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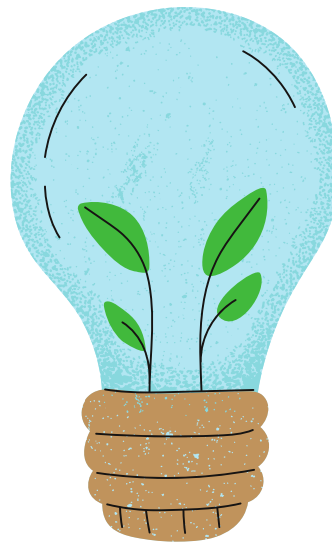
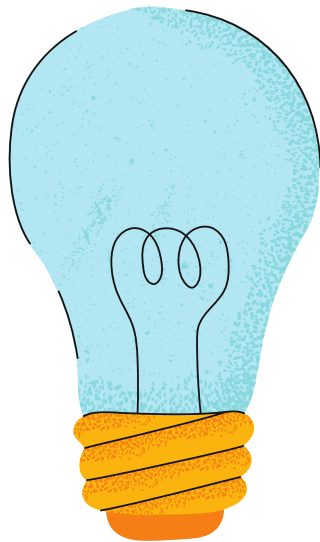
Project Code: 2021-1-ES02-KA220-YOU-000028693

entre YOUTH

Entrepreneurial Youth
Worker Training
Programme on Sustainable
& Circular Urban Food
Enterprising

Sustainable & circular urban food enterprising (SURFE) curriculum

TEACHING NOTE



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CU1 - FROM A LINEAR TO A CIRCULAR ECONOMY

Module Description

Learning Outcomes

Learning Materials

**Activity 1: Observing our
surroundings**

**Activity 2: Increasing awareness on
food wastage**

**Activity 3: Practices that promote
circularity**

**Activity 4: Food preservation &
upcycling**



C U I - F R O M A L I N E A R T O A C I R C U L A R E C O N O M Y: finding opportunities from waste

MODULE DESCRIPTION

The growing demand for raw materials, the scarcity of resources and the excessive waste generation of the current economic system require moving our economy towards a more sustainable economy. The basis for this change lies in the rational use of resources and the minimization of the environmental impact of our actions.

The circular economy model has emerged to reduce the negative impact of a system that is highly wasteful, and that through the redesign of the entire production and consumption process, aims to meet current and future needs in a more sustainable way.

The future is circular so, this module will give an overview of the big concepts to influence youth perception on how through our actions, we can affect and redesign the current food system in a more sustainable and regenerative way. To this end, this content unit provides an overview of the main concepts related to the circular economy in the food context. Specifically, how to find opportunities from the waste generated. Additionally, a perspective on how it works and how the actions of the different actors influence the system are presented.

THE CONTENT UNIT PROVIDES AN OVERVIEW ON:

- The foundations of the circular economy
- The value of food waste generated
- The opportunity to benefit from alternative food networks
- The operation of supply and demand in the food context
- The social and environmental impact associated to the current food system

C U 1 - F R O M A L I N E A R T O A C I R C U L A R E C O N O M Y: finding opportunities from waste

LEARNING OUTCOMES

- To know the fundamentals of the circular economy, to be able to differentiate between a linear and a circular economic model, and to know the benefits of the transition to a completely circular model.
- To know what food waste is, where it is produced and what its value is.
- To learn what alternative food networks are, which types exist and discover initiatives to reduce food waste.
- To know how supply and demand works in the food context and the implication it has in food waste generation.
- To be aware of the social and environmental repercussions of the food system.

LEARNING MATERIALS

The content unit includes a variety of training content that seeks to meet specific learning objectives:

- The **informative guide** pursue to provide students with basic notions on circular economy in the food context and how to implement sustainability-oriented changes.
- The **infographic** and the **video presentation**, as highly interactive and visual content, seek to enhance student participation and engagement.
- The **webquest** and the **practical application project** aim to put into practice the knowledge acquired.

C U I - F R O M A L I N E A R T O A C I R C U L A R E C O N O M Y: finding opportunities from waste

LEARNING MATERIALS (cont.)

To conclude, the following activities are proposed:

Activity 1 - OBSERVING OUR SURROUNDINGS. Students are requested to analyse the waste generated along the supply chain based on food they regularly consume. It is designed to encourage students to reflect on all the processes that are involved up to food consumption and become aware of the number of resources that are used and eventually wasted.

Activity 2 - INCREASING AWARENESS ON FOOD WASTAGE. It requires students to observe how food is bought, stored, cooked and wasted in their household. It is designed to challenge students to reflect on the impact of their consumption patterns and to be able to seek for alternative solutions to wasteful behaviours.

Activity 3 - PRACTICES THAT PROMOTE CIRCULARITY. Students are encouraged to investigate some of the practices that are being carried out in the food industry and that seek to maximize the utilization of resources. It is designed to challenge students to discover different measures of use and recycling of products/by-products in the food industry.

Activity 4 - FOOD PRESERVATION & UPCYCLING. It requires student to search on social media for "trash cooking" recipes from influential people. It is designed to encourage students to learn tips from community members that will help them to discover ideas and inspire them to innovate further on their own.

ACTIVITY 1

OBSERVING OUR SURROUNDINGS

TIME: 20 - 30 MINUTES

RESOURCES &
MATERIALS
Worksheet

THEMATIC DESCRIPTION

The current rate of waste generation is unsustainable for the planet, which is why it has become more than necessary to look for solutions that can contribute to the fight against waste. Waste not only implies food loss, it also implies the loss of resources that have been used from production (land, water or energy) to consumption. Therefore, for the final consumption of a food product, waste has been generated along the entire supply chain and, most of the time, as a result of improper decisions.

