

# ECO\_TAG POLICY HANDBOOK

Relating European and International policies  
to the activities of Culinary VET Centres

ECO\_TAG Project

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**ECO\_TAG**

ACHIEVING SUSTAINABLE CULINARY CENTRES



Co-funded by  
the European Union



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# INTRODUCTION

## THE ECO\_TAG PROJECT

**Climate change** and **environmental degradation** constitute a threat to Europe and the rest of the world.

Therefore, international efforts are being made at political level to address this challenge and mitigate its consequences, with actions such as **environmental labels** for sustainable schools.

However, **these labels do not address the specific nature of VET schools devoted to the HORECA sector**, which require specialised training and special sustainable certification.

The ECO-Tag project focuses on this specific challenge, through the point of view of VET schools devoted to cooking, gastronomy, culinary arts, kitchen management and catering services.

It will work to **address their environmental impact and their relationship with the food sector**. This will allow the **development of specific and general sustainable competences, change behaviours** and a **reduction of the carbon footprint**.

## THE ECO\_TAG CONSORTIUM



Spain: **Valencia Culinary Center** (Lead Partner)



Switzerland: **Fondation EFCoCert**



Estonia: **Pärnumaa Kutsehariduskeskus**



Lithuania: **Kauno maisto pramonės ir prekybos mokymo centras**



Italy: **Lula Consulting**



Italy: **Scuola Centrale Formazione (SCF)**

# INTRODUCTION

## OBJECTIVES OF THE ECO\_TAG PROJECT

It will work to address their environmental impact and their relationship with the food sector. This will allow the generation of specific and general sustainable competences, change behaviours and a reduction of the carbon footprint.

**The main objectives of the project are:**



Making policies on sustainability in the food sector and its relation to VET qualifications such as cookery, gastronomy easier to understand to VET educators



Providing training on specific knowledge on sustainability in culinary centres.



Applying the new EU Green Comp Framework to the VET sector on cooking, gastronomy, contributing to the innovation and updating of the education system.



Validating and certifying both the efforts of the culinary centres and the competences acquired by the participants, thanks to a certification system developed throughout the project.



Raising awareness of the importance of sustainability and the value of knowing how to pass it on to others.

# ECO\_TAG POLICY HANDBOOK

The first output of the ECO\_TAG project is a manual about the **international policies** for **sustainability**, with a focus on those more relevant for the **culinary schools/VET centers** specialised in the **HORECA sector**.

The manual has the **objective** to briefly explain the **rationale** of those policies, their **interconnections** at international and European level and to highlight the **interdependence** of the **different dimensions of sustainability**, considering all those concepts from the point of view of a college/school/VET center that educate and train HORECA future workers and/or upskills the competences of professionals already active in the sector.

To connect sustainability policies with green skills development, the Manual offers an overview of the **EU Green Comp**, that is the Competence Framework proposed by the Joint Research Centre (JRC) of the European Commission to help learners develop knowledge, skills and attitudes that promote ways to think, plan and act with empathy, responsibility, and care for our planet and for public health.

## TARGET GROUP OF THE POLICY HANDBOOK

The ECO-TAG Policy Handbook is **addressed to**:

- Organisations with culinary training in the consortium
- Schools and VET Centers offering training related to cooking and gastronomy such as: nutrition, hospitality, food service management, catering, hotel management, etc.
- Teachers, managers, staff from culinary schools and VET centers offering training in the HORECA sector.

Other target groups can benefit **directly or indirectly**, such as:

- Students/learners from culinary schools and VET centers offering training in the HORECA sector.
- Actors of the gastronomy economic sector such as: restaurants, hotels, bars, cafes, cafeterias and their staff.



# ECO\_TAG POLICY HANDBOOK

## STRUCTURE OF THE POLICY HANDBOOK

The manual is composed of a main document and 2 annexes.

The main document presents the **key concepts** and **key policies** for sustainability from the international level to the EU level that have a fundamental relevance on VET in the HORECA /culinary) sector, i.e.:

- the **United Nations (UN) Sustainable Development Goals (SDGs) 2030**,
- the **European Green Deal** (that's the overall policy framework for sustainable EU policies),
- the **"Farm to Fork"** strategy specifically related to the food sector.

The new **EU Green Comp Framework** is also presented as a guide for practical application of sustainability aspects in the field of education.

In the second part of the main document, the manual provides some **examples of operational strategies** to that schools and VET center can adopt and/or integrate in their training curricula for the HORECA sector to enhance the sustainable features of their organisations and training offer. Those operational strategies are gathered in sub-groups and ordered according to their connection with the SDGs (from the 1st to 17th SDGs). For each sub-group, a reference to Farm to Fork main operational points is mentioned, next to the SDG code.

*The last part of the main document contains links to videos, sources and references that can help the reader to have a deeper insight about the topic.*



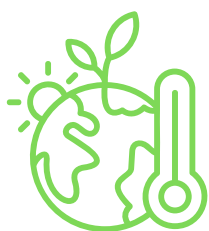
The Policy Handbook includes **2 annexes**:

A **collection of case studies** covering different operational strategies related to SDGs and Farm to Fork's main operational points;

A **set of synoptic tables** that are meant to make more visible the connection among the different policy documents and between them and the case studies analyzed.

# KEY CONCEPTS

## CURRENT GLOBAL CHALLENGES



Climate change



Biodiversity loss



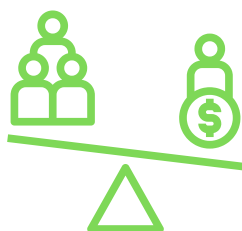
Food security,  
hunger and  
population growth



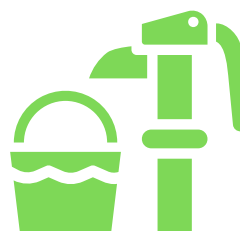
Economic crisis



Energy crisis



Social and  
economic global  
inequalities



Access to food,  
water and other  
resources



Public health

A shift to a more sustainable society is **necessary**.

# KEY CONCEPTS

## WHAT IS SUSTAINABILITY?

Sustainability consists of fulfilling the needs of current generations **without compromising** the needs of future generations, while ensuring a balance between economic growth, environmental care and social well-being. Sustainability is the result of the interaction of three dimensions: social, economic and environmental.



