

## PRACTICAL ACTIVITY

<b>Title</b>	<ul style="list-style-type: none"> <li>- <b>How to upgrade a supply chain and make it sustainable - Project work</b></li> </ul>
<b>Part of the training course referred to in this lesson</b>	<ul style="list-style-type: none"> <li>- <input type="checkbox"/> Part 1 General information about sustainability and CE</li> <li>Part 2 Specific Information about: <ul style="list-style-type: none"> <li><input type="checkbox"/> Wood sector</li> <li><input type="checkbox"/> Plastic sector</li> <li>X Agrifood sector</li> </ul> </li> </ul>
<b>Duration</b>	<p>2 weeks for preparatory activities 4 weeks for research 4/6 weeks for the development of the final paper and the ppt and for their presentation</p>
<b>Location</b>	<p><input type="checkbox"/> Outside</p> <p>X Inside</p>
<b>Specific location requirement</b>	<p>No</p>
<b>Equipment needed</b>	<ul style="list-style-type: none"> <li>- Computer</li> <li>- Internet connection</li> <li>- Projector (Optional)</li> </ul>
<b>General Learning objective(s) according to the Bloom Taxonomy</b>  <a href="https://cft.vanderbilt.edu/guides-sub-pages/blooms-taxonomy/">https://cft.vanderbilt.edu/guides-sub-pages/blooms-taxonomy/</a>	<ul style="list-style-type: none"> <li>X <b>Create</b> Produce new or original work (design, assemble, construct, investigate, formulate)</li> <li><input type="checkbox"/> <b>Evaluate</b> Justify a stand or decision (appraise, argue, defend, critique, select, support)</li> <li><input type="checkbox"/> <b>Analyze</b> Draw connections among ideas (differentiate, organize, relate, compare, distinguish, test, experiment)</li> <li><input type="checkbox"/> <b>Apply</b> Use information in new situations (execute, implement, solve, use, demonstrate, operate)</li> <li><input type="checkbox"/> <b>Understand</b> Explain ideas or concepts (classify, discuss, describe, identify, locate, translate)</li> <li><input type="checkbox"/> <b>Remember</b> Recall facts and basic concepts (define, duplicate, list, memorize, repeat)</li> </ul>

<p><b>Specific learning objective(s)</b></p>	<ul style="list-style-type: none"> <li>- To analyse the food supply chain and develop a new and more sustainable strategy</li> <li>- To evaluate the current food supply chain, highlighting the strong and weak points</li> <li>- To collaborate with others in order to reach a common goals</li> <li>- To research and elaborate information acquired</li> </ul>
<p><b>Cognitive, socioemotional and behavioural outcomes based on</b> <a href="https://www.unesco.org/sites/default/files/2018-08/unesco_education_for_sustainable_development_goals.pdf">https://www.unesco.org/sites/default/files/2018-08/unesco_education_for_sustainable_development_goals.pdf</a></p>	<p><b>SDG 4 “Quality Education”</b> <u>Cognitive learning objectives:</u> the learner understands the important role of culture in achieving sustainability; the learner understands that education can help create a more sustainable, equitable and peaceful world.</p> <p><u>Socio-emotional learning objectives:</u> the learner is able to recognize the importance of their own skills for improving their life, in particular for employment and entrepreneurship; the learner is able to engage personally with ESD.</p> <p><u>Behavioural learning objectives:</u> The learner is able to use all opportunities for their own education throughout their life, and to apply the acquired knowledge in everyday situations to promote sustainable development.</p> <p><b>SDG 9 “Industry, Innovation and Infrastructure”</b> <u>Cognitive learning objectives:</u> the learner understands the concepts of sustainable infrastructure and industrialization and society’s needs for a systemic approach to their development; the learner understands the local, national and global challenges and conflicts in achieving sustainability in infrastructure and industrialization.</p> <p><u>Socio-emotional learning objectives:</u> the learner is able to argue for sustainable, resilient and inclusive infrastructure in their local area. The learner is able to encourage their communities to shift their infrastructure and industrial development toward more resilient and sustainable forms.</p> <p><u>Behavioural learning objectives:</u> The learner is able to identify opportunities in their own culture and nation for greener and more resilient approaches to infrastructure, understanding their overall benefits for societies, especially with regard to disaster risk reduction.</p> <p><b>SDG 12 “Responsible Consumption and Production”</b> <u>Cognitive learning objectives:</u> The learner understands production and consumption patterns and value chains and the interrelatedness of production and consumption (supply and demand, toxics, CO2 emissions, waste generation, health, working conditions, poverty, etc. ); the learner knows roles, rights and duties of different actors in production and consumption (media and advertising, enterprises, municipalities, legislation, consumers, etc. ); the learner knows about strategies and practices of</p>

