



# VET4FOOD

VET Training for Food Sustainability

## PR2 Food sustainability VET Teachers' Training (Leader: IDG) **NUTRITIONAL AREA – UNIT 1**



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- Topic 3: Novel foods as an alternative to be more sustainable and profitable.
- Topic 4: One health and planetarian diet approach as a model of sustainability



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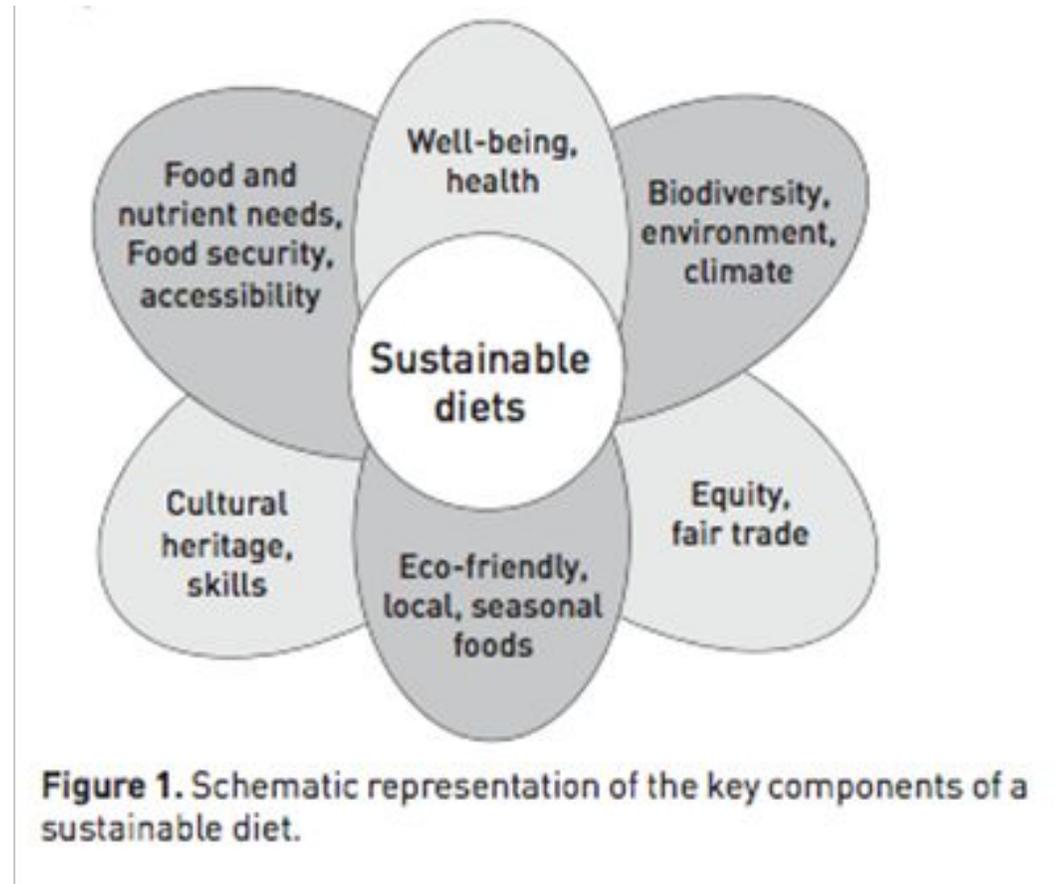


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## Topic 1: How to eat healthy and save the planet

- 828 million in 2021 number of people affected by hunger (FAO, 2022)
- 80% increase in global agricultural greenhouse gas emissions by 2050 if we keep the current dietary trends.
- Climate change can disrupt food availability, reduce access to food, and affect food quality.

# THE KEY COMPONENTS OF A SUSTAINABLE DIET



Read also : <https://www.fao.org/3/i3004e/i3004e00.pdf>

*What does we mean  
with healthy diet?*



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# HEALTHY EATING PLATE

Use healthy oils (like olive and canola oil) for cooking, on salad, and at the table. Limit butter. Avoid trans fat.



HEALTHY OILS

The more veggies – and the greater the variety – the better. Potatoes and French fries don't count.



VEGETABLES

Eat plenty of fruits of all colors.



FRUITS



STAY ACTIVE!

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Harvard T.H. Chan School of Public Health  
The Nutrition Source  
[www.hsph.harvard.edu/nutritionsource](http://www.hsph.harvard.edu/nutritionsource)



WATER

Drink water, tea, or coffee (with little or no sugar). Limit milk/dairy (1-2 servings/day) and juice (1 small glass/day). Avoid sugary drinks.



WHOLE GRAINS

Eat a variety of whole grains (like whole-wheat bread, whole-grain pasta, and brown rice). Limit refined grains (like white rice and white bread).



HEALTHY PROTEIN

Choose fish, poultry, beans, and nuts; limit red meat and cheese; avoid bacon, cold cuts, and other processed meats.

Harvard Medical School  
Harvard Health Publications  
[www.health.harvard.edu](http://www.health.harvard.edu)



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Watch the videos about "MacroNutrients":

<https://www.youtube.com/watch?v=724AXGqQj6k> ;

<https://www.youtube.com/watch?v=cKRf53I737E>



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<https://www.youtube.com/watch?v=uB5xg28Xyks>



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# Topic 2: Understanding consumer's food choices and their implications



## Diet and lifestyle

Dietary recommendations should be integrated with others linked to lifestyle, such as:

- Knowledge of where to buy and how to cook unprocessed foods
- Find time for food-related activities in a social or family context
- Practice of regular physical activity, possibly in the open air

Activities such as these help to maintain a balanced life in terms of physical, mental and emotional health. The true purpose of a healthy lifestyle is not only to live longer, but also to do so in health and enjoyment.

# *What is a "Health Claim"?*





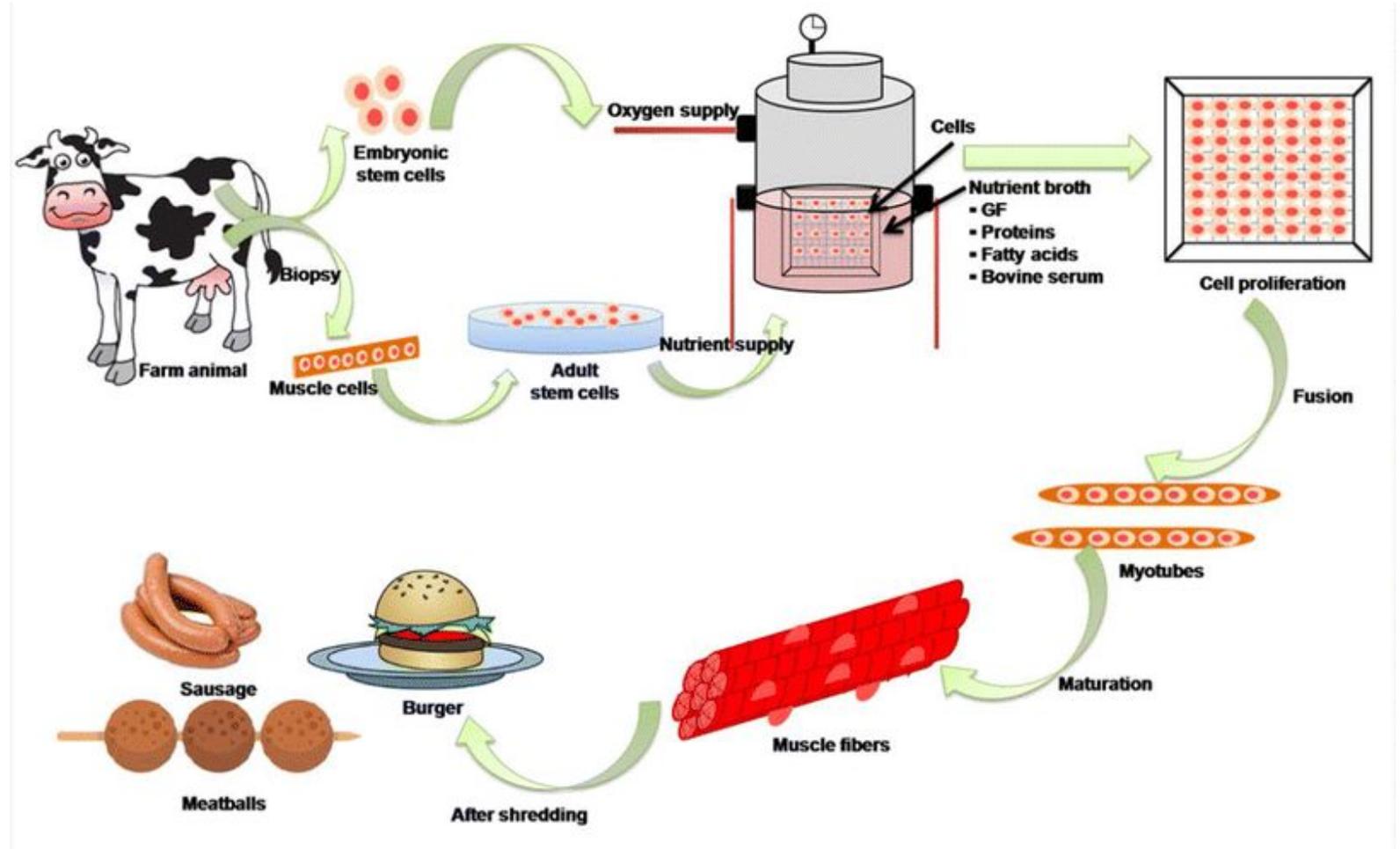
Here you can see a simple video about health claims by EFSA: <https://www.youtube.com/watch?v=3zNL21gjwuo>

## Topic 3: Novel foods as an alternative to be more sustainable and profitable

- Novel Food is defined as food that had not been consumed to a significant degree by humans in the EU before 15 May 1997, when the first Regulation on novel food came into force.
- 'Novel Food' is the newly developed, innovative food, food produced using new technologies and production processes, as well as food which is or has been traditionally eaten outside of the EU.
- Novel Foods must be:
  - Safe for consumers
  - Properly labeled, in order to avoid misleading consumers
  - If novel food is intended to replace another food, it must not differ of the original one in a disadvantageous way the consumer.

# Four examples of Novel Foods emerging in Europe: cultured meat

1. **Cultured meat** or 'lab-grown meat', by removing the need for animal slaughter and resource and land-intensive farming, could provide a sustainable alternative to conventional meat products.



## Four examples of Novel Foods emerging in Europe: fungi

2. **Fungi**, which includes organisms such as yeasts, moulds and mushrooms, are considered important for the health of both people and planet.



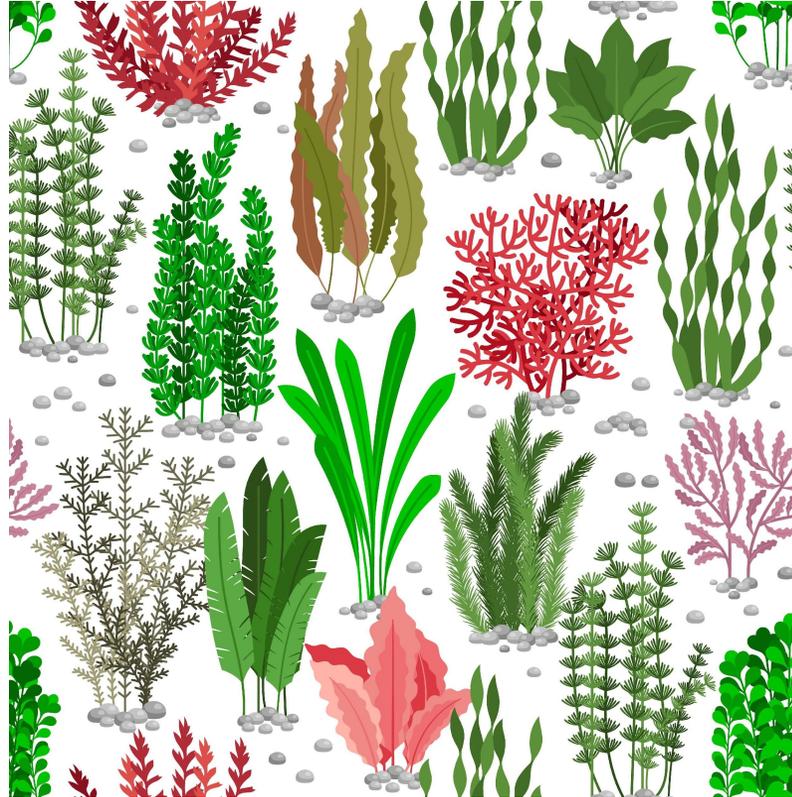
## Four examples of Novel Foods emerging in Europe: algae

3. **Algae** - Rich in dietary fibres, micronutrients, bioactive compounds, and protein content, algae are considered beneficial for human health. If farmed or cultivated in ocean environments.

Watch the video about “Novel Foods”:

[https://youtu.be/yyySfT4\\_1Ss](https://youtu.be/yyySfT4_1Ss)

<https://www.youtube.com/watch?v=Qew4QYcYes8>



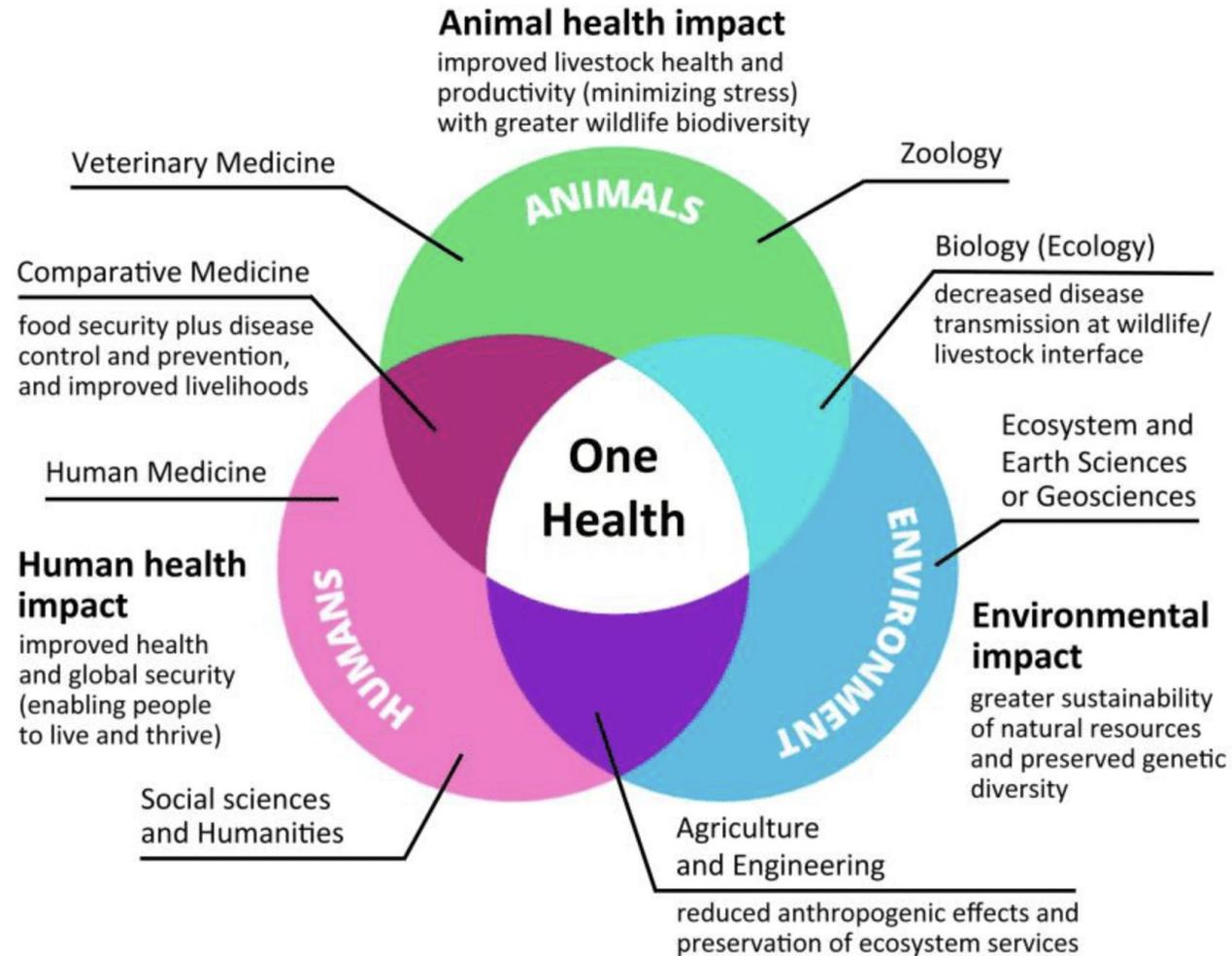
## Four examples of Novel Foods emerging in Europe: edible insects

4. **Edible insects** have been one of the major trends in the last decade. But are they safe? Do insects taste good? Let's take a look to this video to learn more about it:

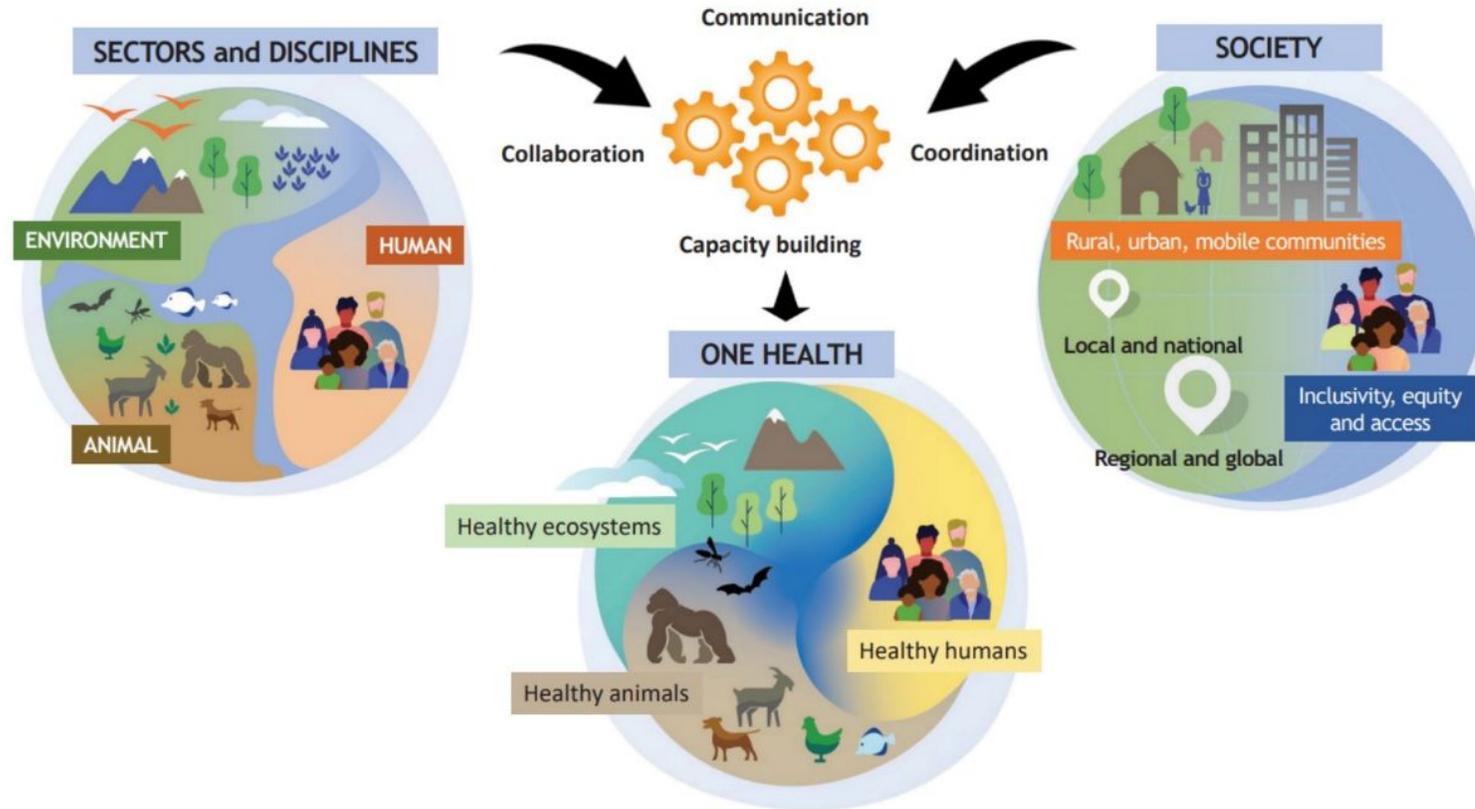
<https://www.youtube.com/watch?v=rDqXwUS402I>