Three dimensions of Sustainability  
Source: United Nations (1987)

## WHAT IS SUSTAINABILITY IN GASTRONOMY?

Sustainability in gastronomy has a **multidimensional character**.

All dimensions are connected to each other.

Health and culture are other key dimensions.



Multidimensional character of sustainability.  
Source: own elaboration.

# KEY CONCEPTS

## TOWARDS SUSTAINABILITY: SOME KEY CONCEPTS

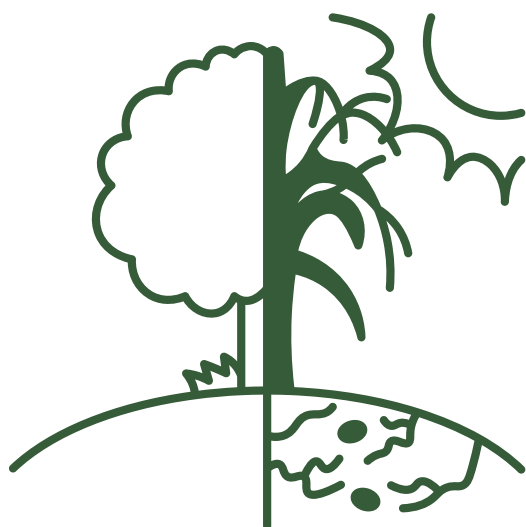
**Biodiversity:** the variety of animals, plants, fungi, and even microorganisms like bacteria that make up our natural world. Each of these species and organisms work together in ecosystems, like an intricate web, to maintain balance and support life.

**Ecosystem:** a biological community of interacting organisms and their physical environment.

**Food Systems:** the interconnected systems and processes that influence nutrition, food, health, community development, and agriculture.

**Circular Economy:** an economic system that targets zero waste and pollution throughout materials lifecycles, from environment extraction to industrial transformation, and final consumers, applying to all involved ecosystem.

**Climate change:** refers to long-term shifts in temperatures and weather patterns. These shifts may be natural. But since the 1800s, human activities have been the main driver of climate change, primarily due to burning fossil fuels like coal, oil and gas.



# UNITED NATIONS SDGS

## SUSTAINABILITY DEVELOPMENT GOALS OF UNITED NATIONS (SDG)

The 2030 Agenda for Sustainable Development provides a solid sustainability benchmark. The 17 Sustainable Development Goals (SDGs) are an urgent call for action by all countries in a global partnership.



Sustainable Development Goals. Source: United Nations (2017)

# UNITED NATIONS SDGS

## SUSTAINABLE DEVELOPMENT GOALS (2015): MISSION STATEMENTS



"End poverty in all its forms everywhere"



"End hunger, achieve food security and improved nutrition, and promote sustainable agriculture"



"Ensure healthy lives and promote well-being for all at all ages"



Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all"



"Achieve gender equality and empower all women and girls"



"Ensure availability and sustainable management of water and sanitation for all"



"Ensure access to affordable, reliable, sustainable and modern energy for all"



"Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all"



"Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation"



"Reduce inequality within and among countries"

# UNITED NATIONS SDGS

## SUSTAINABLE DEVELOPMENT GOALS (2015): MISSION STATEMENTS



"Make cities and human settlements inclusive, safe, resilient, and sustainable"



"Ensure sustainable consumption and production patterns"



"Take urgent action to combat climate change and its impacts by regulating emissions and promoting developments in renewable energy"



"Conserve and sustainably use the oceans, seas and marine resources for sustainable development"



"Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss"



"Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels"



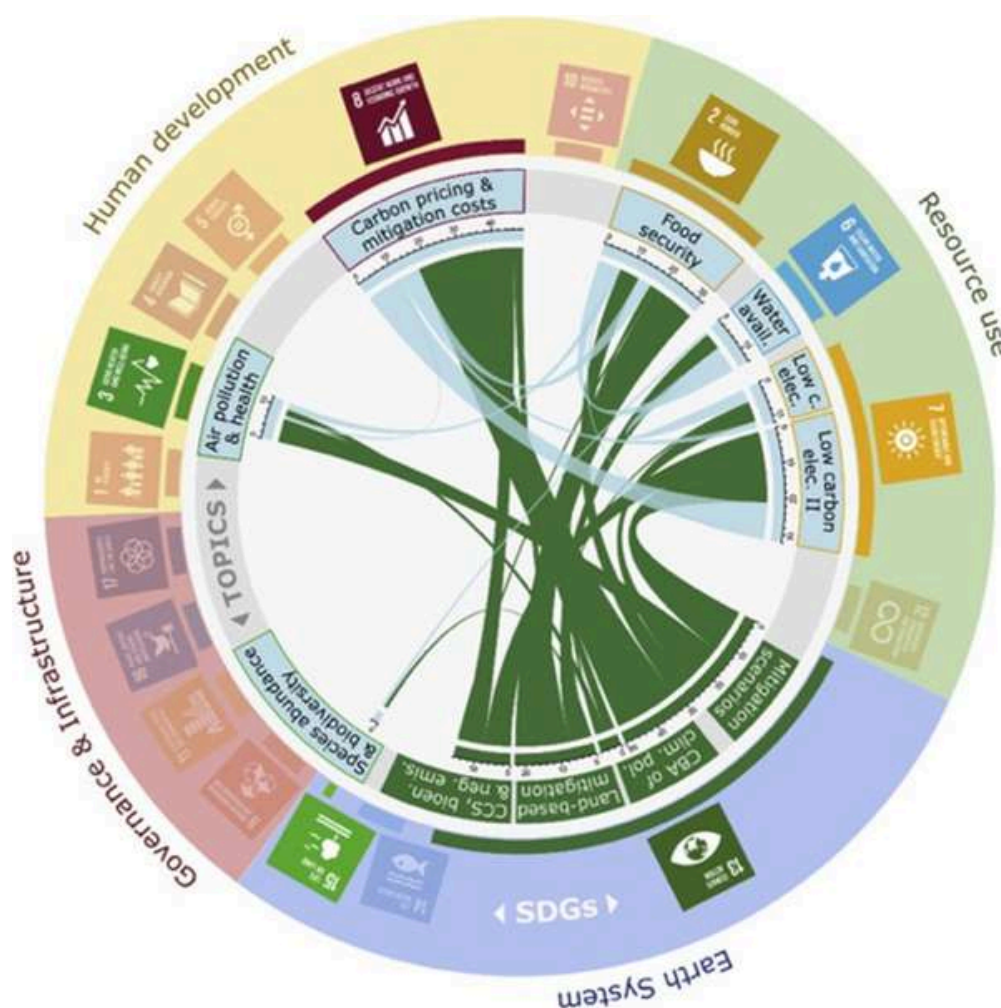
"Strengthen the means of implementation and revitalize the global partnership for sustainable development"

# UNITED NATIONS SDGs

## SDGS INTERACTIONS

All SDGs interact with one another: they are an integrated set of global priorities and objectives that are fundamentally interdependent.

