



Funded by
the European Union

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:

WEBQUEST



This work is licensed under Attribution-NonCommercial 4.0
International. To view a copy of this license, visit
<http://creativecommons.org/licenses/by-nc/4.0/>

CU1 - FROM A LINEAR TO A CIRCULAR ECONOMY & FOOD

1. Introduction

2. Task

3. Process

4. Evaluation

5. Conclusion



CUI - FROM A LINEAR TO A CIRCULAR ECONOMY & FOOD: FINDING OPPORTUNITIES FROM WASTE

1. INTRODUCTION

Today, our ever-growing society wastes nearly one-third of the food that is produced, all the while almost 690 million people suffer from hunger in the world. Moreover, our current food system, while the safest ever, is also the most unsustainable, with an enormous environmental footprint that grows with every step of the process.

One of the possible solutions to reduce waste in the supply chain is the movement known as "alternative food networks". However, in order to achieve sustainable production and consumption, both producers and consumers must change their behavioral patterns and adapt to new systems.

This WebQuest will take us through the concepts of circular economy, the value of wasted food, its impact, as well as the role of the alternative food system.

CU1 - FROM A LINEAR TO A CIRCULAR ECONOMY & FOOD: FINDING OPPORTUNITIES FROM WASTE

2. TASK

In order for us to be able to facilitate and implement change, we must first intimately familiarize ourselves with that which we wish to change, in order to be able to approach the topic correctly. Your task is to comprehend current topics relevant to circular economies and food waste, the issues they present, and to link that knowledge to different alternatives and potential solutions, presenting your findings systematically and succinctly, in order to demonstrate all that you've learned.

Helpful resources:

<https://www.government.nl/topics/circular-economy/from-a-linear-to-a-circular-economy>

<https://acehub.org.au/news/what-is-the-linear-economy-and-why-do-we-need-to-go-circular>

<https://ellenmacarthurfoundation.org/topics/circular-economy-introduction/overview>

<https://www.ecoembes.com/es/reduce-reutiliza-y-recicla/economia-circular-en-espana>

<https://www.europarl.europa.eu/thinktank/infographics/circulareconomy/public/index.html>

<https://www.fao.org/3/i3901s/i3901s.pdf>

https://www.tuprojectodevida.es/economia-circular/?gclid=Cj0KQCQjwl7qSBhD-ARIsACvV1X2pltTrj7sy-321Mcw3KNfQoDi4Vd8AkfmqulBNXCF8kmt-oWuGWTwaAk_NEALw_wcB

https://www.eufic.org/en/food-safety/article/food-waste-in-europe-statistics-and-facts-about-the-problem?gclid=CjwKCAjwryUBhBSEiwAGN5OCALJArL3zObV1Q62zoygD5L-15SPynYLdyggHZQBWInxtiGFJRAhoCFSMQAvD_BwE

https://ec.europa.eu/food/safety/food-waste/eu-actions-against-food-waste_en

<https://zerowasteurope.eu/our-work/eu-policy/waste-management/food-waste/>

<https://zerowastecities.eu/tackling-food-waste-through-local-sustainable-food-systems/>

<https://www.youtube.com/watch?v=i8xwLWb0ILY>

<https://www.futurelearn.com/info/courses/an-introduction-to-food-science/0/steps/159667>

<https://agrifoodecon.springeropen.com/articles/10.1186/s40100-019-0139-3>

CU1 - FROM A LINEAR TO A CIRCULAR ECONOMY & FOOD: FINDING OPPORTUNITIES FROM WASTE

3. PROCESS

The first step when approaching a new topic is to conduct research into all of the relevant topics, including: the concepts of a linear and circular economy, the food chain, food production, food waste, the social impact of food waste, the environmental impact of food waste, the economic impact of food waste.

Once we have formed an image of the status quo, we then turn our attention to research new, innovative ideas and solutions being proposed to combat some or all of the issues previously covered, linking this new knowledge of potential futures with that of the present state.

Depending on the research flow and personal preferences, different potential solutions will be more or less appealing to you personally.