# Topic 4: One health and planetarian diet approach as a model of sustainability.

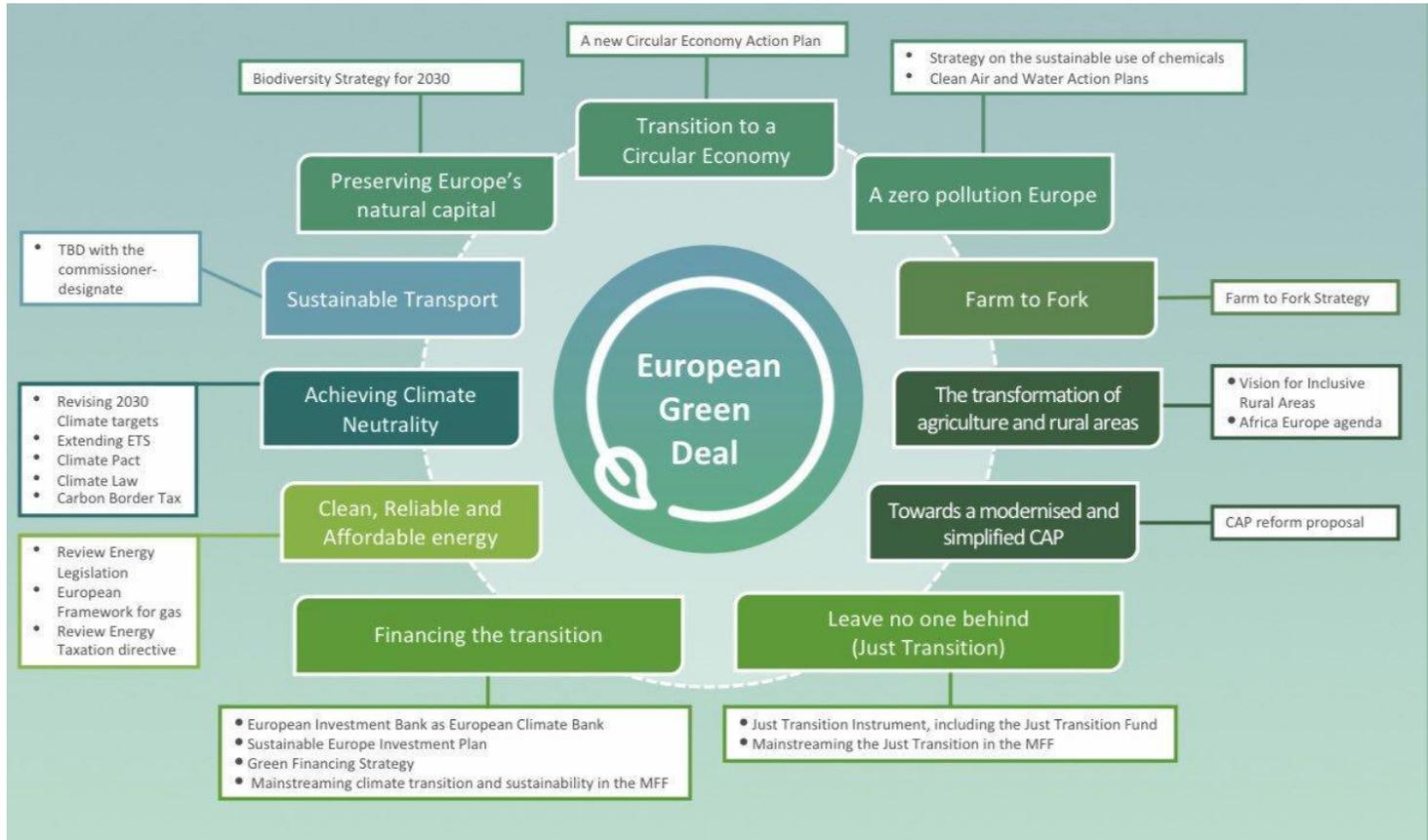


# One health and planetarian diet approach as a model of sustainability.



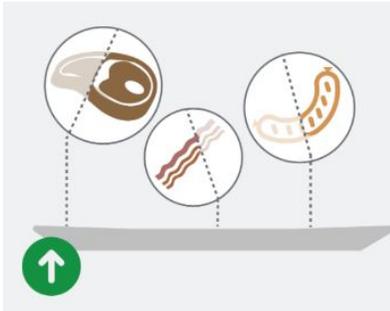
- The figure represents the need for practical action to put the One Health approach into practice, using the “4Cs”: communication, collaboration, coordination, and capacity building.

# EU Green Deal and Farm to Fork'



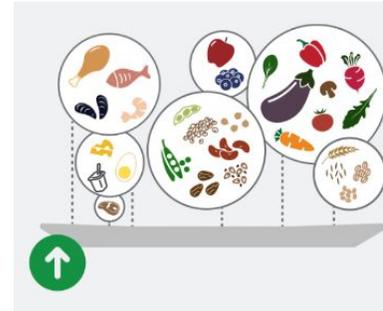
# Strategies to reduce meat consumption

Take a look at some strategies to reduce meat consumption:



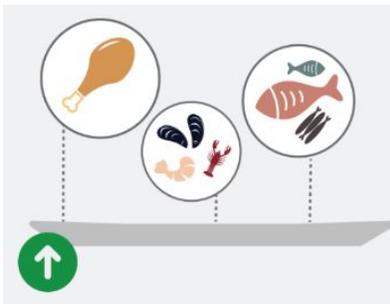
**Eat a little less red meat, any way you can**

Assess how often you eat red meat, and see if one of these strategies can help you find a way to cut back a bit.



**Consume less meat, enjoy more variety**

This approach boosts healthy plant-based foods like beans, nuts, whole grains, and other veggies, while still providing ways to incorporate some of your favorite animal-based foods.



**Swap out red meat for healthier meats**

If you're thinking of a meal that features red meat, see if you can replace it with a better option, like poultry or seafood.



**Prioritize hearty and savory plant-based preparations**

Simple strategies for creating filling, delicious, and even budget-friendly plant-based dishes.

# Planetary Health Diet

- The planetary health diet —characterized by a variety of high-quality plant-based foods and low amounts of animal-based foods, refined grains, added sugars, and unhealthy fats—is designed to be flexible to accommodate local and individual situations, traditions, and dietary preferences.





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## **PR2 Food sustainability VET students' Training**

### BIODIVERSITY, SEASONALITY AND CLIMATE CHANGES - UNIT 2

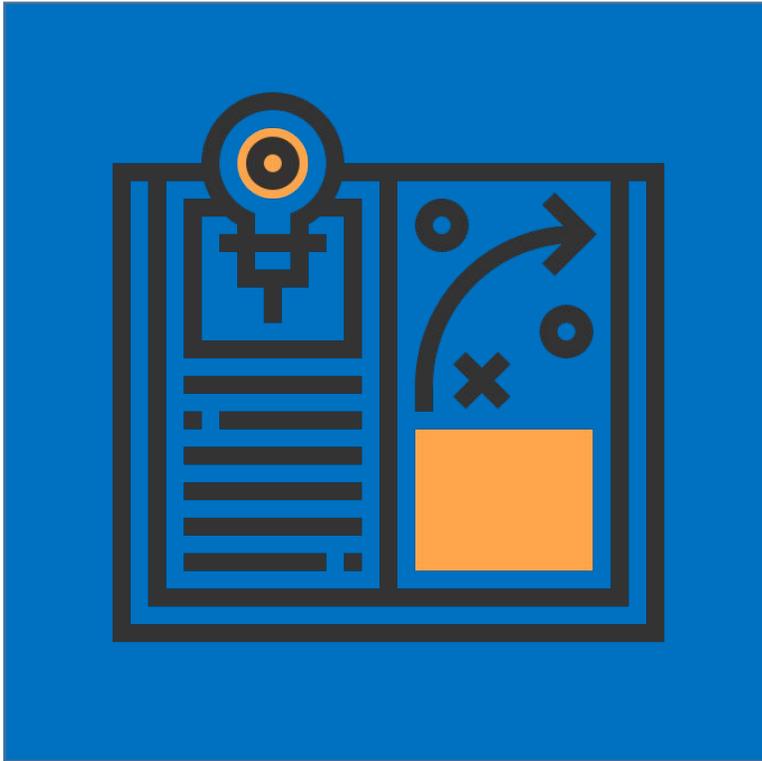


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## Brief introduction about the Unit and its objectives and competences

- This module focuses the attention on the importance of biodiversity, seasonality and climate changes in reference to food; the module highlights how food production impacts on climate changes and how an organic food consumption can help environment (Ex. reduction of CO2 emissions).
- Starting from the definitions of the three concepts we will understand how they are related and how food choices are important to guarantee sustainable choices.

# OBJECTIVES



1. Know how food consumption impacts the environment and biodiversity.
2. Know how climate changes and societal challenges influence food production.
3. EU and national labeling on organic food.
4. How gastronomy contributes to biodiversity preservation or loss

# Topic 1 - Importance of biodiversity at multiple levels

- **Biodiversity** is a term used for the first time in the middle of 80' by an entomologist Eduard O. Wilson to describe **the enormous variety of life on Earth.**
- Biodiversity refers to **every living thing** starting from small part like genes to plants or animal species, up to the most complex levels as ecosystems from including grasslands, forests, alpine meadows, deserts and many others.

## Topic 1 - Importance of biodiversity at multiple levels

- In addition to biodiversity, it is important to reflect on the concept of **seasonality**.
- Seasonal food is referred to **each type of fruit and vegetable grown in the ideal conditions for growth and quality**. For this, fruit and vegetables are grown and harvested in different locations and in different seasons throughout the year.
- **Seasonality can be global or local.**
- **Global seasonality refers to where foods are grown:** foods that are produced in season but not necessarily consumed where they were locally harvested, for example eggplants are produced in Italy during summer but are eaten in Germany.
- **Local seasonality refers to where the food is produced and consumed.** In this case eggplants are grown and consumed in Italy during summer.

## Topic 1 - Importance of biodiversity at multiple levels GLOBAL VS LOCAL SEASONALITY



EUFIC : European Food Information Council

[www.eufic.org/en/healthy-living/article/are-seasonal-fruit-and-vegetables-better-for-the-environment](http://www.eufic.org/en/healthy-living/article/are-seasonal-fruit-and-vegetables-better-for-the-environment)



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# Topic 1 - Importance of biodiversity at multiple levels

- [https://www.youtube.com/watch?v=JvNG986\\_3RU&t=202s](https://www.youtube.com/watch?v=JvNG986_3RU&t=202s)
- [https://www.youtube.com/watch?v=\\_MKyFK2HMOV8](https://www.youtube.com/watch?v=_MKyFK2HMOV8)

# Topic 1 - Importance of biodiversity at multiple levels

## QUIZ TOPIC 1

1	Biodiversity refers to diversity of life on many levels	T	F
2	Diversity of life is related only to the most complex levels (ecosystems)	T	F
3	Humans behavior of destroying nature, improving cementification and water pollution will cause the 6th mass extinction	T	F
4	The edible plants have already been last according to F.A.O. data are 95%	T	F

## Topic 2 - The impact of food production on climate changes in global industrial food production and local sustainable food production.

- According to United Nations ‘Climate change refers to long-term shifts in temperatures and weather patterns. These shifts may be natural, such as through variations in the solar cycle. But since the 1800s, human activities have been the main driver of climate changes, primarily due to burning fossil fuels like coal, oil and gas’.
- The changes in climate are not only the rising of temperature, but also intense drought, increasing fires, catastrophic storms, melting polar ice, rising sea levels, water scarcity, declining biodiversity.

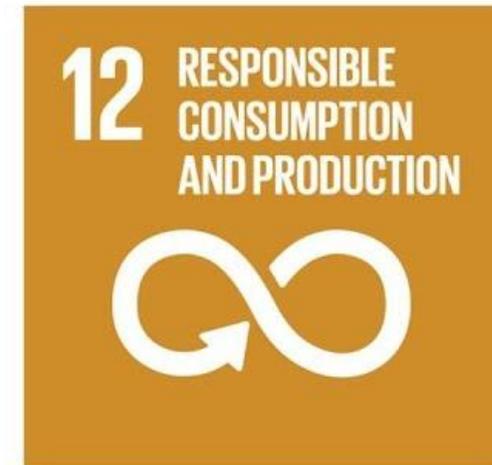
Learn more : <https://www.un.org/en/climatechange/what-is-climate-change>

Topic 2 - The impact of food production on climate changes in global industrial food production and local sustainable food production.

*But, what is the impact of food and agriculture on the environment?*

# Environment and Food Consumption

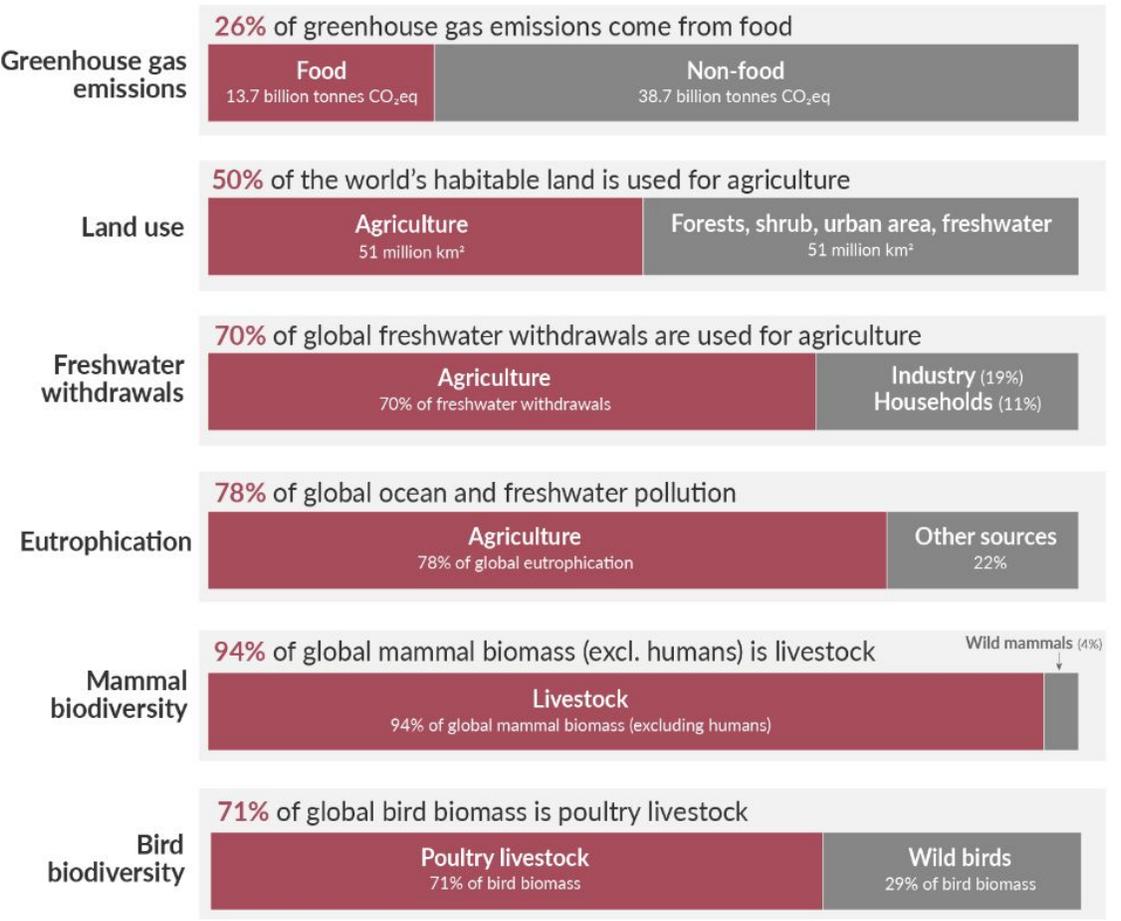
SUSTAINABLE DEVELOPMENT GOALS



## According to Our World in Data the impact is heavy:

- The following chart shows the environmental impacts of food and agriculture.
- To be aware that what we eat, and how we produce our food, plays a key role in tackling climate change, reducing water stress and pollution, restoring lands back to forests or grasslands, and protecting the world's wildlife.

The environmental impacts of food and agriculture Our World in Data



Data sources: Poore & Nemecek (2018); UN FAO; UN AQUASTAT; Bar-On et al. (2018). Licensed under CC-BY by the author Hannah Ritchie. OurWorldinData.org - Research and data to make progress against the world's largest problems. Date published: November 2022.

# Topic 2 - The impact of food production on climate changes in global industrial food production and local sustainable food production.

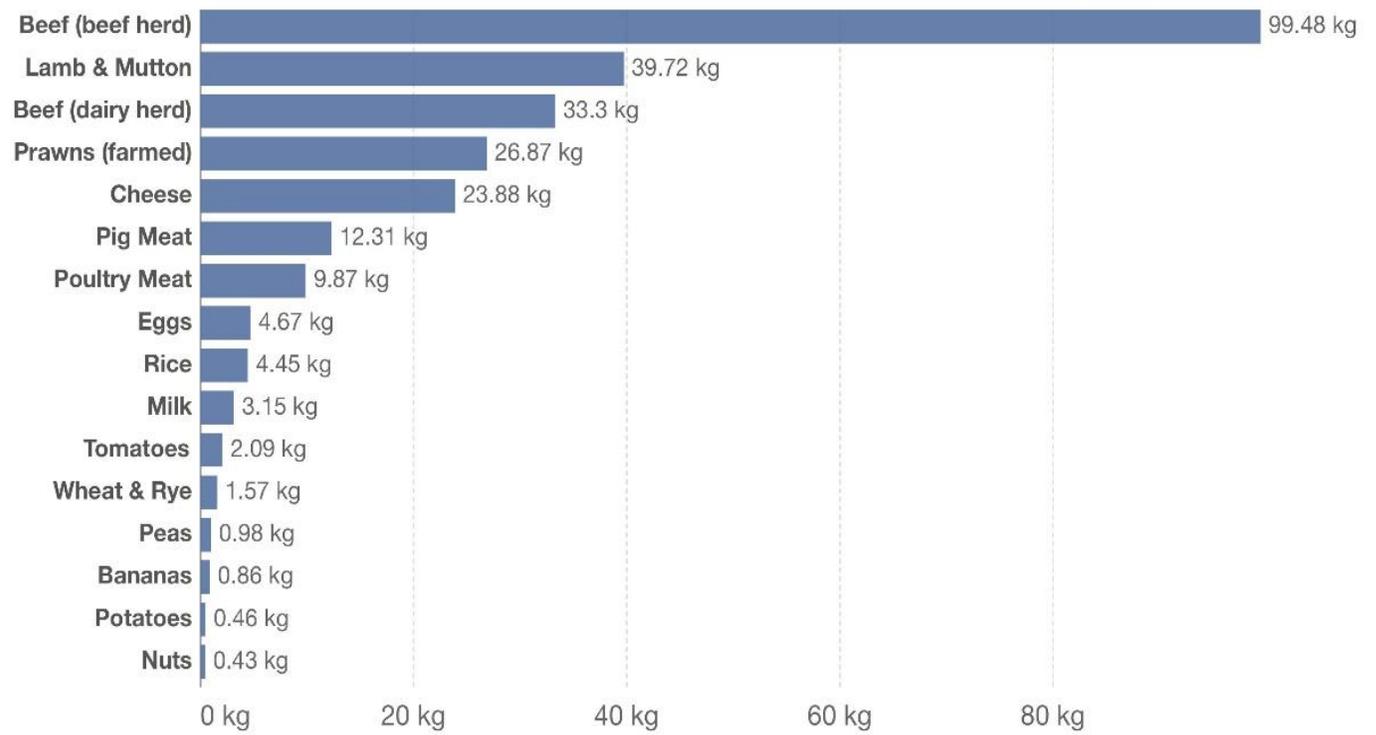
## Greenhouse gas emission

- The growing request of food has as consequence an impressive higher greenhouse gas emission.
- The following chart shows the greenhouse gas emission per kilogram of food product measured in carbon dioxide equivalents (CO2eq).

