



How might we contribute to food waste alleviation strategies on campus?

I Living Lab #3 “Green Campus” Session 1

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Ice breaker (padlet activity)



Goals of this challenge:

Learn the origins and reasons of food waste in universities



Brainstorm and develop ideas for reducing food waste (or other solutions?) on campus



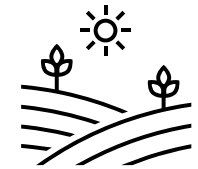
Learn design thinking process



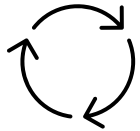
Develop personal learning goals

Enjoy and have fun 😊

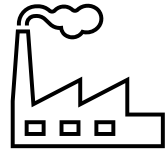
Stages of food waste generation



Production



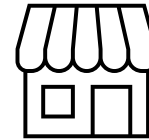
Processing



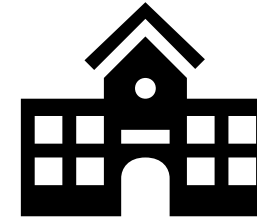
Manufacturing



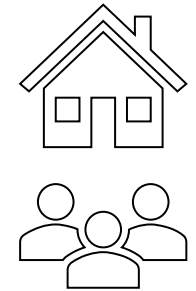
Distribution



Retail



Universities



Consumer / household

Contributors? ->

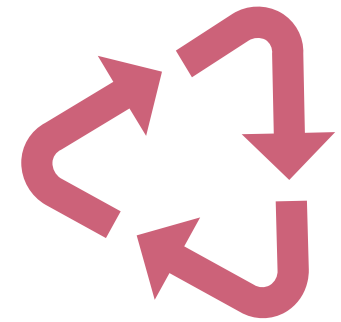


22 m. pounds of food are discarded on university campuses

- **Consumer food waste = more than 50% of the overall food waste (Europe);**
- **17% food is thrown away globally (2019), 132 m. people face hunger**

Some reasons of food waste

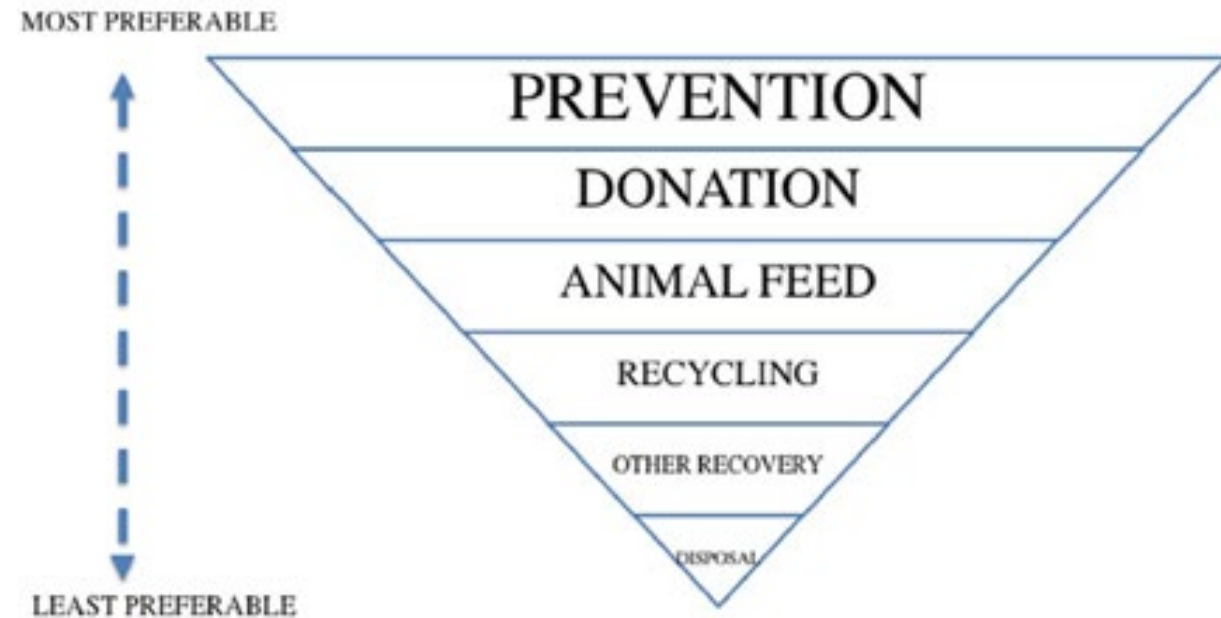
- Long transportation routes
- Insufficient storage conditions
- Too much food (demand did not meet supply)
- Short shelf life
- Food preferences
- Not enough capacity to store food
- Lack of information
- Replenishment strategies
- ...