Understanding the range of positive and negative interactions among SDGs is key to unlocking their full potential at any scale, also regarding agro-food systems.



SDGs Interaction. Source: Soest et al. (2019)

# UNITED NATIONS SDGS

## SDGS LINK WITH FOOD

Due to their impact, food production and distribution are **crucial** on the path to sustainability.

The 2030 Agenda identifies **links** between food industry and SDGs, in order to establish a solid benchmark for creating and supporting sustainable agro-food supply chains.



How food provisioning connects to the United Nations Sustainable Development Goals (SDGs).

Source: FAO (2017).



How food connects all the United Nations Sustainable Development Goals. Rools et al. (2019)

Economies and societies have to be seen as embedded parts of the biosphere.

This **awareness** can help to find effective strategies to build sustainable food systems.

SDGs, which work in synergy influencing one another, are important tools in this perspective.

# SUSTAINABILITY AND GASTRONOMY

## WHAT IS A SUSTAINABLE DIET?

A sustainable diet is the result of the interaction of several dimensions and strategies.

It includes actions that need a multi-level and multi-stakeholder approach.

Gastronomy can provide a key contribution to reach a sustainable diet.



Issues to consider when defining a sustainable diet. Source: Garnett (2014).

# SUSTAINABILITY AND GASTRONOMY

## SUSTAINABILITY AND GASTRONOMY ROLE

Food systems consist of **interconnected stages and processes**. Catering and food services are in the final stage of the agro-food chain.

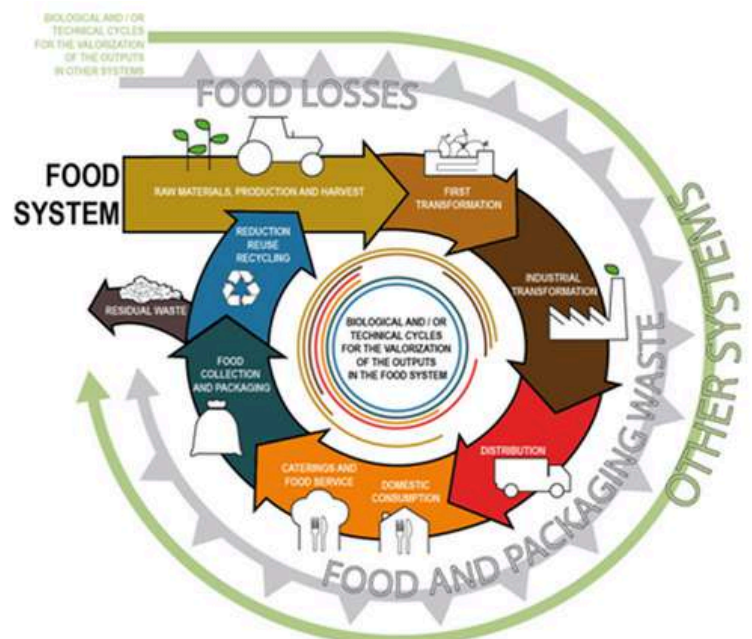


Stages of agro-food supply chains. Source: Adapted from FAO (2019).

Catering and food services can play a **key role** in creating and strengthening sustainable food systems.

In particular, they can help to directly **decrease food losses** and food and packaging **waste**, as well as to create and promote sustainable patterns for consumers and workers.

An adequate management of food waste and losses is essential to **promote a circular economy**.



Food supply chain. Source: Fassio F., Tecco N. (2019) Circular Economy for Food.

# SUSTAINABILITY AND GASTRONOMY

## UNITED NATIONS DEFINITION: SUSTAINABLE GASTRONOMY

“A sustainable cuisine is a cuisine that takes into account where the ingredients are from, how the food is grown and how it gets to our markets and eventually to our plates”



## SUSTAINABLE GASTRONOMY DAY

The UN General Assembly adopted on 21 December 2016 its resolution [A/RES/71/246](#) and designated 18 June as an international observance, Sustainable Gastronomy Day. The decision acknowledges gastronomy as a cultural expression related to the natural and cultural diversity of the world.

Sustainable gastronomy - celebrating seasonal ingredients and producers, preserving wildlife as well as our culinary traditions - is today more relevant than ever.



**United Nations**

Sustainable Gastronomy Day  
18 June



# EU SUSTAINABILITY POLICIES

## LINK BETWEEN FOOD AND SUSTAINABILITY: MAIN EU DOCUMENTS

The European Green Deal (2019) is the main reference document for the EU sustainability policies. From this, two other important documents were developed: “Farm to Fork Strategy” and “Green Comp”.



# EU GREEN DEAL



The European Green Deal is an integral part of the EU Commission's strategy to implement the United Nation's 2030 Agenda and the sustainable development goals.

**It is a new growth strategy that aims to transform the EU into a fair and prosperous society, with a modern, resource-efficient and competitive economy where there are no net emissions of greenhouse gases in 2050 and where economic growth is decoupled from resource use.**

It aims to protect, conserve and enhance the EU's natural capital, and protect the health and well-being of citizens from environment-related risks and impacts.

The EU Green Deal addresses many of the current environmental, social and economic issues and challenges.

One of its main objectives is to reduce Volatile organic compound (VOC) emissions. It also includes a special section focused on food systems sustainability: the **"Fork to farm" strategy**.

