here are some examples of habits you can put in place to consume more locally:

- Get familiar with the **fruits and vegetables** that are **grown in your region** and **products that are produced locally**, as well as at **what time of the year** they are available.
- **Visit a farmer's market!** They are a great place to find local produce and artisan crafts from local businesses. **Community gardens and food cooperatives** are also great initiatives to look into to buy fresh local products.
- Search for **local products at grocery stores**: when going shopping, check out labels and make sure the products come from your country or region! The closer to you, the better, as this means **less transports**.

Be cautious: the type of product can matter more than its origin. For instance, local meat may have a higher carbon footprint than imported plant-based goods.

3.2.13 RC: Beginner Sources (1)

Sources for Responsible Consumption (1)

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- Moore, T. et Lockrey, S. (2018) Sustainable shopping : how to stay green when buying white goods. Available on: <https://theconversation.com/sustainable-shopping-how-to-stay-green-when-buying-white-goods-89454>.
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- Earth Overshoot Day. Available on: <https://www.overshootday.org/>.
- Amélie (2021). Eco labels : find one's way into this greenwashing jungle. Available on: <https://ecogarantie.eu/eco-labels-find-ones-way-into-this-greenwashing-jungle/>



3.2.14 RC: Beginner Sources (2)

Sources for Responsible Consumption (2)

- EU Ecolabel (2022). Available on: https://environment.ec.europa.eu/topics/circular-economy/eu-ecolabel-home_en
- Thompson, A. (no date) The Environmental Benefits of Buying Locally. Available on: <http://www.gogreen.org/blog/the-environmental-benefits-of-buying-locally>
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- Willis, J. (2020) 5 Ways to Buy Local and Save. Available on: <https://money.howstuffworks.com/personal-finance/budgeting/5-ways-to-buy-local-and-save.htm>
- Ho, S. (2022) Is Buying Local Always The Most Sustainable Option ? Available on: <https://www.greenqueen.com.hk/buying-local-most-sustainable/>

[Continue with Intermediate course](#)

[Back to Responsible Consumption menu](#)



Responsible Consumption – Intermediate level

3.3 Greenwashing (1)

How to avoid being tricked by greenwashing

What is greenwashing?

“Behaviour or activities that make people believe that a company is doing more to protect the environment than it really is” - The Cambridge Dictionary

Essentially, it is when a **company conveys a false impression or misleading information about how their products are eco-friendly or sustainable**. It is meant to gain favors with consumers who are willing to support businesses acting in favor of protecting our planet. It is a great **way to attract customers**, and since green products usually have a higher value, it **allows companies to sell them at higher prices on the market**.



3.3.1 Greenwashing (2)

Examples of Greenwashing techniques

- A curtain is labeled **“50% more recycled content than before.”** In fact, the manufacturer **increased the recycled content to 3% from 2%**. Although technically true, the message conveys the false impression that the curtain contains a significant amount of recycled fiber.
- A **plastic package** containing towels is labeled **“recyclable.”** It is **not clear whether the package or the towels are recyclable**. In either case, the label is deceptive if **any part of the package or its contents**, other than minor components, cannot be recycled.
- A **trash bag** is labeled **“recyclable.”** Trash bags are **not ordinarily separated from other trash** at the landfill or incinerator, so they are **highly unlikely to be used again for any purpose**. The claim is deceptive because it asserts an environmental benefit where **no meaningful benefit exists**.



3.3.2 Greenwashing (3)

Greenwashing techniques

How can you spot greenwashing and avoid it?

- **Beware of vague labeling:** usually, truly eco-friendly products and brands will **advertise it with very specific information on why their product is green**. On the other hand, brands using greenwashing will use very vague terms such as **“eco-friendly”, “sustainable”, without giving any details** on why it is considered so.
- Check the **product’s ingredient/material’s list**. The less transformed components there are, the better.
- **Check labels:** some companies create so-called **“eco-friendly” labels that are not approved by any outside authority**. Find out **what official trust-worthy labels exist in your country**.

3.3.3 Planned Obsolescence (1)

All about the planned obsolescence strategy

What is planned obsolescence?

It is a **strategy used by some companies to ensure that the current version of a product will become obsolete**, meaning out of date or useless, **after a certain period of time**.

Why might companies resort to this type of strategy?

We can take the example of the Centennial **light bulb**: located at the Livermore-Pleasanton Fire Department, in California, it has been **burning since 1901 and is the longest-lasting light bulb**. Planned obsolescence is based on this simple principle that if a product, here a lightbulb, is designed **to last a lifetime, manufacturers would have no buyers** and the industry would go bankrupt. Thus, selling **light bulbs with a planned useful lifespan ensures that new light bulbs will always need to be purchased**, maintaining a viable supply-demand trade-off.



3.3.4 Planned Obsolescence (2)

All about planned obsolescence

There are two ways for companies to implement such a strategy:

- Introducing a **new, superior product**, making the **previous one seem useless**;
- Intentionally designing a product to **cease functioning after a certain period of time**.

Planned obsolescence is **frequently used for electronic devices** such as computers or smartphones, which **usually have a lifespan of 2 or 3 years**. It is also **very common for nylon stockings or cars**, for instance.



3.3.5 Planned Obsolescence (3)

All about planned obsolescence

Here are some examples of planned obsolescence:

- **Making goods irreparable**: some electronic **products are designed so that they cannot be repaired** or that some of their parts cannot be replaced. Therefore, if the product is faulty, you have **no other choice than to replace it**.
- **Incompatibility**: technology can advance fast, and sometimes comes a point when we can **no longer update the software of our device**, because it **becomes incompatible**. Some apps and programs, which require the update, therefore **become slow and unstable**.
- **Irreplaceable batteries**: many electronic equipment use batteries that are subject to **wear-and-tear and sometimes can't be directly replaced by the user**. As the **replacement by a technical service can be costly**, it leads many users to simply consider the **purchase of a new device**.



3.3.6 Planned Obsolescence (4)

All about planned obsolescence

So what can you do to fight planned obsolescence?

- Accept that your smartphone or computer might work a little slower, but keep it as long as it functions.
- Try to avoid brands which are known for using planned obsolescence as a strategy. Instead, turn to brands that are more sustainable. For example, the brand Fairphone developed a smartphone which is built from sustainable material and whose parts can be individually replaced very easily, instead of throwing away your phone when it doesn't work!

3.3.7 Zero-Waste (1)

What if we tried going zero-waste?

What is zero-waste?

"Zero waste: The conservation of all resources by means of responsible production, consumption, reuse, and recovery of products, packaging, and materials without burning and with no discharges to land, water, or air that threaten the environment or human health." - The Zero Waste International Alliance (ZWIA)



Disclaimer: Zero-waste is a goal, not an overnight change. It's about reducing waste step-by-step by following the 5 Rs, which we'll detail on the next page as part of the Circular Economy.



3.3.8 Zero-Waste (2)

Zero Waste

Refuse (Slide Layer)

Zero Waste

- REFUSE**

"Refuse" what you don't need: this rule surrounds the concept of minimalism. It doesn't mean you should refuse modern comfort, but that you should try to recognize the superfluous, and refuse it!

- REDUCE**
- REUSE**
- RECYCLE**
- ROT**



Reduce (Slide Layer)

Zero Waste	<input type="checkbox"/> REFUSE
	<input type="checkbox"/> REDUCE
	<p>“Reduce” what you do need: for instance, this can mean shopping with a purpose and focusing only on necessary purchases. The same applies to fashion, or electronic devices for instance!</p>
	<input type="checkbox"/> REUSE
	<input type="checkbox"/> RECYCLE
	<input type="checkbox"/> ROT

Reuse (Slide Layer)

Zero Waste	<input type="checkbox"/> REFUSE
	<input type="checkbox"/> REDUCE
	<input type="checkbox"/> REUSE
	<p>“Reuse” by using reusables: trade disposable items for reusable ones! This could mean investing in a water bottle and reusable cutlery to carry around with you instead of buying disposable ones. You can also buy jars and cloth bags to buy and store products in bulk, instead of buying them wrapped in plastic products. Basically all products exist in a washable format instead of a disposable one, and they come in many different nice designs!</p>
	<input type="checkbox"/> RECYCLE
	<input type="checkbox"/> ROT



Recycle (Slide Layer)

Zero Waste

- REFUSE
- REDUCE
- REUSE
- RECYCLE**
- ROT

“Recycle” what you can’t refuse, reduce or reuse: contrary to what one may think, recycling infrastructures are quite limited. They cannot always keep pace with the huge quantities of recyclable materials thrown away, and therefore some of these materials become landfilled or incinerated. This is why recycling only comes in as a solution in case the first three are not possible.

Rot (Slide Layer)

Zero Waste

- REFUSE
- REDUCE
- REUSE
- RECYCLE
- ROT**

“Rot” the rest: compost your organic waste! Check with your municipality if there is a composting program for organic waste. If not, and if you have access to an outdoor space, you can purchase or build yourself an outdoor garden compost. There are also possibilities for indoor spaces, such as vermicomposting, which turns organic waste into soil thanks to worms. If you are not comfortable with the idea of having worms inside your home, the Bokashi indoor composting system, which relies on bacterial fermentation, is also a good option.



3.3.9 Collaborative Consumption (1)

Let's talk collaborative consumption!

The collaborative economy, also called the sharing economy, peer-to-peer economy or collaborative consumption, has been there for centuries. Knock at your neighbor's door if you need to borrow their lawnmower or give a ride to your colleague on your way home from work.

Such examples are endless, but this offers a new business model to consumers who are now used to ownership and buying.



3.3.10 Collaborative Consumption (2)

Collaborative consumption

The **sharing economy** is based on the **sharing of human and physical resources** such as creation, production, distribution, trade and consumption of goods and services. Thanks to internet platforms as well as information and communication applications, **more individuals can rent, share, swap, barter, trade, or sell access to products or services without any limitations** to our circle of friends, family, or even strangers in our geographic location. These **efforts** can be a great way:

- **To consume less:** no need to buy if you can borrow!
- **To reduce waste:** if 5 families decide to buy and share 1 bicycle pump, it's 4 less bicycle pumps that will end up in the trash can!
- **To create communities** and bring people closer together!





3.3.11 Collaborative Consumption (3)

Collaborative consumption

In practical terms, here are some of the actions can be taken to contribute to the sharing economy:

- Car-pooling & car-sharing
- Lending and borrowing
- Community sharing

Car-pooling & car-sharing (Slide Layer)

Collaborative consumption

In practical terms, here are some of the actions can be taken to contribute to the sharing economy:

- Car-pooling & car-sharing
- Lending and borrowing
- Community sharing

If you are considering buying a car, try and think of other options that you could put into place and which could respond to your commuting needs. For instance, carpooling with a neighbor, friend or colleague. You can also consider car-sharing applications, which allow you to rent a car for a limited period of time, e.g. for a shopping trip or when you need to transport something.



Lending and borrowing (Slide Layer)

Collaborative consumption

In practical terms, here are some of the actions can be taken to contribute to the sharing economy:

- Car-pooling & car-sharing
- Lending and borrowing
- Community sharing

Your neighbour doesn't have a hedge trimmer and needs one from time to time. You have a hedge trimmer, but you would be interested in using your neighbour's luggage rack when going on holidays from time to time. Find an arrangement with your neighbor: you both have objects the other needs but doesn't have. Instead of both buying them brand new, agree on lending and borrowing these items from each other when you need them!

Create a review process (Slide Layer)

Collaborative consumption

In practical terms, here are some of the actions can be taken to contribute to the sharing economy:

- Car-pooling & car-sharing
- Lending and borrowing
- Community sharing

For occasionally-used items such as a lawnmower a mixer, or more specific items such as fluted molds or a waterproofing agent, consider pooling resources with neighbours or family to buy collectively instead of wasting money and precious resources by buying these objects individually.

Chances are, they also need it from time to time but a daily use is not necessary, making it easier for said object to circulate and be shared among involved participants!



3.3.12 RC: Intermediate Sources (1)

Sources for Responsible Consumption (1)

- Cambridge Dictionary (2023). «Greenwashing definition: 1. behaviour or activities that make people believe that a company is doing more to protect the...» Available on: <https://dictionary.cambridge.org/fr/dictionnaire/anglais/greenwashing>.
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- What is planned obsolescence ? Some examples and types (2023). Available on: <https://www.repsol.com/en/energy-and-the-future/technology-and-innovation/planned-obsolescence/index.cshtml>.

3.3.13 RC: Intermediate Sources (2)

Sources for Responsible Consumption (2)

- What Is Zero Waste? A Guide to Resource Recovery and Conservation (2020). Available on: <https://www.zerowaste.com/blog/what-is-zero-waste-a-guide-to-resource-recovery-and-conservation/>
- Martucci, B. (2022) What Is the Sharing Economy – Example Companies, Definition, Pros & Cons. Available on: <https://www.moneycrashers.com/sharing-economy/>.
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3.4 Beginner Scenario Responsible consumption

3.4.1 RC: Scenario - Beginner


Scenario 1 - Beginner: Responsible Consumption

In this scenario, your friend is visiting you for the weekend and you go grocery shopping with him. The scenario takes place first at home and then in the grocery store.

You can choose between correct and incorrect answers. Correct answers lead to further dialogue or feedback, while incorrect answers prompt the user to try again.

Key elements of the scenario include understanding the scenario, applying knowledge, and reflecting on feedback to improve.

Are you ready?



Denis: Hi!!
Thank you for having me!

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3.4.2 RC: Scenario - Beginner



Thank you for having me over this weekend, I'm really happy to be spending some time with you. Did you have any plans in mind?

First of all, we should probably go grocery shopping. The fridge is completely empty! How about that?

Sure, let's get going then!



You



3.4.3 RC: Scenario - Beginner: Question 1

(Pick One, 10 points, 2 attempts permitted)

Before going grocery shopping...

Select one of the diamonds below carefully as there is a right choice, a moderate one, and an incorrect option.



- Yes, let's go!
- Wait a minute, I need to take my cloth bags so we can store our products in them.
- Lets sit down first and make a meal plan for the week. What do you want to eat? Then we can grab my cloth bags and we can get going.

3.4.4 RC: Scenario - Beginner





3.4.5 RC: Scenario - Beginner: Question 2

(Pick One, 10 points, 2 attempts permitted)

Where to get groceries...

Select one of the diamonds below carefully as there is a right choice, a moderate one, and an incorrect option.



- First, we are picking up the surprise basket of unsold food items that I ordered online. Then, we can hit the farmer's market before finishing at the local grocery store right next to it!
- The supermarket! This way, we can get everything in one go.
- I thought we could try the new organic store that's just a few minutes from here.

8.6 3.4.6 RC: Scenario - Beginner



Oooh, it's so cold here. I can't believe Christmas is already over. I can't wait for spring! So, what vegetables should we get?



3.4.7 RC: Scenario - Beginner: Question 3

(Pick One, 10 points, 2 attempts permitted)

1

2

Multiple Choice

1 How about some **eggplants**?

2 Let's get some **broccoli!**

3.4.8 RC: Scenario - Beginner





3.4.9 RC: Scenario - Beginner: Question 4

(Pick One, 10 points, 2 attempts permitted)

1

2

3

Multiple Choice

1 A soap with the **Mobius strip** on it

2 A box of soap in bulk (no plastic wrapping) with the **EU eco label** on it

3 A soap with a sticker that says **“eco-friendly”**


3.4.10 RC: Scenario - Beginner

I really enjoyed taking the time to choose all of our products so carefully. I usually just buy from the brands I know. It is very time consuming though! Isn't it too much trouble? Why exactly do you do all that?