	<p>sustainable production and consumption.</p> <p><u>Socio-emotional learning objectives:</u> the learner is able to communicate the need for sustainable practices in production and consumption; the learner is able to encourage others to engage in sustainable practices in consumption and production.</p> <p><u>Behavioural learning objectives:</u> the learner is able to promote sustainable production patterns; the learner is able to take on critically on their role as an active stakeholder in the market.</p> <p><b>SDG 13 “Climate Action”</b></p> <p><u>Cognitive learning objectives:</u> the learner knows which human activities – on a global, national, local and individual level – contribute most to climate change; the learner knows about prevention, mitigation and adaptation strategies at different levels (global to individual) and for different contexts and their connections with disaster response and disaster risk reduction.</p> <p><u>Socio-emotional learning objectives:</u> the learner is able to collaborate with others and to develop commonly agreed-upon strategies to deal with climate change</p> <p><u>Behavioural learning objectives:</u> the learner is able to support climate-friendly economic activities; the learner is able to anticipate, estimate and assess the impact of personal, local and national decisions or activities on other people and world regions.</p> <p><b>SDG 15 “Life on Land”</b></p> <p><u>Cognitive learning objectives:</u> The learner understands that realistic conservation strategies work outside pure nature reserves to also improve legislation, restore degraded habitats and soils, connect wildlife corridors, sustainable agriculture and forestry, and redress humanity’s relationship to wildlife.</p>																
<p><b>Green skill(s) addressed</b></p>	<table border="0"> <tr> <td>X Creative problem-solving</td> <td>X Management skills</td> </tr> <tr> <td>X Forward-thinking</td> <td><input type="checkbox"/> Impact quantification</td> </tr> <tr> <td><input type="checkbox"/> Monitoring skills</td> <td>X Life-cycle management</td> </tr> <tr> <td>X Analytical skills</td> <td>X Science skills</td> </tr> <tr> <td>X Lean production</td> <td><input type="checkbox"/> Waste management</td> </tr> <tr> <td><input type="checkbox"/> Maintenance and repair skills</td> <td><input type="checkbox"/> Environmental auditing</td> </tr> <tr> <td>X Pollution prevention</td> <td>X Ecosystem management</td> </tr> <tr> <td><input type="checkbox"/> Eco-design</td> <td><input type="checkbox"/> Other _____</td> </tr> </table>	X Creative problem-solving	X Management skills	X Forward-thinking	<input type="checkbox"/> Impact quantification	<input type="checkbox"/> Monitoring skills	X Life-cycle management	X Analytical skills	X Science skills	X Lean production	<input type="checkbox"/> Waste management	<input type="checkbox"/> Maintenance and repair skills	<input type="checkbox"/> Environmental auditing	X Pollution prevention	X Ecosystem management	<input type="checkbox"/> Eco-design	<input type="checkbox"/> Other _____
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**Step by step  
instructions to  
implement the activity**

Please, consider this description as guidelines you can follow to implement the activity but feel free to adapt it to your own needs.

**Step 1: Preparatory work - creation of the groups**

The class should be divided into groups of 3/4 people by the teacher. This will ensure that everyone will have the opportunity to participate properly in the research. Each group should appoint a group leader, who will also be responsible for coordinating the work of his or her peers and for liaising with the teacher. The teacher will supervise the group division process and the entire research, supporting students when necessary.