WHAT'S YOUR TASK?

- *Analyse the products you consume on a daily basis, identify the resources employed to produce these products along the entire supply chain, and propose solutions that could prevent waste throughout any of the processes.*



GOAL OF THE ACTIVITY

Reflect on all the processes that are involved up to food consumption and become aware of the number of resources that are used and eventually wasted.

ASSIGNMENT PHASES

- Choose 3 food products that you regularly consume.
- Think about all the processes that are part of the supply chain (production, collection, storage, transport, distribution and consumption) and analyze, for each product, all the materials and resources used.
- List all materials and resources involved.
- Suggest all possible solutions you have found to avoid or reuse the wasted resources generated along the entire supply chain.

REFLECTION...

AM I NOW MORE CONSCIOUS OF WHAT IS INVOLVED IN THE PROCESS OF FOOD PRODUCTION AND CONSUMPTION? DO I UNDERSTAND THE NEGATIVE IMPACT IT CAN HAVE ON THE ENVIRONMENT?

ACTIVITY 1

OBSERVING OUR SURROUNDINGS

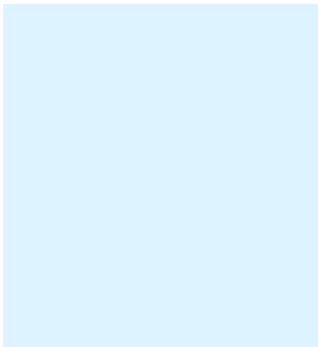
WORKSHEET

STEP 1 – CHOSEN PRODUCTS

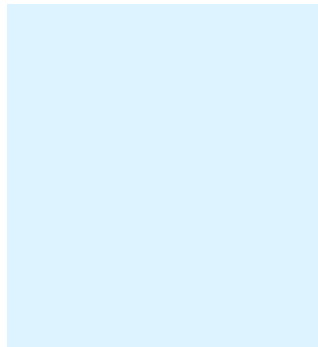
- (FOOD 1)
- (FOOD 2)
- (FOOD 3)

STEP 2 – LIST OF MATERIALS AND RESOURCES USED

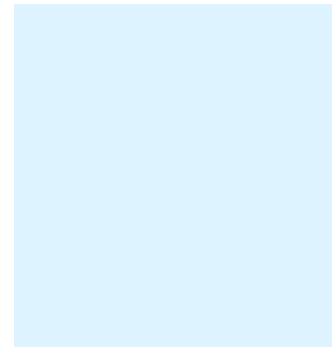
(FOOD 1)



(FOOD 2)



(FOOD 3)



STEP 3 – LIST OF SOLUTIONS

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ACTIVITY 2

INCREASING AWARENESS ON FOOD WASTAGE

TIME: 5 DAYS

RESOURCES &
MATERIALS

Registration sheet

THEMATIC DESCRIPTION

According to the Food Waste Index 2021, published by the United Nations Environment Programme (UNEP), households worldwide waste 569 million tonnes of food annually. A first step to prevent waste is to look at our behaviour in our day-to-day life: analyse the products we consume regularly and assess whether we can change our consumption and behavioural patterns to attempt to reduce food waste.

WHAT'S YOUR TASK?

- *Observe how food is bought, stored, cooked and wasted in your household.*

ASSIGNMENT PHASES

- Use a record sheet to keep track of how you and your family buy, store and consume food over a five-day period.
- Add two additional questions that you consider appropriate based on your circumstances.
- Analyse your consumption patterns and answer the following question: Do you think your behaviour is appropriate? Why? If not, make a list of potential solution to reduce the food waste you generate.

GOAL OF THE ACTIVITY

Assess your own impact and be able to look for alternative solutions to wasteful behaviours.



REFLECTION...

WHAT IS THE IMPACT OF
CHANGING YOUR HABITS? IS IT
ENOUGH? WILL YOU MAINTAIN
IT OVER TIME?

ACTIVITY 2

INCREASING AWARENESS ON FOOD WASTAGE

REGISTRATION SHEET

	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
Have you bought more food than necessary?					
Have you cooked more food than necessary?					
What have you done with the leftovers?					
Have you thrown food away?					

ACTIVITY 3

PRACTICES THAT PROMOTE CIRCULARITY

TIME: 20 - 30 MINUTES

RESOURCES & MATERIALS

Worksheet,
laptop/phone

THEMATIC DESCRIPTION

The food system depends on natural resources, and their depletion is becoming increasingly alarming. Specifically for this reason, several actions are being carried out in the food industry to maximize the use of resources. For example, in oil production, sub-products such as "alperujo" are used for other purposes such as soil fertilizer.

WHAT'S YOUR TASK?

- Select a productive activity of the food system and investigate the most common practices within it that promote circularity.

ASSIGNMENT PHASES

- Think in a production activity within the food industry.
- Conduct a research on the most relevant practices that promote circularity.
- Analyse the impact that these measures have on the environment as well as the economy.

GOAL OF THE ACTIVITY

Discover some of the measures carried out in the food industry for the exploitation and recycling of products/sub-products.



REFLECTION...

ARE THESE ACTIONS TOO COMPLEX TO BE IMPLEMENTED? DO THESE ACTIONS HAVE A SIGNIFICANT ENVIRONMENTAL AND/OR ECONOMIC IMPACT? ARE YOU AWARE OF OTHER ACTIONS?



ACTIVITY 4

FOOD PRESERVATION & UPCYCLING

TIME: 30- 60 MINUTES

RESOURCES & MATERIALS

Laptop, phone, tablet, notebook...