3.4.11 RC: Scenario - Beginner: Question 5

(Pick Many, 10 points, 1 attempt permitted)




Why do you care about responsible consumption?

Select one of the diamonds below carefully as there is a right choice, a moderate one, and an incorrect option.

- To preserve our planet's resources! By putting in all this effort, I'm contributing to reducing the amount of raw material, which we are taking from Earth and not giving back. Since, resources on our planet are finite, it is a necessary step.
- To protect our ecosystems! Waste is sometimes not managed well, and can be discarded or lost in nature. This severely increases the risk of animals injuring or killing themselves, and can throw off nature's balance.
- To reduce greenhouse gas emissions! By buying locally, for instance, I am reducing the amount of transport needed to get products from their place of production to my home.

3.4.12 RC: Scenario - Beginner (Quiz results)

(Results Slide, 0 points, 1 attempt permitted)



QUIZ RESULTS

Your Score: → 0%


RETRY **REVIEW** **CONTINUE**



3.4.13 RC: Scenario - Beginner (SEN4CE Tree)

The SEN4CE Tree

The tree shows you the progress of the course. In the process, you may discover some surprises as well.



Continue on this path! Your conscious consumption habits are nurturing the world, one branch at a time.

Well done! Your commitment to responsible consumption has helped plant the seed for change!

Congratulations! This tree stands tall, mirroring your dedication to consuming responsibly. You've mastered this! Continue with scenario 2 to claim your reward!

You're truly making a difference! Your tree symbolizes the positive change that mindful consumption can bring.

Each choice you make can leave a lasting impact! See how the tree flourishes with your conscious decisions.

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3.5 Intermediate Scenario Responsible consumption

3.5.1 RC: Scenario - Intermediate


Scenario 2 - Intermediate: Responsible Consumption

In this scenario, your neighbour comes to you with an issue with the battery of her phone, you end up interacting on your practices. The scenario takes place first at your home and then at the store.

You can choose between correct and incorrect answers. Correct answers lead to further dialogue or feedback, while incorrect answers prompt the user to try again.

Key elements of the scenario include understanding the scenario, applying knowledge, and reflecting on feedback to improve.

Are you ready?



Helena: Hi!!
Thank you for helping me out!

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3.5.2 RC: Scenario - Intermediate



"Hello neighbour! How are you doing? I'm sorry to bother you. I've been having issues with my smartphone lately. The battery is dying quite fast, although I've only had it for two years, and I don't know how to change the battery. Do you have any advice?"




3.5.3 RC: Scenario - Intermediate: Question 1

(Pick One, 10 points, 1 attempt permitted)

Changing the battery of a phone...

Select one of the diamonds below carefully as there is a right choice, a moderate one, and an incorrect option.



- Hi Helena! I think you have several options: you could go to a repair shop and try to have the battery replaced, but it might be a bit expensive. Otherwise, you could buy an external battery, which you could use to charge your phone (and any other device) throughout the day, even when you are out!
- Hi Helena! It sounds like your phone is dying. Unfortunately, there isn't much you can do. If I were you, I would just go out and buy a new phone, it is the easiest solution.
- Hi Helena! This is a serious problem with most smartphones: it's often really complicated to repair them yourself, but it's doable with some YouTube tutorials. If I were you, I would throw away this one and buy a reconditioned or second-hand one.

3.5.4 RC: Scenario - Intermediate



Thank you for your advice! I think I'll go to a repair shop to see if I can have the battery replaced. Do you know what I should do with the old battery?




3.5.5 RC: Scenario - Intermediate: Question 2

(Pick One, 10 points, 1 attempt permitted)

What to do with the battery...

Select one of the diamonds below carefully as there is a right choice, a moderate one, and an incorrect option.



- You should bring it to a special centre that recycles batteries and other hazardous waste. There is one not too far from here!
- You can just throw it away in the trash can, it will be taken care of!
- I would recommend donating your battery to an organization that will refurbish it to sell it again. This way, you can give a second life to your battery!

3.5.6 RC: Scenario - Intermediate






3.5.7 RC: Scenario - Intermediate: Question 3

(Pick One, 10 points, 1 attempt permitted)

What to do about repairing clothes...

Select one of the diamonds below carefully as there is a right choice, a moderate one, and an incorrect option.



- Well, it was nice seeing you! I've actually been wanting to buy one myself to sew some holes in my clothes. You'll tell me which one you choose and if you recommend it!
- Hey, you know what? I've actually been wanting to buy one myself, but I know I won't be using it so often so I was hesitant. Would you be interested in buying it together and sharing it? If so I would gladly accompany you and we could carpool!
- Hey, you know what? I've actually been wanting to buy one myself, but I know I won't be using it so often so I was hesitant. Would you be interested in buying it together and sharing it? If so, I'll let you get your car while I go get mine and we could meet at the store!

9.8 3.5.8 RC: Scenario - Intermediate



Thank you for all your good advice! Do you also need dishcloths? There is a promotion on the ones we have selected: one bought, the second one at 50% off!"




3.5.9 RC: Scenario - Intermediate: Question 4

(Pick One, 10 points, 1 attempt permitted)

When there is a special offer...

Select one of the diamonds below carefully as there is a right choice, a moderate one, and an incorrect option.



- ◇ I'm okay actually. I already have enough at home.
- ◇ Sure! I still have some at home, but can't say no to such a bargain!
- ◇ I'm okay actually, but I have seen another promotion on packs of notebooks over there that I'd like to check out. You never know when you might need one!

3.5.10 RC: Scenario - Intermediate



Well, thank you very much for accompanying me on all these errands. I definitely learnt a lot about how to adopt a more sustainable way of consumption!

Of course! And I'll come by next week to pick up the sewing machine. Bye, Helena!

You



3.5.11 RC: Scenario - Intermediate



3.5.12 RC: Scenario - Intermediate: Question 5

(Pick One, 10 points, 1 attempt permitted)

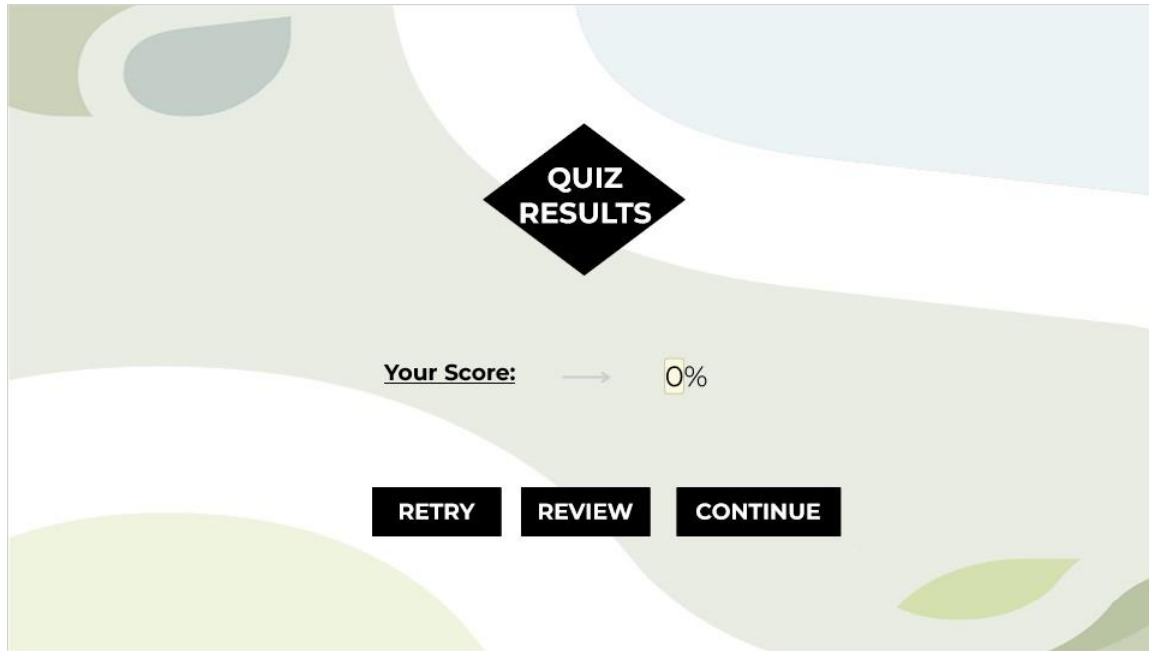
Multiple Choice

- 1 Dishcloths with **green packaging** and the mention "**sustainable**".
- 2 Dishcloths with the following tag: **EU eco label, 100% organic cotton, packaging made from 80% recycled material.**
- 3 Dishcloths with **no specific label.**



3.5.13 RC: Scenario - Intermediate (Quiz Results)

(Results Slide, 0 points, 1 attempt permitted)



The slide features a central black diamond with the text "QUIZ RESULTS" in white. Below it, the text "Your Score:" is followed by a right-pointing arrow and "0%". At the bottom, there are three black rectangular buttons with white text: "RETRY", "REVIEW", and "CONTINUE". The background consists of abstract, organic shapes in shades of green and blue.

3.5.14 RC: Scenario - Intermediate (SEN4CE Tree)



The slide is titled "The SEN4CE Tree" and includes the text: "The tree shows you the progress of the course. In the process, you may discover some surprises as well." A central illustration of a tree has five callout boxes with text:

- Top right: "A round of applause! The towering tree echoes your comprehensive grasp on mindful consumption."
- Middle right: "Your mastery is unmatched! This tree thrives, symbolizing the depth of your responsible consumption insights. Continue a surprise is waiting for you!"
- Bottom right: "Your evolving understanding is blossoming, much like this tree. Keep pushing forward!"
- Bottom left: "Excellent start! Deepening your knowledge of responsible consumption nurtures this new seed."
- Middle left: "Your commitment is evident. As you refine your consumption habits, the tree stands even taller."

At the bottom center, there is a green rounded rectangle with the text "Tap Here!". A dark teal bar at the bottom right contains the text "Back to menu".



4. Product Lifetime

4.1 Product lifespan (PL) Menu

Product Lifetime

As we move towards a more sustainable future, understanding the lifecycle of products within a Circular Economy is absolutely crucial. This module takes you on an eye-opening journey to explore just that: how extending the lifetime of products contributes to a more sustainable and Circular Economy. We look forward to learning and growing with you!

Product Lifetime - Introduction

Scenario 1: Product Lifetime (EQF 2-3)

Scenario 2: Product Lifetime (EQF 3-4)


[Back to menu](#)

4.1.1 PL Introduction

Introduction: Product Lifetime

Welcome to this unit on product lifetime! In this chapter, you will learn about different practices you can apply in your daily life to prevent waste creation by extending the product lifetime and sorting it appropriately to transform them eventually into new products.

One of the biggest challenges to the Circular Economy is waste prevention. Waste prevention is ensured by effective design, appropriate production and consumption of goods. To break a take-make-waste system, most of the changes should be made at the design stage, but once the products have entered the market, much can be done to maintain, share, reuse, repair, refurbish, remanufacture, and, as a last resort, recycle the used materials.



Source: [Greenpeace.org](https://www.greenpeace.org)



4.1.2 PL Introduction

Product Lifetime - Introduction

This unit will help you to learn:

- How and where to give your items to give them a second life and even earn a bit of money
- How to reuse or repurpose some of your old items, e.g. old t-shirts, glass jars, plastic bags, etc.
- How to extend the lifespan of your clothes, foods and household appliances
- How to sort waste correctly to permit refurbishing of your products
- How to repair or reuse some of your items thanks to DIY
- What the waste collection chains and systems are

4.1.3 PL - Overview level

Product Lifetime levels

Beginner

Intermediate

[Back to Product Lifetime menu](#)



Product Lifetime – Beginner level

4.2 Share it to prevent waste! (1)

Share it to prevent waste!

The **sharing economy** is based on the **sharing of human and physical resources** such as **creation, production, distribution, trade and consumption of goods and services**. Thanks to Internet platforms as well as information and communications applications, more individuals can **rent, share, swap, barter, trade, or sell access to products or services** without any limitations to our circle of friends or geographic location. These efforts **prevent waste creation** since **fewer individuals possess and purchase items**, and thus brings our **society closer to the Circular Economy**.



designed by freepik
Image retrieved from: Freepik.com

4.2.1 Share it to prevent waste! (2)

Share it to prevent waste!

In practical terms, the following actions can be taken to contribute to sharing economy:

- Car-pooling & car-sharing
- House sharing
- Clothes leasing



Car-pooling & car-sharing (Slide Layer)

Share it to prevent waste!

In practical terms, the following actions can be taken to contribute to sharing economy:

- Car-pooling & car-sharing
- House sharing
- Clothes leasing

If you own a car, consider finding someone interested in taking a ride with you for a fee or freely, for the whole trip or a part of it. If you don't have a car or don't use it regularly, take into account car-sharing applications which permit you to rent a car for a limited period of time, e.g. for an Ikea trip or a weekend away from home. Same applies if you have a car but don't ride it often: leasing it to someone can help you to make profit and support the sharing economy. Some examples of platforms are [Uber](#) or [BlaBlaCar](#).

House renting (Slide Layer)

Share it to prevent waste!

In practical terms, the following actions can be taken to contribute to sharing economy:

- Car-pooling & car-sharing
- House sharing
- Clothes leasing

Your house/apartment is also an asset which can be easily shared, rented or leased. Although there might be a particular emotional attachment to it, platforms such as [Couchsurfing](#) or [Homeexchange](#) minimise the risks and make this experience as simple as possible.



Clothes leasing (Slide Layer)

Share it to prevent waste!

In practical terms, the following actions can be taken to contribute to sharing economy:

Car-pooling & car-sharing

House sharing

Clothes leasing

Have you ever bought something for a special occasion without actually wearing it again? Whether to gain some money, make up some space, or prevent extra waste, take a look at the clothes leasing platforms which simplify and pool such clothes; e.g., [Vinted](#).

4.2.2 Material donations (1)

Material donations

As they say, **one man's trash is another man's treasure**. Sometimes the simplest solution to **extend the product lifetime** is to **give away** the **items which you do not need anymore**. Consider **the following ways to give away possessed items**



4.2.3 Material donations (2)

Material donations

Here are some other **ideas of initiatives available in most of the European countries** which you may consider to **give away some of your items**:

- **Metal containers** to drop off clothes, shoes or bed linen (read carefully instructions written on them);
- **Swapping events or flea markets** which take place locally and particularly value some long-possed items, such as old books, postcards, pictures, ceramic crockery, etc.);
- **Family and friends exchanges**. Sharing some items within your family or circle of friends adds up extra value to your products, builds up personal heritage and helps to avoid buying new items which do not have such a history;
- **Online platforms** where you can donate or give away some of your items, e.g. furnitures, clothes, household appliances, toys;
- **Churches and other (religious) institutions** collect some items and distribute them within their community.

4.2.4 Reuse and repurpose strategies

Reuse and repurpose products to avoid waste

Whereas **recycling** is quite **energy-intensive**, **repurposing or reusing** requires **nothing but creativity and goodwill** to find another way to give your items a **second life**. Thus, instead of continually **feeding the waste stream**, look around and think of how you could **reuse or repurpose some of the items which have lost their first value**.

