

Global Challenge Overview

This overview which was developed by the NICE project will provide you with guidance on the Global Challenge options that you are interested in studying and creating a business idea as part of the INCiTE Summer School. Below, you can see the Societal Challenge, the Sustainable Development Goals that relate to the Societal Challenge, some ideas as to how you could engage with this Global Challenge, some case studies to provide you with examples as to how others have done this work and some questions to get you thinking!

Societal Challenges: ec.europa.eu/programmes/horizon2020/en/h2020-section/societal-challenges

17 Sustainable Development Goals: www.un.org/sustainabledevelopment/sustainable-development-goals

<p>Societal challenge</p>	<p>Societal challenge 2: The Future of Food and its Origins</p> <p>The goal of this societal challenge is to achieve sustainability in managing resources such as land and water, providing healthy food and clean water to all, and preserving biodiversity. Business solutions aiming at tackling this challenge involve the development of innovative activities and ideas which will contribute to the optimal and renewable use of biological resources, bringing us closer to sustainable production and processing systems. Innovation in agriculture and the food industry, forestry, marine and bio-based sectors will bring about many economic, environmental, and social benefits.</p>
<p>UN Sustainable Development Goals that fit into the societal challenge</p>	<p>SDG 09 – Resilient Infrastructure, Sustainable Industrialisation and Innovation</p> <p>SDG 12 – Responsible Consumption and Production</p> <p>SDG 14 – Sustainable Use of Marine Resources</p>

Ideas

Innovative entrepreneurship can help build resilient infrastructure, promote inclusive and sustainable industrialisation, and foster innovation. Entrepreneurial solutions from the biotech industry for example may address questions related to mitigating natural resources constraints and climate change to promote sustainability and innovation. These solutions can concern technological advances used across entire industries. Entrepreneurial ideas related to carbon emission reduction strengthen the resilience of the land and sea, and contribute to stronger and more sustainable industries.

Entrepreneurial solutions related to the environment and mitigating climate change, such as smart food production and consumption, can use and manage natural resources more effectively, and mitigate the adverse effects of, for example, overfishing. Environmentally-friendly production, distribution, and food services are also part of this objective.

Promoting healthy and productive oceans and seas, and the sustainable use of marine resources, may be achieved through entrepreneurial activities promoting the protection of marine and coastal ecosystems to avoid significant adverse impacts.

Case studies

Local Food Nodes

<https://localfoodnodes.org/>

Local Food Nodes is a digital platform to organise local food purchase and delivery. It connects producers and consumers directly, so the platform does not handle sales or payments (only membership fees). This helps small local producers and creates sustainable solutions for consumers to access locally produced food straight from the source. It also links societies in a more mindful and sustainable food supply chain, with money flowing between producers and consumers without intermediates.

Waste flow of water and fertilisers from aquaculture to agriculture Scandinavian Aquasystems AB

www.earth.columbia.edu/articles/view/1791

Aquaculture is the fastest growing food sector worldwide, and 50% of all fish consumed today is farmed. European politicians have aquaculture development high on the agenda for job creation and food production. Aquaculture is considered an environmentally hazardous activity which impacts on the environment and its organisms both in the short and the long term, not least due to excessive emissions of nitrogen and phosphorus. By integrating aquaculture with agriculture, synergy effects can be realised through efficient reuse of water for fish farming then irrigation, and by using the nutrients produced by aquaculture to fertilise farmland.

Aquaponic CSA Hemmaodlat

<http://www.hemmaodlat.se/odla/lardomar-fran-aquaponics/>

Community Supported Agriculture is a shares-based cultivation and farming system whereby consumers buy shares of the cultivation and get locally produced vegetables in return. In order to grow vegetables in a sustainable way, CSA uses aquaponics, reducing the use of fertilisers to a minimum by keeping fish in a closed system and recycling fish faeces to fertilise plants. Since cultivation is on a small scale at present, educating people is of the utmost importance.

Questions

1. What are possible business ideas which would foster sustainability in agriculture and the food sector?
2. How can we make better use of natural resources while preserving forests, marine environments, and the ecosphere?
3. What entrepreneurial ideas could contribute to climate-smart solutions and preserve biodiversity?