THEMATIC DESCRIPTION

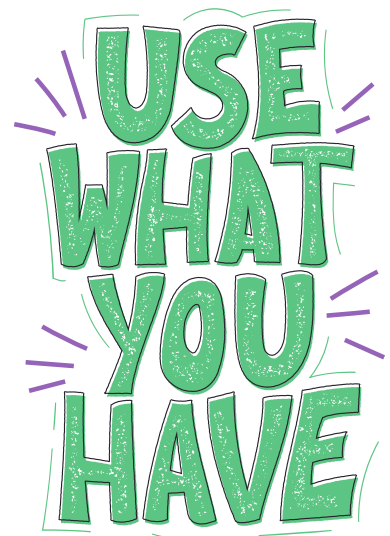
Food wastage produces an alarming amount of food residues. In some cases food is thrown away because it does not meet the standards of appearance or, in many other cases, because not all of the food used in a recipe is being used. Learning ways to cook, preserve and "recycle" food can contribute to preventing food waste.

WHAT'S YOUR TASK?

- *Search on social media for "trash cooking" recipes from influential people.*

ASSIGNMENT PHASES

- Explore social networks (Instagram, Facebook, Tik tok...) and search for social media accounts that create food content and tips.
- Find three recipes that make use of leftovers or food that will soon be wasted.
- Write down 5 of the accounts you find useful.



GOAL OF THE ACTIVITY

Learn tips from community members that will help you to discover ideas and inspire you to innovate further on your own.

REFLECTION...

WHAT HAVE I LEARNT ABOUT FOOD PRESERVATION? HOW CAN I APPLY WHAT I HAVE LEARNT AS A NEW COURSE OF ACTION?

CU2 - FOUNDATIONS OF ENTREPRENEURSHIP AND SOCIAL ENTREPRENEURSHIP

Module Description

Learning Outcomes

Learning Materials

**Activity 1: Creativity and innovation
with reverse brainstorming**

Activity 2: Pitch game

**Activity 3: Revenue models matching
card game**

**Activity 4: Do I have what it takes to
be an entrepreneur – and is my
community ready?**

Activity 5: Elevator pitch



CU2 - FOUNDATIONS OF ENTREPRENEURSHIP AND SOCIAL ENTREPRENEURSHIP

MODULE DESCRIPTION

The demand for food is expected to rise by 60% as the global population rises from 7.2 billion in 2010 to over 9 billion in 2050. Currently, around 30% of the food that is produced worldwide every year is lost or squandered. Over \$1 trillion worth of food is wasted worldwide, between 35% and 50% of which is never consumed. To put it in context, food waste in the USA accounts for 1.3% of the nation's GDP.

Every night, 800 million people go to bed hungry. This equates to 1 in 9 individuals on the earth who are undernourished or famished. On less than a fifth of the food that is wasted in the United States, the United Kingdom, and Europe each year, every single one of them could have enough to eat. At the same time, it is believed that over 30% of adults worldwide are overweight or obese.

Food prices have an impact on food security and well-being; in impoverished areas, people are heavily dependent on food prices and spend between 50 and 80 percent of their income on it. We have a globalized food supply system, which can increase the cost of food produced for export in developing nations, prevent crops from being cultivated to feed local populations and hasten the deterioration of natural environments.

In this regard, the content unit offers a summary of:

- Foundations of entrepreneurship and social entrepreneurship
- Entrepreneurship theories
 - Startups
 - Scaleups
 - Business Model Canvas & Lean Startup
 - Investments, Financial, Accounting & Pitching
- Understanding social enterprises and how they can fix societal challenges
 - What Is a Social Enterprise?
 - How can social enterprises fix societal challenges
- Practicalities and legislative context, understanding food cooperatives and community initiatives that handle food waste redistribution

CU2 - FOUNDATIONS OF ENTREPRENEURSHIP AND SOCIAL ENTREPRENEURSHIP

LEARNING MATERIALS

A range of training materials that aim to achieve particular learning objectives are also included in this section:

- Students will learn the the basics of entrepreneurship and the foundations of social entrepreneurship from the **informative guide**.
- The **infographic and video**, aim to increase students' participation and their engagement with the materials through more interactive .
- The **webquest** and **the practical application project** aim to put the knowledge you've learned into practice.

In order to wrap up, some additional exercises are suggested in the current teaching note.

Activity 1 - CREATIVITY AND INNOVATION WITH REVERSE BRAINSTORMING: The aim is to apply the reverse brain storming technique for finding solutions to a specific challenge from a different perspective.

Activity 2 - PITCH GAME: students are encouraged to come up with an idea for a new product as a group and to make a pitch to convince the rest about the originality of their proposal.

Activity 3 - REVENUE MODELS MATCHING CARD GAME: a card matching game with different revenue models is proposed. The final objetive is to select the most beneficial one for the chosen company.

Activity 4 - DO I HAVE WHAT IT TAKES TO BE AN ENTREPRENEUR - AND IS MY COMMUNITY READY?: A number of questions are proposed to encourage reflection on whether one has the necessary characteristics to be an entrepreneur.

Activity 5 - ELEVATOR PITCH: students are encouraged to make an elevator pitch and present it to their colleagues.

ACTIVITY 1

CREATIVITY AND INNOVATION WITH REVERSE BRAINSTORMING



THE GOAL OF THE ACTIVITY

Think outside the box to find creative solutions to challenges with reverse brainstorming! This isn't your normal brainstorming technique: instead of solving a problem, you make it worse!

Entrepreneurs develop novel goods, services, or applications to address problems.