In the following you get **inspirations on how you can reuse or repurpose some of your old items**: Do not forget to **share your results** with others, either on **social media or while talking**, to **inspire them to do some fun and interesting sustainable Do-it-yourself (DIY) activities**.





Old glass jars (Slide Layer)

Old glass jars

Glass jars can be used as containers for cereals, jewelry or spices, vases, candles, cups, fermentation crock, shaker for dressings or DIY cosmetics, sewing kit or button holder;

1



2

3

4

5

6

Old textile (Slide Layer)

Old textile

Old T-Shirts can become rags, dusters, face wipes, toys for your pets, bowl covers, even a tote bag if you add up a bit of creativity;

1

2



3

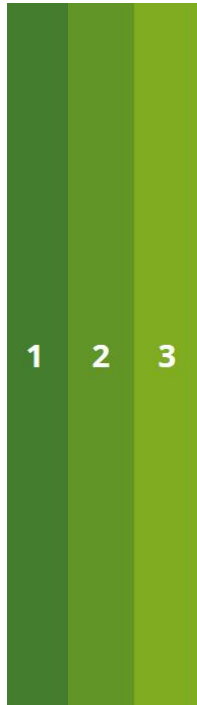
4

5

6



Paper (Slide Layer)



Paper

Old newspapers can be used for packaging, cleaning windows or any other glass, lining pet cages or bins;



Plastic (Slide Layer)



Plastic

Plastic bags can be used to line bins, keep dirty or wet clothes, put your shoes in suitcases, and buy fruits and vegetables in stores.





Organics (Slide Layer)

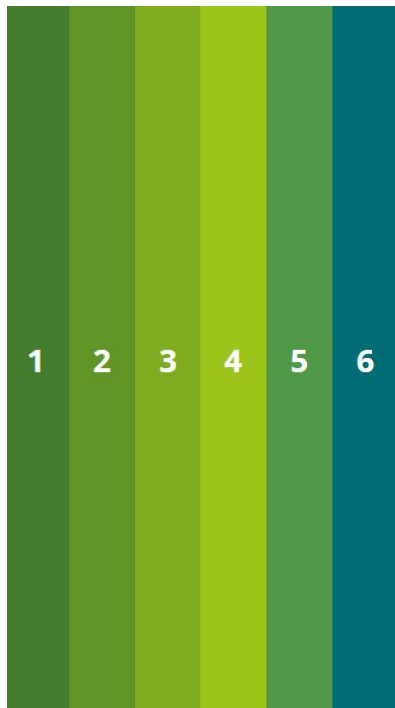


Organics

Coffee grounds are a marvelous thing to reuse in the garden, for cosmetic purposes or for everyday cleaning. For example, by mixing coffee grounds with very hot water we can make the water drain better in the sink, and by rubbing them we can deodorise our hands and other surfaces such as the fridge.



Household items (Slide Layer)



Household items

Repurposing Toothbrushes: Toothbrushes make ideal scrubbers for hard-to-reach-places. They allow me to clean in and around sink fixtures and the hinges on the toilet seat, in and around the keys on my computer keyboard, into all sorts of corners, and into the smaller parts of my bicycle (including the chain). They scrub mud (and worse) from the treads of athletic shoes and boots.





4.2.5 Extend products lifetime (1)

How to extend products lifetime

Clothes

Fashion is a huge contributor to climate change, accounting for 8-10% of the CO2 emissions. During the past 15 years, the number of times that we wear a piece of clothing before disposing of has halved and now averages to 120 times. Making your clothes last longer without wearing them out may allow you not only to save up more money, but also make a positive Circular Economy contribution. Here are a few tips to make your clothes last longer:

The illustration shows a woman in a blue shirt and red skirt standing next to a green recycling bin. She is holding a piece of clothing with a recycling symbol (1). A t-shirt is hanging on a hanger (2). Another t-shirt is hanging on a hanger (3). A t-shirt is hanging on a hanger (4). A t-shirt is hanging on a hanger (5).

4.2.6 Extend products lifetime (2)

How to extend products lifetime

Food

Globally, around one-third of all food produced for human consumption is lost or wasted. Learning some simple tips to bring awareness on how to store food to make it last longer can make a real difference in terms of your groceries expenses and lifestyle habits.

The illustration shows six vertical bars of varying shades of green and blue, numbered 1 to 6 from left to right.



Dates (Slide Layer)

Dates

1

Grasp the difference between use-by dates and best-before dates: some of the products can be easily eaten after an expiration date safely. Usually, the “sell-by” date indicates how long the product can be sold, the “best if used by” date applies to the best quality, while the “use-by” date signifies when the product is no longer at peak quality, according to the manufacturer. The best way to check whether a food has gone bad is to smell it or inspect it carefully.

2

3

4

5

6

Apps (Slide Layer)

Apps

1 2

Get informed on different applications which put in contact professionals and regular users on unsold surplus food, flowers and other items. Among the most famous apps are [TooGoodToGo](#) and [Phenix](#) available in numerous countries, but there are surely some other ones to be discovered to save money and expand the product lifetime (available in Project Result 3 - Digital CE tools for seniors).



3

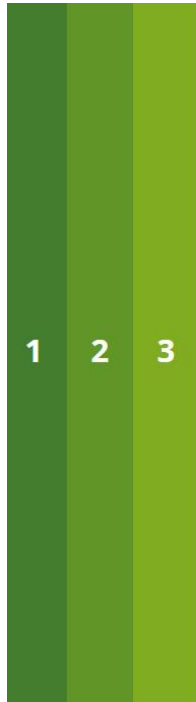
4

5

6



Storage (Slide Layer)



Storage

Understand which food should be stored in a refrigerator or in a dry cupboard place to keep it fresh longer. In addition, it might be worth checking out how to place your food better in a refrigerator, i.e. putting the most resistant to spoiling food on the doors, placing leftovers, drinks, and ready-to-eat foods at the upper shelves, whereas putting raw meat, eggs, seafood, and other dairy at the lower shelves with the coldest temperatures.

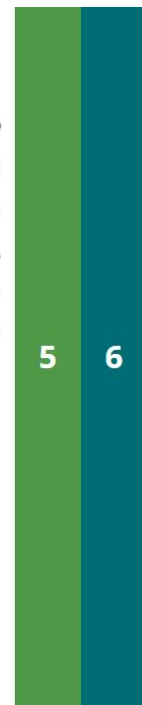


Vegetables (Slide Layer)



Vegetables

Check out some tips on how to store different types of vegetables to keep them fresh longer. According to some data, more fruits and vegetables are thrown away than consumed. Placing apples away from other fruits and veggies (or protecting them with some plastic bags), putting paper towels in the salad drawer, or freezing some veggies such as chopped dry green onions or some berries may also be a great solution to keep your products last longer.





Seasonal food (Slide Layer)

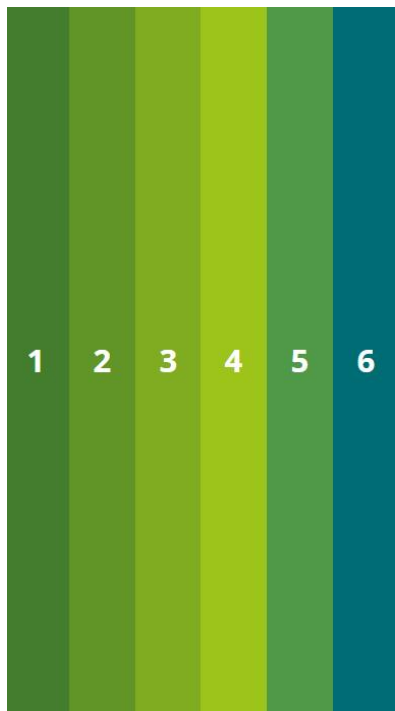


Seasonal food

Seasonal food. Consuming seasonal vegetables and fruit, grown when the climate is favourable for them, has many advantages, not only for our health but also for our planet, as the carbon footprint of food production is lower for seasonal products. A good example of the difference in how produce has its carbon footprint is tomatoes. When we grow them locally, but out of season, i.e. in heated greenhouses, their carbon footprint is higher and then they are transported.



Food scraps (Slide Layer)



Food scraps

What to do with food scraps? Peels of vegetables can be used to cook vegetable soup, some plants can even be regrown from scraps. Non-meat scraps can be composted, either in the municipality or you can start your own compost. Check out more tips and ideas on how to do it in the Further reading section.





4.2.7 Extend products lifetime (3)

How to extend products lifetime - appliances

All the appliances have their lifetime, but what if some simple actions could make them last longer? Being kinder to your wallet makes you often kinder to the environment as well. Here are some tips which may help you to make your appliances last longer:

- Keep it clean
- Make some space
- Be gentle

Keep it clean (Slide Layer)

How to extend products lifetime - appliances

All the appliances have their lifetime, but what if some simple actions could make them last longer? Being kinder to your wallet makes you often kinder to the environment as well. Here are some tips which may help you to make your appliances last longer:

- Keep it clean
- Make some space
- Be gentle

Keep it clean. Surely you do keep your appliances clean already, but sometimes some simple actions, often described in instruction manuals, are needed. Clean your dishwasher's filter of food pieces and soap buildup. Once a month, run your washing machine on a 60°C cycle (or hotter) with no laundry or detergent using a washing machine cleaner, and/or run it empty on a normal wash cycle using a large cup of distilled white vinegar or lemon juice in place of laundry detergent to get rid of limescale.



Make some space (Slide Layer)

How to extend products lifetime - appliances

All the appliances have their lifetime, but what if some simple actions could make them last longer? Being kinder to your wallet makes you often kinder to the environment as well. Here are some tips which may help you to make your appliances last longer:

- Keep it clean
- Make some space
- Be gentle

Make some space. Always make sure that your appliances are not packed up too much to make the filters function normally, in the case of a refrigerator, and that your washing machine is not overloaded with piles of laundry. Avoid vacuuming up large objects while using a vacuum cleaner.

Be gentle (Slide Layer)

How to extend products lifetime - appliances

All the appliances have their lifetime, but what if some simple actions could make them last longer? Being kinder to your wallet makes you often kinder to the environment as well. Here are some tips which may help you to make your appliances last longer:

- Keep it clean
- Make some space
- Be gentle

Be gentle with your appliances and read the instruction manuals. Broken switches or other parts, such as glass, handles, etc. often become the reason for replacing your appliances. Although it might seem boring to read the instruction manuals, most of them do have concrete advice on how to make your items last longer to extend their life cycle and save up some money.



4.2.8 Waste sorting

How to sort waste appropriately

The better **waste is sorted**, the better it **can be recycled**. The **recycling rates differ from one country** to another across the EU. When municipal waste **can not be recycled**, it is either **landfilled, incinerated, i.e. burnt**, often with energy recovery, **or composted**. Since it is well-known that landfilling and incineration are the least preferable options, **each individual can contribute to increasing the overall recycling and composting rates** in every country, thus contributing to building a Circular Economy.

Although the waste sorting rules differ from one country to another, here are some **simple tips which can be applied to any household**.



4.2.9 Waste separation

Waste separation

As mentioned previously, **each country**, sometimes even some regions, have **different waste sorting rules depending on local factors**.





4.2.10 PL Beginner Sources (1)

Sources for Product Lifetime (1)

- Cristina Miguel, Gabriela Avram, Andrzej Klimczuk, Bori Simonovits, Bálint Balázs & Vída Česnuityté (2022), The Sharing Economy in Europe: From Idea to Reality. Available on: https://link.springer.com/chapter/10.1007/978-3-030-86897-0_1
- What is the sharing economy? Blablacar. Available on: <https://blog.blablacar.com/blog/reinventing-travel/sharing-economy>
- Nipun Mehta (2014), From Sharing Economy To Gift Ecology. Available on: <https://www.servicespace.org/blog/view.php?id=14918>
- 29 Repurpose and Upcycle Ideas for Your Home. Available at: <https://postcardsfromtheridge.com/2021/08/creative-ideas-upcycle-repurpose.html>
- Sustainably Vegan. 100 THINGS TO REUSE OR REPURPOSE YOU HAVE TO TRY. Available at: <https://youtu.be/SvtOyBa0TsE>
- Tips on Upcycling, Reusing, and Repurposing Old Items. Available at: <https://www.almanac.com/upcycling-ideas-reuse-and-repurpose>
- The Ultimate Guide To Making Your Clothes Last Longer. Available on: <https://goodonyou.eco/the-ultimate-guide-to-making-your-clothes-last-longer/>
- 26 super easy tips | How do you make your clothes last longer. Available on: <https://cariki.co.uk/blogs/the-green-road/how-do-you-make-your-clothes-last-longer>

4.2.11 PL Beginner Sources (2)

Sources for Product Lifetime (2)

- Jenny Tan (2021). 8 Ways to Make Your Clothes Last Longer To Practice a Sustainable Lifestyle. Available on: <https://thegoodtee.com/blogs/news/howtobuyqualityclothing>
- ELEANOR JONES (2015), 14 genius hacks to keep your healthy food fresh for longer. Available on: <https://www.cosmopolitan.com/uk/body/diet-nutrition/a38816/keep-your-healthy-food-fresh-for-longer/>
- How to Organize Your Fridge So Food Keeps Longer — and Your Energy Bill Works Harder. Available on: <https://greatist.com/eat/ultimate-way-organize-your-fridge>
- Elizabeth Waddington (2022). 20 Vegetables You Can Re-Grow From Scraps. Available on: <https://www.ruralsprout.com/regrow-vegetables/>
- Composting: How to make nutrient-rich, garden 'gold' in the composter that will help your garden thrive. Eartheasy. Available on: <https://learn.eartheasy.com/guides/composting/>
- EMILIE MARTIN (2019). 4 ways to make your appliances last longer. Available on: <https://www.goodhousekeeping.com/uk/house-and-home/household-advice/a29302031/appliances-last-longer/>
- Mary H.J. Farrell (2017). How to Make 6 Major Appliances Last Longer. Available on: <https://www.consumerreports.org/appliances/how-to-make-appliances-last-longer/>
- European Parliamentary Research Service. Circular Economy. Available on: <https://www.europarl.europa.eu/thinktank/infographics/circulareconomy/public/index.html>

Continue with Intermediate course

Back to Product Lifetime menu



Product Lifetime – Intermediate level

4.3 Repair & Repurpose (1)

Repair & repurpose (Do-it-yourself)

If you are ready to take up a bit more effort on **repairing and reusing** activities to embrace a Circular Economy and save up on your expenditures, here are **some tips** which may be of good use to you:

- **Old clothes** can be used for **oven mitts, doll clothes, packaging for gifts or as materials** for creating new clothes if you know how to sew. For those who want to go further, some **embroidering or patching** can be done to **hide a stain or make your old clothes special**, giving them a **second life**. Just type DIY ideas on your search engine and you'll find a lot of ideas on how to turn your pants into a dress and vice versa.

4.3.1 Repair & Repurpose (2)

Repair & repurpose (Do-it-yourself)

- **Furniture:** swap out a **chair seat with some fabric, paint your bookshelf or a table, create hanging space, or attach your baskets to the wall** to create some extra space for your towels. The ideas are endless, just look around you and think of how you could give your furniture a distressed look or use it differently with the tools you already have.
- Millions of **ideas on DIY home decoration** are available on [Pinterest](#) and require nothing but your interest and time. Putting some **dry flowers into glass jars or a bottle** can make a lovely decoration object bringing up some life and joy into your apartment. The same goes for [old newspapers and cartons](#) which can be easily used to **make up some decoration elements**.