To carry out the task, please follow this process:

- While researching relevant topics, choose appropriate resources wisely: opt for factual data, objective opinions and unbiased sources that come from trustworthy organizations.
- Feel free to expand from your initial research based on information you learn along the way.
- Don't stray too far: focus on the topics at hand – the circular economy, food chains, food waste, alternative food networks.
- Keywords always help, like the 7Rs: Redesign, Reduce, Reuse, Repair, Renew, Recover, Recycle.
- Organize the information logically and try to determine links between each piece of information – how does one concept affect the other, and where is room for intervention.
- Think locally: focus on your community and the specific issues you're familiar with – food chains are hyper local – the issues and their solutions will be too.

CU1 - FROM A LINEAR TO A CIRCULAR ECONOMY & FOOD: FINDING OPPORTUNITIES FROM WASTE

4. EVALUATION

By completing this WebQuest, participants have covered the following knowledge and skills:

- The concepts of a linear and circular economy.
- Food chain dynamics and how food waste /loss is linked to it.
- Social and environmental effects of food waste.
- The mechanics of supply and demand & the importance of planning ahead.
- The basics of alternative food networks.
- The values of innovation and community in today's context.
- The potential local action can have on a global problem.
- Research, integrating knowledge and the real-world application of knowledge.
- Working together makes shared goals reachable.

CUI - FROM A LINEAR TO A CIRCULAR ECONOMY & FOOD: FINDING OPPORTUNITIES FROM WASTE

5. CONCLUSION

Through this WebQuest, we have covered the concepts of a linear and circular economy, the importance of transitioning to a circular economy, how and in which stages food loss occurs and its negative social, economic, and environmental impact, and the innovative new ways in which these issues can be mitigated.

CU2 - FOUNDATIONS OF ENTREPRENEURSHIP AND SOCIAL ENTREPRENEURSHIP

1. Introduction

2. Task

3. Process

4. Evaluation

5. Conclusion



CU2 - FOUNDATIONS OF ENTREPRENEURSHIP AND SOCIAL ENTREPRENEURSHIP

1. INTRODUCTION

The goal of sustainable food management is to reduce food waste and its effects throughout the whole life cycle, from the use of natural resources to production, sales, and consumption, and finally to decisions about recovery or disposal. Entrepreneurship is essential to the diversification and commercialization of agriculture, as it extends product shelf life, provides value addition, creates jobs, boosts farmer income, and opens up markets for the export of agricultural products.

A strategic management tool for quickly and simply defining and communicating a business idea or concept is the Business Model Canvas (BMC). It is a one-page essay that explores the core components of a company or product, coherently arranging an idea.

CU2 - FOUNDATIONS OF ENTREPRENEURSHIP AND SOCIAL ENTREPRENEURSHIP

2. TASK

Your task is to come up with an idea for an innovative food start-up (e.g. reuse / waste reducing). Be mindful of your idea to solve a real need or problem, your possible customers, your value proposition. Try to come up with a solid product and an viable value proposition; be flexible and precise regarding your revenue model and your costs;

BMI • Business model canvas

● Key partners Who are your most important partners? Which key resources do you receive from partners? Which key activities do your partners perform?	● Key activities What are the activities you perform every day to create & deliver your value proposition? ● Key resources What are the resources you need to create & deliver your value proposition?	● Value propositions What is the value you deliver to your customer? What is your customer's problem you are helping to solve? What is the customer need that your value proposition addresses? What are your channels? What are the products and services you create for your customer?	● Customer relationships What relationship does each customer segment expect you to establish and maintain?	● Customer segments For whom are you creating value? What are the customer segments that offer you returns or benefits on your value proposition?
● Cost structure What are the important cost elements to create & deliver your value proposition?		● Revenue streams How do customers reward you for the value you provide to them? What are the different revenue models?		

Links:

- <https://www.strategyzer.com/canvas/business-model-canvas>
- <https://corporatefinanceinstitute.com/resources/management/business-model-canvas-template/>
- <https://medium.com/seed-digital/how-to-business-model-canvas-explained-ad3676b6fe4a>
- <https://canvanizer.com/new/business-model-canvas>
- <https://www.businessmodelsinc.com/en/inspiration/tools/business-model-canvas>

CU2 - FOUNDATIONS OF ENTREPRENEURSHIP AND SOCIAL ENTREPRENEURSHIP

3. PROCESS

Please follow the following process:

- Identify problematic education areas
- Formulate general business ideas or concepts - Define your business idea/concept and describe why it has merit;
- Select the best idea;
- Research your idea: Find out everything you can about it;
- Test your idea; Do some preliminary market research to see if there is a need or interest in your idea and to identify potential competitors;
- Using all this experience and information fill in the BMC

CU2 - FOUNDATIONS OF ENTREPRENEURSHIP AND SOCIAL ENTREPRENEURSHIP

4. EVALUATION

This webquest will provide students with the opportunity to acquire an in-depth understanding of generating business ideas and the process of turning them into a viable/profitable business. They also have a chance to work on their financial and revenue/market growth skills.