### Greenhouse gas emissions per kilogram of food product



Emissions are measured in carbon dioxide equivalents (CO2eq). This means non-CO2 gases are weighted by the amount of warming they cause over a 100-year timescale.



Source: Poore, J., & Nemecek, T. (2018). Reducing food's environmental impacts through producers and consumers.  
Note: Greenhouse gases are weighted by their global warming potential value (GWP100). GWP100 measures the relative warming impact of one molecule of a greenhouse gas, relative to carbon dioxide, over 100 years.  
[OurWorldInData.org/environmental-impacts-of-food](https://OurWorldInData.org/environmental-impacts-of-food) • CC BY

## Topic 2 - The impact of food production on climate changes in global industrial food production and local sustainable food production.

### Some techniques of sustainable agriculture

- **Respect of seasonality:** planting and producing food according the right season.
- **Rotating crops:** planting variety of crops can have benefits for healthier soil and improved pest control
- **Planting cover crops and perennials.** Cover crops such as clover, rye are planted during off-season times when soils might otherwise be left bare, while perennial crops keep soil covered and maintain living roots in the ground year-round. These crops protect and build soil health by preventing erosion, replenishing soil nutrients, and keeping weeds in check, reducing the need for fertilizers and herbicides.
- **Reducing or eliminating tillage.** Traditional plowing (tillage) prepares fields for planting can cause soil loss. No-till or reduced-till methods, which involve inserting seeds directly into undisturbed soil, can reduce erosion and improve soil health.

## Potential benefits of eating local sustainable food

- **It's a great advantage for the environment** as local food doesn't have to travel as far to arrive on your plate, so it helps reduce greenhouse gas emissions and contributes to improving our carbon footprint.
- **It benefits the local economy**, including supporting local farmers and other producers.
- **It encourages sustainable agriculture**, and facilitates tracking the supply chain back to the point of origin to evaluate ecological practices.
- **It ensures that food has passed some of the highest safety standards** in the world as regulations regarding additives, pesticides, herbicides, are very strict.

## Topic 2 - The impact of food production on climate changes in global industrial food production and local sustainable food production.

### QUIZ TOPIC 2

1	About 25% of greenhouse emissions result from global agriculture and food production	T	F
2	1 Kg of beef doesn't require more than 15.000 liters of water and it doesn't emit about 14 kg of gas emission	T	F
3	1 Kg of salad causes 0,5 kg of gas emission	T	F
4	Putting our food systems on a sustainable path brings new opportunities for our health and environment	T	F

## Topic 3 - Organic food production and its labelling

The use of **organic food** is one of the winning strategies to initiate and maintain **sustainable food choices**. **Organic in EU** is an overall system of farming management and food production

- **Organic food crops** help to **preserve the ecological balance, increase the soil fertility**. That's why countries of different continents are supporting organic food choices.
- In particular European Union has many objective in this sense, the most important of which are **European Great Deal** and **Farm to Fork**; the goal of these projects is making **25% of EU farmland organic** but also improve organic aquaculture.



## Topic 3 - Organic food production and its labelling



**Organic in EU** is an overall system of farming management and food production that combines

- best environment practices
- a higher level of biodiversity
- the preservation of natural resources
- the use of higher animal welfare standards
- the use of natural substances and processes.

## The European Union organic logo



Learn more :

[https://agriculture.ec.europa.eu/farming/organic-farming/organic-logo\\_en](https://agriculture.ec.europa.eu/farming/organic-farming/organic-logo_en)

- “The **European Union organic logo** gives a coherent **visual identity** to organic products produced in the EU. This makes it easier for consumers to identify organic products and helps farmers to market them across the entire EU.
- The **organic logo** can only be **used on products** that have been **certified as organic** by an **authorised control agency** or body.
- The logo can only be used on **products** when they contain at least **95% organic ingredients** and additionally, respect further strict conditions for the remaining 5%.

## Topic 3 - Organic food production and its labelling

### QUIZ TOPIC 3

1	In EU to be certified organic food is grown with natural fertilizers to preserve natural resources and maintain a high level of biodiversity	T	F
2	Organic food can contain GMO in small quantities	T	F
3	In organic livestock, animals are fed with 100% organic food	T	F
4	In EU the organic agriculture and organic farming will probably reach 25% of food production by 2030	T	F

## Topic 4 - Gastronomy contributes to biodiversity preservation.

Starting a restaurant with a climate and environmentally-friendly menu requires time and care in choosing quality foods that should meet certain parameters:

- food produced as close to the premises as possible
- fair prices food,
- seasonal fruit and vegetables grown as traditionally as possible (ex. with self-produced seed)
- meat from local and sustainable farms
- fish caught by local fishermen.

**Food with the above characteristics would help sustainability, biodiversity, and strengthen the circular economy.**

The management of the dining room and restaurant also have a bearing on sustainability and climate food impact:

- water management,
- waste management,
- the type of service chosen (such as the type of tablecloth, washing it locally; not using disposable tableware).

## Topic 4 - Gastronomy contributes to biodiversity preservation.

- [http://www.fondazioneeslowfood.com/wp-content/uploads/2019/12/ENG\\_Indaco2\\_ristorante\\_LR.pdf](http://www.fondazioneeslowfood.com/wp-content/uploads/2019/12/ENG_Indaco2_ristorante_LR.pdf)
- <https://www.youtube.com/watch?v=k3cVbOnaKsg&t=44s>

Learn more :

- [www.fondazioneeslowfood.com/wp-content/uploads/2019/12/ENG\\_Indaco2\\_ristorante\\_LR.pdf](http://www.fondazioneeslowfood.com/wp-content/uploads/2019/12/ENG_Indaco2_ristorante_LR.pdf)
- [www.bioskitchen.com/it/filosofia.php](http://www.bioskitchen.com/it/filosofia.php)
- [www.piugustobio.it/menu-del-giorno.html](http://www.piugustobio.it/menu-del-giorno.html)
- [www.bio.it/napoli/menu/i-nostri-piatti/](http://www.bio.it/napoli/menu/i-nostri-piatti/)

# Topic 4 - Gastronomy contributes to biodiversity preservation.

## QUIZ TOPIC 4

Say if the statements are true or false.

1	Gastronomy has many effects on biodiversity preservation	T	F
2	Sustainable choices permit restaurants to have a small environmental impact	T	F
3	A 'climate-friendly' restaurant requires cares in the choices of food	T	F
4	Local food from sustainable agriculture and farming cannot guarantee success of your restaurant	T	F
5	The reduction of meat consuming is not a trend and a more plant based meal is healthier and pro-planet.	T	F



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## PR2 Food sustainability VET Teachers' Training (Leader: IDG)

### WATER AND ENERGY MANAGEMENT FOOD AND FOOD'S FOOTPRINTS - UNIT 3



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- Topic 2. Quantification of the different environmental impact of food groups
- Topic 3. Hints and tips for improving resource efficiency in terms of water and energy management



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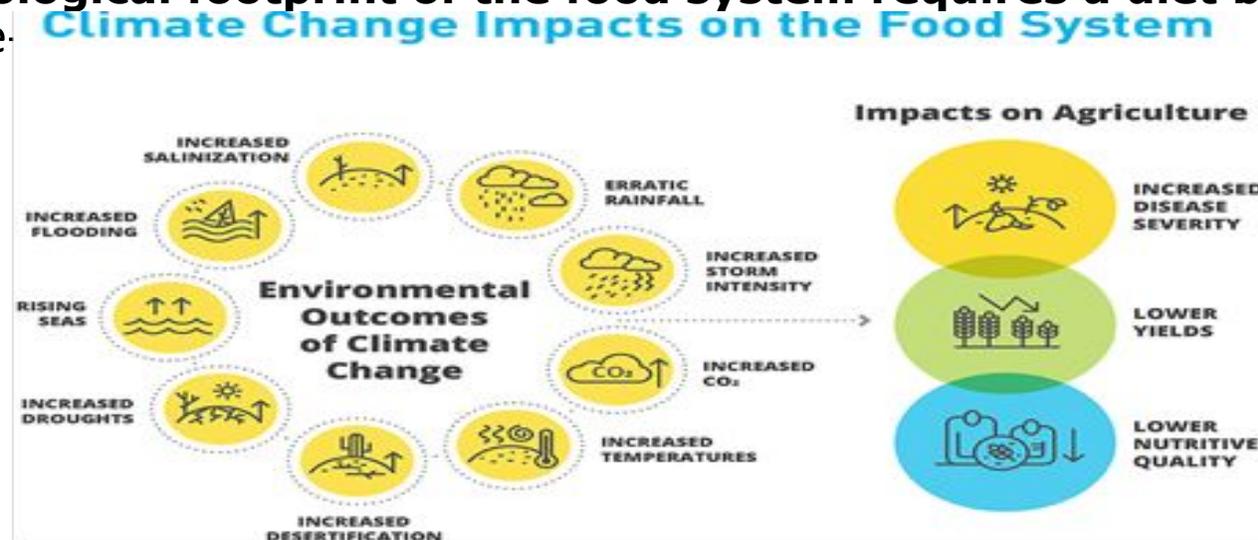


## Brief introduction about the Unit and its objectives and competences

- This learning unit focuses on our food systems and emerging global environmental risks. In particular, the module highlights the different environmental impacts of food, water and energy.
- Starting with a few concepts, we will understand how responsible food choices and the intelligent use of water and energy resources are important in reducing human damage to the environment.

# Topic 1. The relationship between our food systems and emerging global environmental risks

- **Climate change, poses a serious threat to humanity's food security** causing huge global environmental risks.
- **The food sector contributes gas emissions, for 34% of carbon dioxide emissions.**
- **Most of the greenhouse gas emissions are methane, pollution caused mainly by intensive livestock farming** to meet the demand for meat, particularly beef.
- **Reducing the ecological footprint of the food system requires a diet based on plant-based, free-**



# Topic 1. The relationship between our food systems and emerging global environmental risks

**Un Food Systems Summit**, held on 23 September 2021 in New York, had the aim to take stocks of the achievement on 17 SDGs Goals of Agenda 2030, and Guterres (UN Secretary-General) affirmed that **the pandemic has highlighted the links between inequality, poverty, food, disease and our planet.**

That is why we need **to change production and consumption patterns** through five actions:

1. adopt **nutrition-focused food policies** such as school feeding programmes;
2. supporting **local markets** and food supply chains;
3. **increase agricultural funding** to 20 per cent of expenditure;
4. encourage **farmer cooperatives** and ensure **women's access** to productive inputs; and
5. expand **social safety** net programmes and invest in climate early warning systems

# Topic 1. The relationship between our food systems and emerging global environmental risks

<https://youtu.be/VcL3BQeteCc>

<https://youtu.be/H37grur6HaU>

[unfoundation.org/blog/post/climate-change-and-the-future-of-food/](https://unfoundation.org/blog/post/climate-change-and-the-future-of-food/)

# Topic 1. The relationship between our food systems and emerging global environmental risks

1. Meat production is a considerable source of greenhouse gas emissions	T	F
2. The European Green Deal is the EU's commitment to be the first climate-neutral continent by 2030.	T	F
3. Agroforestry can cut emissions by creating additional "carbon sinks" on farms	T	F

## Topic 2. Quantification of the different environmental impact of food groups

- Environmental impact is **the footprint left by every object, food and/or human behaviour** on nature that can be traced back to the emission of CO<sub>2</sub>.
- **However**, along with the amount of CO<sub>2</sub> emitted as a result of a certain practice, the consumption of natural resources such as **water and energy consumption must also be taken into account**.

### **BASIC INDICATORS OF FOOD ENVIRONMENTAL IMPACT**

Three basic indicators are used to determine the environmental impact of food:

- the **water footprint**, to quantify consumption and use of water resources;
- the **ecological footprint**, for the amount of land needed to provide resources;
- the **carbon footprint**, to measure greenhouse gas emissions.

## Topic 2. Quantification of the different environmental impact of food groups

### APPROPRIATE DIET REQUIREMENTS

An appropriate dietary choice requires:

- **reduce meat consumption**
- **limit consumption of energy-rich foods,**
- **limit food waste:** do your shopping by buying only what you need and prepare fair portions of food;
- **being informed of the climate emergency and taking action** to protect the environment and our health.

# Topic 2. Quantification of the different environmental impact of food groups

## POSSIBLE SUSTAINABLE CHOICES

So, at the table we can make sustainable choices and follow an eco-friendly diet based on sustainable food with low environmental impact in terms of land use, water resources used such as:

- Local 0 km products;
- Fresh, seasonal fruit and vegetables and plant-based foods;
- Olive oil as a source of fat;
- Cheese and/or yoghurt with daily consumption;
- Sustainable food products;
- Organic eggs;
- Dairy products and cheeses from small-scale producers;
- Organic food, grown without GMOs and pesticides;
- Meat from sustainable, non-intensive livestock farms, respecting animal welfare;
- Local fish and products from sustainable fisheries;
- Products in bulk or with recyclable packaging that preserves the food over time.

## Topic 2. Quantification of the different environmental impact of food groups

### Quantification of the different environmental impact of food groups – “GOOD, CLEAN AND FAIR”

These sustainable choices are the thread running through **Slow food's slogan: 'Good, clean and fair'** and encapsulates the whole concept of sustainable food because it respects the environment, animal and human health and the criteria of naturalness.

However, good information is always needed, so it is important to read the labels and ask the retailer what you are buying.

To choose sustainable food one must:

- buy locally sourced products
- sourcing directly from producers;
- choose bulk products that do not use packaging;
- choose seasonal fruit and vegetables.

# Topic 2. Quantification of the different environmental impact of food groups

## SOME NON-SUSTAINABLE FOODS

In practice, they are unsustainable foods:

1. **Meat and dairy products** because of the land, water and energy consumption involved in its production;
2. **Fish** because it is the result of overexploitation leading to imbalances in marine ecosystems and intensive and illegal fishing;
3. **Quinoa** as more and more land is being exploited to cultivate it;
4. **Soya**, produced mainly in Brazil and Argentina, **countries with** many problems of deforestation;
5. **Palm oil**, increasingly present on food labels, is mainly produced in Indonesia and Malaysia, and is also the cause of massive deforestation;
6. **Bananas** whose negative environmental impact is due to their export from Ecuador, the Philippines, Costa Rica, Colombia and Guatemala to the rest of the world.
7. **Chocolate** which comes from a plant that only grows in certain areas around the equatorial forests and, due to increased demand, small producers are planting cocoa deforesting and destroying local biodiversity.

## Topic 2. The relationship between our food systems and emerging global environmental risks

<https://youtu.be/LamL6j351Es>

## Topic 2. The relationship between our food systems and emerging global environmental risks

1. 30 % of greenhouse gas emissions come from the food system.	T	F
2. Beef and lamb tend to have the smallest impact on climate change.	T	F
3. Eat less meat dairy, and more protein-rich plants could be a good solution.	T	F



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## Topic 3. Hints and tips for improving resource efficiency in terms of water and energy management

- The environmental crisis linked to climate change and the recent Covid-19 pandemic have made the strong interrelationships between our health, ecosystems, supply chains, consumption patterns and planetary limits even more evident. This is why a robust and resilient agri-food system that functions under all circumstances and ensures sufficient supplies of affordable, sustainable and healthy food for citizens is crucial.
- Many companies in the **IV Gamma sector** - fresh and washed fruit and vegetables - contribute to the objectives of the strategy towards a sustainable, healthy and fair agri-food system. These products - **packaged and ready to eat** - not only contribute to our health by encouraging the consumption of fruit and vegetables in our daily diet, but also represent **a highly sustainable choice from an environmental point of view** in line with the European Green New Deal commitments and the Farm to Fork strategy.
- **IV range companies** have the objective of **certifying and guaranteeing food safety** with continuous checks on the production chain in order to have a safe product. In Europe, Italy represents one of the excellences on the international market, recognised by the quantity of products sold in Italy and exported.

### Topic 3. Hints and tips for improving resource efficiency in terms of water and energy management

#### FOOD RANGE CLASSIFICATION

First Range	Products that have not undergone any preservation treatment: vegetables, fish products, meat
Second Range	boxed and preserved products, which have undergone preservation treatments: sterilisation, pasteurisation, freeze-drying,...
Third Range	Frozen and deep-frozen products
Fourth Range	Ready-to-eat fruit and vegetables. These are fresh fruit and vegetables, sold in trays or plastic bags, washed, dried and cut into pieces before packaging
Fifth Range	pre-cooked and pre-frozen, preserved under vacuum or in a controlled atmosphere.

## Topic 3. Hints and tips for improving resource efficiency in terms of water and energy management

- The **IV Gamma** focuses on the sustainability of production processes: **reduced food waste and energy consumption**, being already peeled, washed and portioned is zero waste, as the contents of the package are available for consumption in their entirety.
- **Production waste is then 100 per cent re-used**, mainly for animal feed, in a perfectly circular way.
- **A conspicuous reduction in water and energy requirements** from the consumption point of view, thanks to technological innovations,. **Furthermore** the company's process is considerably more efficient **as** the washing process consumes around **90 % less water** than the domestic process for the same product.
- **Since 40% of the plastic disposed of in Europe is related to packaging and only 9% is recycled, the European Union is looking for innovative solutions to limit the use of plastic in packaging.**

## Topic 3. Hints and tips for improving resource efficiency in terms of water and energy management

In summary, it can be said that **the IV Gamma is an extremely dynamic and growing sector**, despite the temporary drop in sales induced by the pandemic.

However, the sector is facing some major challenges. This is a far from simple challenge, given the disparities in the social, health and economic spheres; moreover, political actors at local, national and international level are not always in agreement.

To meet this challenge, **it is necessary to identify and promote innovative solutions** that offer the right tools to tackle it by transforming what is currently experienced as a threat into an opportunity.

## Topic 3. Hints and tips for improving resource efficiency in terms of water and energy management

- [https://youtu.be/CKW\\_ux2Xo\\_w](https://youtu.be/CKW_ux2Xo_w)
- [https://youtu.be/9fRaA\\_JCVTM](https://youtu.be/9fRaA_JCVTM)
- <https://www.worldbank.org/content/dam/Worldbank/Feature%20Story/SDN/Water/infographic-water-use-en-900x4324.jpg>

## Topic 3. The relationship between our food systems and emerging global environmental risks

1. It took over 3,000 liters of water to make the steak	<input type="checkbox"/>	<input type="checkbox"/>
2. Adnams uses rainwater to feed shower flushes, toilets and vehicle wash.	<input type="checkbox"/>	<input type="checkbox"/>
3. In South Africa industries reduce their costs by purchasing reclaimed water at a lower price.	<input type="checkbox"/>	<input type="checkbox"/>
4. Treated waste water can replace freshwater for some industrial uses. Including energy generation.	<input type="checkbox"/>	<input type="checkbox"/>



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# Thank you!