Remark: Do not forget to share your results with the others, either on social media or while talking, to inspire them to do some fun and interesting sustainable DIY activities.



4.3.2 Waste management

Waste collection

Waste collection Waste incineration Landfills European waste separation

Waste collection (Slide Layer)

Waste collection

Recycling is the last resort for the Circular Economy since most of the products should be designed in a way to be easily repaired, remanufactured or reused. The value of a computer is in its features and capacities, not in the materials used, although they do have some value while properly recycled. The Circular Economy promotes design and maintenance of products to prevent them from becoming waste. However, given the current linear economy functioning, understanding waste collection chains may be an excellent way to grasp the Circular Economy principles and give some ideas on how to improve the current system.

The recycling rates differ from one country to another across the EU. When municipal waste cannot be recycled, it is either put on landfills, incinerated for energy recovery or composted. These waste management systems have certain advantages and inconveniences.

Hover over the following option to find out possibilities to save energy at home!


Waste collection Waste incineration Landfills European waste separation



Waste incineration (Slide Layer)

Waste incineration

Waste incineration implies that waste can be used as fuel when it is burnt and heat is recovered properly. This energy can be used for electricity production, whereas ashes can be employed in roads and metal production. Incineration reduces the amount of waste up to 95%, which is particularly relevant for densely populated countries. However, according to some studies, while incinerating, energy is frequently not recovered properly, whereas some elements emitted during this process have negative effects on human health, i.e. respiratory issues, cancer, etc. In addition, waste incineration is not a cheap solution, and entry and maintenance costs do not make it ideal either.



Hover over the following option to find out possibilities to save energy at home!

Waste collection	Waste incineration	Landfills	European waste separation
------------------	--------------------	-----------	---------------------------

Landfills (Slide Layer)

Landfills

Landfills, in the meantime, are a more affordable solution, since they do not require complex equipment or procedures and are easier to use. Nevertheless, landfilled waste produces methane gas, which is harmful to the environment and dangerous because of its inflammable characteristics. Landfills contaminate soil, water, threaten wildlife and affect human health for those who are exposed to them for a prolonged period of time as for the workers or people living nearby, increasing risks of cancer, respiratory issues, etc.

Dumping trash into landfills is definitely not a solution if we want to keep our planet a livable and decent place for present and future generations. Better sorting can help recycle stuff more appropriately.

Hover over the following option to find out possibilities to save energy at home!

Waste collection	Waste incineration	Landfills	European waste separation
------------------	--------------------	-----------	---------------------------



The European waste system (Slide Layer)

The European waste system

In all the SEN4CE countries, there are two main waste collection systems: door-to-door and bring-point for recyclables and organic waste. This brings us to the following figures per country when it comes to waste treatment:

- **Austria:** Landfill (3%), Incineration (38%), Recycling and composting (59%)
- **France:** Landfill (23%), Incineration (36%) and Recycling and Composting (42%)
- **Germany:** Landfill (1%), Incineration (31%), Recycling and composting (66%)
- **Spain:** Landfill (57%), Incineration (14%), Recycling and composting (30%)
- **Portugal:** Landfill (49%), Incineration (21%), Recycling and composting (30%)

The stricter the waste separation is made by a higher percentage of the population, the higher recycling rates are.

Hover over the following option to find out possibilities to save energy at home!

Waste collection	Waste incineration	Landfills	European waste separation
------------------	--------------------	-----------	---------------------------

4.3.3 Recycling rate improvements

Recycling rate improvements

Here are some ideas on how you could improve the recycling rates in your country on your own end!

The image shows four recycling bins lined up against a wall. From left to right, they are yellow, blue, red, and green. Each bin has a small circular icon with a number inside: '1' on the yellow bin, '2' on the blue bin, and '3' on the red bin. The green bin does not have a number. The bins are set against a grey wall with a white horizontal line.



4.3.4 PL Intermediate Sources

Sources for Product Lifetime

- The butterfly diagram: visualising the Circular Economy. Available on: <https://ellenmacarthurfoundation.org/circular-economy-diagram>
- Abbasi S. A. (2018). The myth and the reality of energy recovery from municipal solid waste. Available on: <https://energysustainsoc.biomedcentral.com/articles/10.1186/s13705-018-0175-y>
- Marta Rossi, Alessandra Papetti, Michele Germani (2022). A comparison of different waste collection methods: Environmental impacts and occupational risks. Available on: <https://www.sciencedirect.com/science/article/abs/pii/S0959652622027342>

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4.4 Beginner Scenario Product Lifetime


4.4.1 PL: Scenario - Beginner

Scenario 1 - Beginner: Product Lifetime

In this scenario, you are sorting out old clothes in your closet and newspapers from a drawer. The scenario takes place first at home in front of a closet and then in the kitchen.

You can choose between correct and incorrect answers. Correct answers lead to further dialogue or feedback, while incorrect answers prompt the user to try again.

Key elements of the scenario include understanding the scenario, applying knowledge, and reflecting on feedback to improve.



Are you ready?

[Back to menu](#)

4.4.2 PL: Scenario - Beginner: Question 1

(Pick One, 10 points, 1 attempt permitted)


Sorting out at home

You are in front of a cupboard with some old books and clothes, sorting out your items and thinking how to deal with them. Those are your thoughts: "I have such old pieces of clothing! What shall I do with it? How old are these T-shirts? Shall I throw them away?"

I've had them since I was 20 years old. Time to throw them away.

Shall I use them for dusting?

Well, maybe it will be of good use to someone else. Shall I look for a local association to give it away to?





4.4.3 PL: Scenario - Beginner: Question 2

(Pick One, 10 points, 1 attempt permitted)

Sorting out at home

You are standing in front of a closet with some old books and clothes, sorting out your old newspapers with some job offers and other ads. You are thinking: "What shall I do with them?"

Throw them away!

Look up a bring-it-point for paper recycling around.

I'll keep them! I could use them for packaging or cleaning windows or any other glass or lining bins. don't buy newspapers anymore, so this will surely be useful in some household chores.

4.4.4 PL: Scenario - Beginner: Question 3

(Pick One, 10 points, 1 attempt permitted)

Sorting out at home

You are still in front of a closet with some old books and clothes, sorting out your items and talking, finding some old pieces of paper. You are thinking: "Okay, but these little pieces of paper will surely no longer be used. I could probably put them in a plastic bag and throw them in a regular bin in the kitchen".

Great idea! This way I will not need to walk to the kitchen every time to throw things away.

I'll keep this bag for paper waste collection to bring it to one of the paper collection points nearby to recycle it once collected enough paper.

Okay, but throw it in the recycling bin instead.



4.4.5 PL: Scenario - Beginner: Question 4

(Pick One, 10 points, 1 attempt permitted)

Sorting out at home

You are sorting out your items and talking. You find a T-shirt that looks pretty new. You are thinking what to do with it: "This T-shirt looks pretty new. Maybe I could just wash it in hot water to make sure that it is clean to wear later on."

Let's check out first whether the T-Shirt needs cleaning or not. If it does not smell bad and looks clean, we do not need to wash it to not to deteriorate the fabric and not to waste energy.

I'll wash it to make sure that it is clean, but rather in cold temperatures to keep the fabric in a good condition.

Yes, that is what I'll do! The T-shirt will be clean and ready to wear after washing it in hot water.

4.4.6 PL: Scenario - Beginner: Question 5

(Pick Many, 10 points, 1 attempt permitted)

Sorting out at home

By the way, it has been a long time since I did not do any maintenance for my washing machine to keep it last longer. What could I do first?"

Run your washing machine on a 60°C cycle (or hotter) with no laundry or detergent using a washing machine cleaner.

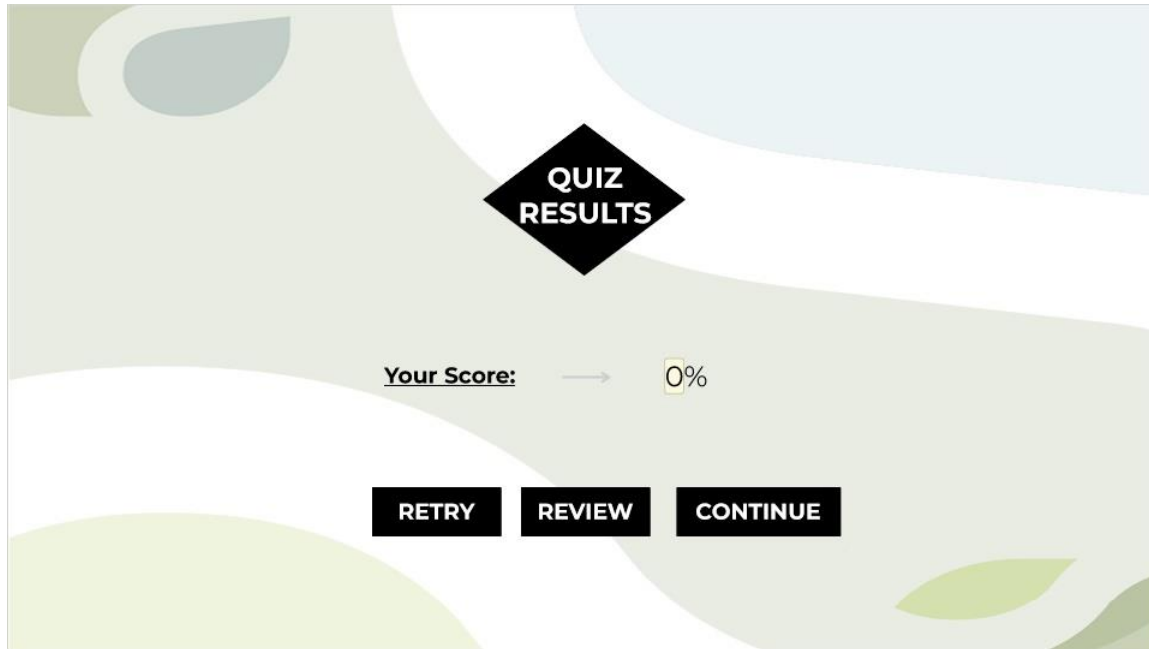
Run it empty on a normal wash cycle using a large cup of distilled white vinegar or lemon juice in place of laundry detergent to get rid of lime scale.

Read the instruction manual to get some advice on how to maintain it.



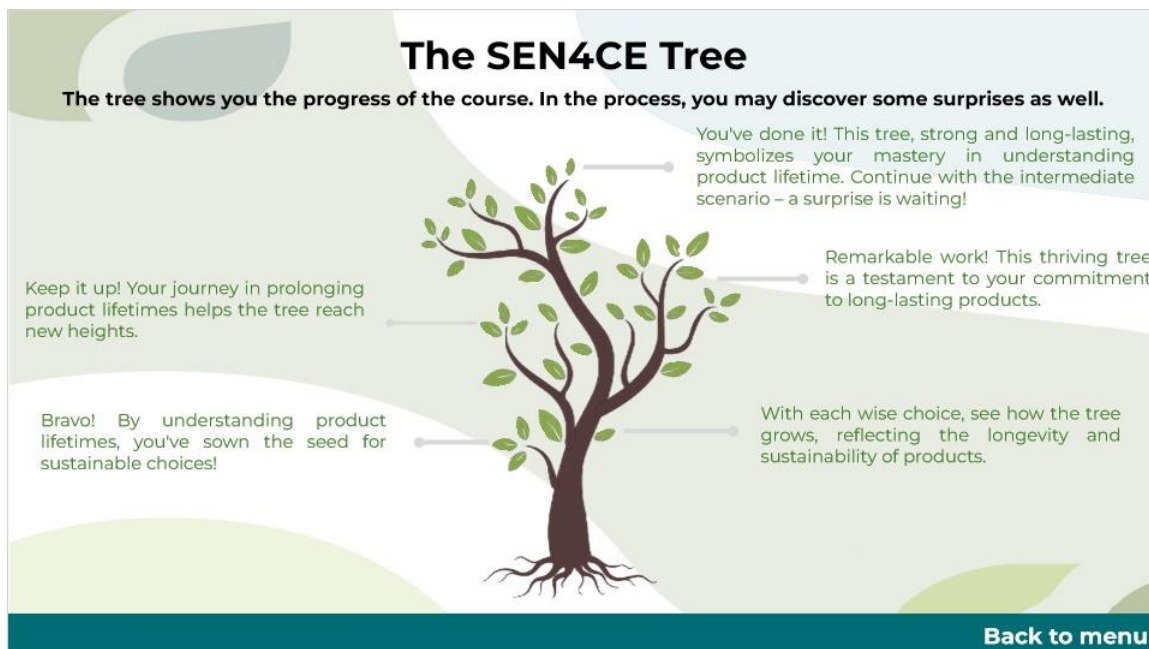
4.4.7 PL: Scenario - Beginner (Quiz results)

(Results Slide, 0 points, 1 attempt permitted)



A quiz results slide with a green and blue abstract background. At the top center is a black diamond containing the text "QUIZ RESULTS". Below it, the text "Your Score:" is followed by an arrow pointing to "0%". At the bottom, there are three black buttons with white text: "RETRY", "REVIEW", and "CONTINUE".

4.4.8 PL: Scenario - Beginner (SEN4CE Tree)



The SEN4CE Tree

The tree shows you the progress of the course. In the process, you may discover some surprises as well.

You've done it! This tree, strong and long-lasting, symbolizes your mastery in understanding product lifetime. Continue with the intermediate scenario – a surprise is waiting!

Remarkable work! This thriving tree is a testament to your commitment to long-lasting products.

With each wise choice, see how the tree grows, reflecting the longevity and sustainability of products.

Bravo! By understanding product lifetimes, you've sown the seed for sustainable choices!

Keep it up! Your journey in prolonging product lifetimes helps the tree reach new heights.

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4.5 Intermediate Scenario Product Lifetime

4.5.1 PL: Scenario - Intermediate

Scenario 2 - Intermediate: Product Lifetime

In this scenario, imagine yourself in your living room, gazing at your old sofa that's been with you for 15 years.

You can choose between correct and incorrect answers. Correct answers lead to further dialogue or feedback, while incorrect answers prompt the user to try again.

Key elements of the scenario include understanding the scenario, applying knowledge, and reflecting on feedback to improve.



Are you ready?

[Back to menu](#)

4.5.2 PL: Scenario - Intermediate: Question 1

(Pick One, 10 points, 1 attempt permitted)

Maybe I should buy a new sofa? It seems like I have used it for 20 years, time to buy a new one!

That's right! Maybe I could go to that big shopping center right outside of town to buy a new sofa on the weekend. I'll put this one on the street in the coming days.