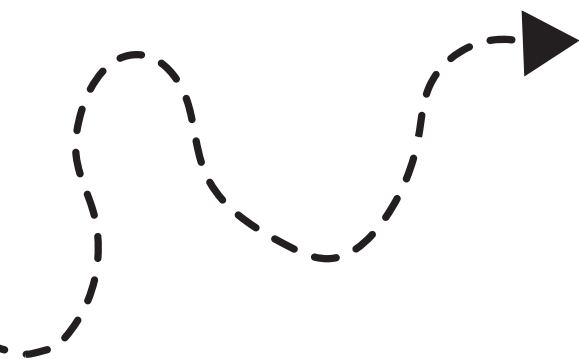
It might be difficult to come up with ideas, especially ones that are original. Entrepreneurs can develop creative solutions by using reverse brainstorming to look at problems from a different angle.

Many people believe that brilliant ideas are the result of "light bulb" moments or startling insights. Being creative, though, is a skill. The truth is that creativity is a skill that entrepreneurs develop over time.

When brainstorming (whether you're looking for solutions or ways to make a problem worse), don't forget the brainstorming rules:

Go for large quantities of ideas. The more the better.

- There are no bad ideas (all ideas get recorded—if you are working on your own, do not edit out ideas and, if you are in a group, do not criticize others' ideas or make judgments).
- Encourage wild and exaggerated ideas (anything goes in brainstorming)!
- Capture everything – every idea must be recorded!



ACTIVITY 2

PITCH GAME

1. Plan a **new product development** and make a compelling **pitch** for it to the class.
2. Think one example each from the students for a **noun, an adjective, and a verb**.
3. Based on this, you should come up with a **business name** and **concepts** for a good or service that satisfies consumer wants and incorporates an adjective, noun, and verb in some form.

Example 1: Adjective: Green; Noun: Dog; Verb: Eat Green, Grass-flavored dog food for dogs that like to eat grass, a healthy dog food alternative, or a service that paints dogs green while they're eating are all examples of green-related words.

Figure 2: Round, Noun, Verb, and Adjective: Runner

A running jacket with circular cloth flaps that may be opened in warmer weather to allow for improved airflow (blows) and closed in cooler weather

4. **Think widely** and without boundaries and restrictions (other than the three descriptors).

If video conferencing software is used, groups will have time to work in the breakout area. To ensure understanding, task instructions will be provided in a shared document or via the chat tool.

5. **Arrange into groups**. On your own paper, on digital whiteboards, or in a shared document, groups can brainstorm.

6. Follow the **tips** below to create a 60-second sales speech for the product:

Start by posing a query.

What's the issue?

What is your remedy? Why is it special?

To whom are you marketing? It's your market!

What price are you asking for it?

What do you want? What are you asking of us?



ACTIVITY 2

PITCH GAME

7. Each group should make a **30- to 90-second pitch** at the conclusion of 10 to 15 minutes to persuade the audience that their proposal is a good one.

It is advisable to follow these guidelines:

There are no bad ideas during brainstorming, and wacky ideas are encouraged!

Even if the product idea isn't very fascinating, the goal of this task is to use creativity to convince someone to purchase or invest in your product. As a result, concentrate more on creating a strong pitch.

All group members must participate during the pitch.

Major Points

An essential component of being a successful entrepreneur is teamwork and collaboration.

Because it is so crucial to attract finance or potential clients, entrepreneurs must feel at ease pitching their ideas.

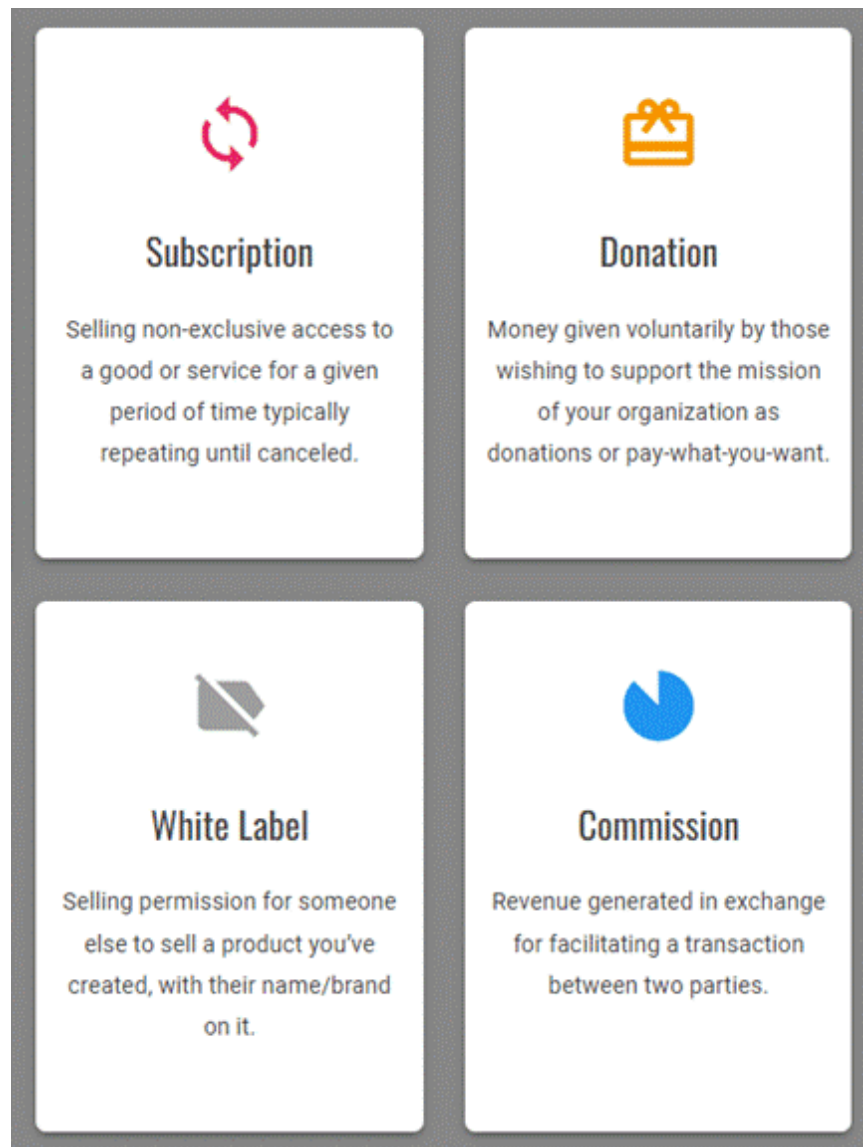
A succinct, well-thought-out proposal can persuade someone to invest in your service or business.