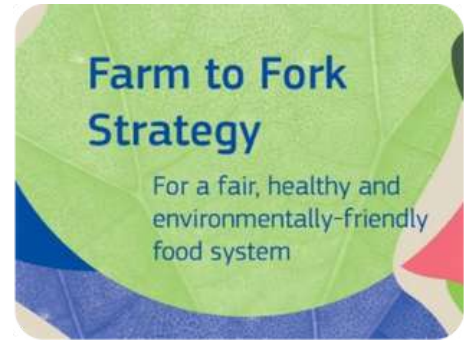
## EU GREEN DEAL: SUSTAINABLE FOOD SYSTEM

The EU Green Deal provides a definition of sustainable food system:

**"European food is famous for being safe, nutritious and of high quality. It should now also become the global standard for sustainability... Our (EU Green Deal) strategy will contribute to achieving a circular economy. It will aim to reduce the environmental impact of the food processing and retail sectors by taking action on transport, storage, packaging and food waste."**

# FARM TO FORK

The Farm to Fork Strategy is at the heart of the EU Green Deal.



It addresses the challenges of sustainable food systems and recognizes the links between healthy people, healthy societies and a healthy planet.

**It is an opportunity to improve lifestyles, health, and the environment. The creation of a favourable food environment that makes it easier to choose healthy and sustainable diets will benefit consumers' health and quality of life, and reduce health-related costs for society.**

## FARM TO FORK OPERATIONAL POINTS

The Farm to Fork strategy consists of six main operational points (Section 2):

- 2.1. Ensuring sustainable food production
- 2.2. Ensuring food security
- 2.3. Stimulating sustainable food processing, wholesale, retail, hospitality and food services practices
- 2.4. Promoting sustainable food consumption and facilitating the shift to healthy, sustainable diets
- 2.5. Reducing food loss and waste
- 2.6. Combating food fraud along the food supply chain

## FARM TO FORK: SUSTAINABLE FOOD SYSTEM

The Farm to Fork Strategy provides a definition of sustainable food system:

**"A shift to a sustainable food system is an opportunity to improve lifestyles, health and the environment. The creation of a favourable food environment that makes it easier to choose healthy and sustainable diets will benefit consumers' health and quality of life, and reduce health-related costs for society... The transition to sustainable food systems is also a huge economic opportunity."**

# GREENCOMP

GreenComp responds to the ambitions set out in the European Green Deal.



More specifically it **responds to the growing need for people to improve and develop the knowledge, skills and attitudes to live, work and act in a sustainable manner.**

GreenComp is a reference framework for sustainability competences. It provides a common ground to learners and guidance to educators, providing a consensual definition of what sustainability is. **It is designed to support education and training programmes for lifelong learning in accordance with SDG 4 (Quality Education).**

## GREENCOMP COMPETENCES

GreenComp consists of 12 competences organized into four areas:



### 1) Embodying sustainability values:

- a) valuing sustainability,
- b) supporting fairness,
- c) promoting nature



### 2) Embracing complexity in sustainability:

- a) systems thinking,
- b) critical thinking,
- c) problem framing



### 3) Envisioning sustainable futures:

- a) futures literacy,
- b) adaptability,
- c) exploratory thinking



### 4) Acting for sustainability:

- a) political agency,
- b) collective action,
- c) individual initiative

It thus points out that **sustainability is a complex and multidimensional issue.**

# GREENCOMP

**Bees** represent the competences related to the area '**acting for sustainability**': Bees act as both individuals and a collective organism. Each bee plays a vital role to ensure that the colony functions while they all work together to achieve the same goal.

**Flowers** represent the competences related to the area '**envisioning sustainable futures**'. Flowers generate fruits and fruits generate seeds so life can continue.

The **beehive** represents the competences related to the area '**embodying sustainability values**': beehive protects and sustains the bees.

**Pollen** and nectar represent the competences related to the area '**embracing complexity in sustainability**': Pollen and nectar attract bees to flowers, and bees transport the pollen from flower to flower while harvesting food for their colony. The interdependencies between pollen, bees and flowers ensure the survival of both plants and bees.



# EU SUSTAINABILITY POLICIES

## VET FOR THE GREEN TRANSITION

Vocational Education and Training (VET) provides learners with skills that support their **personal and professional development**. Whether they are young people getting started in their careers or adults looking to upskill and reskill, VET enables learners to adjust to the changing demands of the working world, including those related to the green transition.

The green transition can lead to a number of **completely new occupations** but will mostly change the tasks required in existing occupations.

“A skilled workforce is key to making this a reality. Fairness and inclusivity need to be integral to the green transition, leading to more quality jobs”.

*Foreword by Commissioner Schmit to ‘Vocational education and Training and the Green Transition: a Compendium of inspiring practices*

## SKILLS FOR THE GREEN TRANSITION

Changes in production and service delivery will require **two broad types of skills**:

- **transversal skills** such as adaptability, learning how to learn to react to the rapid and unpredictable nature of environmental change, critical thinking, problem solving to identify opportunities to improve the sustainability of business processes and develop appropriate solutions, teamwork and collaboration skills to tackle multidimensional challenges; those skills can be applied across all occupations, e.g. in saving energy, recycling and also developing greener mindsets and behaviours;
- **technical skills** that are specific to individual occupations, where they can help to bridge skills gaps and mismatches. These skills will be needed to design and deliver the new products and services required to mitigate or adapt to the effects of climate change and to reduce other environmental impacts.