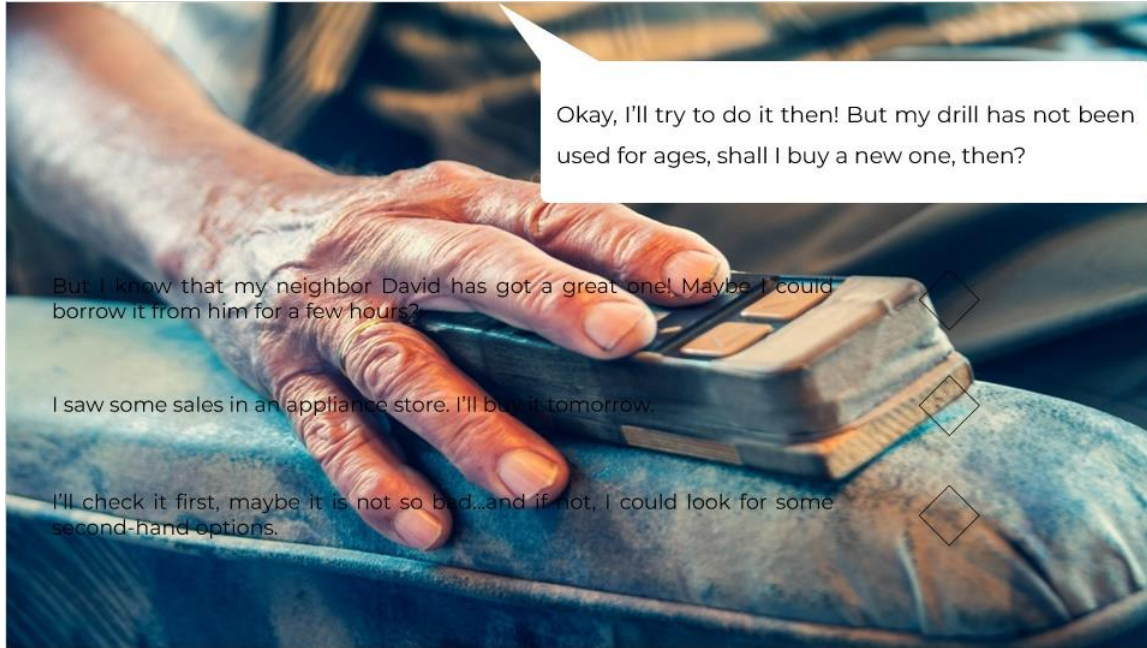
Maybe I could swap out the seat with some fabric and replace the wood on the bottom to make it more solid? I have some materials in the garage to do so, and surely I should have some fabric to replace it. It must be fun to do it with our my hands! And this sofa has so much history, I do not feel like simply throwing it away.

Yes, probably. It is time to change it. I'll look for some options on the second hand online store to check if there is a good bargain. I'll put this one on the street in the coming days.



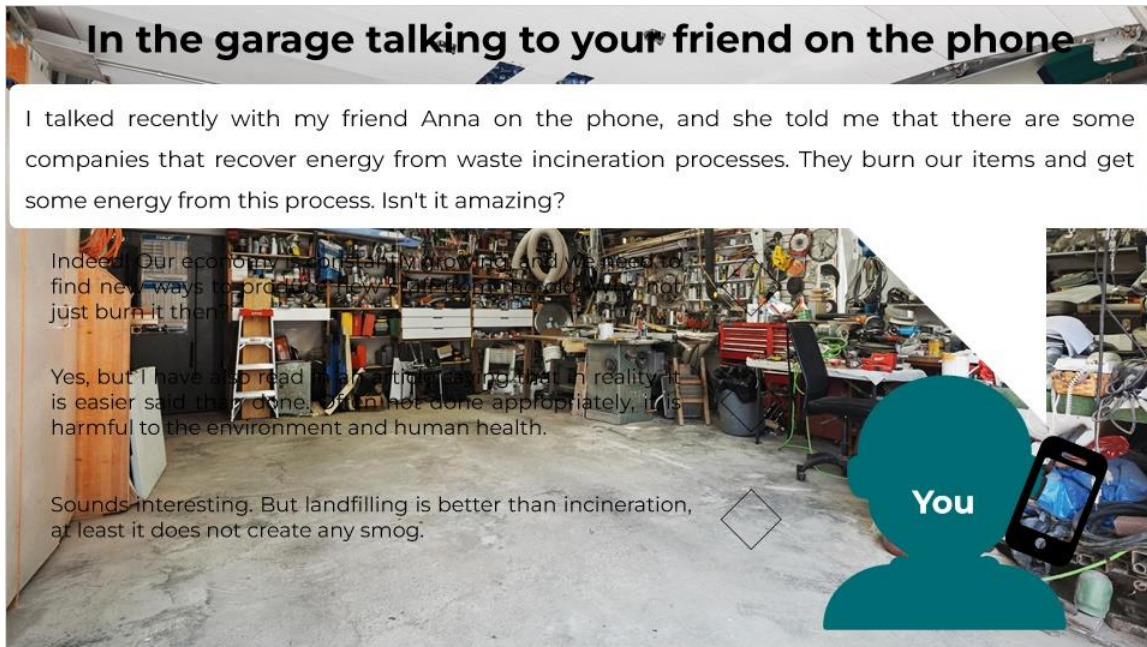
4.5.3 PL: Scenario - Intermediate: Question 2

(Pick One, 10 points, 1 attempt permitted)



4.5.4 PL: Scenario - Intermediate: Question 3

(Pick One, 10 points, 1 attempt permitted)





4.5.5 PL: Scenario - Intermediate: Question 4

(Pick One, 10 points, 1 attempt permitted)

In the garage talking to your friend on the phone

Okay, so if there is no ideal solution to manage the waste we create, what can we do as individuals to help solve this problem?

We could try to produce less waste, but only if we can get as much as we can to get recycled.

Nothing special, I guess. I'll send the authorities to fix it first, and then we'll see what we could do with this.

Consuming less is not a solution, because that is how the economy works, but at least we could recycle better to create more job opportunities in this sector and support the economy.

You

4.5.6 PL: Scenario - Intermediate: Question 5

(Pick Many, 10 points, 1 attempt permitted)

That's amazing what I have done! Shall I send a picture to my friend to share this result!

Yes, great idea! I could also share it on social media to inspire others.

Yes, I'll do this.

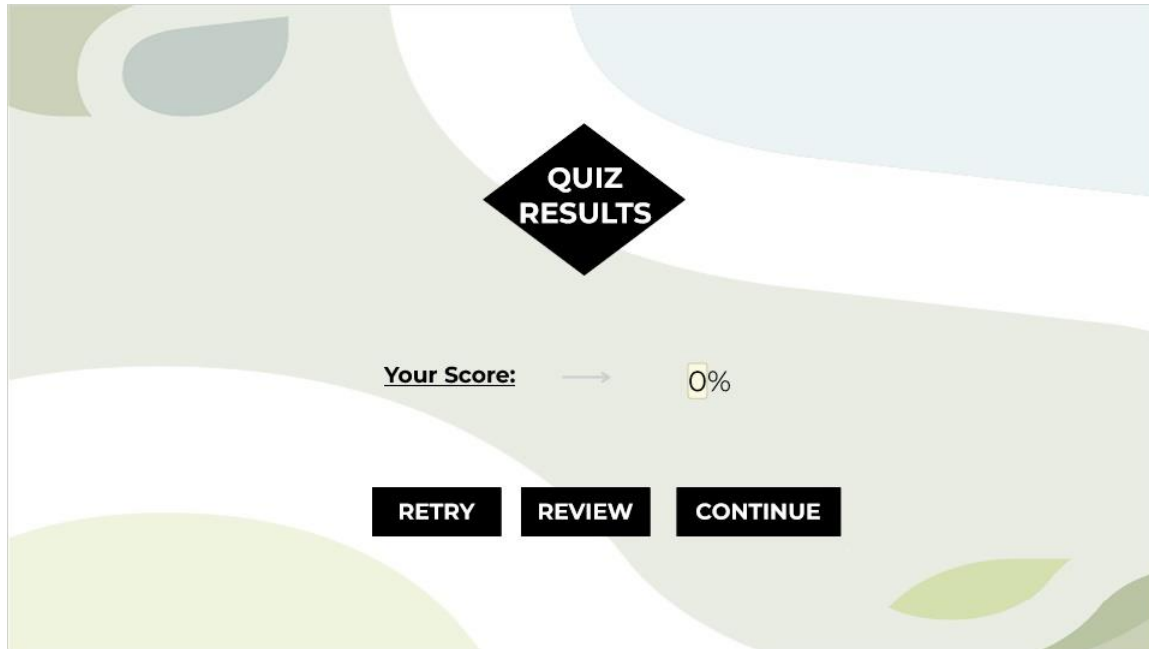
I don't really want to share it, but I'll surely recommend doing it to the others over a talk!

You

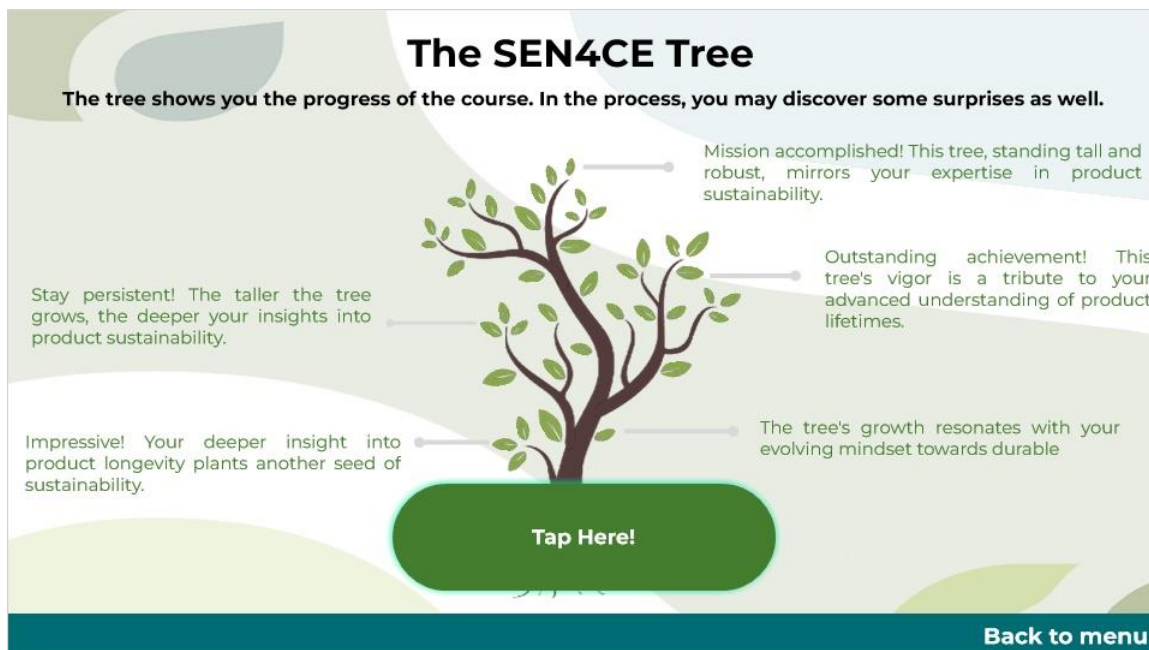


4.5.7 PL: Scenario - Intermediate (Quiz results)

(Results Slide, 0 points, 1 attempt permitted)



4.5.8 PL: Scenario - Intermediate (SEN4CE Tree)





5. Responsible Use of Resources

5.1 Responsible use of resources (RUR) Overview

Responsible Use of Resources

In today's world, understanding how to manage our resources sustainably is not just beneficial—it's essential. And that's exactly what this module is designed to do. It's our heartfelt desire that this focused module will serve as a cornerstone in your understanding of Responsible Use of Resources and inspire you to delve even deeper into this imperative subject.

- Responsible Use of Resources - Introduction
- Scenario 1: Responsible Use of Resources (EQF 2-3)
- Scenario 2: Responsible Use of Resources (EQF 3-4)

[Back to Menu](#)

5.1.1 RUR Introduction

Introduction: Responsible Use of Resources

Welcome to this unit on responsible use of resources! Here, you will learn about different practices you can apply in your daily life to use resources such as electricity, gas, or water more responsibly, and their benefits, both for you and our environment.



Energy production is largely responsible for global warming, which is already affecting ecosystems, weather and crops, mainly due to the emission of greenhouse gases. On top of that, resources on our planet, which allow us to create energy, i.e. fossil fuels, are finite, and the stocks of usable resources are gradually being depleted.



5.1.2 RUR Introduction

Introduction: Responsible Use of Resources

To preserve the ecosystem and limit global warming, it is essential to reduce our energy consumption!



In this unit, you will learn about:

- Benefits of saving energy
- Actions you can take to reduce your energy consumption
- Energy labels and how to read them
- Your environmental footprint
- Some simple renovations to consume less energy at home

5.1.3 RUR - Overview levels

Responsible Use of Resources levels

Beginner

Intermediate

[Back to Responsible Use of Resources menu](#)



Responsible Use of Resources – Beginner level

5.2 Benefits of saving energy (1)

Benefits of saving energy for our environment

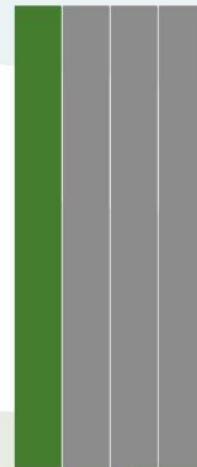
- Nearly **70% of the energy available in the EU is fossil-fuel-based**, which encompasses oil (30%), gas (22%) and coal (11%).
- **Renewable energy**, while increasingly used, only **represents about 22%** of the final energy consumption in the EU in 2020.
- **Nuclear energy** accounts for about **13%** of the energy available in the EU.

Thus, reducing our energy consumption can be beneficial for our environment in many ways. Let's begin this enlightening journey and discover the steps we can take right now to make a positive change. Dive in, and let's unlock the secrets to saving energy at home on the next pages!

5.2.1 Benefits of saving energy (2)

Benefits of saving energy for our environment

Protecting the air and preventing climate change: Most power plants create electricity by burning fossil fuels like coal and oil. These processes are polluting, emitting byproducts such as carbon dioxide, sulphur dioxide, and nitrogen oxides. Carbon dioxide is a greenhouse gas contributing to the greenhouse effect.





GHG (Slide Layer)

Benefits of saving energy for our environment

Greenhouse gases are vital for the Earth average surface temperature on the Earth by absorbing and radiating . However, by creating more energy, power plants emit extra carbon waste, which traps too much heat in our atmosphere and causes global temperature to rise. Some of the effects of this phenomenon are:

- Rising temperatures, heat waves and droughts
- Sea levels rising
- Extreme weather events
- Natural disasters becoming more intense
- Apparition of smog and acid rain

By cutting back on your energy consumption, you help to reduce the amount of electricity that has to be created, reducing carbon dioxide emissions.

Conserve (Slide Layer)

Benefits of saving energy for our environment

Cutting back on your energy consumption is also a great way to help **preserve limited natural resources**. In fact, we have seen that to create electricity, most power plants consume a great amount of natural resources. Fossil fuels, especially, such as gas or oil, are becoming increasingly scarce, which is why it is vital to reduce our energy consumption. By turning off the lights at night or washing your clothes in colder water, you can help save trees, coal, natural gas and many more resources.





Ecosystem (Slide Layer)

Benefits of saving energy for our environment



Saving ecosystems and animals:

The processes necessary to fuel power plants and create electricity, such as mining, logging or material extraction destroy habitats on land and in the ocean where it takes place. This has serious negative effects on biodiversity.

The transport of fossil fuels can also create oil spills, which is extremely dangerous, even deadly, for underwater species.

References (Slide Layer)

Benefits of saving energy for our environment

Sources:

- How saving energy helps the environment (2023). Available on: <https://www.saveonenergy.com/green-energy/save-energy-go-green/>
- Olivier, A. (2022) L'énergie dans l'Union européenne. Available on: <https://www.touteurope.eu/environnement/l-energie-dans-l-union-europeenne/>



5.2.2 Benefits of saving energy (3)

How to save energy at home

Hover over the following option to find out possibilities to save energy at home!