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## FOOD LOSS AND FOOD WASTE - UNIT 4



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# LIST OF CONTENTS

- Topic 1- The issues related to food waste and losses occurring along the food-supply chain, with particular focus on logistics.
- Topic 2- Distribution, money savings and final consumption.
- Topic 3- Strategies and/or best practices could be developed to reduce food waste and losses and/or donate leftovers.
- Topic 4- Proper packaging for prevention.
- Topic 5- National rules and laws on food waste to leftovers donation.

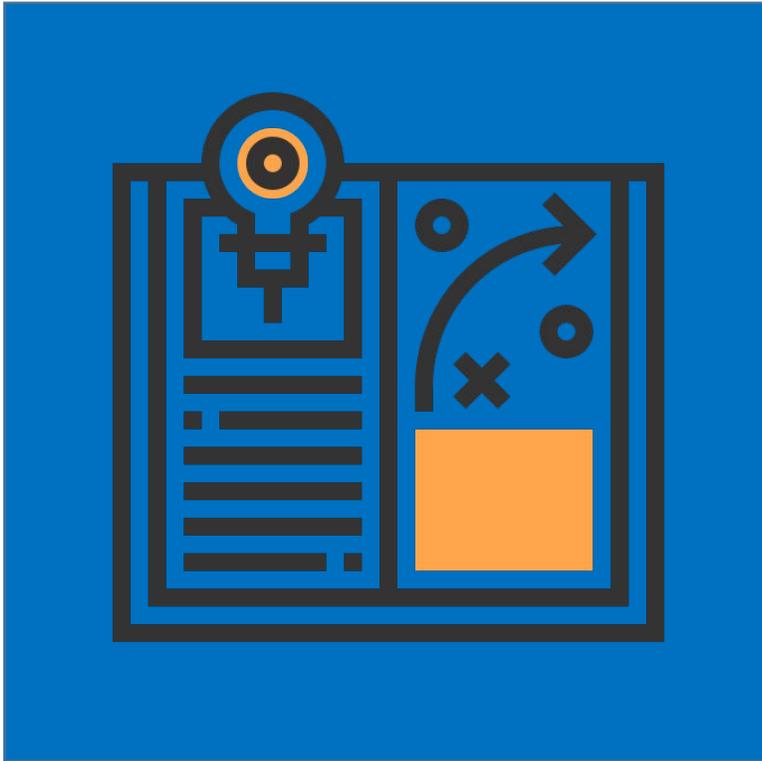


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# OBJECTIVES



1. The **issues** related to food waste and losses occurring along **the food-supply chain**, with particular focus on logistics, distribution, money savings and final consumption.
2. Strategies and/or **best practices** could be developed to reduce food waste and losses and/or donate leftovers.
3. Proper **packaging** for prevention National rules and laws on food waste to leftovers donation.

# Brief introduction about the Unit and its objectives and competences

## Skills:

1. General understanding of food loss and food waste in the food chain.
2. Preservation technique to reduce food waste.
3. Design specific actions (e.g. menus) aiming to reduce waste.
4. Organize their work more efficiently to avoid improper behavior. Low impact packaging solutions.

## Competences:

1. Plan and implement ecological strategies to reduce food loss.
2. Plan and implement ecological solution to reduce food waste.
3. Use packaging format and materials to maximize shelf life and minimize food waste.
4. Design a strategy towards reduction of food waste.
5. Implement storage technique. Implementing practices for a circular economy.



# FOOD LOSS AND FOOD WASTE



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## Brief introduction about the Unit and its objectives and competences

- **Food loss** most often occurs at the production, post-harvest, and processing stages of the food chain.
- Whilst **food waste** occurs at the end of the food chain. Food waste is the food which was originally produced for human consumption but then was discarded or was not consumed by humans.

# Topic 1 - The issues related to food waste and losses occurring along the food-supply chain, with particular focus on logistics

Nowadays, **aesthetics** plays a very important role in our lives, both on a personal and social level. It is therefore essential to know how to reduce its waste and its monitoring and evaluation tools.

This can also be extrapolated to the food that the population is currently consuming.



## ¿WHAT HAPPENS WITH THE UGLY FOOD?



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## Topic 1 - The issues related to food waste and losses occurring along the food-supply chain, with particular focus on logistics



There are many **companies** dedicated to the **world of food**, where they carry out a prior classification of the **quality and calibres** of their food, sometimes disregarding the **aesthetic aspect** of the materials, often produced by the **climate and environmental problems**. These preliminary classifications are often carried out directly in the **fields** in the case of **vegetables**, in the **fish markets** in the case of fish and in the **slaughterhouses** in the case of meat.



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Imperfect food is discarded even if it is perfectly edible : “ugly”



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## Topic 1 - The issues related to food waste and losses occurring along the food-supply chain, with particular focus on logistics

There is a large amount of food that is not **destined** for a production line for packaging or distribution, because of its **physical appearance**.

What happens to it then? Most of them are thrown away or do not make it to the shops, although many of them could be given a **second life** or another decent destination.



Ex : In the case of **fish**, consume **local fish** rather than fish **from outside**.

If it is wild fish, it is better than farmed fish, the price has an influence and it is **more expensive**, but it is of better quality, and we are helping the environment.

88 MILLIONS OF TONES FROM FOOD WASTE  
IN 1 YEAR IN EUROPE : 143.000 M €



33 MILLIONS OF PEOPLE ARE  
NOT ABLE TO EAT



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## ¿HIDDEN COST OF WASTED FOOD?

> Watch the video about “Food Waste: The Hidden Cost of the Food We Throw Out I ClimateScience”: <https://youtu.be/ishA6kry8nc>

## TOPIC 2 - Distribution, money savings and final consumption.

- Often on the way to the **production plant** for repackaging or treatment of these foods, they **suffer blows, bad preservation due to incorrect transport.**
- This results in a great economic **loss** which, if it is well managed, could be **reused** for other purposes.
- As a whole, it influences their reception and cataloguing again in the production plant, turning part of them into disposable raw materials, often reusable but **discarded** because they **do not have a good physical appearance and we do not even know how or where to treat them.**
- We must promote the action of buying and selling with **local suppliers** and producers, looking for **raw materials** with designation of origin, products of **proximity**, and enjoying **seasonal food.**
- We have to take advantage of the **benefits** that the land gives us of **seasonal foods**, such as pumpkins in Winter, and cherries in Summer.

## Observe the following characteristics about the local food economy:

### Watch the video about “What are the Effects of Food Waste on the Economy of a Country | Causes of Food Waste

<https://www.youtube.com/watch?v=kGRmSRzg76k>

Watch the video about “foodwaste = money waste”:

<https://www.youtube.com/watch?v=VGTPKKOVoz4>

Watch the video about “Reduce Waste in Your Restaurant: Composting”:

<https://www.youtube.com/watch?v=CCN-r-hLHd0>

TRANSFORM THE ORGANIC RESOURCES  
**BARCELONAUTES / ABONO KM0**

<https://www.youtube.com/watch?v=eY-7i1y-bYk>

## TOPIC 3 - Strategies and/or best practices could be developed to reduce food waste and losses and/or donate leftovers.

- Agreements could also be created between production plants where they can collect the second classification of **discarded materials** to give them a **new use**, as in the case of fruit: use of fruit with little visual aesthetics in the transformation of that fruit into compotes or **jams or juices**.
- Turning recovery strategies into actions **through education**:  
**reuse / reprocessing** of food to avoid losses and reuse as much food as possible (vegetable soup, fruit smoothies, etc.), improvements in preservation techniques, recycling and composting.
- As we commented in the previous topic on the economic and energy loss, **we should use zero-kilometre products**, with Denomination of Origin (D.O.) or Protected Designation of Origin (P.D.O.).
- The journey from the producer to the point of sale would be shorter than if we bought them in a place many kilometres away, thus avoiding excessive **fuel consumption in transport**.



- **SHOPPING IN A COMPULSIVE MANNER (RESTAURANTS, PARTIES, CATERING, SUPERMARKETS)**

# STRATEGIES AND/OR BEST PRACTICES COULD BE DEVELOPED TO REDUCE FOOD WASTE AND LOSSES AND/OR DONATE LEFTOVERS

- IMPERFECT FOOD IS AS GOOD AS PERFECT SHAPED FOOD SO BUY IT
- TRY NOT PURCHASE FOOD OR PRODUCTS OUT OF SEASON
- SHOPPING ZERO – KILOMETRE PRODUCTS, Denomination of Origin (D.O.) or

Protected or with Designation of Origin (P.D.O.) HAVE TO BE A PRIORITY

- SOCIETY HAS TO BE WELL INFORM ABOUT THE KNOWLEDGE OF THE

LABELS

(BEST IF USED BY OR EXPIRES BUY..)



## TOPIC 3 - Strategies and/or best practices could be developed to reduce food waste and losses and/or donate leftovers.

- With food waste in markets or restaurants we could donate **leftovers** to soup kitchens or for people in need.



- A great example of business and social solutions to reduce food waste are for example: **“Too Good To Go”** or **“ReFood”... Demanding platform APP**
- Where the user can buy a product in perfect condition that is about to be thrown away or is about to expire. In this way, **food waste is avoided.**
- A second chance for the product.

## TOPIC 4 - Proper packaging for prevention.

Concern and awareness for the environment is growing and producers are **beginning to replace traditional packaging with more sustainable packaging** with a lower environmental impact.

**Sustainable packaging tends** to reduce its volume and weight, and the use of plastic is also lower.

Their life cycle, from their manufacture, transport, recycling and the energy used to make them, is reduced.

They have a high capacity for reutilisation and most of them **do not contain chemicals** that are hazardous to human and animal health.

Examples of sustainable packaging are **cardboard** replacing **plastic and paper**. In some places we can also find **bags** made from **potato starch** or customers are encouraged to use reusable containers and **buy in bulk**.

Other sustainable packaging is currently in use in take-away food shops, using packaging whose main function is for preservation. These products, made from less toxic and often recycled materials, have been produced with lower energy consumption and designs that can be folded and compacted. At the same time they have increased their ability to **be recycled, reused** or disposed of with low environmental impact.

## FOOD MILES

the distance food travels from the producer to the consumer



# Our Local FOOD SYSTEM



## ECOSYSTEM SERVICES

clean air, pollination, fertile soil, and other benefits of natural cycles



GROW

HARVEST

PROCESS

DISTRIBUTE

EAT

WASTE

13% of agricultural production value is from vegetables, fruits, and nuts.

19 certified organic farms growing flowers, food, and livestock.

26% of residents grow food in a backyard or community gardens.

45 school gardens and 15 community gardens.

50 types of vegetables, over 30 kinds of fruits and nuts, and six species of domesticated animals.

122 commercial fishing boats catch 18,657,893 pounds of seafood annually.

40,000 pounds of honey (3.7% of California's honey).

10% of the county's total manufacturing industry is devoted to food.

We make baked goods, tortillas, seafood and other animal products, dairy products, prepared fruits and vegetables, sugar and confection products, and grain and oil seed.

27 weekly farmer's markets hosted in 18 cities.

16 CSA's deliver within the county.

3 wholesale produce distribution centers.

723 grocery stores.

Each phase of the food system has a carbon footprint.

The drought has decreased food production.

Waste is produced in every phase of the food system

40% of residents report eating fast food once a week.

707 food service establishments in the county, including restaurants, hospitals, schools, and business cafeterias.

34% of low-income households are food insecure.

30% of the national food-supply is lost at the retail and consumer level.

18% of California's waste stream is food (5,591,179 tons annually).

Food waste may be composted and transformed into nutrient rich soil that aids carbon sequestration and water quality.



2016 KEY INDICATOR: FOOD SYSTEMS



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- Watch the video about “Notpla - Making packaging disappear”:  
<https://www.youtube.com/watch?v=EzlpCjh8nBU>



> Watch the video about “Food Waste Prevention”:  
<https://www.youtube.com/watch?v=rjxwfp8rs34>



> Watch the video about "10 promising ideas to reuse packaging | Circular economy examples Sustainability":

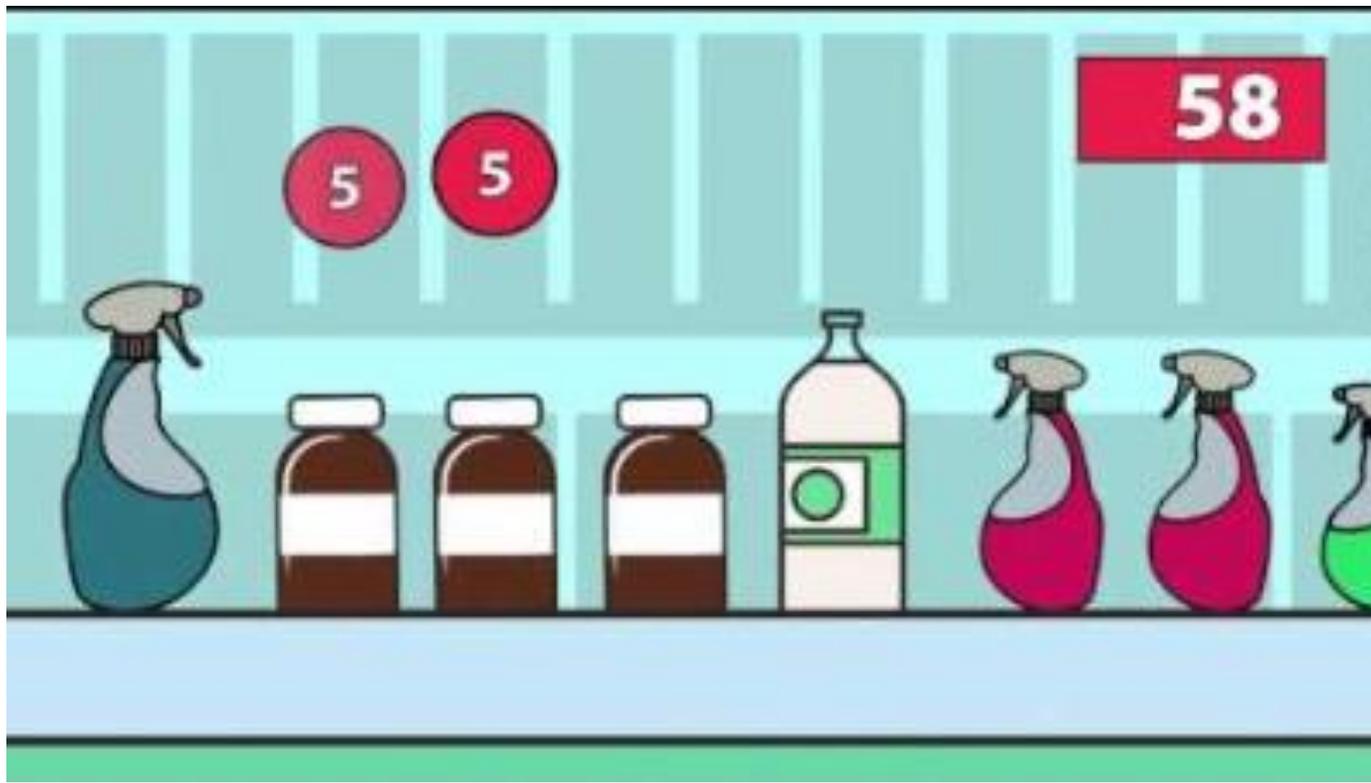
<https://www.youtube.com/watch?v=pysBxD3CoGk>



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> Watch the video about “Packaging Waste”:  
<https://www.youtube.com/watch?v=62O868-bYOk>



> Watch the video about “The future of packaging – reducing food waste”: <https://www.youtube.com/watch?v=hJtleCmLzzI>

## TOPIC 5 - National rules and laws on food waste to leftovers donation.

- **Against the waste of food** and the reuse of food, there are **non-profit associations** in charge of recovering **food surpluses** fit for human consumption and fighting against **food poverty** by giving them to people in precarious situations in our environment.
- These are the main objectives of **associations** such as **Caritas or the Food Bank Foundation**.



## TOPIC 5 - National rules and laws on food waste to leftovers donation.

- It is important, according to the **regulations**, that the food is **well labelled** and that the chain of **transport from one point to another is correct**. There is a risk that the food may spoil on the way and therefore it has to be transported properly in order to avoid any kind of problem.
- Many associations and foundations organise **solidarity meals** to prevent food waste and mainly to feed people in need.



# NATIONAL RULES AND LAWS ON FOOD WASTE TO LEFTOVERS DONATION

- FOOD MUST BE WELL LABELLED AND PACKED
- CHAIN OF TRANSPORT FROM ONE POINT TO ANOTHER HAS TO BE IN A SAFE AND PERFECT TEMPERATURE WAY
- DONATE USED OIL TO ASSOCIATIONS TO PRODUCE SOAP\_ 2<sup>ND</sup> LIVE
- DONATE TO APPROPRIATE CHARITY COMPANYS TO AVOID FOOD POVERTY
- CONTACT COMPANYS LIKE APP \_ Too Good To Go, Talkualfoods
- TO RESELL THE LEFT OVER OF THE RESTAURANT





> Watch the video about “Say No To Food Waste: Appreciating Food Leftovers Training Program”:

<https://www.youtube.com/watch?v=T1VsAo3uR84>



> Watch the video about “Canadians get creative in solving food waste problem”:

<https://www.youtube.com/watch?v=fRovHP4eXyM>



Watch the video about “How your leftover McDonalds is recooked and sold by this family to survive”:

<https://www.youtube.com/watch?v=y8k3NYNurmM>



> Watch the video about: If Ed Sheeran's "Shape of You" was about Food Waste -

<https://www.youtube.com/watch?v=B1-pKW0t2yM>



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**LET'S PUT VALUE ON FOOD**  
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## CIRCULAR ECONOMY AND RESILIENCE - UNIT 5



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## LIST OF

- Topic 1: The importance of local economy for sustainable development
- Topic 2: The concept of local food economies and its impact on the community.
- Topic 3: Strategies and best practices of Alternative Food Systems (AFSs) in terms of production, distribution and purchasing.
- Topic 4: Local food commercial value
- Topic 5: Proposing the concept of food sovereignty as an alternative to the concept of food security.
- Topic 6: Circular economy and its role in the promotion of the local economy
- Topic 7: The Economic value and potential benefits of the circular economy.



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# Topic 1: The importance of local economy for sustainable development

## SUSTAINABLE DEVELOPMENT GOALS



## Topic 1: The importance of local economy for sustainable development

- Local communities as part of the solution.