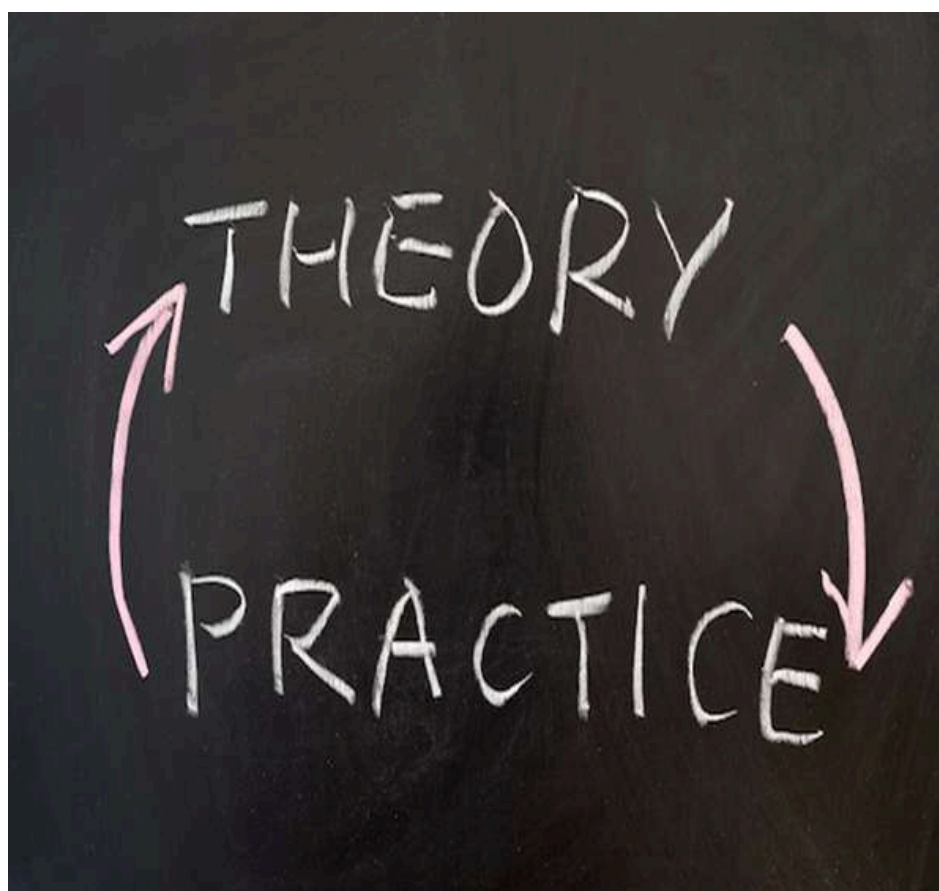
# OPERATIONAL STRATEGIES

## FROM THEORY TO PRACTICE: DEFINING OPERATIONAL STRATEGIES

EU documents provide a solid benchmark to shape sustainability-oriented agro-food systems. FAO and UN reports also can help to define virtuous practices and practical solutions for ensuring sustainability.

More specifically, these documents provide a policy framework which can be turned into operational strategies.

Culinary schools can effectively contribute to ensure agro-food system sustainability.



# OPERATIONAL STRATEGIES

## HOW CULINARY SCHOOLS CAN CONTRIBUTE TO THE INTERNATIONAL SUSTAINABILITY POLICIES

### SDG 1 – 2.1, 2.2, 2.3 (Farm to Fork)

- **Promoting and supporting local economies:** supporting regional and local food systems in order to create jobs and preserve the ecosystems at the base of the subsistence of local communities
- **Reducing inequalities:** promoting awareness about local and global inequalities and their causes (unequal exchange, unfair practices etc.)
- **Rebalancing international relationships and global economy:** promoting awareness about asymmetries of economic and political power between Global North and Global South
- **Promoting short-supply chains managed by the community:** involvement of local and poor communities in food supply chains; participatory planning; creation and promotion of collateral economic activities linked to food production (i.e.: culinary tourism etc.)

### SDG 2 - 2.2, 2.5 (Farm to Fork)

- **Promoting and supporting fair supply chains:** supporting, with adequate and informed procurement choices, resilient agricultural practices aimed at preserving agroecosystems and strengthening fairness among supply chain actors
- **Waste reduction:** better management of food products, also reconsidering the concept of “waste” (full use of food products thanks to “smart” recipes)
- **Food redistribution:** offering low-income people unsold food from markets, supermarkets or food services at a reduced price or for free

# OPERATIONAL STRATEGIES

## HOW CULINARY SCHOOLS CAN CONTRIBUTE TO THE INTERNATIONAL SUSTAINABILITY POLICIES

### SDG 3 – 2.2, 2.4 (Farm to Fork)

- **Healthy cooking:** promoting healthy diets and the use of healthy ingredients (organic production, seasonal products, adequate portions of fruits and vegetables...)
- **Life hygiene:** promotion of healthy habits (good sleep and physical activity, nutritional balance etc.)
- **Occupational health and safety:** ensuring healthy and safe work conditions
- **Preventing chemical hazards:** ensuring school and work environments free of harmful chemical substances
- **Outdoor lessons and classes:** promotion of outdoor school activities
- **Control of allergic reactions and intolerances:** control of allergic reactions and intolerances linked to food products

### SDG 4 – 2.1, 2.3, 2.4 (Farm to Fork)

- **Cooperative learning:** considering cooperation and team-work as key learning methods/strategies
- **Continuous training:** stimulating and supporting continuing training activities
- **Education for sustainability:** promoting awareness on sustainability pillars and multidisciplinary (ability to understand the links among different disciplines, dimensions and functions)
- **Training programs and market needs:** meeting the market demands in terms of consumer preferences and professional skills
- **Integrating life skills in the education:** promoting a greater integration between learned knowledge and life skills (critical and creative thinking, effective communication etc.)

# OPERATIONAL STRATEGIES

## HOW CULINARY SCHOOLS CAN CONTRIBUTE TO THE INTERNATIONAL SUSTAINABILITY POLICIES

### SDG 5 – 2.1, 2.3 (Farm to Fork)

- **Tackling gender prejudice and discrimination:** contrast to any form of discrimination related to gender or sexual preferences and orientation
- **Supporting female-oriented suppliers:** promoting and supporting supply chains and companies where women are protagonist and actively participate in the management and decision processes
- **Empowering female students:** promoting and supporting an educational environment with no differences between male and female students and where women can freely express their potential
- **Supporting family rights:** promoting and supporting policies aimed at reconciling work with maternity and family needs (maternity leave, financial support etc.)

### SDG 6 – 2.1, 2.2 (Farm to Fork)

- **Considering water as a key resource:** promoting awareness about the importance of water, including the processes aimed at ensuring its efficient and safe use (saving practices, treatment and potabilization techniques etc.)
- **Impact of sanitation products and techniques:** promoting awareness about use and ingredients of sanitation products and techniques; choosing as much as possible low-polluting and environment-friendly products
- **Promoting sustainable practices:** implementing techniques of rainwater collection and harvesting

# OPERATIONAL STRATEGIES

## HOW CULINARY SCHOOLS CAN CONTRIBUTE TO THE INTERNATIONAL SUSTAINABILITY POLICIES

### SDG 7 – 2.1, 2.2, 2.3 (Farm to Fork)

- **Energy saving strategies:** promoting awareness on the energy consumption related to food production, preservation, storage, preparation (including grey energy) and supporting strategies aimed at saving energy
- **Renewable energies:** promoting awareness about renewable energies and supporting the installation/use of sustainable technologies based on them (solar and wind technologies etc.)
- **Use of efficient and smart devices:** promoting the use and implementation of light detectors, smart light bulbs, smart thermostats etc.