Cause & effect

Food waste hierarchy

- Food waste prevention first
- Other means:
 - Donation, redistribution and sharing
 - Composting (biowaste), fertilizers for vegetable growth
 - Animal feeding
 - Recycling (biogas)
 - Other recovery



Challenge owner

Claudia GRUBER

Sodexo Austria

Mensa (canteen),

St. Pölten University of Applied Sciences,
Austria

Meeting on Wednesday 29.03.2023 5:30 PM CET



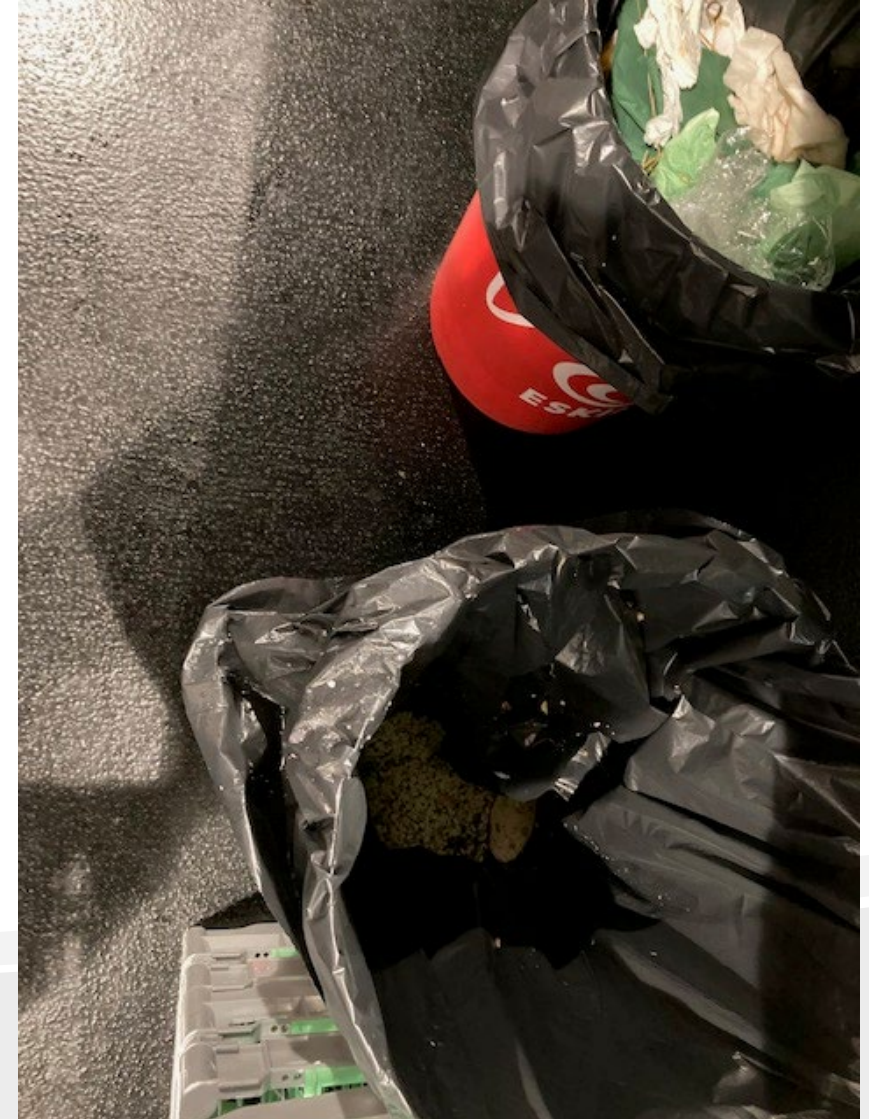
Challenge owner: what's being done with food waste

- Food waste is already being tracked by several solutions (shown in photos)
- Biggest problem: general bins with food waste, which is left from mensa visitors who did not eat all food
- Recycling: used cooking oil for BioDiesel and Biomethane (<https://www.muenzer.at/de/>)
- Recycling: Food leftovers are stored in coolers and used for producing bioenergy (<http://bernard-betriebsgmbh.at/bernard-betriebsgmbh.at/index.html>)
- At the end of the day, some food leftovers are taken by mensa colleagues.
- After certain events, pastries and other leftovers are given away to students or employees
- Past initiatives: centers for homeless; fridge with food leftovers for anyone to pick up (didn't work well)

Challenge owner



Challenge owner



Challenge owner



Challenge owner



Schedule

- **Weekly ILL sessions each Tuesday 5:30 PM CET via MS Teams**
- **Stakeholder meeting next week 29th March (Wednesday) at 5:30 PM CET**
- **Check full ILL schedule on Unicampus (Events)**

- Your learning outcomes and personal goals
- Which skills do you want to focus on/develop?
- Pick top 3 future skills
- Check your current level
- Link this to your E-Portfolio