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Look at the video here: <https://youtu.be/PvMOtknLu0A>

## Topic 2: The concept of local food economies and its impact on the community

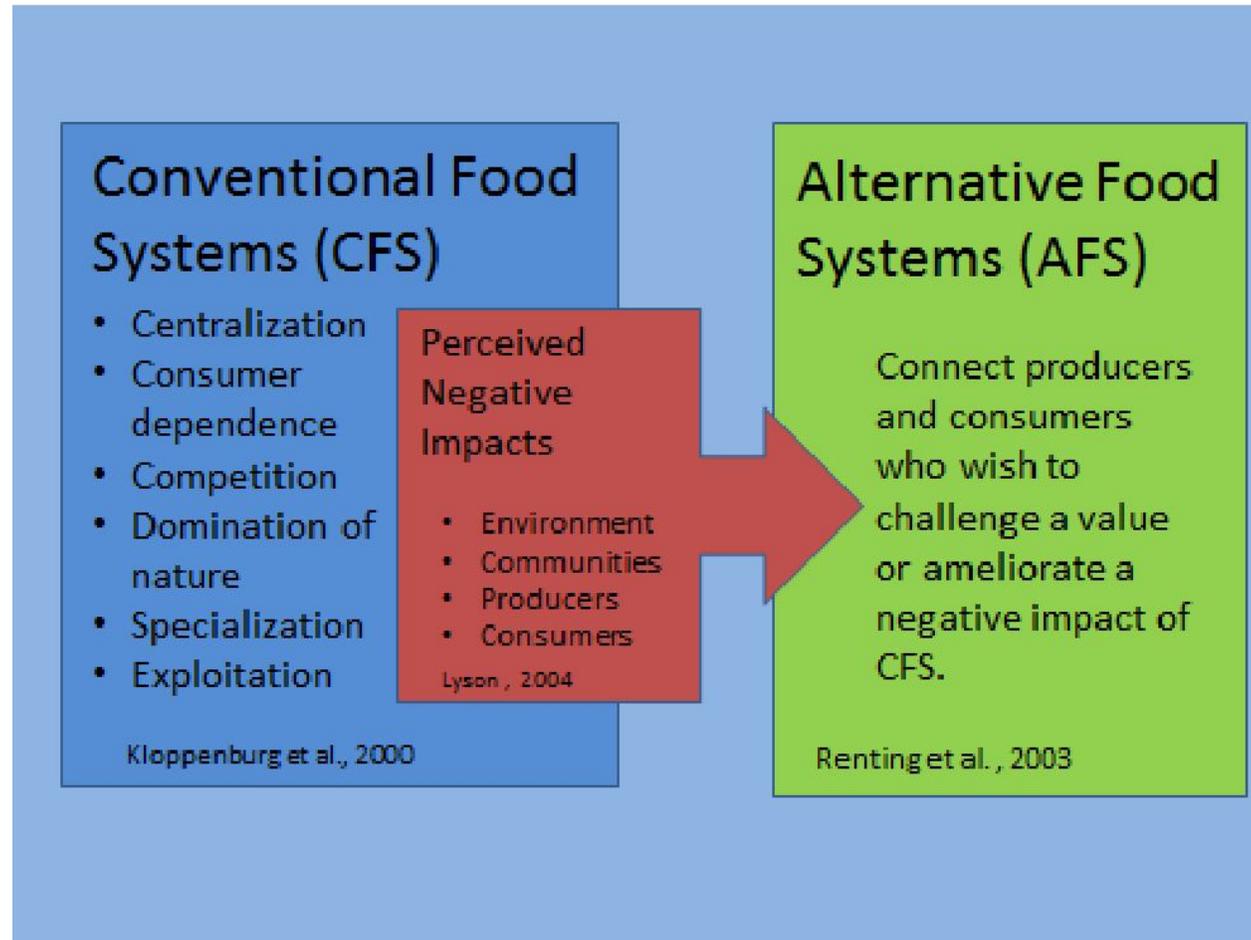
- Growing, producing and buying food presents opportunities to build resources, wealth and resilience in local communities, and to balance power more evenly across the supply chain.
- Using food to build local power and economic opportunity can bring a number of benefits:
  - **Environment**
  - **Social**
  - **Economic**

## Topic 2: The concept of local food economies and its impact on the community



Give a look here : [Friends of the Earth Europe \(2015\), "Eating for the farm"](#).

## Topic 3: Strategies and best practices of Alternative Food Systems (AFSs) in terms of production, distribution and purchasing



## Topic 4: Local food commercial value

### Do you have any idea what a short supply chain is?

- Short supply chains in local markets have been shown to increase income for producers, generate greater autonomy for farmers, and to strengthen local economies by supporting more small businesses. This can improve the viability of small farms, reduce the carbon footprint from food distribution, and enhance household food security by giving people on low-income access to good food and healthy diets.
- Buying directly from the farm or from street markets can sometimes be cheaper than buying from supermarkets and can also help stop shoppers from buying too much and having to throw food away.
- **The European Farm to Fork Strategy** also underlines the untapped economic and environmental benefits of the circular bio-based economy for farmers.

## Topic 5: Proposing the concept of food sovereignty as an alternative to the concept of food security

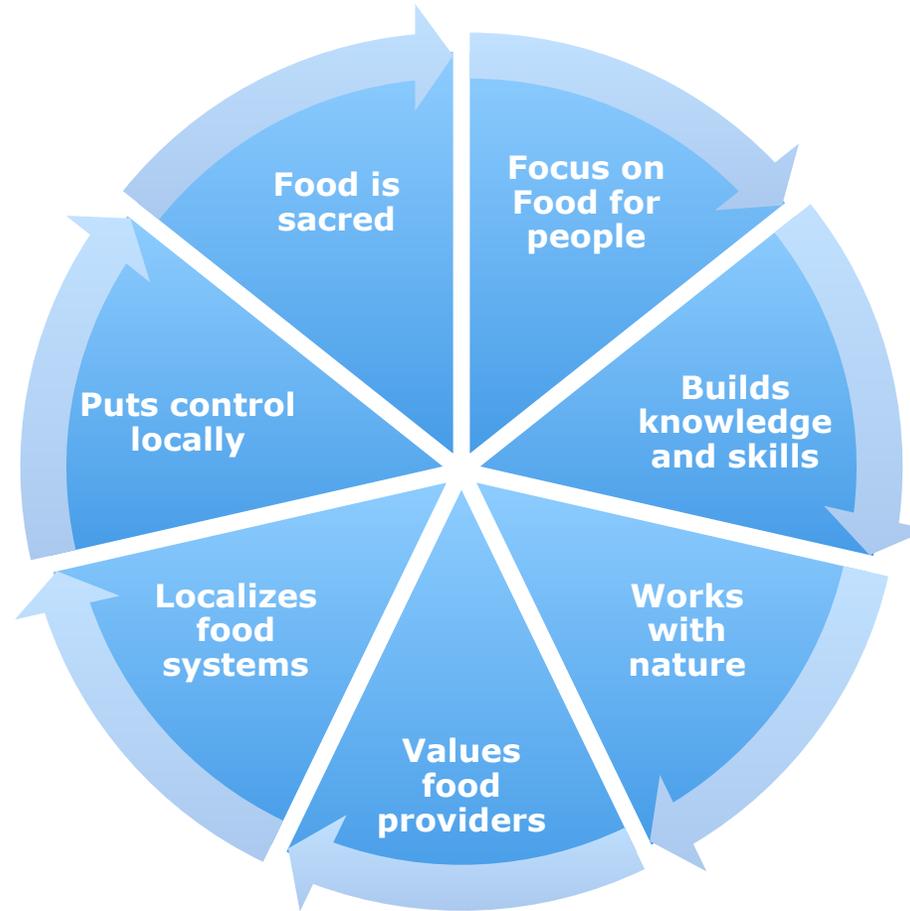


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# The seven pillars of food sovereignty:



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Take a look at this video:

<https://www.youtube.com/watch?v=haCBwIUz7HI>

## Topic 6: Circular economy and its role in the promotion of the local economy

Do you know what circular economy is?



Image: European Parliament



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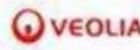


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## Topic 7: The Economic value and potential benefits of the circular economy

- The circular economy and the social economy, whose respective merits are no longer to be demonstrated, are complementary.
- As the cornerstone of the social economy, re-use is also a key concept in the circular economy: recycling, energy, agriculture, etc. Territorial anchorage and cooperation between stakeholders are also key components of both economic models.

<b>REGENERATE</b> 	<ul style="list-style-type: none"> <li>• Shift to renewable energy and materials</li> <li>• Reclaim, retain, and restore health of ecosystems</li> <li>• Return recovered biological resources to the biosphere</li> </ul>	    
<b>SHARE</b> 	<ul style="list-style-type: none"> <li>• Share assets (e.g. cars, rooms, appliances)</li> <li>• Reuse/secondhand</li> <li>• Prolong life through maintenance, design for durability, upgradability, etc.</li> </ul>	    
<b>OPTIMISE</b> 	<ul style="list-style-type: none"> <li>• Increase performance/efficiency of product</li> <li>• Remove waste in production and supply chain</li> <li>• Leverage big data, automation, remote sensing and steering</li> </ul>	    
<b>LOOP</b> 	<ul style="list-style-type: none"> <li>• Remanufacture products or components</li> <li>• Recycle materials</li> <li>• Digest anaerobically</li> <li>• Extract biochemicals from organic waste</li> </ul>	       
<b>VIRTUALISE</b> 	<ul style="list-style-type: none"> <li>• Books, music, travel, online shopping, autonomous vehicles etc.</li> </ul>	      
<b>EXCHANGE</b> 	<ul style="list-style-type: none"> <li>• Replace old with advanced non-renewable materials</li> <li>• Apply new technologies (e.g. 3D printing)</li> <li>• Choose new product/service (e.g. multimodal transport)</li> </ul>	    

Source: Company interviews; Web search. S. Heck and M. Rogers, *Resource revolution: How to capture the biggest business opportunity in a century*, 2014.



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## ETHIC AND INCLUSIVE FOOD BUSINESS - UNIT 6



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network

# LIST OF CONTENTS

- Topic 1 - Fair trade principles and diversity inclusion equity jobs practices.
- Topic 2 - Knowledge about change makers in the relationship between economy, ecology and society through a multilevel approach to sustainable development.



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## Brief introduction about the Unit and its objectives and competences

In this module we will develop the concept of **Decent Work**, fair prices for producers, the **World Fair Trade**: the **value**-based food supply chain.

The social economy as a business model to develop sustainable food activities (economic growth and socially inclusive local development). We will also learn about the development of the concept of green social entrepreneurship in a practical way (Triple Layer Business Model Canvas).

# Brief introduction about the Unit and its objectives and competences

## Knowledge:

1. Fair trade principles and diversity inclusion equity jobs practices.
2. Knowledge about change makers in the relationship between economy, ecology and society through a multilevel approach to sustainable development.

## Competences:

1. Set CSR in a food enterprise
2. Identify the fair price of food products.
3. Set diversity inclusion equity plan.
4. Communicate the link between prices and value to consumers.

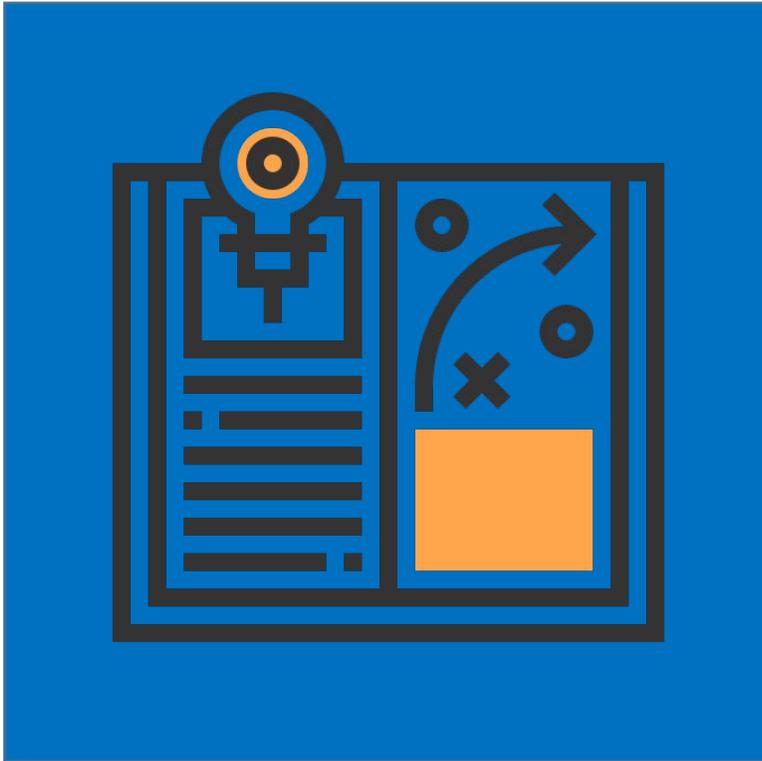


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# OBJECTIVES



1. Recognise the importance of fair trade and equity at work.
2. Set up strategic partnerships to have an impact with your business.
3. Develop critical and design thinking.
4. Build a common vision regarding product quality, partner relationships and customer service.

## Fair trade principles and diversity inclusion equity jobs practices.

- **Fair Trade** is a trading partnership, based on dialogue, transparency and respect, that seeks greater equity in international trade. It contributes to sustainable development by offering better trading conditions to, and securing the rights of, marginalized producers and workers – especially in the South.
- Fair Trade Organizations, backed by consumers, are engaged actively in **supporting producers**, awareness raising and in campaigning for changes in the rules and practice of conventional international trade.

## Fair trade principles and diversity inclusion equity jobs practices.

- The Fair Trade movement shares a vision of a **world in which justice, equity and sustainable development** are at the heart of trade structures and practices so that everyone, through their work, can maintain a decent and dignified livelihood and develop their full human potential.
- **Fair Trade ticks many boxes in the achievements of the SDGs (Sustainable Development Goals).** The Fairtrade system is a ideal partner to achieve the SDGs, Fair Trade enterprises integrate sustainability in their **business models**.





More about the 17 Sustainable Development Goals. Do you know all 17 SDGs?

<https://www.youtube.com/watch?v=0XTBYMfZyrM&feature=youtu.be>

The World Fair Trade Organization sets out the **10 international principles** that **Fair Trade organisations** must follow in their daily work and ensure compliance with:



# 1. Creating opportunities for economically marginalised producer organisations

One of the core objectives of the organisation **is poverty reduction through trade.**

The organisation **supports economically marginalised** producers and workers, whether they are members of associations, cooperatives or companies, whether they are employed in family businesses committed to Fair Trade, or whether they are self-employed, informal or home-based workers.

It aims to enable them to **move from income insecurity and poverty to social and economic empowerment.** The organisation has an action plan to achieve this.

## 2. Transparency and accountability

The organisation is **transparent** in its management and business relations. It is accountable to all stakeholders and respects the sensitivity and confidentiality of business information.

**The organisation establishes appropriate and participatory ways to involve its members, producers and contracted staff in decision-making processes.** It ensures that relevant information is provided to all its business partners. Communication channels are adequate and open to all links in the supply chain.

### 3. Fair Trade Practices

#### Purpose

- **Trades for the social, economic and environmental well-being of marginalised workers and does not maximise profits at their expense.**

#### Establishment of business commitments

- Suppliers of Fairtrade products respect contracts and deliver products on time and to the agreed quality and specifications.

#### Payment and pre-financing

- Fairtrade buyers, recognising **the financial disadvantages faced by producer and supplier organisations**, if requested, an interest-free prepayment of at least **50% will be made.**

### 3. Fair Trade Practices

#### Cancellation and problem resolution

- When orders are cancelled or modified at short notice, and without a reason attributable to the producing or supplying entities, adequate **compensation** for work already done is ensured.
- Supplying and producing organisations consult with purchasing entities if there are any problems with delivery and agree to review terms for delivering

### 3. Fair Trade Practices

#### Long-term business relationships

**The organisation maintains long-term trading relationships based on solidarity, trust and mutual respect** that contribute to the promotion and growth of Fairtrade.

It maintains effective communication with its trading partners.

### 3. Fair Trade Practices

#### Fair competition

The organisation works in cooperation with other Fair Trade organisations in its country and **avoids unfair competition**. It does **not copy** the designs or patterns of other organizations without permission.

#### Cultural identity and respect for traditional knowledge

Fairtrade recognizes, promotes and **protects cultural identity and traditional skills** reflected in indigenous craft designs, food products and other related services.

## 4. Fair payment

A fair payment is one that has been negotiated and mutually **agreed** upon by all parties through continuous dialogue and participation, that provides **fair remuneration to male and female** producers, and that can be sustained by the market, taking into account the principle of equal pay for equal work for women and men.

**The objective is the payment of the locally established living wage.**

**Fair payment is made up of fair prices, fair wages and local living wages.**

## 5. Ensuring freedom from child labour and forced labour

### Child labour

**Fairtrade** companies ensure that they comply with the United Nations Convention on the **Rights of the Child**

**Any involvement of children in Fairtrade production** (including learning a traditional art or craft) is always **communicated and monitored** for play.

### Forced labour and trafficking

The organisation ensures that there is no **forced labour or human trafficking** in its workforce and/or by those belonging to producer organisations or home-based workers.

## 6. Commitment to non-discrimination, gender equality and women's economic empowerment, and freedom of association.

### Non-discrimination and equal pay

The **organisation** does not discriminate in hiring, remuneration, access to training, promotion, **dismissal** or retirement on the basis of race, caste, nationality, religion, disability, gender, sexual orientation, union membership, political affiliation, HIV/AIDS status or age.

The organisation takes into account the special health and **safety needs of pregnant and breastfeeding mothers**

.

## 7. Ensuring good working conditions

### Health and safety at work

The organisation **provides a safe and healthy working environment** for workers and producers. It complies, as a minimum, with national and local laws and ILO (International Labour Organization) conventions on health and safety.

### Working hours and conditions

Safe working conditions for producer and supplier organizations

### **Working hours and working conditions of hired staff and/or producers**

(including homeworkers) comply with the conditions set by national and local laws and ILO conventions.

## 8. Promoting capacity building

The organisation seeks to improve the development of economically marginalised producers and workers through Fair Trade.

**The organisation supports the development of the skills and capacities of its staff and producer entities.**

Organisations **working directly with producer groups develop specific activities to help them improve their management skills, production capacity and access to local, regional, international, Fairtrade and/or conventional markets, as appropriate.**

## 9. Promoting Fairtrade

**The organisation raises awareness of the objectives of Fair Trade and the need for greater fairness in world trade.** It advocates Fair Trade objectives and practices in its field of work.

The organisation provides its buyers, customers and other interested parties with information about itself, the products it trades, the producer groups and the people who produce or grow the products. **The organisation always uses honest advertising and marketing techniques.**

## 10. Climate action and environmental protection

**Care for the environment is an essential part of Fairtrade.**

This includes sustainable sourcing and production, waste minimisation, packaging and transport and, most importantly, helping people to tackle the climate crisis.

Climate action and greenhouse gas emission reduction

- **encourage and promote local production and sourcing of local raw materials.**

Products are designed to facilitate recycling, reuse or organic decomposition as much as possible.

**As far as possible, only recycled materials are used for product packaging.** The use of plastics is kept to a minimum.

# WHY CHOOSE FAIR TRADE?



## FAIR PAYMENT

A fair price covers the cost of production, pays workers fairly, and still leaves enough profit to reinvest.



## TRACEABILITY AND TRANSPARENCY

Open communication and fair contracts are the building blocks of fair trade.



## CAPACITY BUILDING

Support for local, community-led development. Fair trade premium funds are one way that buyers can support those efforts.



## EDUCATION

Learning is key to empowerment. Fair trade organizations raise awareness about the structural inequities of the global trade system.



## NO FORCED OR CHILD LABOR

Labor exploitation is forbidden. Standards go beyond prohibition to address the root causes of forced and child labor.



## RESPECT FOR THE ENVIRONMENT

Additional premiums are paid for organic farming, recognizing the additional work required and valuing environmental stewardship.



## ENSURING GOOD WORKING CONDITIONS

Organizations are committed to following worker protection laws, reasonable work hours, and healthy conditions for all.



## DEMOCRATIC AND TRANSPARENT ORGANIZATIONS

Democracy is central to fair trade, empowering small-scale producers and workers with a voice and a vote.



## CREATING OPPORTUNITIES FOR DISADVANTAGED PRODUCERS

Small-scale producers are often the most marginalized by colonialism and the current systems of trade.



## LONG-TERM DIRECT TRADING RELATIONSHIPS

The fewer steps between small-scale farmers and artisans and the end user, the more money can return to the producer.



## BUILDING POWER AND PROTECTING THE MOST VULNERABLE

Organizations are committed to non-discrimination. They actively support gender equity, equal pay, and access to resources. Workers have the right to organize and bargain collectively.