### SDG 8 – 2.1, 2.2, 2.3, 2.5 (Farm to Fork)

- **Respect for workers' rights:** respecting labour rights, ensuring fair wages and promoting safe and secure working environments for all workers, including migrant workers
- **Economic productivity:** promoting diversification, technological upgrading and innovation in order to enhance productivity
- **Supporting sustainable communities:** implementing policies aimed at supporting sustainable tourism in order to create jobs and promote local culture and products
- **Youth employment:** contribution to a global strategy for youth employment and implementation of the Global Jobs Pact of the International Labour Organization
- **Ensuring working continuity:** supporting policies aimed at creating steady income for seasonal workers

# OPERATIONAL STRATEGIES

## HOW CULINARY SCHOOLS CAN CONTRIBUTE TO THE INTERNATIONAL SUSTAINABILITY POLICIES

### SDG 9 – 2.1, 2.3, 2.4, 2.5 (Farm to Fork)

- **Scientific research:** contributing to scientific research in the agri-food sector, by enhancing food management and preparation, food services practices and waste management techniques, and sharing the best practices available
- **Technological innovation:** developing and implementing Apps to promote healthy diets and sustainable habits and enhance local food production and services, also ensuring transparency along the supply chains (i.e: blockchains); adoption of innovation and mobile technology solutions for the promotion of local products
- **Social innovation:** developing and sharing new ideas in order to promote shifts in lifestyles and patterns of consumption and production as well as to create more efficient and fair supply chains

### SDG 10 – 2.1, 2.2, 2.3 (Farm to Fork)

- **Reducing inequalities:** contrasting gender/cultural/ethnic discrimination in the workplace and ensuring adequate wages; ensuring fair/equitable working environments; fighting illegal work
- **Promoting and supporting fair supply chains:** promoting fairness/equity by tracking the single steps along the entire supply chain, monitoring chain actors commercial practices and choosing the most equitable options; ensuring food affordability, taking into account consumer needs and offering a fair prices
- **User-friendly documentation:** producing easy to read documents, keeping in mind persons with learning difficulties or other impairment/disability.

# OPERATIONAL STRATEGIES

## HOW CULINARY SCHOOLS CAN CONTRIBUTE TO THE INTERNATIONAL SUSTAINABILITY POLICIES

### SDG 11 – 2.1, 2.2, 2.3, 2.4 (Farm to Fork)

- **Promoting sustainable food strategies:** saving energy (transport, storage etc.), recycling/reuse of organic matter, promotion of local sustainable economies (network between local producers and food services)
- **Food redistribution:** preventing spoilage, widespread/capillary distribution of unused or about to expire food
- **Community gardens:** creation of community gardens aimed at producing local food and promoting social cooperation; creation of roof top gardens to use buildings in terms of food production
- **Supporting sustainable communities:** promoting rural tourism and agritourism in order to create jobs and economic opportunities and contrasting rural depopulation

### SDG 12 – 2.1, 2.3, 2.4 (Farm to Fork)

- **Environmental and food education:** promoting awareness on ecological impact of food products and raw materials; promoting diets with higher portions of vegetables; recognition and use of wild varieties; reconsidering food waste as a resource
- **Sustainable agriculture:** promoting and supporting more sustainable techniques and methods (organic production, agroecology etc.)
- **Energy saving strategies:** implementing efficient and low consumption devices and technologies
- **Recontextualizing food:** promoting the consumption of local and seasonal food, creating and supporting short supply chains and logistic optimisation
- **Mutual knowledge:** visits of/to local producers; encouraging a closer relationship among students, consumers and producers (also with the involvement of producers in the school program)

# OPERATIONAL STRATEGIES

## HOW CULINARY SCHOOLS CAN CONTRIBUTE TO THE INTERNATIONAL SUSTAINABILITY POLICIES

### SDG 13 – 2.1, 2.3 (Farm to Fork)

- **Reforestation actions:** identifying suppliers committed to reforestation
- **Energy saving strategies:** use of efficient devices and well-insulated buildings for teaching activities
- **Paperless:** use of QR code menu and food ordering automatic system
- **Recycling:** use of recycled paper communication/information
- **Low-emission supply chains:** less emissions thanks to short supply chains and production models which use a lower portion of oil-based products (organic fertilizers and pesticides)
- **Menu strategies:** develop a seasonal menu with higher portions of vegetables and lower portions of high emission food products (i.e: meat...).

### SDG 14 – 2.1, 2.3, 2.4 (Farm to Fork)

- **Plastic reduction:** use of organic or 100% biodegradable packages, dishes and cups
- **Promoting sustainable fishing techniques:** considering and promoting awareness on the environmental impact of fishing; supporting low-impact techniques aimed at preserving fish stocks
- **Promoting sustainable aquaculture:** supporting sustainable aquaculture ingredients and food products
- **Dietary changes and food education:** promoting a reduction of fish and shellfish consumption in favour of a greater consume of plant-based proteins or other seafood products (i.e.: seaweed)

# OPERATIONAL STRATEGIES

## HOW CULINARY SCHOOLS CAN CONTRIBUTE TO THE INTERNATIONAL SUSTAINABILITY POLICIES

### SDG 15 – 2.1, 2.3, 2.4 (Farm to Fork)

- **Preventing chemical hazards:** using less polluting or natural cleaning agents
- **Promoting sustainable agriculture:** promoting and supporting sustainable agriculture and livestock techniques, with low impact on natural ecosystems (organic agriculture, agroecology etc.)
- **Own production gardens:** promoting and supporting self-managed gardens and local food production, in order to shorten the supply chains
- **Dietary changes and food education:** promoting a reduction of meat consumption and favouring a greater consume of plant-based proteins