[Kitchen](#) [Bathroom](#) [Living room](#) [Sources](#)

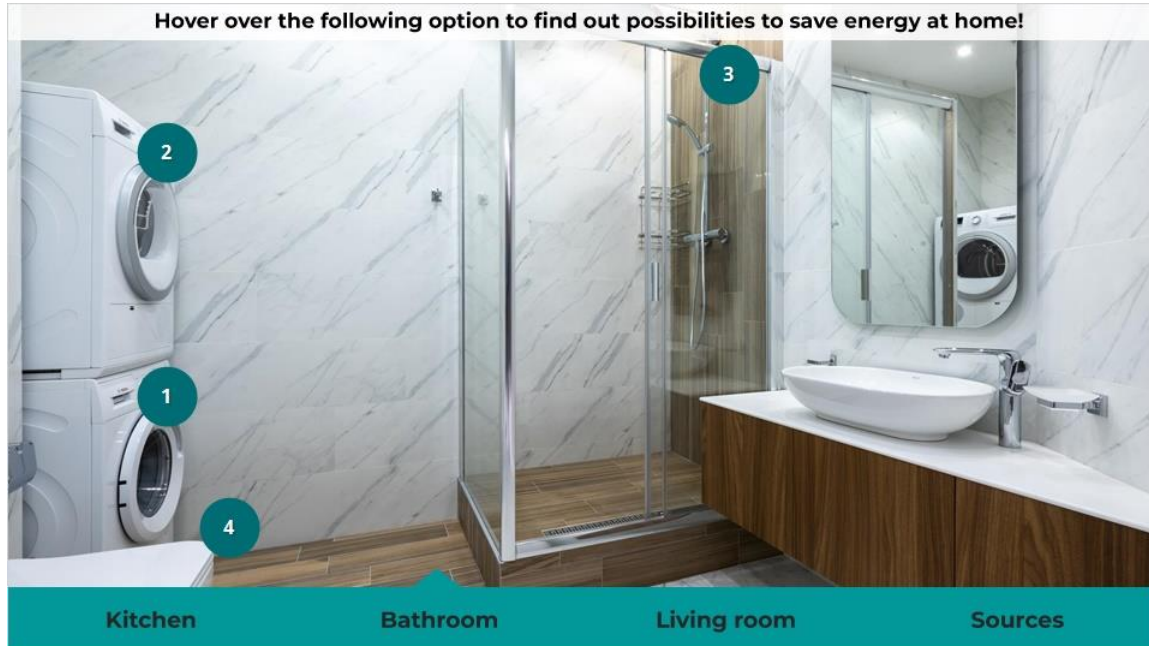
Kitchen (Slide Layer)

Hover over the following option to find out possibilities to save energy at home!

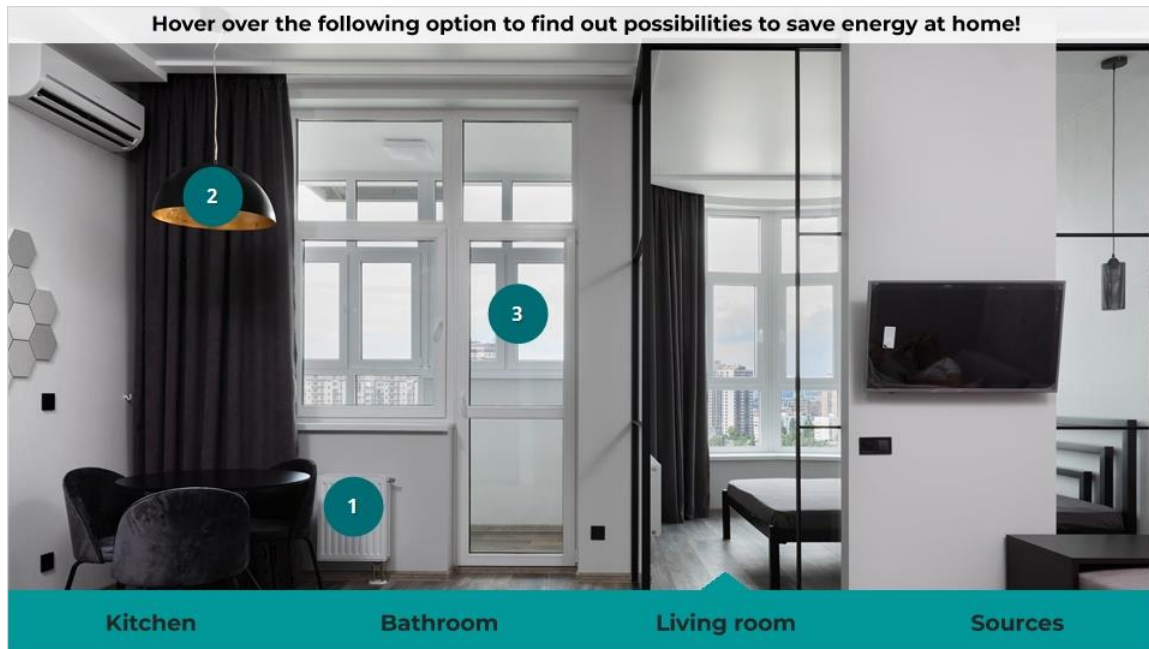
[Kitchen](#) [Bathroom](#) [Living room](#) [Sources](#)



Bathroom (Slide Layer)



Living room (Slide Layer)





Sources (Slide Layer)

How to save energy at home

Sources:

- Saving Energy – Topics (no date). Available on: <https://www.iea.org/topics/saving-energy>
- Quick tips to save energy at home (2022). Available on: <https://energysavingtrust.org.uk/hub/quick-tips-to-save-energy/>
- Vishnubhotla, V. (2023) 12 Energy Saving Tips for Your Home. Available on: <https://www.greenmatch.co.uk/blog/2020/03/how-to-save-energy-at-home>
- MacMillan, A. (2016) Easy Ways to Save Energy at Home. Available on: <https://www.nrdc.org/stories/easy-ways-save-energy-home>
- Choose the right LED lighting (2022). Available on: <https://www.sustainability.vic.gov.au/>


Hover over the following option to find out possibilities to save energy at home!

Kitchen Bathroom Living room Sources

5.2.3 How to save water (1)

How to save up water

There are lots of ways to avoid using too much water. Aside from turning off the water when brushing your teeth, here are a few tips you can use:



- From time to time, you should check your toilet, but also faucet and pipes for leaks
- Keep a bottle of drinking water in the refrigerator (in order to avoid using tap water to cool it for drinking)
- Don't use your toilet as an wastebasket



5.2.4 How to save water (2)

How to save up water

- Plant drought-resistant trees and plants, or use leftover cooking water, or water from rinsing your vegetables – to water your plants
- Use a broom to clean driveways, sidewalks and steps, rather than using a hose
- Use a water footprint calculator added in the further reading to evaluate your water consumption and find out other ways to cut it down

You can share your knowledge about saving water with people around you! Obviously, there are many more ways to save water, and without even noticing it, you are probably doing something to save water every day. Let's continue saving up water!

5.2.5 Save up money

Save up money

Last but not least, most of the tips that were given here are good for the planet, but also for your bank account! Indeed, reducing water and energy consumption will make sure your bill drops down. Also, buying second-hand products is a very good solution: since they have already been used, they are probably going to be cheaper than brand new ones. Therefore, buying new products can be quite interesting if they are environmentally-friendly and long-lasting.

Either way, it will do some good to your wallet!





5.2.6 Energy labels (1)

All about energy labels

A great and easy way to save energy is to check out labels before buying appliances or buying/renting a home. In fact, the EU has set several standards for energy labeling, which give you valuable information on the energy efficiency and other key features of the product you are willing to buy. On top of being better for the environment, energy-efficient appliances and homes often mean lower energy costs, and more comfortable living!

Appliances

In terms of appliances, the EU legislation requires the following products to have energy labels:

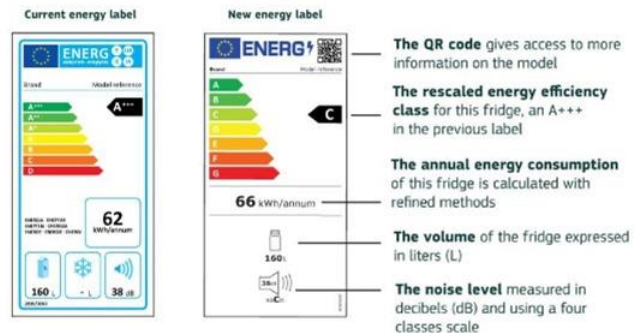
- Light bulbs and lamps
- Heaters
- Fridges and freezers
- Washing machines and dryers
- Air conditioners and fans
- Electronic displays, including televisions
- Kitchen appliances
- Tyres

5.2.7 Energy labels (2)

All about energy labels

Currently, the EU energy-label scales products from class A+++ (the most energy efficient) to D (the least energy efficient). However, these categories are currently being adjusted to reintroduce a simpler A to G scale. These labels also provide some specific data about other relevant features such as the product's noise emissions, or water consumption.

How to recognise a rescaled product ?



Source: How to recognise a rescaled product ? European Commission. Available in all EU languages on: https://ec.europa.eu/commission/presscorner/detail/en/ip_21_818



5.2.8 Homes and buildings

Homes and buildings

The scale is the same for energy-labels of buildings! The label provides information on the energy and climate performance of a home or building (labels A to G), evaluating its energy consumption and its impact in terms of greenhouse gas emissions. The calculation is based on a variety of technical characteristics such as building, heating, insulation, windows, etc.

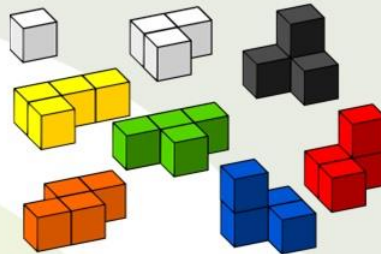
According to Eurostat, the main use of energy by households in Europe is for heating their homes (62,8% of final energy consumption in the residential sector). By living in a home with better insulation, you reduce your heating use, which is a great way to save energy.

Therefore, when looking to buy or rent a home, pay close attention to this label: choosing a more energy-efficient home has every chance of lowering your energy consumption, and by the same token, your bills!

5.2.9 Pack it smart (1)

Pack it smart

On average, each European generates almost 180 kg of packaging waste per year. Packaging is one of the main users of virgin materials as 40% of plastics and 50% of paper used in the EU is destined for packaging. The Commission is proposing new EU-wide rules on packaging, which are supposed to ensure reusable packaging options, get rid of unnecessary packaging, limit overpackaging, and provide clear labels to support correct recycling. The European Union is working on it, but we can all try to do some little things to make sure we also contribute.





5.2.10 Pack it smart (2)

Pack it smart

Here are a few tips:

- Avoid single-use plastics such as drinking straws and bottles of water (you can instead buy a steeled bottle)
- If you go shopping, remember to take a cloth bag
- Recycle chewing gum...it is also made of plastic! Or you can use organic chewing-gums
- Buy more bulk food and fewer packaged products
- Replace plastic tupperware for glass or steel containers
- Pay attention and put your plastic waste in the correct recycling container
- Avoid using cosmetics that use micro-plastics, buy a biodegradable brush and wear natural fabrics

Finally, make sure people around you are aware of the importance of reducing the consumption of plastic!

5.2.10 RUR Beginner sources (1)

Sources for Responsible Use of Resources (1)

- Energy label (2022). Available on: https://europa.eu/youreurope/business/product-requirements/labels-markings/energy-labels/index_en.htm
- About the energy label and ecodesign. Available on: https://commission.europa.eu/energy-climate-change-environment/standards-tools-and-labels/products-labelling-rules-and-requirements/energy-label-and-ecodesign/about_en
- How to recognise a rescaled product ? European Commission. Available on: https://ec.europa.eu/commission/presscorner/detail/en/ip_21_818
- Energy Consumption in Households. Available on: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Energy_consumption_in_households



5.2.11 RUR Beginner Sources (2)

Sources for Responsible Use of Resources (2)

- How to recognise a rescaled product ? European Commission. Available in all EU languages on: https://ec.europa.eu/commission/presscorner/detail/en/ip_21_818
- European Green Deal: Putting an end to wasteful packaging, boosting reuse and recycling. Available on: https://ec.europa.eu/commission/presscorner/detail/en/ip_22_7155
- How to reduce your plastic consumption. Available on: <https://www.iberdrola.com/sustainability/how-to-reduce-plastic-use>

[Continue with Intermediate course](#)

[Back to Responsible Use of Resources menu](#)



Responsible Use of Resources – Intermediate level

5.3 Environmental footprint (1)

Calculate your environmental footprint

Climate change is frequently measured as a temperature increase all around the globe. According to some studies, if our society continues to exploit a linear economy, a 3- to 6-degree temperature increase is expected, with around 65 billion tonnes emission of Greenhouse Gas Emissions (GHGs) in 2030, bringing catastrophic consequences for certain countries and unleashing far more severe climate change impacts, such as more frequent and severe droughts, heat-waves and rainfall.

The Paris Agreement on Climate Change aims to hold “the increase in the global average temperature to well below 2°C above pre-industrial levels” and pursue efforts “to limit the temperature increase to 1.5°C above pre-industrial levels” to combat climate change. This figure averages the CO₂ emission per capita to around 2 tonnes per person per year by 2030, which is frequently difficult to visualise in practical terms and thus cut down your carbon footprint.

5.3.1 Environmental footprint (2)

Calculate your environmental footprint

Carbon footprint is the total amount of greenhouse gases, including carbon dioxide and methane, that are generated by our actions, e.g. purchases, transportation methods, eating habits, etc. In a nutshell, whatever an individual does has an environmental trail on the planet. To cut down the carbon footprint to 2 tones does not happen overnight, but making some small informed actions does make a difference.

To assess your carbon footprint, numerous tools were developed to empower users to make informed choices. Usually, such tools include a number of questions regarding travel habits, diet, shopping, etc. Some tools collect the information under users' consent from various applications, such as Linky in France, Uber, etc. to simplify tracking.



5.3.2 Environmental footprint (3)

Calculate your environmental footprint

If you are not ready to track your CO₂ emissions by filling in information regularly, on the next page are some tools which will help to estimate your carbon footprint and then make concrete informed choices:



5.3.3 Calculate your environmental footprint (1)

Calculate your environmental footprint

UN Carbon footprint
calculator

Global footprint
network

Carbon Footprint™

WWF-UK



UN Carbon footprint calculator (Slide Layer)

Calculate your environmental footprint



The UN Carbon footprint calculator calculates your carbon footprint based on your household parameters as well as its energy consumption, your transportation methods, number and distance of flights, daily transportation, as well as your lifestyle habits, i.e. waste management and diet. Based on this, it proposes you a list of projects which could help you to offset your actions by supporting some valuable environmental initiatives targeting mainly renewable energy all across the globe with the investment needed.


UN Carbon footprint calculator: <https://offset.climateneutralnow.org/footprintcalc>

Hover over the following option to find out possibilities to save energy at home!