While there are many certifications with different levels of credibility, the fair trade movement generally agrees on a few key principles. Applied together all along supply chains, these principles can guide us towards building a more just solidarity economy.



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FairWorldProject.org



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Take a look at this video : <https://www.youtube.com/watch?v=MUuqeXljpKQ>

## 2- Knowledge about change makers in the relationship between economy, ecology and society through a multilevel approach to sustainable development



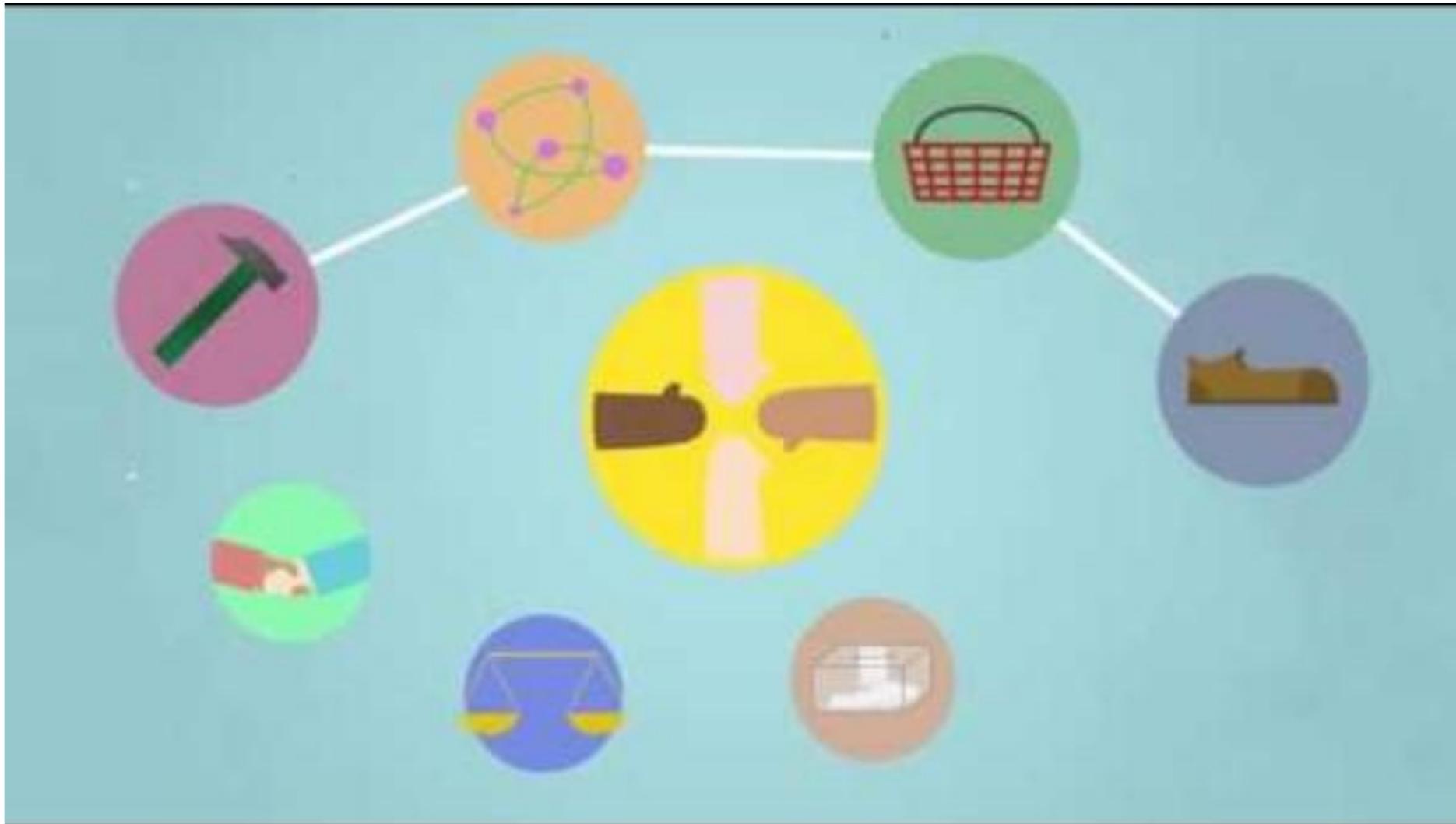
CAPITALIST ECONOMY

## 2- Knowledge about change makers in the relationship between economy, ecology and society through a multilevel approach to sustainable development

The **Charter of Principles** presents the values that characterise the **Solidarity Economy for REAS** (Red de Redes de Economía Alternativa y Solidaria - Network of Alternative and Solidarity Economy Networks).

It includes the features that guide the vision and practice of **Solidarity Economy organisations**.

Equity	Decent Work	Cooperation	Ecological Sustainability	Fair Wealth Sharing	Commitment to the Environment
					



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## Equity in the Solidarity Economy

- **equity is a central element in relations between individuals**, communities and peoples, as well as with the planet.
- **Horizontal relationships** that positively recognise and integrate diversity.
- 'Promote reciprocal relationships between people facilitate co-responsibility and mutual support
- Rethink and transform governance structures and practices

## Decent Work in the Solidarity Economy

- Much **more than a job** or an occupation, work is all **human activity** that makes it possible for life to be sustained, treated with care and reproduced, both in the present and in the future. For this reason, the Solidarity Economy **recognises work in the plural: productive and reproductive, professional and voluntary, paid and free.**
- For this reason, the **Solidarity Economy promotes dignified, healthy and emancipating employment, based on cooperation and wage balance, on the right to participate in the ownership of the means of production and in decision-making.**

## Cooperation in the Solidarity Economy

- **the Solidarity Economy understands cooperation as a proposal for self-organisation based on mutual support and solidarity, aimed at satisfying needs and achieving the common good.**
- **The Solidarity Economy promotes cooperation as a central element for the construction of collaborative, democratic and transparent economic relations**

## Ecological Sustainability in the Solidarity Economy

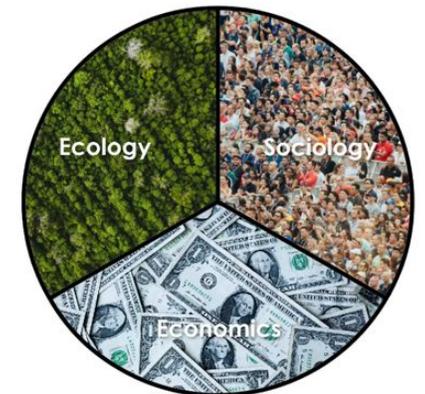
- **All human activity is eco-dependent**, so from the perspective of ecological sustainability we recognise its environmental limits and promote a commitment to positive coexistence with the natural environment and the maintenance of its richness in the present and in the future.
- The Solidarity Economy **recognises nature as a subject of rights**, which is why it places living beings and the reproduction **of life at the centre of all social and economic processes**. Therefore, it **assumes the biophysical limits of the planet**, promotes the sustainability of ecosystems and is committed to their care. In this sense, it considers ecological sustainability as a central principle in its commitment to the **health of the planet** and the sustainability of life, assuming the need to ensure the survival of all living beings.
- **limited resources**
- **Reduce, repair, recover, reuse and recycle**

## Fair Wealth Sharing in the Solidarity Economy

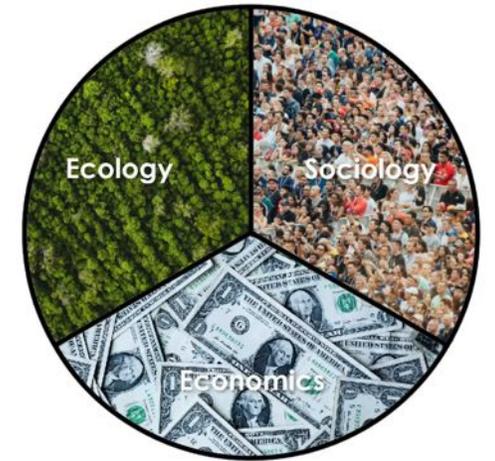
- Enabling the **ecosocial transition** that our planet needs requires questioning hegemonic economic thinking, calling for a **real economy** at the service of **people and the planet**, as well as promoting sustainable generation and a fair distribution of wealth.
- Solidarity Economy proposes an alternative of the concept of **wealth**, as well as calling for its distribution in a co-responsible way.
- Thus, we understand **wealth as the set of material, social, cultural and natural elements that determine the capacity of a community to meet the needs of its members in the short, medium and long term.**

## Commitment to the Environment in the Solidarity Economy

- **Have a strong commitment to local culture**, recognising, in turn, the **diversity** of existing **identities and social and cultural expressions**.
- **Built up an economy, social and political subject of solidarity, feminist, anti-racist and decolonial character.**
- **The Green CSR** (Corporate Social Responsibility) is the recognition of obligation or the **waste-reduction practice** of firms' operation to maximize the efficiency of their inputs and minimize the means of negatively influencing the future generations of the country.
- [https://www.youtube.com/watch?v= KxgjWzyJ8Q](https://www.youtube.com/watch?v=KxgjWzyJ8Q)

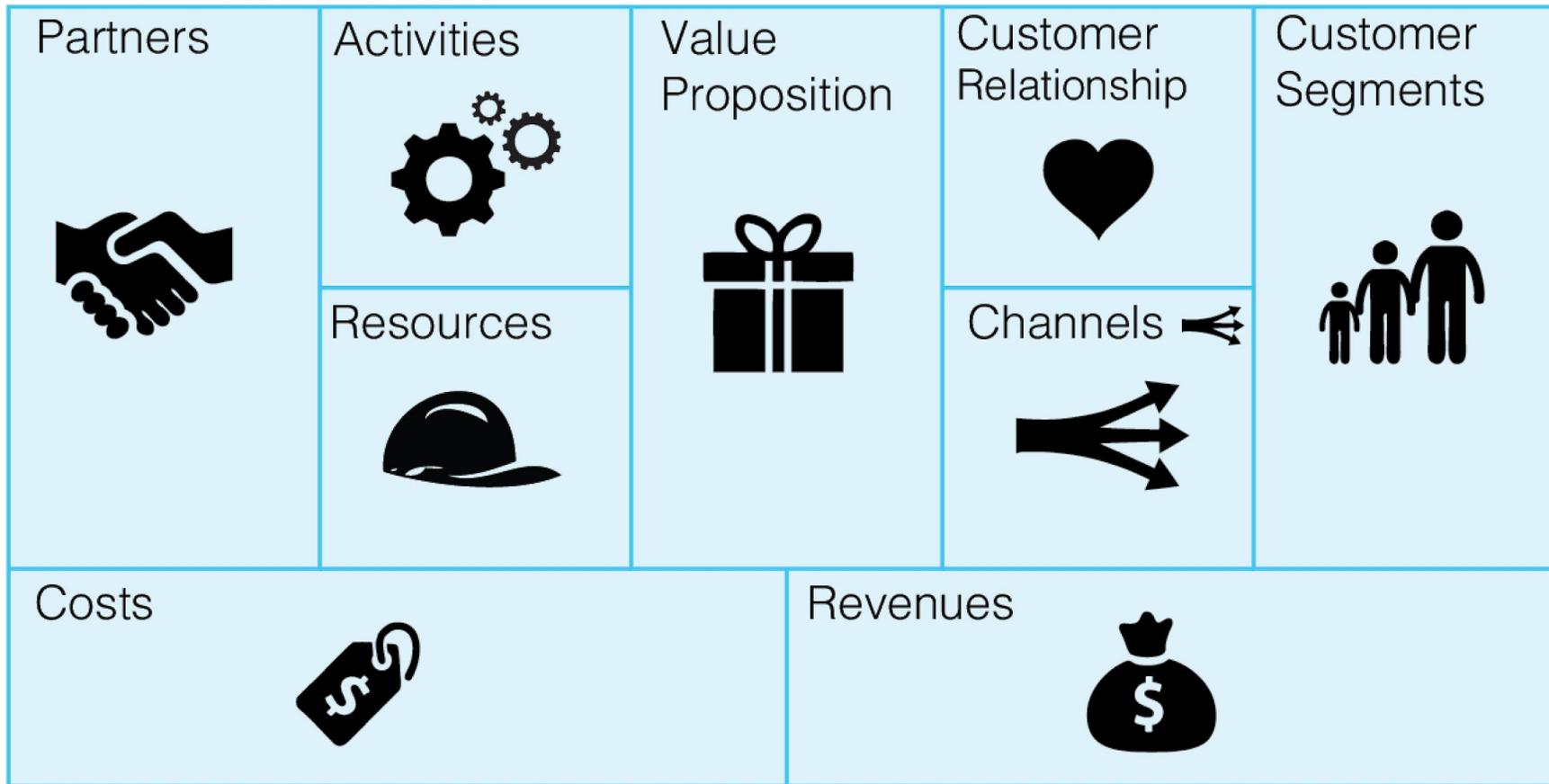


## Commitment to the Environment in the Solidarity Economy



- The **Triple Layered Business Model Canvas** is a tool for exploring sustainability-oriented business model innovation.
- It extends the original business model canvas by adding two layers:
  - an environmental layer based on a lifecycle perspective and
  - a social layer based on a stakeholder perspective.
- This canvas aims to ensure that the full life cycle of a product or service is considered when a new business is launched, with an accent on environmental impacts.

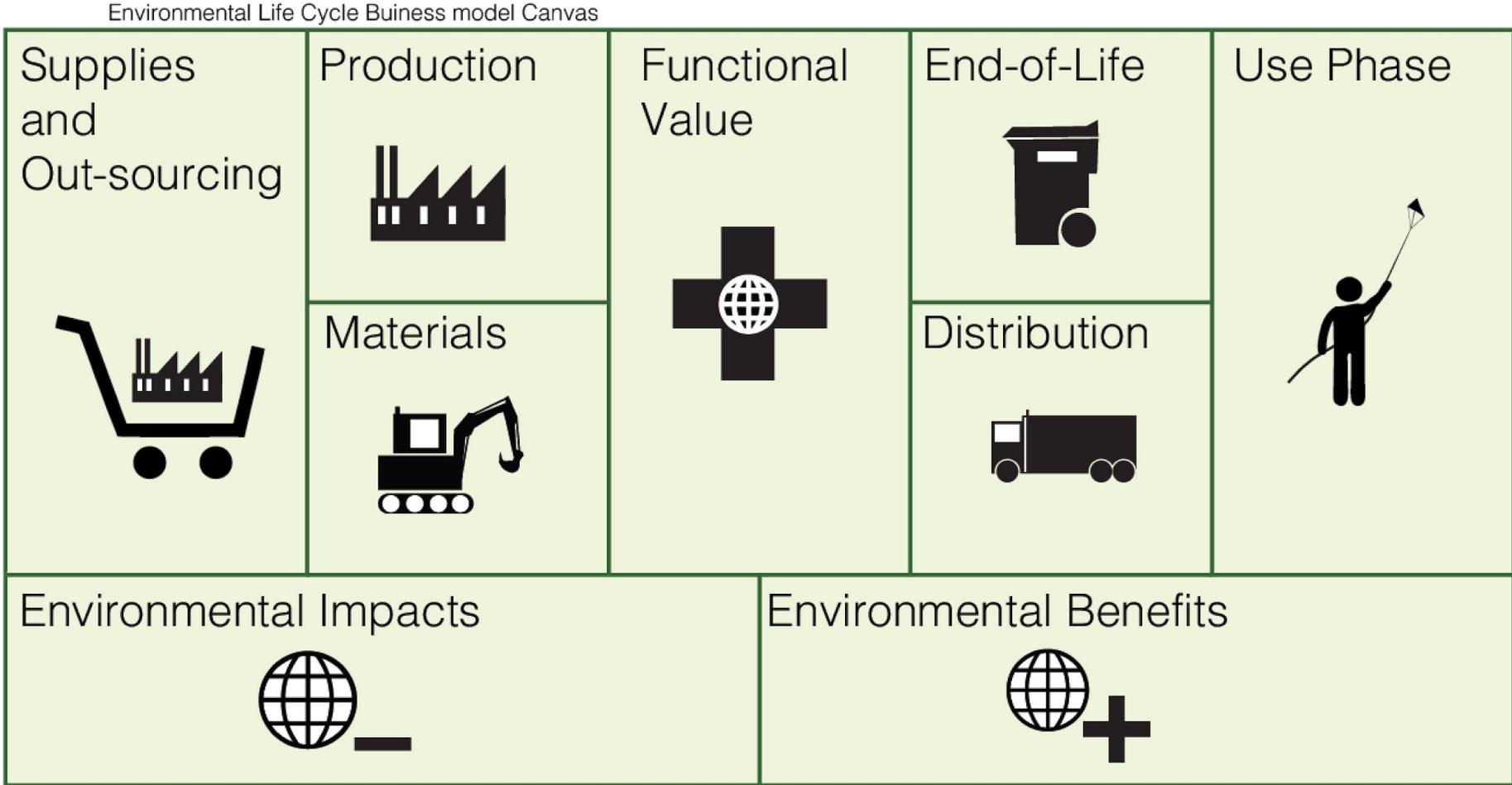
Economic Business model Canvas



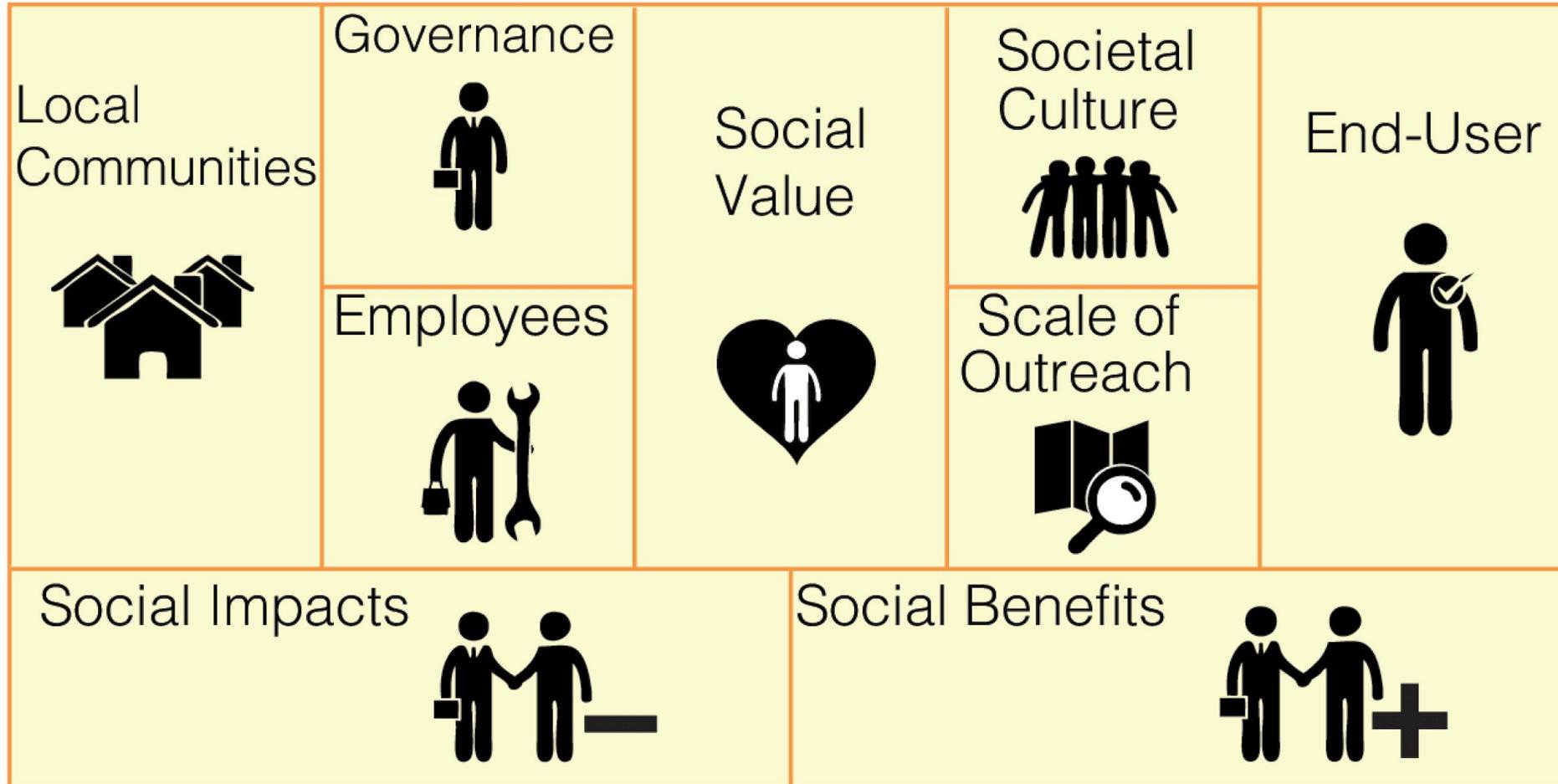
To apply the Triple Layered Business Model Canvas we will complete the following templates:

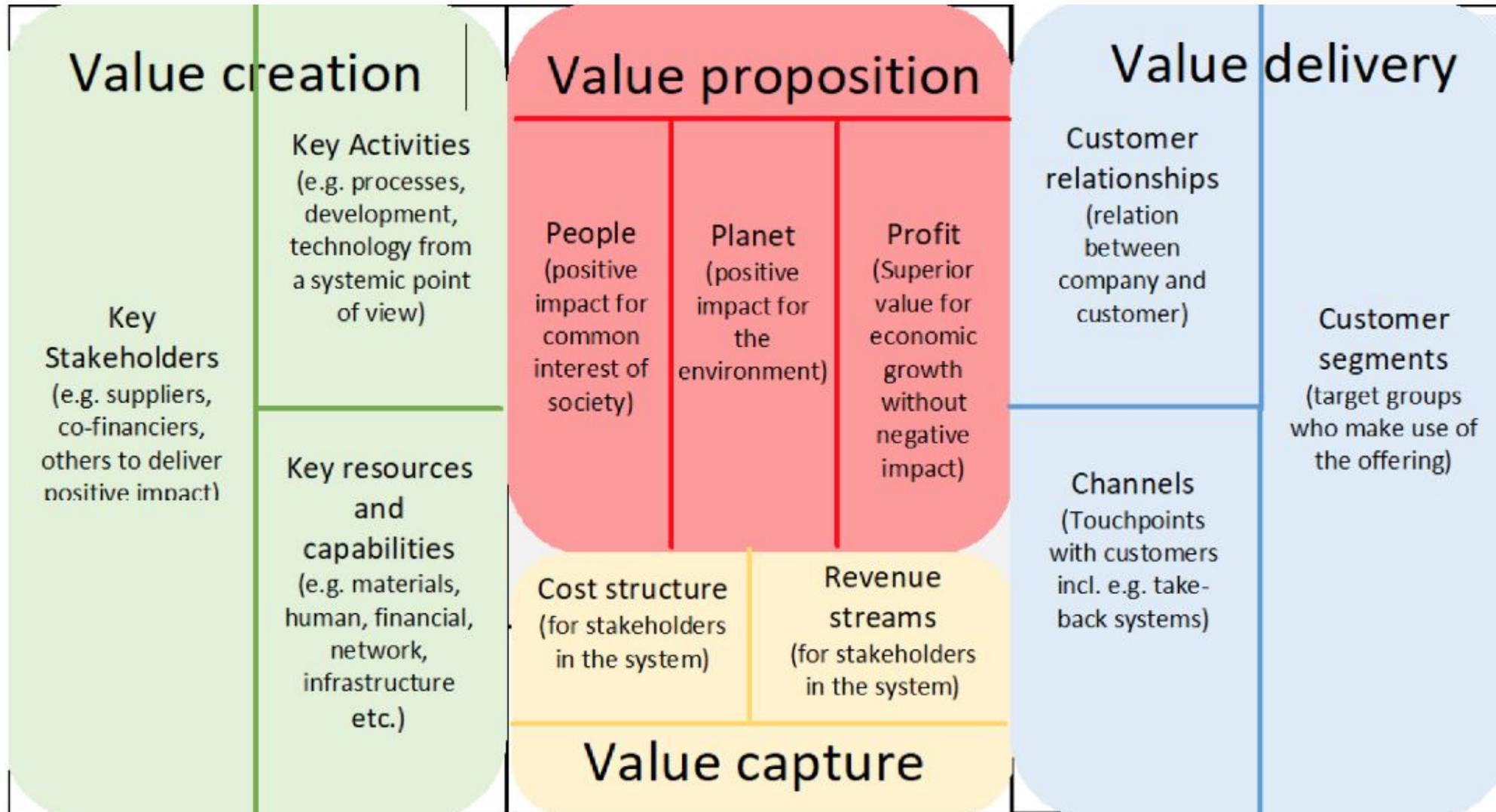
<https://www.youtube.com/watch?v=QoAOzMTLP5s>

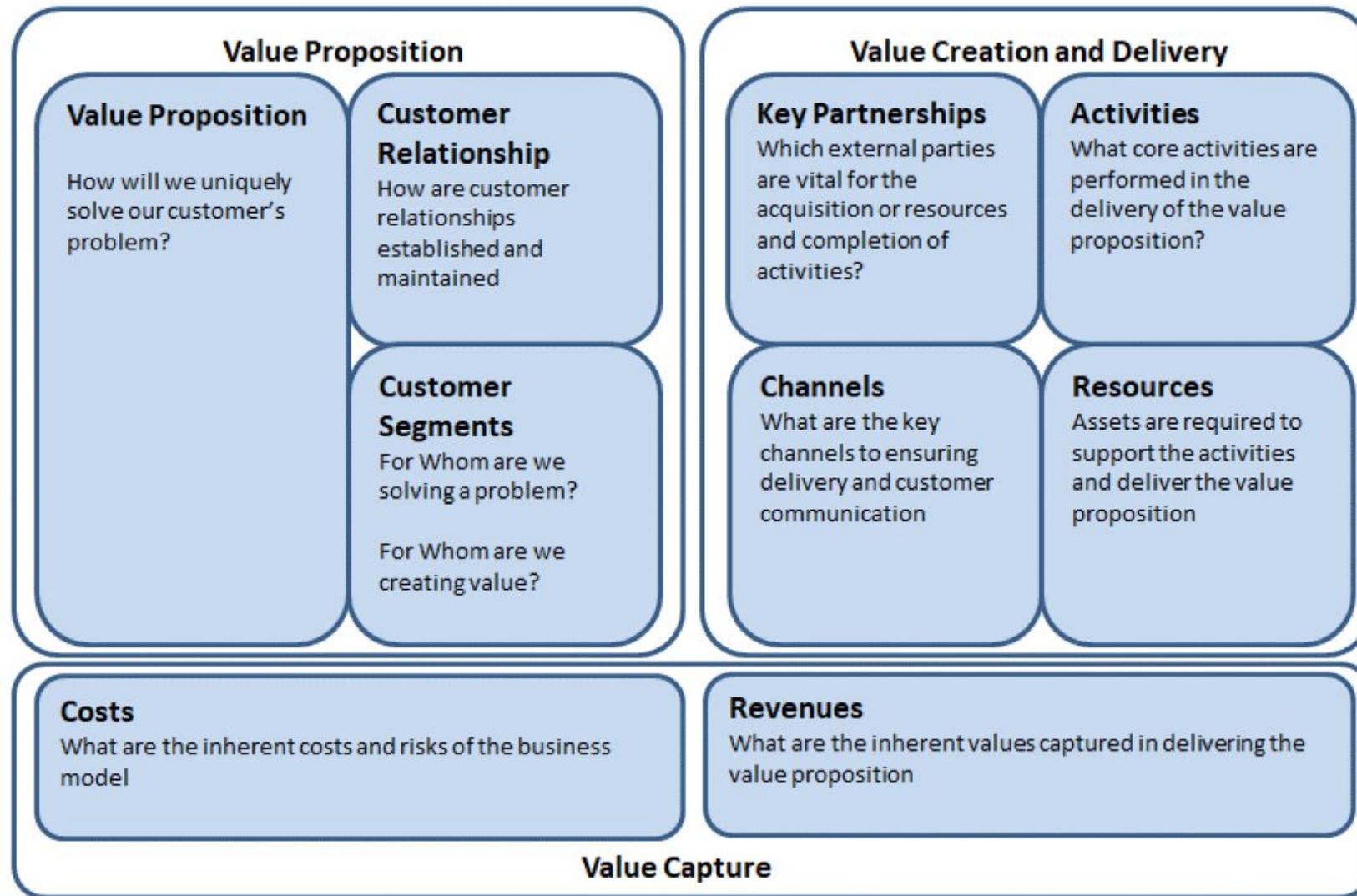
To apply the Triple Layered Business Model Canvas we will complete the following templates:



Social Stakeholder Business model Canvas







# Credits

- “Comercio Justo” Spanish Website (Fair Trade) - <https://comerciojusto.org>
- Fair World Project Website – Fair Trade Principles - <https://fairworldproject.org/get-informed/movements/fair-trade/principles/>
- Fairtrade advocacy Website - Sustainable production and consumption policies: Fair enough? - <https://fairtrade-advocacy.org/ftao-publications/sustainable-production-and-consumption-policies-fair-enough/>
- Fair Trade Website – News and information - <https://www.fairtrade.net/>
- <https://sdgs.un.org/es/goals>
- What do you know about “Ethic and inclusive food business models” - <https://www.youtube.com/watch?v=4ZMj--hZfSU>
- A Brief History of Fair Trade - <https://www.youtube.com/watch?v=C22yzOxdUDg>
- Fair Trade: A Just World Starts with You | Benjamin Conard | TEDxSUNYGeneseo - <https://www.youtube.com/watch?v=xT6TQsXlDOY>
- International Fair Trade Charter - <https://www.youtube.com/watch?v=9G8W3llc-MU&feature=youtu.be>
- “Economía Solidaria” Spanish Website (Solidary Economy) - <https://www.economiasolidaria.org>
- Introducing The Triple Layer Business Model Canvas - <https://hackernoon.com/introducing-the-triple-layer-business-model-canvas>
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- The Corporate Social Responsibility - <https://corporater.com/corporate-responsibility/>
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- Corporate Social Responsibility (CSR) Explained with Examples - <https://www.investopedia.com/terms/c/corp-social-responsibility.asp>
- What is Corporate social responsibility (#CSR) ? - [https://www.youtube.com/watch?v=1bpf\\_sHebLI](https://www.youtube.com/watch?v=1bpf_sHebLI)
- 6 Portraits of the Solidarity Economy - <https://www.filmsforaction.org/watch/portraits-of-the-solidarity-economy/>
- Exploring Social and Solidarity Economy's - [https://www.google.com/search?q=6+principles+of+the+solidarity+economy+charter+video&source=lnms&tbm=vid&sa=X&ved=2ahUKewiNrN7i8KD8AhWnR6QEHS38Ch8Q\\_AUoAnoECAEQBA&biw=1261&bih=607&dpr=2#fpstate=ive&vld=cid:d2a06280.vid:e9vXkxvE1wA](https://www.google.com/search?q=6+principles+of+the+solidarity+economy+charter+video&source=lnms&tbm=vid&sa=X&ved=2ahUKewiNrN7i8KD8AhWnR6QEHS38Ch8Q_AUoAnoECAEQBA&biw=1261&bih=607&dpr=2#fpstate=ive&vld=cid:d2a06280.vid:e9vXkxvE1wA)
- EU Charter of Fundamental Rights (English) - <https://www.youtube.com/watch?v=x3YSY1DdR5U>
- History: EU Charter of Fundamental Rights - <https://www.youtube.com/watch?v=cAZnzpoRBzc>



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## SLOW FOOD AND CULTURAL HERITAGE - UNIT 7



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# LIST OF CONTENTS

- Topic 1. The anthropology of Food
- Topic 2. Varieties and tradition through geographical indications.
- Topic 3. The emerging of Slow Food: culture and traditions related to food sector
- Topic 4. Mediterranean diet approach
- Topic 5. The case study: culinary tourism as opportunity to promote local area and economic grow



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## Brief introduction about the Unit and its objectives and competences

Food has long been one of the most important factors of identity, along with religion, language, folklore, and other distinguishing elements of culture. Food is studied by several disciplines because it has always been more than just nutrients. These studies have provided better insights into important societal processes involving history, anthropology, economics, health, environment, and the politic.

The uniqueness, variety and creativity of food traditions and cultures, as well as the complex interplay of societal and environmental factors can be fully understood in this Moodle Unit by starting per an anthropologic perspective.

# Brief introduction about the Unit and its objectives and competences

## Knowledge:

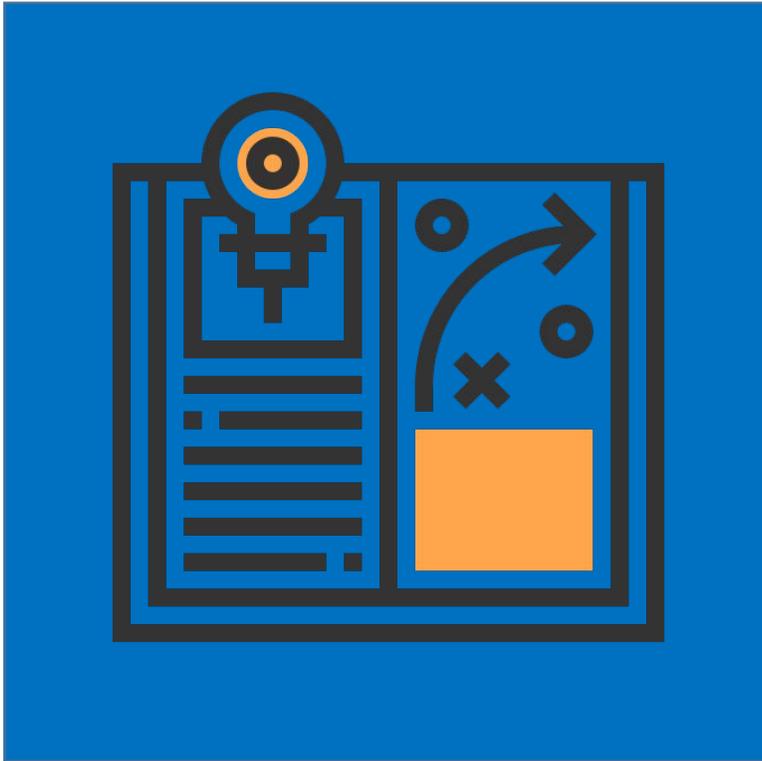
1. The relationship of food with cultural identity of territories
2. Protected designations roles and applications
3. The knowledge of slow food approach and their opportunity
4. The cultural culinary tourism as opportunity of sustainable business

## Competences:

1. Using Cultural competences to understand food practices
2. Capacity to understand geographical indications and their real values
3. How choose products aligned with the profiles coming from the market information through the utilization of protected designations
4. Concept and design own business based on culinary tourism experience



# OBJECTIVES



1. To better understand food values and its implications on social and cultural level.
2. To recognize the multiple values of food.
3. To understand the unique characteristics of food and their cultural heritage linked to the identity of territory.
4. To understand the Mediterranean diet.
5. To identify alternative business models (cultural, touristic activities related to food sector) to promote sustainability and local development.

## Topic 1. The anthropology of Food

---

# What is food and why do we eat?



Food *n.*

**Cambridge Dictionary**

Something that people and animals eat, or plants absorb, to keep them alive.

**Oxford English Dictionary**

Any nutritious substance that people or animals eat or drink in order to maintain life and growth; nourishment, provisions.

# Topic 1. The anthropology of Food

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## Topic 1. The anthropology of Food

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Eating is the only activity that fuels our body and our Instagram feed at the same time!



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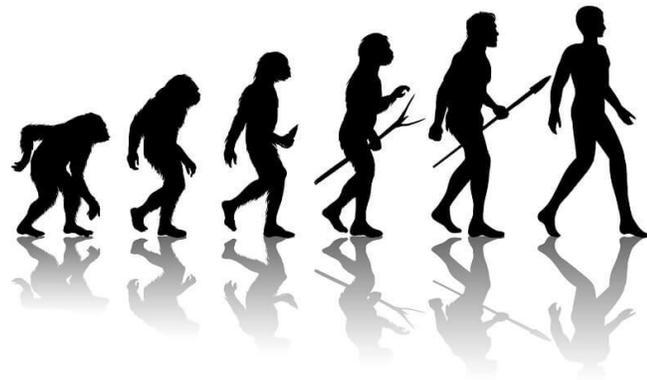
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## Topic 1. The anthropology of Food

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# Anthropological view on food

Nutritional Anthropology  
Anthropology of Food



Learn more :

<https://humanorigins.si.edu/evidence/human-evolution-interactive-timeline>

## Topic 1. The anthropology of Food

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**“You are what you eat.”**

More accurately, you are (physically, genetically and socially) the result of what your ancestors could or chose to eat.



## Topic 1. The anthropology of Food

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# Industrial revolution

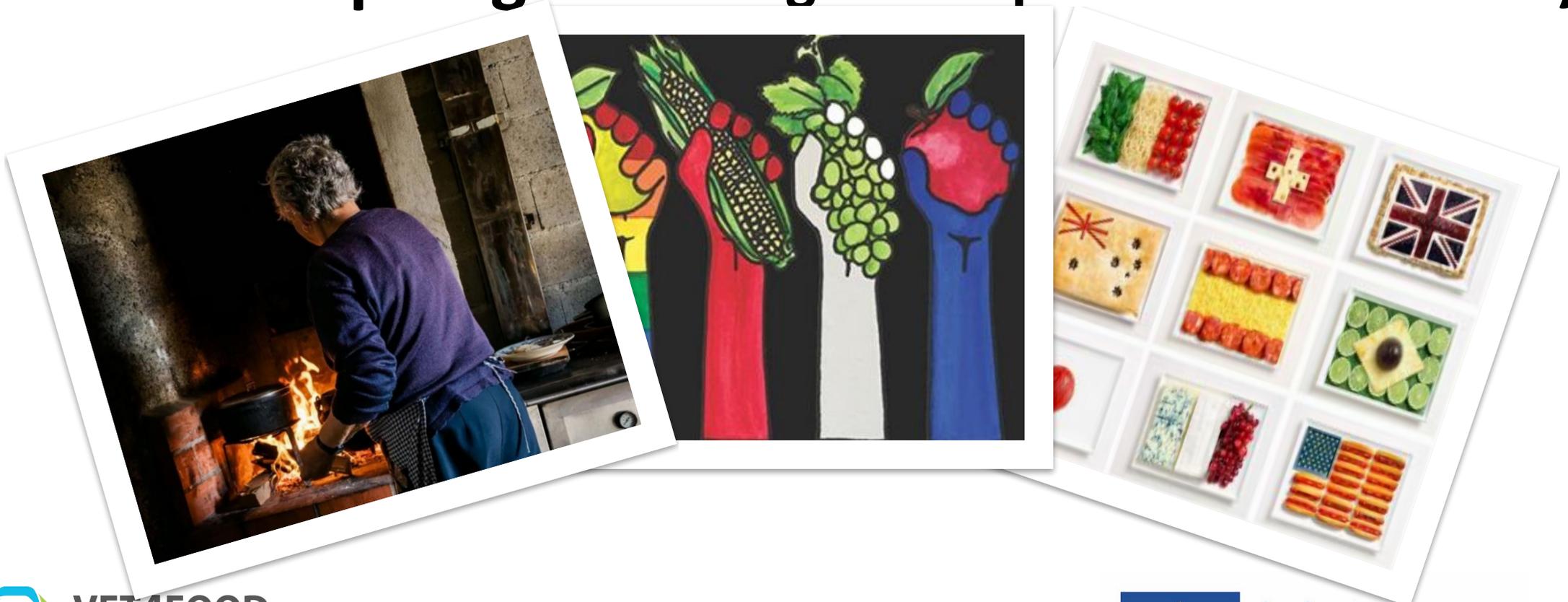


Never has a loss of nutritional and cultural diversity seem so diverse.