ACTIVITY 3

REVENUE MODELS MATCHING CARD GAME

Step 1: Match the Cards

Start by matching revenue model definitions cards like...



To familiar companies that use those revenue models:

ACTIVITY 3

REVENUE MODELS MATCHING CARD GAME



WIKIPEDIA
The Free Encyclopedia



The cards actually teach you the revenue model definitions – no textbook required!

Step 2: Brainstorm

Next, you should brainstorm ways you could use 9 different revenue models:

Advertising

This revenue model is about selling the right (Eg: Ad space) to promote another organization's products or services to your customers.

How could you use this revenue model in your business?

*Required

After exploring a wide range of revenue models that could potentially be used, you would be ready to...

Step 3: Apply

Pick the revenue model(s) you think will be most profitable for your company...

ACTIVITY 4

DO I HAVE WHAT IT TAKES TO BE AN ENTREPRENEUR – AND IS MY COMMUNITY READY?

Exercise 1: Characteristics of an entrepreneur

After discussing the characteristics of an entrepreneur with your small group, consider which of those characteristics might describe you. Think about how you may have demonstrated some of the entrepreneurial characteristics through your schoolwork, extracurricular activities, or part-time job. Record your personal entrepreneurial characteristics in the table below.

Personal Entrepreneurial Characteristics

Exercise 2: Your business

With your small group, review the reasons someone might want to open a business. Share with your group some reasons that you might consider opening your own business and what type of business you would like to own. Record your reasons and type of business below.

Reasons I would consider opening my own business include:.....

The type of business I would like to own is:.....



ACTIVITY 5

ELEVATOR PITCH

Materials: example elevator pitch, business scenarios

In this activity, you should craft and share an elevator pitch for a business of your choice. Elevator pitches are short speeches often used to introduce oneself or one's company at networking events. In this case, an elevator pitch is a persuasive synopsis of the value an organization brings to a potential investor. After learning about the concept of the elevator pitch and considering an example, think about the importance of elevator pitches in being an entrepreneur, as most endeavors have to be funded by external sources.

Next, gather in teams and come up with a elevator pitch for a business you created. You can then practise your speech with your teammates until it feels natural. It is important to focus less on memorisation and exact wording but more on the message you intend to convey and the persuasive techniques you use to do so.

Then, partner with someone from another team and present your elevator pitch, without notes. Do this with three different members of the other teams. Wrap up with a brief discussion or reflective paragraph about the activity.



CU3 - MOTIVATING,INSPIRING AND TRAINING THE COMMUNITY TO ENGAGE

Module Description

Learning Outcomes

Learning Materials

Activity 1: Needs and desires

Activity 2: Mediterranean diet

Activity 3: Urban garden



CU3 - MOTIVATING,INSPIRING AND TRAINING THE COMMUNITY TO ENGAGE: motivating individuals and businesses to properly pre-select the waste

MODULE DESCRIPTION

Human beings have certain needs that must be satisfied and which translate into the consumption of goods and services provided by nature. However, when this supply of food, energy or goods becomes excessive, we are dealing with irresponsible consumption of resources and we speak of consumerism.

The main characteristic that differentiates mass consumption, as we know it today, from traditional consumption in other periods of history is the objective that motivates people to consume. Whereas in the past people consumed to cover basic needs (buying food, clothes...), nowadays most consumer activity is aimed at satisfying the desires of consumers, who consider the goods they demand to be necessary.

In this sense, responsible consumption is a concept that advocates that human beings should change their consumption habits, adjusting them to their real needs and those of the planet, choosing options that are environmentally friendly and promote social equality.

Therefore, we must promote a healthy and responsible consumption and the education for sustainability, motivating, inspiring and training the community, and especially young people as agents of change, to be part of the solution, not part of the problem. To this end, this content unit we will develop the main concepts related to the healthy and responsible consumption of resources, as well as waste prevention and reduction measures.

THE CONTENT UNIT PROVIDES AN OVERVIEW ON:

- Healthy and responsible consumption concepts.
- The importance of sustainable and responsible eating.
- Measures for the prevention and reduction of food waste.
- Agroecology and its benefits.

CU3 - MOTIVATING, INSPIRING AND TRAINING THE COMMUNITY TO ENGAGE: motivating individuals and businesses to properly pre-select the waste

LEARNING OUTCOMES

- To know what responsible and healthy consumption is and what we can do to put it into practice.
- To know how to eat a healthy, sustainable and environmentally friendly diet.
- To promote measures in relation to the prevention and reduction of waste.
- To know what Agroecology is and the benefits of promoting it for people's health and the environment.

LEARNING MATERIALS

The content unit includes a variety of training contents that seek to meet specific learning objectives:

- **The informative guide** pursue to provide students with basic notions on responsible and healthy consumption and how to implement sustainability-oriented changes.
- **The infographic and the video**, as highly interactive and visual content, seek to enhance student participation and engagement.
- **The webquest and the practical application project** aim to put into practice the knowledge acquired.

To conclude, in the present teaching note, some additional activities are proposed:

Activity 1 - NEEDS AND DESIRES. In this activity, students are invited to reflect on the belongings and necessities that we have incorporated into our daily lives, even though many of them are not absolutely necessary.