UN Carbon footprint calculator	Global footprint network	Carbon Footprint™	WWF-UK
--------------------------------	--------------------------	-------------------	--------

Global footprint network (Slide Layer)

Calculate your environmental footprint



Global footprint network calculator measures your CO2 emissions in terms of the resource demand of individuals, governments, and businesses against Earth's capacity for biological regeneration. Nowadays, according to the Global Footprint network, humans use as many ecological resources as if we lived on 1.75 Earths. The idea is thus to cut down your CO2 emissions to consume in accordance with the resources the Earth has.

Global footprint network: <https://www.footprintcalculator.org/home/en>

Hover over the following option to find out possibilities to save energy at home!

UN Carbon footprint calculator	Global footprint network	Carbon Footprint™	WWF-UK
--------------------------------	--------------------------	-------------------	--------



Carbon Footprint™ (Slide Layer)

Calculate your environmental footprint



Apart from calculating your carbon footprint, the tool also proposes some offset options to compensate for your CO2 emissions, as well as some weekly tips to cut down on CO2 emissions in case you want to receive them regularly.

Carbon Footprint™: <https://www.carbonfootprint.com/calculator.aspx>

Hover over the following option to find out possibilities to save energy at home!

UN Carbon footprint calculator	Global footprint network	Carbon Footprint™	WWF-UK
--------------------------------	--------------------------	-------------------	--------

WWF-UK (Slide Layer)

Calculate your environmental footprint



WWF-UK calculates your CO2 emissions through a set of simple easy-to-answer questions related to your lifestyle habits. Then, it proposes you to learn, act and support some of their environment-friendly projects and initiatives located mainly in the UK.

WWF-UK: <https://www.wwf.org.uk/>

Hover over the following option to find out possibilities to save energy at home!

UN Carbon footprint calculator	Global footprint network	Carbon Footprint™	WWF-UK
--------------------------------	--------------------------	-------------------	--------



5.3.4 Calculate your environmental footprint (2)

What's next?

Once you have **calculated your carbon footprint**, you can start reducing it by **adapting some of the advice** given in our learning modules or the tips given in each of the above-mentioned websites.

Another method to cut down your carbon footprint is to finance the projects which need **investment and which will help to offset your actions**. Choose the international or local project from trust-worthy reliable sources which strikes you most and make a contribution to combat climate change.

Another great idea would be to **donate for tree planting** instead of buying gifts for birthdays or support local, **national and international organisations** in the name of a birthday person. If you want to go further, you can set up some CO2 emissions measuring equipment available in your country gathering **information on your electricity, water and gas consumption** (often, it is already proposed by your energy provider), vehicle usage, food choices, and shopping patterns.

5.3.5 Calculate your environmental footprint (3)

What's next?

It might be more time-consuming, but some free of **charge applications can calculate your carbon footprint daily** based on the data you provide.

- **Check out the applications** available in your country on Google Play for Android and AppStore on IOS, and download a few applications best rated in your country.
- **Test them** then for a few days to see which application fits you best and appears to be the most user-friendly and comprehensive in terms of the data treated. Informed Means Armed. Now it is time to adapt some little changes!



5.3.6 Environmental friendly home

Environment-friendly home: simple renovations works to consume less energy

Most of the Circular Economy principles are hidden back in the design components. Properly designed products are easier to reuse, refurbish, remanufacture, share and recycle.

Same applies to our households: intelligently designed homes can help you to significantly lower your energy bills, thus consuming less energy.

Whereas some ideas might require more time, money and effort, there are still some simple solutions easily applicable to any household to make it more energy efficient.

1 2 3 4 5 6

Design your home smart (Slide Layer)

Design your home smart

Design your house in an energy-efficient manner taking into account your location, climate and needs of your family. In most cases, professionals' assistance is needed to calculate the current energy-efficiency performance of your house, as well as to receive some recommendations on possible improvements and savings potential.

The house's structure, hot water system, as well as cooling and heating are essentials to consider.

Some suggestions are to place bedrooms close to south facing windows to use it as a heating source during the winter, while taking into account summer season and ways to cool your space.



1

2 3 4 5 6



Consider heat loss reducing measures (Slide Layer)



Consider heat loss reducing measures

There are numerous ways to insulate your home thus lowering your utility bills. Even some little fixes can make a big difference in terms of your house energy-efficiency performance.

- About a third of all heat loss can be prevented by **cavity or solid wall insulation**. Most heat escapes through walls, so either with professional assistance or on your own, try to investigate whether your house has cavity wall insulation or not, and how you could set it up. According to some estimates, most installation costs can be made back in five years or less due to the yearly energy bill savings.
- If you live on a ground floor or above an unheated space, such as a garage, parking, etc. consider **floor insulation** for keeping up heat in your apartment.



Consider heat loss reducing measures (Slide Layer)



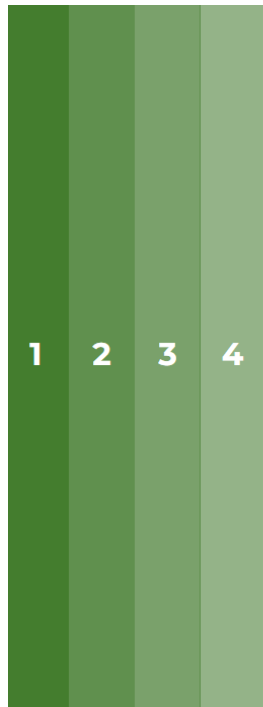
Consider heat loss reducing measures

- Around a quarter of warmth is lost through **roof insulation**. If you have easy access to it, some renovation works can be made to fix this problem, and it will be paid back a lot of times once installed through your energy bills.
- **Windows and doors:** installing secondary or third glazing or using heavy curtains can help you to cut down your carbon footprint and make your home resilient to streets' noise. Changing the doors to insulate your house better or even using silicon rubber or door draft stopper, which cost close to nothing given the savings you will make, will make your house more energy efficient.



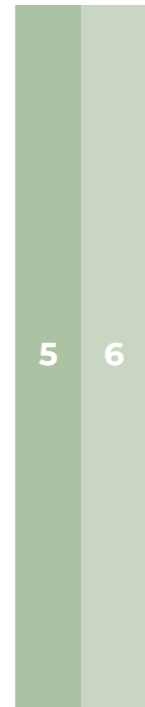


Boost Home Efficiency (Slide Layer)

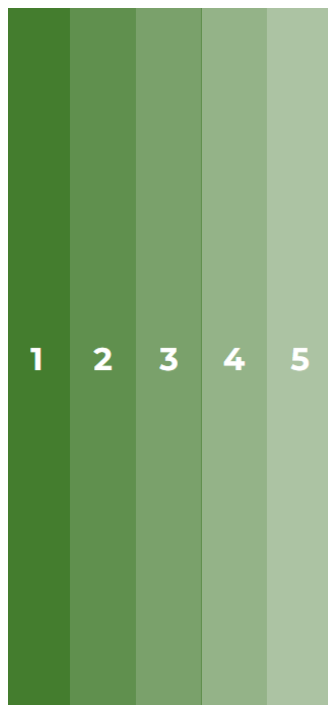


Boost Home Efficiency: Choose Smart Heating and Go Renewable

- **Choose energy-efficient heating and cooling systems:** depending on your climate, house characteristics, budget, get informed on what kind of heating and cooling systems would better fit your needs and opportunities. Usually, this investment is easily paid back thanks to the decreased energy bills.
- **Think of renewable energy:** what about generating electricity yourself? Depending on your house characteristics, consider installing solar panels, wind turbines, or hydroelectricity. The government often proposes different financial aids in compliance with your income to support households in setting up renewables. More opportunities are available out there. Why not produce your own energy to charge your phone?



Make your home smart (Slide Layer)



Make your home smart

Investing in some smart home devices can help you not only with monitoring your energy, water and gas consumption, but also detect some potential leaks and inform you on energy-efficient choices. Some concrete examples of the smart devices for an eco-friendly home are given in the further reading section.

- **Smart appliances** help you to use them by sending reminders on when they should be repaired, maintained, closed, etc. If you tend to forget a refrigerator's door or want to know when your washing machine should be repaired to avoid some future expenses, this might be a good investment for you.
- **Smart plugs** are inserted into regular plugs and allow you, using some applications, to control energy consumption, power level and turn off and on times for each device connected, and to demonstrate how much energy was already used. All is controlled remotely, and thus can be easily monitored when you are away from home.





Make your home smart (Slide Layer)



Make your home smart

- **Smart thermostat** is also controlled remotely and adapts perfectly to your needs by turning off heating when you are away from home and heating it up before your arrival. You can program heating or cooling in certain rooms while deactivating it in others to cut down on your energy bills.
- **Smart light bulbs** can be controlled through WiFi network and can be easily adapted to your needs, thus cutting down energy use.

5.3.6 RUR Intermediate Sources

Further Sources for Responsible Use of Resources

- UNFCCC. What is the Paris Agreement? Available on: <https://unfccc.int/process-and-meetings/the-paris-agreement>
- The circularity gap report 2023. Available on: <https://circularity-gap.world/2021>
- Inspiration for my next home improvement project. Available on: <https://energysavingtrust.org.uk/hub/inspiration-home-improvement-project/>
- Affordable zero energy home design & construction in 12 steps. Available on: <https://zeroenergyproject.com/build/twelve-steps-affordable-zero-energy-home-construction-design/>
- Energy-Efficient Home Design. Available on: <https://www.energy.gov/energysaver/energy-efficient-home-design>
- Ashley deHaan. 8 Ways Your Smart Home Can Save Energy. Available on: <https://www.enercare.ca/blog/>
- 10 AMAZING PRODUCTS FOR ECO-FRIENDLY HOME AUTOMATION. Available on: <https://elemental.green/10-amazing-products-for-eco-friendly-home-automation/>

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5.4. Beginner Scenario Responsible Use of Resources

5.4.1 RUR: Scenario - Beginner

Scenario 1 - Beginner: Responsible Use of Resources

In this scenario, you will help the granddaughter **Maria** settle into her first apartment. The scenario takes place first in a store and then in the granddaughter's apartment.

You can choose between correct and incorrect answers. Correct answers lead to further dialogue or feedback, while incorrect answers prompt the user to try again.

Key elements of the scenario include understanding the scenario, applying knowledge, and reflecting on feedback to improve.

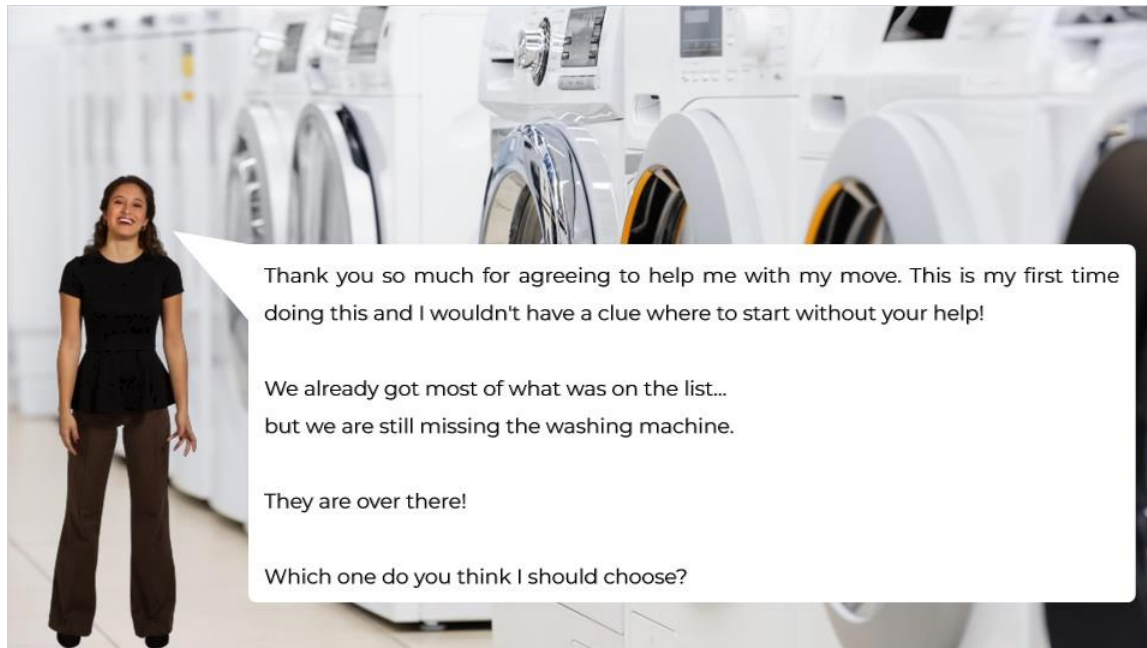
Hello, my name is
Maria. I am excited!



Are you ready?

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5.4.2 RUR: Scenario - Beginner






5.4.3 RUR: Scenario - Beginner: Question 1

(Pick One, 10 points, 1 attempt permitted)

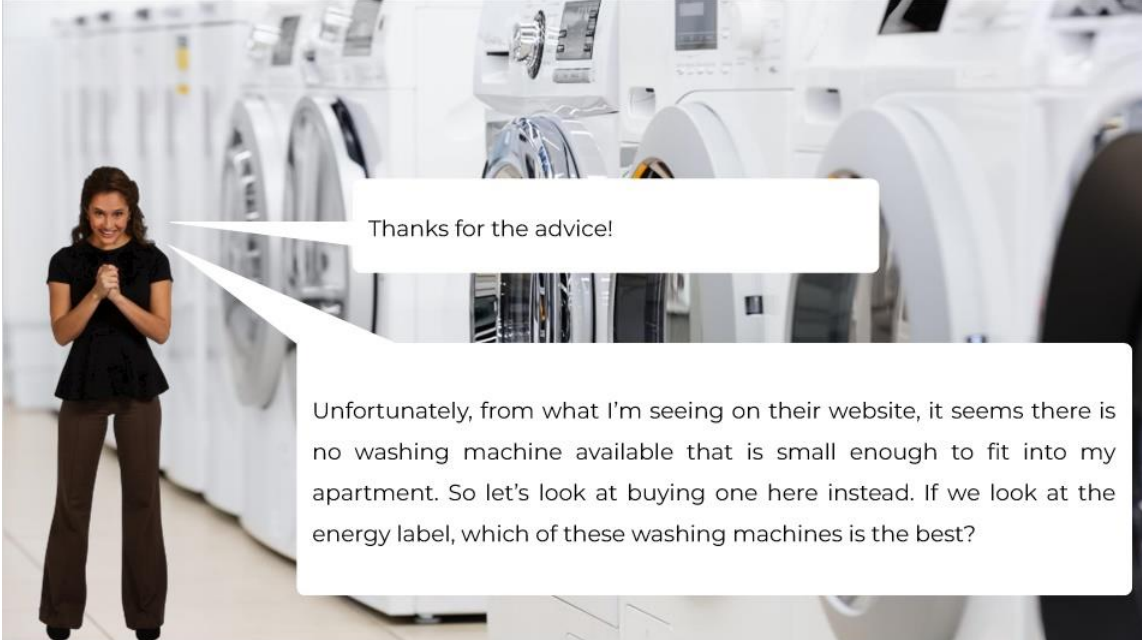
Choosing the right washing machine...

Select one of the diamonds below carefully as there is a right choice, a moderate one, and an incorrect option.



- ◇ I guess you could choose whichever one you like best and fits into your budget. How about that one?
- ◇ I have heard of this great organization which offers the possibility to rent a washing machine instead of buying it. You then can get free reparation, moving, and recycling of your old appliances!
- ◇ Let's look at the energy labels to make our choice!