### SDG 16 – 2.1, 2.3, 2.5 (Farm to Fork)

- **Promoting and supporting fair supply chains:** promoting fairness along the supply chain through informed procurement choices, in order to encourage transparency and virtuous behaviours
- **Rebalancing international relations and global economy:** promoting awareness about the global disparities and supporting procurement choices and strategies aimed at reducing inequalities and unequal exchange
- **Global food governance:** thinking with a local-global perspective, with the aim to promote equal opportunities and prevent conflicts regarding food resources

### SDG 17 – 2.1, 2.2, 2.3, 2.5 (Farm to Fork)

- **Promoting partnerships:** promoting cooperation among producers/social enterprises/consumer associations; favouring direct relationships between consumers and producers
- **Global food governance:** thinking with a local-global perspective, with the aim to promote a global governance of the challenges and issues (fair supply chains, sustainable production etc.) related to food

# FURTHER INSIGHTS

## CHEFS AND SUSTAINABILITY

Below there are some links to **existing sustainability gastronomy experiences**:

- <https://www.youtube.com/watch?v=B4FrvpdRfMw> (Chef and sustainability – EU)
- <https://www.youtube.com/watch?v=4iyAJkZiYKE> (Franco Alberti)
- <https://www.youtube.com/watch?v=QXtwUBEFQCE> (Porta Pazienza - former Pizzeria Masaniello, Bologna)
- <https://www.youtube.com/watch?v=9jNxFcRJKD0&t=152s> (Massimo Bottura, Modena)
- <https://www.youtube.com/watch?v=U1r-FqoCbH4> (Pietro Leemann, Milano)



Can you find other examples in your country?

# FURTHER INSIGHTS

## THE IMPORTANCE OF THE DESIGNATION OF ORIGIN LABEL IN EUROPEAN CUISINES

Many of the European products are registered as **geographical indications** (GIs). This scheme protects the names of specific products due to their unique characteristics, linked to their geographical origin as well as traditional know-how.

European products that are awarded a quality label always feature unique characteristics. These are typical for the region in which they are grown or made and, most of all, they are of excellent quality.

Food quality labels respond to the need of a greater transparency in the agro-food systems and gained growing interest among chefs and food services operators in recent years.



In 2012, the following quality schemes were introduced in order to establish and safeguard this designation of origin or traditional method of production:

- **PDO (Protected Designation of Origin):** products in this category have a clear and undisputed link with the location where they are produced. This means that all aspects of the production process, the preparation and processing, must take place in the specific region to which the protection applies.
- **PGI (Protected Geographical Indication):** this label explains the connection between the region and the name of the product. Contrary to products with a PDO label, it requires one part of the entire process (at least one step) to take place within the area to which the geographical designation applies.

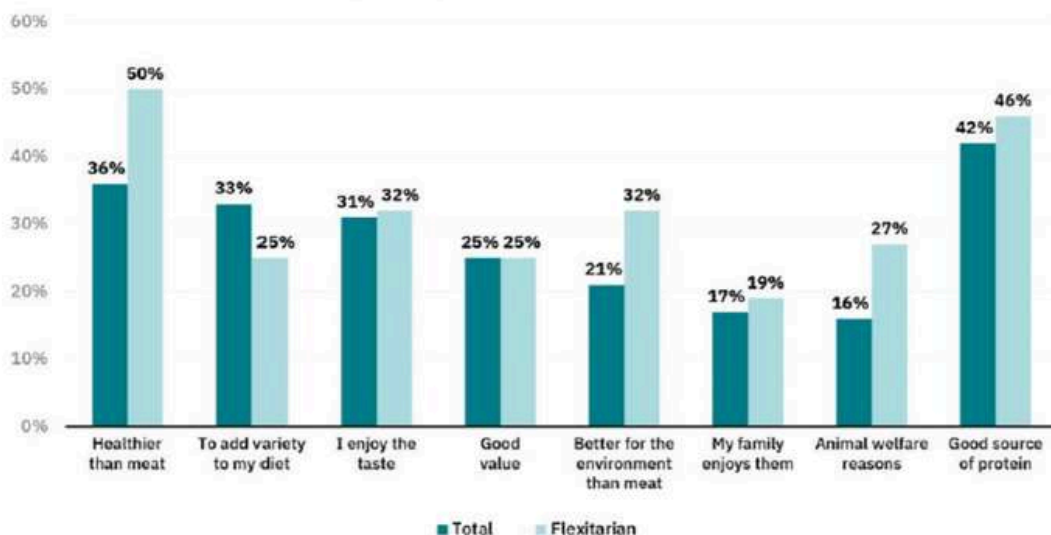


# FURTHER INSIGHTS

## ALTERNATIVE PROTEINS

Global meat production is expected to double by 2050 to meet rising demand, but current production methods are unsustainable for achieving climate, health, food security, and biodiversity goals. Shifting to alternative proteins is crucial for meeting this demand sustainably and is as vital as the transition to renewable energy in mitigating climate change.

A recent study by GFI Europe surveyed consumers in four European countries, revealing that between 27% and 50% reported consuming plant-based meat at least once a month. Among young consumers aged 16–40 across 10 countries, 66% plan to increase their spending on plant-based meat and dairy alternatives in the future.



Reasons for consuming plant-based products (2022). Source: Global Food Institute Report, 2023.

In the U.S., the FDA completed its first premarket review for a cultivated meat product and other reviews are pending, marking a substantial de-risking signal for investors.

In Europe, the Netherlands announced a \$65 million funding initiative for cultivated meat and precision fermentation, marking the largest-ever public investment in cellular agriculture. Israel, China, and South Korea also increased policy support for cultivated meat development.

# FURTHER INSIGHTS

## ALTERNATIVE PROTEINS

Alternative proteins are obtained from **sources other than conventional animal-based**, i.e., from sources that are plant-based, microbe-based, ocean-based, fungus-based, and insect-based.

European consumers are showing a **growing interest** in the inclusion of alternative proteins in their diets as a viable and sustainable alternative to conventional animal-based foods. The growing attraction of consumers to such products is seen as the perfect pathway to a **more sustainable and healthier European diet**.



To enable a **change** in the protein diet, the food industry may focus on the **diversification of alternative protein sources** and the development of attractive new products, thus meeting consumer demands in terms of increased choice and product quality. Catering and food services can play an important role in this regard, including more alternative products in their menus and creating **new recipes** in order to satisfy the taste of the customers.