Activity 2 - MEDITERRANEAN DIET. We suggest that students take a short 15-question questionnaire to determine whether, or not, the diet followed by the students is in line with the recommendations of the Mediterranean diet.

Activity 3 - URBAN GARDEN. Students are encouraged to investigate if there are urban gardens in their city, or in the suburbs. In addition, they will have to find out about the benefits of this trend for cities and their population.

ACTIVITY 1

NEEDS AND DESIRES

TIME: 45 - 60MINUTES

**RESOURCES &
MATERIALS**

Worksheet &
Pencil

THEMATIC DESCRIPTION

We live in a society that pushes us to consume more and more, often without any real need to do so. We must be aware of how this consumerism is negatively affecting our lives and, above all, the future of the younger generations who are the ones who will truly suffer the consequences of all this if we do not start to take action on the matter.

WHAT'S YOUR TASK?

- Analyse what your needs are. Of all the things you buy and/or consume, what do you really need?

ASSIGNMENT PHASES

- Read the attached list of goods we normally enjoy.
- Think, if you suddenly had to give up many of them and keep only a few, which ones would you choose.
- Choose 7 of them and think about why you have decided they are most important to you.



GOAL OF THE ACTIVITY

Analysing our consumption needs, and reflecting on which ones are really necessary, and which ones are desires.

REFLECTION...

DO YOU CONSIDER YOURSELF A RESPONSIBLE CONSUMER? ARE YOU AWARE THAT RESOURCES ARE NOT ALWAYS UNLIMITED? WILL WE LEAVE NEXT GENERATIONS WITHOUT RESOURCES IF WE CONTINUE TO USE THEM IRRESPONSIBLY?

ACTIVITY 1

NEEDS AND DESIRES

WORKSHEET

STEP 1- LIST OF POSSIBLE ELECTIONS

- Own bedroom.
- An iphone.
- Education.
- Nutritious food.
- A car.
- Protection from discrimination.
- A smartTV.
- Money to spend as you wish.
- Holiday travel.
- The opportunity to express your opinion and be heard.
- Clean drinking water.
- Protection from abuse and neglect.
- The latest fashionable clothes.
- A bicycle.
- The opportunity to practice your own religion.
- A computer.
- Medical care when you need it.
- Clean air.
- Public places to be with friends and play sports.
- A PlayStation.
- A house.

STEP 2- CHOSEN ELECTIONS

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ACTIVITY 2

MEDITERRANEAN DIET

TIME: 10 - 15MINUTES

RESOURCES & MATERIALS

Questionnaire Sheet & Pencil

THEMATIC DESCRIPTION

Numerous epidemiological studies have highlighted the beneficial, preventive effect of the Mediterranean Diet against various chronic diseases, such as diseases of the cardiovascular system and some types of cancers. However, in spite of the good press of the Mediterranean Diet, this dietary model is being lost due to the acquisition of increasingly "westernised" eating habits.

WHAT'S YOUR TASK?

- Check whether your diet is in line with the recommendations of the Mediterranean diet.



ASSIGNMENT PHASES

- Answer the questions in the questionnaire (be honest, this is not an exam).
- Only score if the answer to the question is yes, either positively or negatively.
- When you have finished, add up the points and look at the table of results.

GOAL OF THE ACTIVITY

Check whether your diet is in line with the recommendations of the Mediterranean diet.

REFLECTION...

DO YOU THINK YOU FOLLOW A HEALTHY DIET?
WHAT HABITS SHOULD WE CHANGE OR IMPLEMENT TO IMPROVE IT?

ACTIVITY 2

MEDITERRANEAN DIET

QUESTIONNAIRE

QUESTIONS	YES	NO
1. Do you eat fruit or natural fruit juice every day?		
2. Do you eat a second piece of fruit every day?		
3. Do you regularly eat fresh or cooked vegetables once a day?		
4. Do you eat fresh or cooked vegetables more than once a day?		
5. Do you eat fish regularly (at least 2-3 times a week)?		
6. Do you eat fast food more than once a week?		
7. Do you like pulses and eat them more than once a week?		
8. Do you eat pasta or rice nearly every day (5 or more times a week)?		
9. Do you eat cereals (bread, cereal, toast, etc.) for breakfast?		
10. Do you eat nuts (15 grams) regularly (at least 2-3 times a week)?		
11. Do you use olive oil at home?		
12. Do you skip breakfast?		
13. Do you drink any dairy products for breakfast (milk, yoghurt, etc.)?		
14. Do you eat commercial pastries or cakes for breakfast and/or snacks?		
15. Do you eat sweets or candy several times a day?		

ACTIVITY 2

MEDITERRANEAN DIET

SCORING RESULTS

1. +1 Point
2. +1 Point
3. +1 Point
4. +1 Point
5. +1 Point
6. -1 Point
7. + 1 Point
8. +1 Point
- 9.+1 Point
10. +1 Point
11. +1 Point
12. -1 Point
13. +1 Point
14. -1 Point
15. -1 Point

Scoring Results	Dietary Habits	Recommendations
< 3 points	Poor Mediterranean diet	You should correct your eating habits and include healthier foods in your diet. A poor diet can lead to serious health problems.
4 - 7 points	Average Mediterranean diet	You need to correct some aspects of your diet, but you are on the right track.
> 8 points	Proper Mediterranean diet	Excellent! According to your score your diet is healthy and balanced.

ACTIVITY 3

URBAN GARDENS

TIME: 45 - 60 MINUTES

RESOURCES & MATERIALS

Laptop, phone, tablet, notebook...