CU2 - FOUNDATIONS OF ENTREPRENEURSHIP AND SOCIAL ENTREPRENEURSHIP

5. CONCLUSION

After completing this WebQuest, the learner will be able to:

- Consider and analyze the relevant market opportunities and business ideas
- Come up with an innovative business idea and ways to implement it
- Comprehend fundamental key metrics (market, financial)

Trainees will be evaluated based on:

- The level and depth of the competitive analysis / market research completed
- Solid Financial data (Cost & Revenue predictions)
- Growth strategies

CU3 - MOTIVATING, INSPIRING AND TRAINING THE COMMUNITY TO ENGAGE

1. Introduction

2. Task

3. Process

4. Evaluation

5. Conclusion



CU3 - MOTIVATING, INSPIRING AND TRAINING THE COMMUNITY TO ENGAGE: MOTIVATING INDIVIDUALS AND BUSINESSES TO PROPERLY PRE-SELECT THE WASTE

1. INTRODUCTION

The development of human civilisation would not be what it is without agriculture. But modern agriculture, born in the age of oil, far from being a continuity, meant a break with previous, primitive or traditional agriculture.

Industrialisation and population pressure have ultimately led to a global ecological crisis, in which economics takes precedence over sustainability.

Intensive agriculture destroys primitive biodiversity without any alternative. The constant use of chemicals such as pesticides and fertilisers creates a poor ecosystem in which biodiversity cannot thrive.

This Webquest will help us to better understand what organic farming is, why it is so important, as well as to find practical information on policy, standards, organic certification, support and criteria for those who decide to enter the world of organic farming.

CU3 - MOTIVATING, INSPIRING AND TRAINING THE COMMUNITY TO ENGAGE: MOTIVATING INDIVIDUALS AND BUSINESSES TO PROPERLY PRE-SELECT THE WASTE

2. TASK

In May 2020, the European Commission published the "From Farm to Fork" strategy with the main objective of achieving that 25% of the available agricultural land in Europe is organically produced and, at the same time, to increase organic aquaculture in EU territory with the intention of developing a more sustainable food system that reverses the loss of biodiversity.

Your task is to expand your knowledge of organic production through the different sources of information listed below, and then research organic crops in your country (where they are located, what food they produce, ...) and to develop some innovative actions that can be implemented and included in future action plans for organic production..

CU3 - MOTIVATING, INSPIRING AND TRAINING THE COMMUNITY TO ENGAGE: MOTIVATING INDIVIDUALS AND BUSINESSES TO PROPERLY PRE-SELECT THE WASTE

3. PROCESS

Where to search for information:

<https://www.fao.org/organicag/oa-faq/oa-faq6/en/>

<https://www.youtube.com/watch?v=WhOriUIrnPo>

<https://www.iberdrola.com/sustainability/organic-farming>

https://agriculture.ec.europa.eu/farming/organic-farming_en

<https://ofrf.org/organicforclimate/>

<https://www.youtube.com/watch?v=gd2un845CPA&t=56s>

<https://www.ifoam.bio/>

https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Organic_farming_statistics

<https://www.fao.org/agroecology/database/detail/en/c/1395877/>

https://agriculture.ec.europa.eu/farming/organic-farming/organic-action-plan_en

CU3 - MOTIVATING, INSPIRING AND TRAINING THE COMMUNITY TO ENGAGE: MOTIVATING INDIVIDUALS AND BUSINESSES TO PROPERLY PRE-SELECT THE WASTE

4. EVALUATION

After completing this WebQuest, the learner will be able to:

- Broaden their knowledge of organic farming.
- Knowing and understanding the objectives of the European Green Pact 2021-2027 and the strategies designed to achieve them.
- To find out where their country stands on this issue.

Trainees will be evaluated based on:

- Level of understanding of the contents of the webquest.
- The proposals for actions and activities to achieve the objectives set by the European Commission towards a sustainable food system.