**Step 2: Preparatory work - contact experts in the field (Option 1)**

Under this first option, the teacher, with the support of the secretary and school leader, can contact businesses or experts working in the field of agrifood. For this purpose, the list of organisations that are associated partners in the TREE project can be consulted. Together with the expert, a common theme can be defined on which the research activity by the students will be developed. It would be advisable to have a face-to-face or online discussion between the students and the expert/organisation representatives, so that they can ask questions and fully understand the supply chain of the chosen product. It would be advisable for the product chosen and/or the type of research required of students to meet priorities of the region/area in which the school is located. In this way such research could have a direct positive impact. The expert/organisation can provide students with material to study, suggest sites/books, provide suggestions on how to set up work, etc.

**Step 2: Preparatory work - define a topic (Option 2)**

Although the first option is the preferred one, this activity can also be carried out in the absence of a company or an expert. In this case, it will be a useful exercise for students to rethink the supply chain of a product chosen by the teacher, who will explain the topic and answer their questions. In this case, the research may concern the food supply chain in general, going to identify/idea solutions that can make it more environmentally sustainable. Also in this case, it would be advisable for the product chosen and/or the type of research required of students to meet priorities of the region/area in which the school is located. In this way such research could have a direct positive impact.

**Step 3: Division of the work**

Each group will be asked to divide the work among the components. The topics to be addressed during the research can include:

- Research on the EU and national regulations on the topic
- Research on primary producers' needs and practices
- Packaging

	<ul style="list-style-type: none"> <li>- Food storage</li> <li>- Market analysis</li> <li>- Food waste management</li> <li>- Financial analysis</li> <li>- Customers needs/demands</li> <li>- Food retails</li> </ul> <p>This list is only meant to suggest some topics, but the research may not be limited to them.</p> <p><b>Step 4: Research &amp; development of the final paper (+ PPT)</b></p> <p>At this point the research phase will begin. Students can use books, documents, videos, etc. to gather information, as long as they are reliable sources. They may also use the material and information provided by the expert/organisation or teacher. It is advisable to have a brief meeting with the teacher each week so that they can check the status of the work and provide them with support if needed. After gathering information, students will have to set up their paper and presentation, identifying a viable strategy to make the supply chain more sustainable. It is advisable to place a maximum length limit on both the paper (which must be submitted to the teacher and the expert/organisation in written form) and the presentation (a maximum length of 10 to 15 minutes is suggested).</p> <p><b>Step 5: Presentation</b></p> <p>Students will be required to present their work to the rest of the class, the teacher and any expert/company. After the presentation there will be a Q&amp;A (Question and Answer) session in which students will have to answer questions from their audience.</p>
<p><b>Assessment tool / methodology</b></p>	<p>Feedback from the expert/involved company will be of great importance both to help the teacher evaluate the work done by the students and for the students, as it can guide them on a path of self-analysis of the work done. Students' reflection and self-analysis can be guided by reflective questions (under some suggestions) and can involve both content learning and the conduct of research and collaboration with others.</p> <ul style="list-style-type: none"> <li>- What did you appreciate most about this work? Why?</li> <li>- What did you appreciate the least about this work? Why?</li> <li>- Did you feel heard by your team while developing the research?</li> <li>- Do you think that this activity has helped you improve some green skills? Which ones?</li> <li>- Do you think that this activity has helped you improve some soft skills? Which ones?</li> </ul> <p>The teacher can then evaluate the final paper and the students' display of the presentation, taking into consideration, among others, the following factors:</p>

	<ul style="list-style-type: none"> <li>- correctness and completeness of information</li> <li>- feasibility of the strategy</li> <li>- innovativeness</li> <li>- teamwork and cooperation</li> <li>- participation of each member in the group work</li> <li>- clarity of exposition</li> </ul>
<b>Additional resources</b>	//
<b>Source</b>	//