## Topic 1. The anthropology of Food

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# Food anthropologists. The gate keepers of food diversity.



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## Topic 2. Varieties and tradition through geographical indications

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# Protecting food diversity & quality. A matter of place



## Topic 2. Varieties and tradition through geographical indications

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# Protecting food diversity & quality. A matter of place

**Geographical  
Indication (GI)**



- Function as product differentiators on the market and a guarantee added value.
- Establish intellectual property rights for specific products, important for trade operations.



# Protected Designation of Origin (PDO)

Strongest links to the place in which they are made.

- **Products:** food, agricultural products and wines.
- **Specifications:** Every part of the production, processing and preparation process must take place in the specific region. For wines, this means that the grapes have to come exclusively from the geographical area where the wine is made.
- **Label:** mandatory for food and agricultural products, optional for wine.
- **Example:** Kalamata olive oil PDO is entirely produced in the region of Kalamata in Greece, using olive varieties from that area.



## Topic 2. Varieties and tradition through geographical indications

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# Protected Geographical Indication (PGI)

Relationship between the geographic region and the name, quality, reputation or other characteristic of the product

- **Products:** food, agricultural products and wines.
- **Specifications:** At least one of the stages of production, processing or preparation takes place in the region. (Wine - at least 85% of the grapes).
- **Label:** mandatory for food, agricultural products, optional for wines.
- **Example:** Westfälischer Knochenschinken PGI ham is produced in Westphalia using age-old techniques, but the meat used does not exclusively come from animals born and reared in that specific region of Germany.



# Geographical Indication of Spirit Drinks (GI)

Relationship between the geographic region and the name, quality, reputation or other characteristic of the product.

- **Products:** spirit drinks.
- **Specifications:** At least one of the stages of distillation or preparation takes place in the region. Raw products do not need to come from the region.
- **Label:** optional for all products.
  
- **Example:** Irish Whiskey GI has been brewed, distilled and matured in Ireland since the 6th century, but the raw materials do not exclusively come from Ireland.



## Topic 2. Varieties and tradition through geographical indications

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# Traditional speciality guaranteed (TSG)

Highlights the traditional aspects, without being linked to a specific geographical area. Against falsification and misuse.

- **Products:** food and agricultural products.
- **Label:** mandatory for all products.
- **Example:** Gueuze TSG is a traditional beer obtained by spontaneous fermentation. It is generally produced in and around Brussels, Belgium. Nonetheless, being a TSG, its production method is protected but it could be produced somewhere else.

# Other schemes – Mountain products

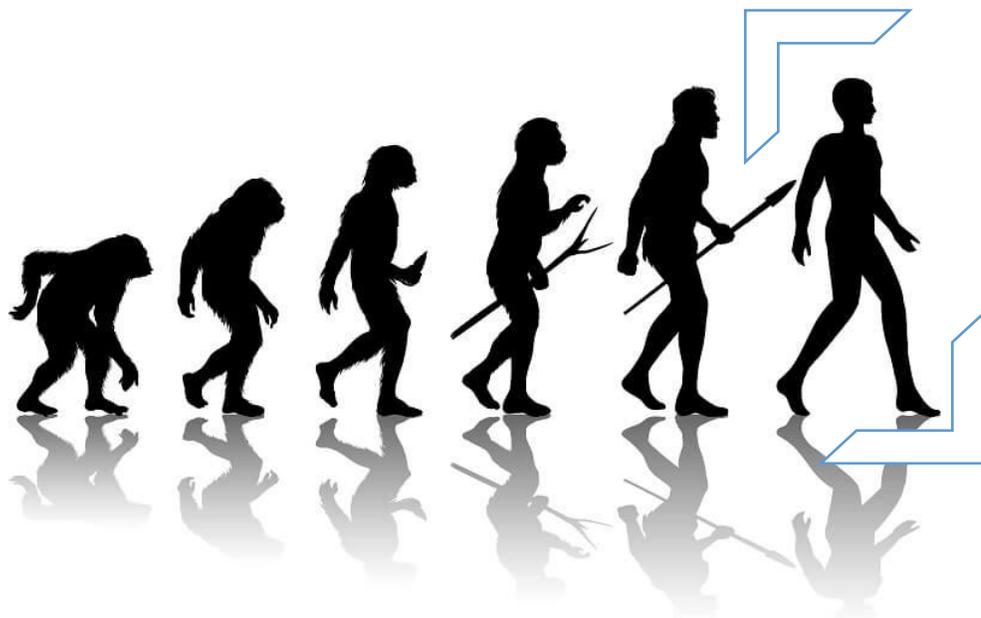
Highlights the specificities of a product, made in mountain areas, with difficult natural conditions.

- **Products:** agricultural and food products.
- **Specifications:** Raw materials and animal feed comes from mountain areas. For processed products, production should take place in such areas as well.
- **Report:** Labelling of agricultural and food products of mountain farming
  
- **Example**

## Topic 3. The emerging of Slow Food: culture and traditions related to food sector

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# Protecting food diversity and quality. A matter of time



Food diversity and quality  
Food sustainability.

**You are history in the making.**

## Topic 3. The emerging of Slow Food: culture and traditions related to food sector

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THE CHOICE IS YOURS

**Fast Track**



**Slow Approach**



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## Topic 3. The emerging of Slow Food: culture and traditions related to food sector

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Slow Food®

<https://www.slowfood.com/>



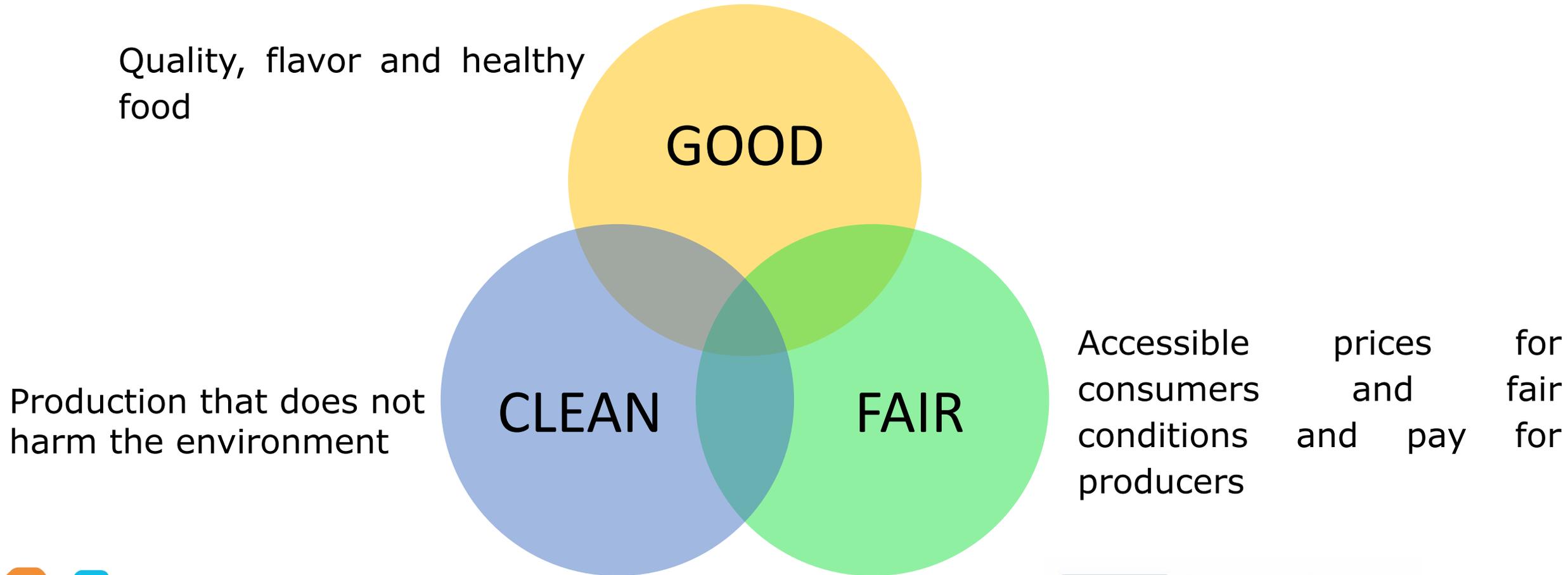
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### Topic 3. The emerging of Slow Food: culture and traditions related to food sector

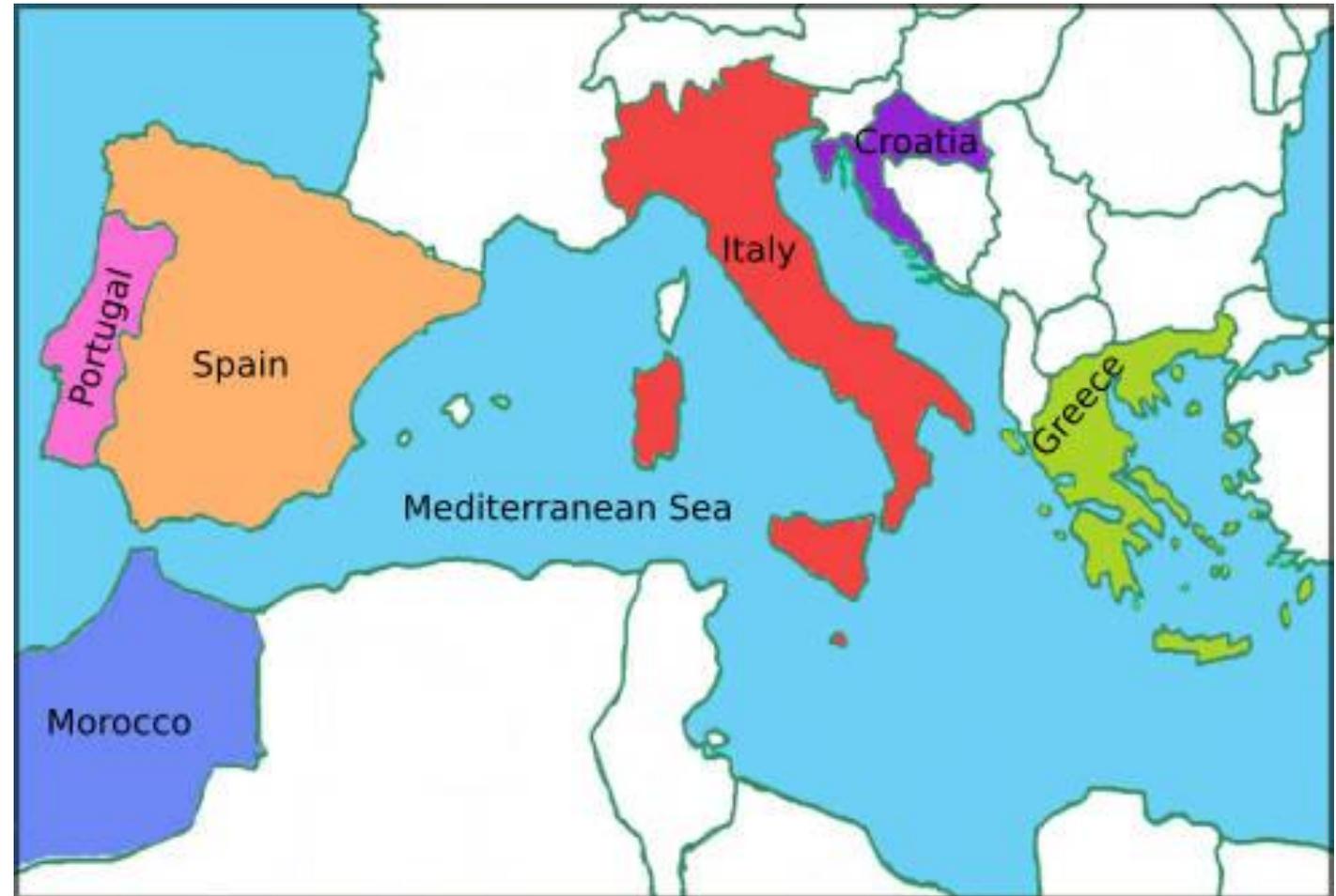
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## Topic 4. Mediterranean diet approach

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Eating pattern and lifestyle.



# Topic 4. Mediterranean diet approach

## Mediterranean Diet Pyramid: a lifestyle for today Guidelines for Adult population

Serving size based on frugality and local habits



Wine in moderation and respecting social beliefs



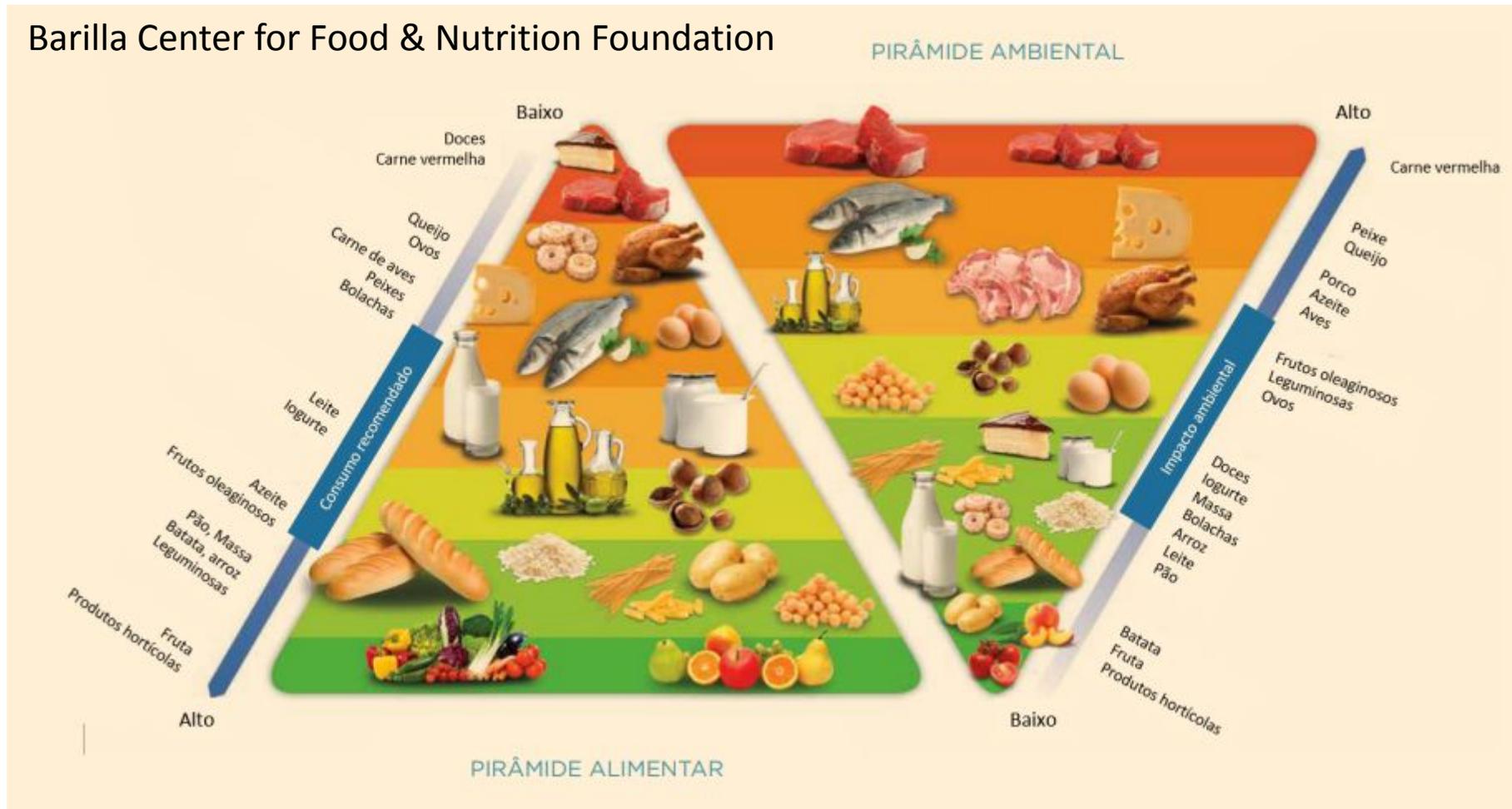
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## Topic 4. Mediterranean diet approach

Barilla Center for Food & Nutrition Foundation

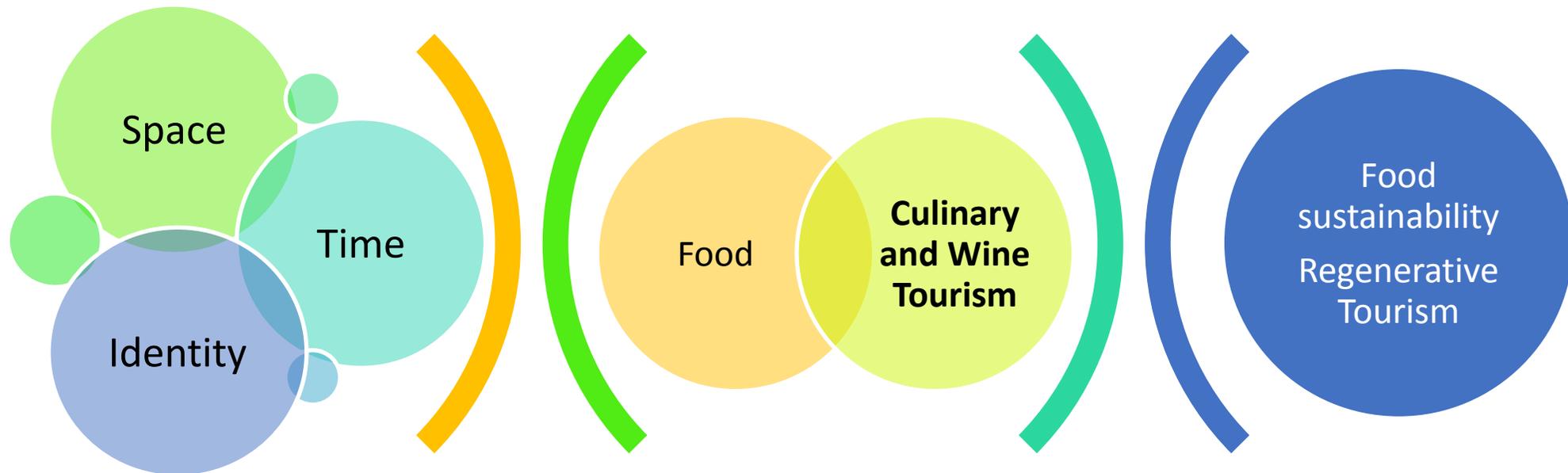


## Topic 5. The case study: Culinary tourism as opportunity to promote local area and economic grow

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25% of travel budget on food and beverages.

(World Food Travel Association)



## Topic 5. The case study: Culinary tourism as opportunity to promote local area and economic grow

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## Topic 5. The case study: Culinary tourism as opportunity to promote local area and economic grow

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- Rise in revenue ( from profits due to taxes) - investment can boost profits for local shops, restaurants, hotels and transportation services.
- Instil locals' cultural pride and help to lower unemployment rates.
- Lack of natural resources (food, water, electricity ) allocated to tourism instead of those living in the community.
- Loss of cultural identity, because the local economy has transitioned to supporting the needs of tourists.
- Influx of tourists can drive up the prices of goods and services.

## Topic 5. The case study: Culinary tourism as opportunity to promote local area and economic grow

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a platform developed by



Learn more : <https://tourism4sdgs.org/>



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