CU3 - MOTIVATING, INSPIRING AND TRAINING THE COMMUNITY TO ENGAGE: MOTIVATING INDIVIDUALS AND BUSINESSES TO PROPERLY PRE-SELECT THE WASTE

5. CONCLUSION

Through this Webquest, we will learn more about the concept of organic farming, the measures and actions that are being carried out within the framework of the "from farm to fork" strategy in all the member countries of the European Union, making us more aware of the need to commit to a sustainable food system.

In addition, students will have to think of innovative actions that can be carried out in order to increase the area devoted to organic production.

CU4 - SHIFTING TO DIGITAL SOLUTIONS TO REDUCE FOOD WASTE

1. Introduction

2. Task

3. Process

4. Evaluation

5. Conclusion



CU4 - SHIFTING TO DIGITAL SOLUTIONS TO REDUCE FOOD WASTE

1. INTRODUCTION

Currently, one-third of all food produced for human consumption is discarded as waste . Huge amounts of food are wasted mainly as result from overconsumption.

Due to the fact that food waste is biodegradable, most people do not typically consider it to have a negative impact on the environment. But the majority of food waste is disposed of in landfills, where it releases the greenhouse gas methane.

Food waste results in the loss of opportunities to feed the world's expanding population and the use of limited resources, including the land, water, and energy needed for food production, processing, distribution, and consumption.

The demand and supply for food can be facilitated at all stages of the food system by a variety of methods and technologies.

This WebQuest will take us through the various methods of techniques in the food production, processing, distribution and consumption and will explore smart technology solutions to reduce the food waste in the food supply chain.

CU4 - SHIFTING TO DIGITAL SOLUTIONS TO REDUCE FOOD WASTE

2. TASK

Your goal for this WebQuest is to develop as much information as possible for technology solutions in the food supply chain, so that you can describe the most effective methods in food waste management both in demand and supply.

Then you are called to create posters with photos or drawings from examples of technology solutions around food waste management.

OR

You can come up with your own idea on how to use technology in any of the food stages to control and reduce food waste (social media, application idea etc).

CU4 - SHIFTING TO DIGITAL SOLUTIONS TO REDUCE FOOD WASTE

3. PROCESS

Where to search for information

<https://www.weforum.org/agenda/2021/06/wasteless-ai-retail-food-waste/>

<https://www.mdpi.com/2071-1050/13/1/210>

<https://www.sciencedirect.com/science/article/abs/pii/S0019850121000055>

<https://www.aiplusinfo.com/blog/artificial-intelligence-in-waste-management/>

<https://smartkitchen.solutions/en/food-waste-reducing/>

<https://www.tive.com/blog/roles-of-technology-in-improving-perishable-food-supply-chains>

<https://www.foodcircle.com/magazine/companies-food-supply-chain-digitalisation>

<https://www.startus-insights.com/innovators-guide/discover-5-top-food-supply-chain-management-solutions/>

<https://www.weforum.org/agenda/2023/02/food-waste-technology-sustainable-food-systems/>

<https://www.futurebridge.com/artificial-intelligence-to-manage-food-waste/>

<https://www.euronews.com/next/2022/12/07/food-for-thought-how-ai-is-reducing-waste-in-restaurants>

CU4 - SHIFTING TO DIGITAL SOLUTIONS TO REDUCE FOOD WASTE

4. EVALUATION

This WebQuest will provide students with the opportunity to acquire an in-depth understanding of the food supply chain technology solutions and understand the many challenges facing during food chain from both perspectives, of the producer and consumer. They will also think of innovative ways using technology to reduce food waste in the food system.

CU4 - SHIFTING TO DIGITAL SOLUTIONS TO REDUCE FOOD WASTE

5. CONCLUSION

After completing this WebQuest, the learner will be able to:

- Understand the various uses of technology in the food demand and supply stages in the food system.
- Comprehend the challenges the producers and distributors face during the food supply chain.

Trainees will be evaluated based on:

- The level and depth of the research completed
- The ideas provided to reduce food waste.
- Level of understanding of technology use in the food supply chain

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained.

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

entre YOUTH



Funded by
the European Union



UNIVERSIDAD
DE ALMERÍA



CITIZENS
IN POWER

helixconnect
Consult. Finance. Grow.



This work is licensed under Attribution-NonCommercial 4.0 International. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc/4.0/>