# FURTHER INSIGHTS

## BIO- PACKAGING

Biodegradable food packaging is crafted from materials with low or zero environmental impact.

- **Sugar Cane Pulp (Bagasse):** derived from the residue of sugarcane crushing and pressing. 100% recyclable and biodegradable.
- **Paper and Cardboard:** 100% recyclable and biodegradable.
- **Wood:** fully recyclable and capable of fostering virtuous circles for both the environment and the economy.
- **Algae and Plants:** 100% biodegradable. The seaweed grown also captures carbon 20 times faster than trees.



Over the last few years, Notpla – an English company that produces regenerative packaging materials, made from seaweed and plants, has successfully developed over a million home food delivery boxes for Just Eat Takeaway.com, a Dutch online food ordering and delivery company. These boxes are now accessible to restaurants in nine Just Eat markets through the company's local online stores.

Notpla received the Earthshot Prize in 2022. This recognition came with personalized support from a robust network and a £1 million prize, allowing Notpla to further expand its sustainable business in 2023.

# REFERENCES AND MATERIALS

## EU documents:

- EU Green Deal (2019): [https://eur-lex.europa.eu/resource.html?uri=cellar:b828d165-1c22-11ea-8c1f-01aa75ed71a1.0002.02/DOC\\_1&format=PDF](https://eur-lex.europa.eu/resource.html?uri=cellar:b828d165-1c22-11ea-8c1f-01aa75ed71a1.0002.02/DOC_1&format=PDF)
- Farm to Fork Strategy (2019): [https://food.ec.europa.eu/system/files/2020-05/f2f\\_action-plan\\_2020\\_strategy-info\\_en.pdf](https://food.ec.europa.eu/system/files/2020-05/f2f_action-plan_2020_strategy-info_en.pdf)
- Directive (EU) 2019/633 of the European Parliament and of the Council on unfair trading practices in business-to-business relationships in the agricultural and food supply chain (2019): <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019L0633>
- Circular Economy Plan (2020): [https://ec.europa.eu/environment/circular-economy/pdf/new\\_circular\\_economy\\_action\\_plan.pdf](https://ec.europa.eu/environment/circular-economy/pdf/new_circular_economy_action_plan.pdf)
- EU Code of Conduct on Responsible Food Business and Marketing Practices (2022): [https://food.ec.europa.eu/system/files/2021-06/f2f\\_sfpd\\_coc\\_final\\_en.pdf](https://food.ec.europa.eu/system/files/2021-06/f2f_sfpd_coc_final_en.pdf)
- Green Comp (2022): [https://eur-lex.europa.eu/resource.html?uri=cellar:b828d165-1c22-11ea-8c1f-01aa75ed71a1.0002.02/DOC\\_1&format=PDF](https://eur-lex.europa.eu/resource.html?uri=cellar:b828d165-1c22-11ea-8c1f-01aa75ed71a1.0002.02/DOC_1&format=PDF)

## UN and FAO documents:

- Influencing Food Environments for Healthy Diets – FAO (2016): <https://www.fao.org/3/i6484e/i6484e.pdf>
- Resolution 71/246. Sustainable Gastronomy Day – UN (2016): <https://documents-dds-ny.un.org/doc/UNDOC/GEN/N16/461/87/PDF/N1646187.pdf?OpenElement>

# REFERENCES AND MATERIALS

## UN and FAO documents:

- The Future of Food and Agriculture: Trends and Challenges - FAO (2017): <https://www.fao.org/3/i6583e/i6583e.pdf>
- Sustainable Healthy Diets: Guiding Principles - FAO (2019): <https://www.fao.org/3/ca6640en/ca6640en.pdf>
- Tourism Education Guidelines - UNWTO (2022): <https://webunwto.s3.eu-west-1.amazonaws.com/s3fs-public/2022-11/tourism-education-v-digital.pdf?VersionId=YePZcV1oZ9jkh086QAHGjUodelzwU9IK>

## Other documents:

- Garnett T. (2014). What is a sustainable healthy diet? A discussion paper. Oxford, United Kingdom: Food Climate Research Network (FCRN).
- Fassio F., Tecco N. (2019) Circular Economy for Food. Edizioni Ambiente, Milano
- Roos et al. (2019). The role of dairy and plant based dairy alternatives in sustainable diets, Swedish University of Agricultural Sciences: [https://pub.epsilon.slu.se/16016/1/roos\\_e\\_et\\_al\\_190304.pdf](https://pub.epsilon.slu.se/16016/1/roos_e_et_al_190304.pdf)
- Soest et al. (2019). Analysing interactions among Sustainable Development Goals with Integrated Assessment Models. In Global Transitions. <https://doi.org/10.1016/j.glt.2019.10.004>

# REFERENCES AND MATERIALS

## MATERIALS

**Supporting documents** and websites to discover more and be inspired by:

- [SDG Resources for Educators](#)
- ["How to be efficient and save energy cooking"](#) (Endesa, 2021)
- [Carbon Footprint Calculator For Individuals And Households](#): the web's leading carbon footprint calculator is free to use and allows anyone from individuals or households to companies to **calculate their annual emissions** based on factors such as house energy consumption, flights, car or motorbike usage, and even your secondary carbon footprint which represents carbon emissions associated with the consumption of goods and services such as pharmaceuticals, clothes or even recreational activities.
- [The Environmental Working Group](#) (EWG) has a great site dedicated to **sustainability issues** that affect climate change. Get the latest from their staff of experts to "know your environment and protect your health."
- [This site](#) dedicated to green building is a comprehensive resource for information on **sustainable materials, building codes, government programs, and more**. This 25-year-old organization is involved with everything from case studies to outside publications to local initiatives.
- The City of Helsinki has produced a [guide](#) consisting of 25 criteria to promote the **sustainable development of catering establishments** (bars, restaurants,...) and minimise their environmental impacts. Establishments that meet 10 of the 25 criteria are listed on the MyHelsinki.fi portal as green businesses. The criteria are organised in 4 macro-areas (energy, food and drink, social sustainability and other) and provide precise indications on what to do. For example, using suppliers that produce energy from only renewable sources, or to minimise food waste, apps (ResQ Club and Lunchie Market) are highlighted to sell what is "left over" at discounted prices.