THEMATIC DESCRIPTION

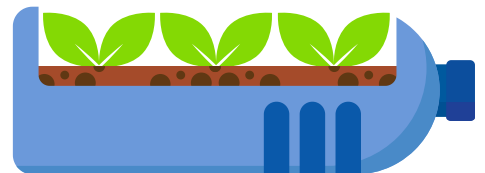
Urban gardens are outdoor or indoor spaces for growing vegetables, fruits, legumes, aromatic plants or medicinal herbs, among other varieties, on a domestic scale. This practice can be found in the centre or on the outskirts of cities.

WHAT'S YOUR TASK?

- Find out how many urban gardens there are in your city and learn about the benefits they bring.

ASSIGNMENT PHASES

- Search the internet and social media for urban gardens that are located in or near your city.
- Collect information about them, their location, size, conditions of use, etc.
- Write down 5 benefits that urban gardens bring to cities.



GOAL OF THE ACTIVITY

Know the advantages of incorporating urban gardens in cities and locate the ones you have in your area.

REFLECTION...

WHAT HAVE I LEARNT FROM URBAN GARDENS? COULD CITY COUNCILS AND CITY ADMINISTRATIONS SET ASIDE MORE SPACE IN CITIES FOR THIS PURPOSE?

CU4 - Shifting to digital

Module Description

Learning Outcomes

Learning Materials

**Activity 1: Distribution, retail,
consumption and disposal**

Activity 2: Preventing food waste

**Activity 3: Healthy and sustainable
consumers**

Activity 4: Interactive recycling game



CU4 - SHIFTING TO DIGITAL: Finding solutions and opportunities in technology

MODULE DESCRIPTION

Food waste is one of the most serious ecological issues in today's world. With over 2 billion people on Earth not having consistent access to nutritious food or even enough food every year, while about a third of the world's food is wasted through overconsumption and discarding, it is clearly visible that our current food production structures need revising. With the world population being predicted to arise to 9.9 billion by 2050, the greater demands for food production will put a strain on agricultural production with a predicted 60% increase if current structures remain.

Therefore, it is vital to revise our practices to reduce food waste as much as possible and focus on ways to ensure food distribution sustainability.

THE CONTENT UNIT PROVIDES AN OVERVIEW ON:

- Technologies and techniques that facilitate demand and supply.
- Uses of social media and mobile applications for food waste redistribution mechanisms
- Technologies that ensure food security for underprivileged groups (especially during situations of crisis such as COVID-19),
- Ways of encouraging new forms of sustainable farming
- Ways of engaging policymakers in fighting urban food waste via technology and enabling improved sustainable urban development.

CU4 - SHIFTING TO DIGITAL: Finding solutions and opportunities in technology

LEARNING OUTCOMES

- To know that numerous techniques and technologies can be used to facilitate food demand and supply and be able to recall and explain a few examples in all stages of food production, distribution, retail, storage and consumption.
- To know that awareness-raising campaigns and community-led initiatives can be organised on social media.
- To know the three types of mobile and web-based applications which facilitate food demand and/or supply and enable food-waste prevention in households, and recall at least one example of each.
- To know the major factors that affect food security and be aware of the non-technological and technological initiatives that have been applied in underprivileged communities to combat food waste and scarcity.
- To know a few of the sustainable practices and technologies in the food sector that can be uptaken by citizens and businesses if imposed correctly via policy.

LEARNING MATERIALS

The content unit includes a variety of training content that seeks to meet specific learning objectives:

- The **informative guide** aims to provide students with fundamental knowledge of technological advancements in all levels of food production, distribution, retail, consumption, re-distribution and post-consumption, which can aid the fight against food loss and waste.
- The **infographic** and the **video presentation**, as highly interactive and visual content, seek to enhance student participation and engagement.
- The **webquest** and the **practical application project** aim to put into practice the knowledge acquired.

To conclude, in the present teaching note, some additional activities are proposed.

CU4 - SHIFTING TO DIGITAL: Finding solutions and opportunities in technology

LEARNING MATERIALS (cont.)

Thus, the proposed activities are as follows:

Activity 1 - DISTRIBUTION, RETAIL, CONSUMPTION AND DISPOSAL.

Students are requested to analyse the methods, practices, tools and technologies available to reduce food waste by improving the shelf life and life span of food products. The activity is designed to encourage students to reflect on which of the above are financially accessible to them and which can be realistically adopted in their households.

Activity 2 - PREVENTING FOOD WASTE.

It requires students to learn how agricultural methods function and the ways in which they can be altered so that they can become more sustainable, reducing food waste.

Activity 3 - HEALTHY AND SUSTAINABLE CONSUMERS.

Students are encouraged to use a website simulator to learn about sustainable food consumption. The activity is designed to show to students what are their habits when it comes to food consumption and how they can be improved upon to become more sustainable.

Activity 4 - INTERACTIVE RECYCLING GAME.

Students are invited to go on a website and interact with the game presented to them regarding recycling and which items goes to which bin. This activity will educate students about recycling practices while potentially also re-educate them on certain items that they thought were non-recyclable or the opposite so that they can have a correct recycling habit.

ACTIVITY 1

DISTRIBUTION, RETAIL, CONSUMPTION AND DISPOSAL

TIME: 30 MINUTES

RESOURCES &
MATERIALS
Worksheet

THEMATIC DESCRIPTION

The current rate of food waste generation is environmentally and economically unsustainable, which is why it has become more necessary than ever to look for solutions that can contribute to reducing food waste in all phases of the food cycle. Individual consumers, in particular, should become more aware of the available and accessible practices, recourses and digital tools to be able to make informed decisions that are most suitable to their needs to reduce their contribution to food waste.

WHAT'S YOUR TASK?

- *Analyse your practices when you buy, store, consume and dispose of food products, identify the resources available to optimise your actions to reduce the amount of food waste in your household, and consider which solutions you can successfully adopt in your lifestyle.*



ASSIGNMENT PHASES

List 5 ways (practices and technologies) that increase the life of a food product without the use of chemicals in the phases of distribution, retail, transport, storage, consumption and disposal.