5.4.4 RUR: Scenario - Beginner



Thanks for the advice!

Unfortunately, from what I'm seeing on their website, it seems there is no washing machine available that is small enough to fit into my apartment. So let's look at buying one here instead. If we look at the energy label, which of these washing machines is the best?



5.4.5 RUR: Scenario - Beginner: Question 2

(Pick One, 10 points, 1 attempt permitted)

How to recognise a rescaled product ?

Current energy label

New energy label

The QR code gives access to more information on the model

The rescaled energy efficiency class for this fridge, an A+++ in the previous label

The annual energy consumption of this fridge is calculated with refined methods

The volume of the fridge expressed in liters (L)

The noise level measured in decibels (dB) and using a four classes scale

Source: How to recognise a rescaled product ? European Commission. Available in all EU languages on: https://ec.europa.eu/commission/presscorner/detail/en/ip_21_818.

Multiple Choice

1

- Class A
- Low water consumption
- Low noise

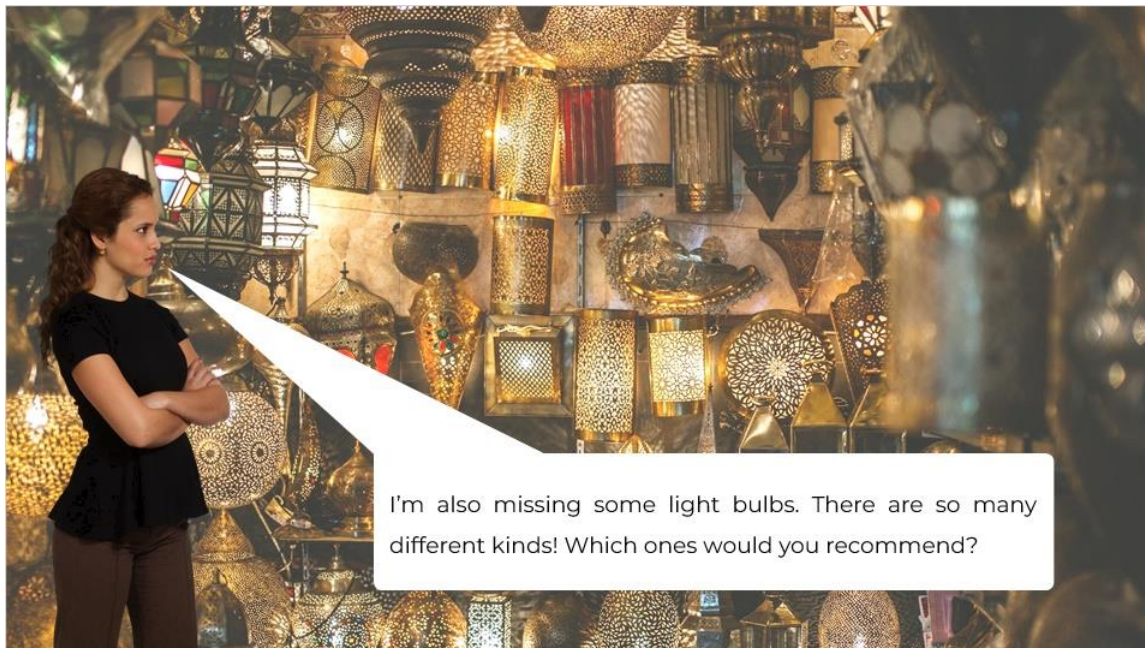
2

- Class C
- High water consumption

3

- Class A
- High water consumption
- High noise

5.4.6 RUR: Scenario - Beginner





5.4.7 RUR: Scenario - Beginner: Question 3

(Pick One, 10 points, 1 attempt permitted)

Multiple Choice

- 1 You should get some **incandescent light bulbs.**
- 2 You should get some **halogen light bulbs.**
- 3 You should get some **LED light bulbs.**

5.4.8 RUR: Scenario - Beginner

Ok, I think we've checked everything that was on the list.
Can you think of anything that's missing?

Oh... how to dry my laundry?

mostats

BAY 3




5.4.9 RUR: Scenario - Beginner: Question 4

(Pick One, 10 points, 1 attempt permitted)

Select Maria's best laundry drying option

Select one of the diamonds below carefully as there is a right choice, a moderate one, and an incorrect option.



- Lets buy a tumble dryer!
- Or shall I buy racks to dry my clothes?
- I also heard of the option to rent a tumble dryer...

5.4.10 RUR: Scenario - Beginner

Thank you for your help with everything! I think that I'm all settled now. I noticed you were trying to be conscious about the energy use when we were choosing the different appliances for my apartment. I think that's really great! I really want to try and reduce my energy consumption. On top of being good for the environment, I heard it could really help reduce my bills. Do you have any tips?






5.4.11 RUR: Scenario - Beginner: Question 5

(Pick One, 10 points, 1 attempt permitted)

Any tips to save energy?

Select one of the diamonds below carefully as there is a right choice, a moderate one, and an incorrect option.




- Of course! First of all, make sure you always turn the lights off when leaving a room. Also try to prioritise showers over baths, and turn down your heating when you are sleeping or out of your apartment!
- Of course! Try to do smaller loads when using the washing machine, even if it means using it more often. You can also keep lights on in the evening, because the action of switching them on and off is very energy consuming.
- You could probably look up some tips online. There are so many resources that can be really helpful if you're trying to pay attention to your energy consumption.

5.4.13 RUR: Scenario - Beginner (SEN4CE Tree)

The SEN4CE Tree

The tree shows you the progress of the course. In the process, you may discover some surprises as well.



- Stay the course! The tree's vigor mirrors your dedication to using resources wisely.
- Great job! Your wise use of resources has planted the first seed of sustainability!
- Kudos! The tree's full growth signifies your unwavering commitment to sustainability. Stand proud! Continue with scenario 2 to claim your reward!
- You're leading by example! This robust tree demonstrates the harmony of responsible resource use.
- The tree grows with every responsible choice you make, showcasing the beauty of resource conservation.

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5.5 Intermediate Scenario Responsible Use of Resources

5.5.1 RUR: Scenario - Intermediate

Scenario 2 - Intermediate: Responsible Use of Resources

In this scenario, you will help the granddaughter **Maria** to do some renovations in first apartment. The scenario takes place at her apartment.

This scenario will help you to learn:

- How to calculate your CO2 footprint and how to cut down your CO2 emissions;
- How to do some renovation & renewable energy works in order to make your house less energy-consuming.

You can choose between correct and incorrect answers.

Are you ready?

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5.5.2 RUR: Scenario - Intermediate

I think it is better to find a specialist who could help me design my apartment so it looks nice and corresponds well to my taste.




5.5.3 RUR: Scenario - Intermediate: Question 1

(Pick One, 10 points, 1 attempt permitted)

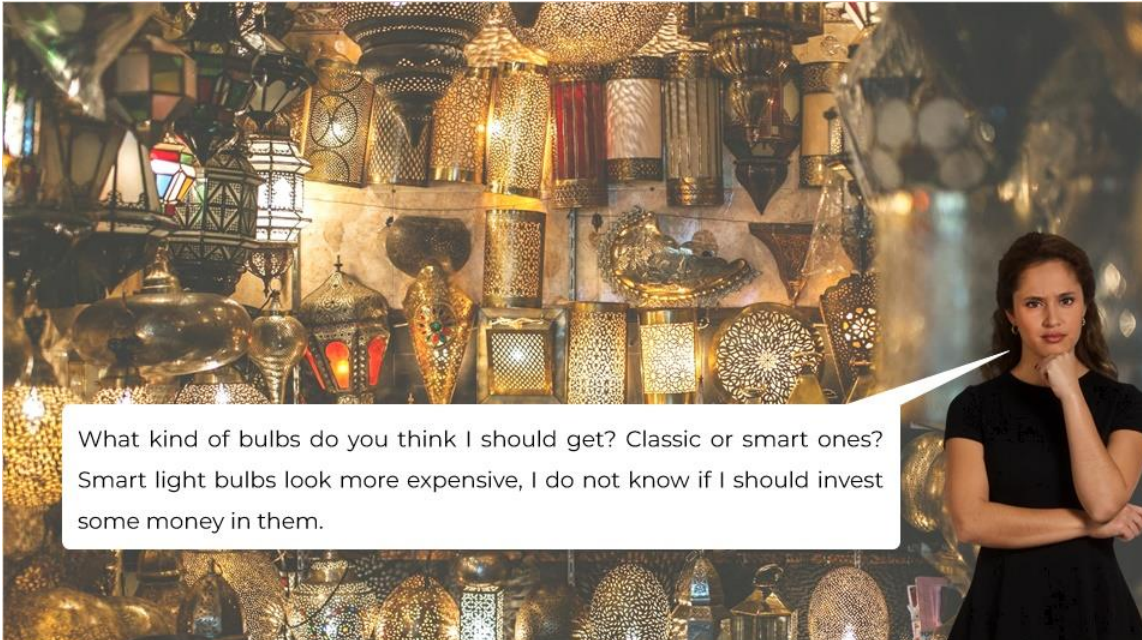
Choosing the right specialist...

Select one of the diamonds below carefully as there is a right choice, a moderate one, and an incorrect option.



- Yes, it is a great idea to find a specialist who could help you to do so!
- Great idea! Maybe you could also look up the specialists who could help you to evaluate the energy performance of your apartment to make it less energy-consuming and give us some recommendations. It might not seem like a priority now, but once it is done at the first renovation steps, it will help to save a lot of money in the future.
- Yes, let's do so! But let's check the energy performance at your apartment first to get it fixed now.

5.5.4 RUR: Scenario - Intermediate



What kind of bulbs do you think I should get? Classic or smart ones? Smart light bulbs look more expensive, I do not know if I should invest some money in them.




5.5.5 RUR: Scenario - Intermediate: Question 2

(Pick One, 10 points, 1 attempt permitted)

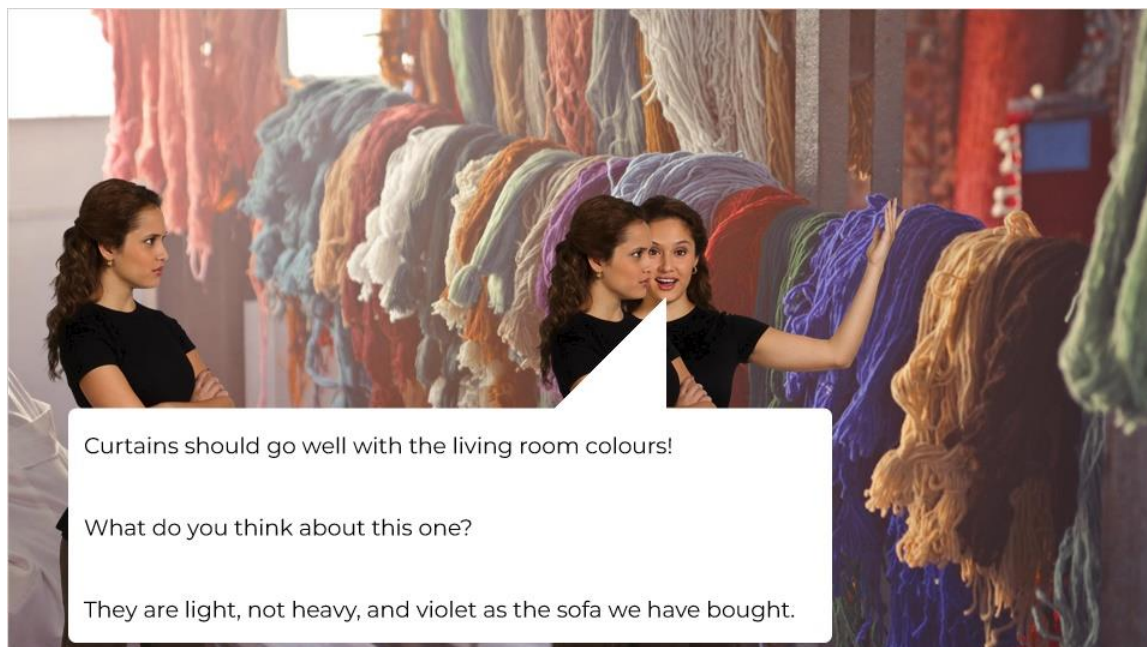
Choosing the right light bulbs...

Select one of the diamonds below carefully as there is a right choice, a moderate one, and an incorrect option.



- Yes, maybe you should buy classic ones, but let's choose the one with an EU energy label, the one from class A+++ if we find one.
- Smart light bulbs can help to save you more energy thanks to their control and monitoring systems and will permit you to adjust the lighting to the level you need to feel more comfortable at home. But, of course, think about your budget to make the right choice. Energy-efficient bulbs will also be a good solution, and they are a bit less expensive.
- You are right! Bulbs are just bulbs. As long as your apartment is bright, it does not matter which bulbs are used.

5.5.6 RUR: Scenario - Intermediate



Curains should go well with the living room colours!

What do you think about this one?

They are light, not heavy, and violet as the sofa we have bought.




5.5.7 RUR: Scenario - Intermediate: Question 3

(Pick One, 10 points, 1 attempt permitted)

Choosing the right curtains...

Select one of the diamonds below carefully as there is a right choice, a moderate one, and an incorrect option.




- Let's look at the thermal curtains! I am sure we can find violet ones so they fit well in your living room.
- Great idea! The lighter they are, the easier it will be to open or close them when needed.
- Maybe we could look for blinds to save some space?

5.5.8 RUR: Scenario - Intermediate

(Pick Many, 10 points, 1 attempt permitted)

Driving home on the bus

Thank you for your help with my renovation works and choosing the right items for my new home! I have heard recently about the carbon footprint calculator. Have you ever heard of it? Do you know how it can calculate our CO₂ emissions? **(Multiple Answers Possible!)**



- Usually, it asks you a number of questions regarding your travel habits, diet, shopping, etc.
- It might collect some information under your consent from various applications, e.g. from your energy provider, Uber, etc. to simplify tracking.
- It might be an application that you complete regularly to indicate your travels, purchases, meals, etc. to calculate how much CO₂ emissions you produced.



5.5.9 RUR: Scenario - Intermediate: Question 4

(Pick One, 10 points, 1 attempt permitted)

Carbon footprint

Do you think that a carbon footprint calculator can bring us closer to building a Circular Economy?

- No, I do not see how it can be of any use to us.
- Informed often means empowered! Knowing how much CO2 you produce may give you concrete figures and ideas on your current consumption patterns and how you can change them. In addition, it often gives you some concrete recommendations on how you could improve it.
- Not really, but it looks like a fun activity.

5.5.10 RUR: Scenario - Intermediate (Quiz Results)

(Results Slide, 0 points, 1 attempt permitted)

QUIZ RESULTS

Your Score: → 0%

RETRY **REVIEW** **CONTINUE**



5.5.11 RUR: Scenario - Intermediate (SEN4CE Tree)

The SEN4CE Tree

The tree shows you the progress of the course. In the process, you may discover some surprises as well.



Your dedication is shining through! The flourishing tree represents your commitment to conservation.

Great beginning! With your enhanced perspective, the seed for optimal resource use is planted.

Congratulations! This tree, in its prime, reflects your mastery in resource management.

Your wisdom is palpable! This lush tree stands as an emblem of your holistic approach to resources.

Witness the tree prosper as you deepen your understanding of responsible resource allocation.

Tap Here!

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