Think about the 'vacuvita' storage system, how it works and how it utilises additional software to extend a food product's storage life span.

List at least 4 options that are accessible to low- and middle-income households to reduce food waste.

GOAL OF THE ACTIVITY

Understand the different available options (digital and non-digital) to extend a food product's shelf life and life span and reduce food waste in households.

REFLECTION...

AM I NOW MORE CONSCIOUS OF THE
OPTIONS AVAILABLE TO REDUCE
FOOD WASTE IN HOUSEHOLDS? AM I
AWARE OF THE OPTIONS WHICH
ARE ALREADY ACCESSIBLE TO LOW-
AND MIDDLE-INCOME
HOUSEHOLDS?

ACTIVITY 1

**DISTRIBUTION, RETAIL,
CONSUMPTION AND DISPOSAL**

WORKSHEET

STEP 1- LIST WAYS TO INCREASE THE LIFE OF A PRODUCT (WITHOUT THE USE OF CHEMICALS)

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STEP 2- EXPLAIN HOW VACUVITA WORKS AND WHO CAN BE BENEFITED MORE FROM IT

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STEP 3- MAKE A LIST OF OPTIONS THAT ARE ACCESSIBLE TO LOW- AND MIDDLE-INCOME HOUSEHOLDS

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ACTIVITY 2

PREVENTING FOOD WASTE

TIME: 7 DAYS

RESOURCES & MATERIALS

worksheet
laptop/phone

THEMATIC DESCRIPTION

There are numerous techniques and technologies that can facilitate the demand and supply of food, and which can be used at the production level of the food system. The examples of such techniques and technologies discussed here include fermentation, hydroponics, vertical farming, genetic modification and cultured meats.

WHAT'S YOUR TASK?

- *Observe how crops are farmed and if the current methods are sustainable or if alternative methods are needed.*

ASSIGNMENT PHASES

Visit your local farm and identify their irrigation and/or farming habits of the farmers over a 7 day period.



Note what is being done sustainably and which areas are able to be improved upon; How can they be improved upon?

GOAL OF THE ACTIVITY

Identify alternative ways of farming and how those benefit the environment and limit food waste produced rather than the traditional method. Also, be able to identify the differences between the new techniques

REFLECTION...

WHAT ARE ALTERNATIVE WAYS OF FARMING? HOW DO THEY HELP WITH PREVENTING FOOD WASTE?

ACTIVITY 2

PREVENTING FOOD WASTE

Worksheet

STEP 1 – IDENTIFY WHICH FARMING TECHNIQUES AND TECHNOLOGIES ARE BEING USED IN THIS FARM:

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STEP 2 – EXPLAIN WHICH ARE SUSTAINABLE AND WHICH ONES NEED TO BE REPLACED (AND BY WHICH TECHNIQUES)

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STEP 3 – HOW DO THESE NEW TECHNIQUES HELP PREVENT FOOD WASTE?

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ACTIVITY 3

HEALTHY AND SUSTAINABLE CONSUMERS

TIME: 20 - 30 MINUTES

RESOURCES & MATERIALS

Website/simulator, worksheet

THEMATIC DESCRIPTION

One third the food produced globally is wasted either through overconsumption or by being discarded. Furthermore, it is worthy to remember that not only the product is wasted but also the raw materials and resources used to produce it.

WHAT'S YOUR TASK?

- Use the simulator to interact with each scenario presented and see how they each impact sustainability, alongside what could help reduce their impact.

ASSIGNMENT PHASES

- Go to <https://www.healthyandsustainable.ch/en/simulator>
Begin interacting with each scenario making note of how each person is different.
- Use the interactive controls to see how each change in consumption habits can change the impact each person has
- Analyse the impact that these measures have on the environment as well as the economy.

GOAL OF THE ACTIVITY

Discover how different consumption patterns can have an impact on the environment and society and how it can be improved upon.

REFLECTION...

CAN I RELATE WITH ANY OF THESE SCENARIOS? HOW CAN I IMPROVE MY OWN FOOD CONSUMPTION SO THAT IT CAN BE MORE SUSTAINABLE?

ACTIVITY 3

**HEALTHY AND
SUSTAINABLE CONSUMERS**

WORK SHEET

**STEP 1 – CHOOSE THE SCENARIO THAT
YOU RELATE THE MOST WITH**

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STEP 2- DESCRIBE THEIR EATING HABITS

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**STEP 3 – IDENTIFY WHICH CHANGES ARE NEEDED AND WHAT IMPACT THEY WILL HAVE
ON FOOD SUSTAINABILITY**

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ACTIVITY 4

INTERACTIVE RECYCLING GAME

TIME: 15 MINUTES

RESOURCES & MATERIALS

Laptop, phone,
tablet,
notebook...

THEMATIC DESCRIPTION

We all have some idea of what to recycle and what not to. How confident are you that your knowledge is complete and correct?

WHAT'S YOUR TASK?

- *Use the recycling game to match the materials with either the garbage bin, the recycling bin or the compost bin.*

ASSIGNMENT PHASES

- Go to <https://rethinkwaste.org/residents/interactive-carts/>
- Try to see how many items you can get right on the first try and make note of the ones you didn't.
- See how high of a score you can get!



GOAL OF THE ACTIVITY

Understand how education on recycling can at times be flawed and educate students on how to determine which item goes to which bin.

REFLECTION...

WHAT HAVE I LEARNED ABOUT RECYCLING? AM I AS CORRECT AS I THOUGHT ABOUT WHICH ITEM TO RECYCLE AND WHICH NOT TO?

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