			Relying on support from others	Building independence	Taking responsibility	Driving transformation, innovation and growth
			With support from others, some autonomy and together with my peers	On my own and together with my peers, taking and sharing some responsibilities	Taking responsibility for making decisions and working with others, sometimes with some guidance.	Taking responsibility for contributing to complex developments in a specific field
			Discover and explore	Experiment and dare	Improve and reinforce	Expand and transform
Future skill	Hint	Descriptor	Level1	Level2	Level3	Level4
Design thinking	Use method of design thinking	I am able to apply design thinking methods in order to use concrete methods to carry-out creative development process.	I can describe the method and know the different spaces in design thinking.	I participate in design thinking process actively.	I can look critically on the process of design thinking within my group and can suggest improvement.	I take responsibility for the design thinking process. I am active and facilitate the process in the way that the group has an innovative perspective and is thinking out of the box.
Innovation	Develop creative and purposeful ideas	I can develop several ideas and opportunities to create value, including better solutions to existing and new challenges. I can explore and experiment with innovative approaches. I can ombine knowledge and resources to achieve valuable effects.	I can show that I am curious about new things. I can explore new ways to make use of existing resources	I can experiment with my skills and competences in situations that are new to me. I can actively search for new solutions that meet my needs	I can actively search for and analyse new solutions that improve the value-creating process.	I can combine my understanding of different contexts to transfer knowledge, ideas and solutions across different areas
			Alone and as a part of a team, I can develop ideas that create value for others	I can experiment with different techniques to generate alternative solutions to problems, using available resources in an effective way	I can describe different techniques to test innovative ideas	I can tailor a variety of ways of involving stakeholders to suit the needs of my value-creating activity
Communication	Inspire, engage and get others on board	I am able to adapt the improve and adapt the discourse, dialog and strategic communication aspects. I can inspire, persuade and communicate effectively. I can use media effectively	I can communicate my own and my team's ideas to others persuasively by using different methods (for example posters, videos,role-play, ...)	I can communicate imaginative design solutions to stakeholders from different backgrounds effectively	I can communicate the vision for my (or my team's) venture in a way that inspires and persuades external groups, such as partner organisations, volunteers, new member and affiliate supporters.	I can take part in constructive discussions with the community that my idea is targeted at.
Cooperation	Team up and work together	I can develop their ability and disposition to cooperate and collaborate in intercultural teams and interactions within or between organizations.	I am open to working alone as well as with other, playing different roles and taking some responsibilities. I can show respect from others, their background and situations	I can work with a range of individuals and teams and contribute to group decision-making constructively. I am open to the worth that others can bring to value-creating activities	I can build a team based on the individual knowledge, skills and attitudes of each member. I can value diversity as a possible source of ideas and opportunities	I can give people the help and support they need to perform at their best within a team. I can support diversity within my team or my organisation

Self-determination	Staf focused and don't give up	I am able to overcome external difficulties and deliver the results.	I am determined and persevere when trying to achieve my (or my team's) goals.	I can overcome simple adverse circumstances	I can persevere in the face of adversities when trying to achieve my goals	I can cope with unexpected change, setbacks and failures.
Future and design	Change yourself and your environment	I can develop and prove the ability to continuously improve readiness for development, ability to challenge oneself and to make a change around them.	I recognize possibilities for changes in the region.	I can compare the different possibilities within my team.	I can apply the decision of the best possibilities in my team.	I can create changes.
Self-Efficacy, self-competence, Initiative and performance	Believe in yourself and go for it.	I am able to master the tasks at hand relying on one's own abilities and taking over responsibility for one's decisions.	I believe in my ability to achieve what I intend to. I can carry out tasks I am given responsibly.	I can judge the control I have over my achievements (compared with any control from outside influences). I am comfortable in taking responsibility in shared activities.	I believe in my ability to carry out what I have imagined and planned, despite obstacles, limited re-sources and resistance form others. I can take individual and group responsibility to carry out simple tasks in value creating activities	I believe in my ability to understand and take the good out of experiences that other may label as failures. I can encourage others to take responsibility in value-creating activities
	Believe in yourself and keep developing	I can reflect on my needs, aspirations and wants in the short, medium and long term. I can identify and assess my individual and group strengths and weaknesses.	I can describe my needs, wants, interests and goals	I can reflect on my individual and group needs, wants, interests and aspirations in relation to opportunities and future prospects	I can translate my needs, wants, interests and aspirations into goals that help me reach them.	I can help others reflect on their needs, wants, interests and aspirations and how they can turn these into goals.
Reflective	Reflect and learn from both success and failure (your own and other people's)	I can reflect over my past decisions and the quantify/measure the results of my actions.	I can provide examples of failures that have led to valuable achievements	I can reflect on failures (mine and other people's), identify their causes and learn from them	I can reflect on my (or my team's) achievements and temporary failures as things develop so as to learn and improve my ability to create value	I can help others reflect on their achievements and temporary failures by providing honest and constructive feedback.
Ambiguity	Making decisions dealing with uncertainty, ambiguity and risks	I can identify ambiguity in requirements and processes and can address it.	I am not afraid of making mistakes while trying new things. I explore my own ways to achieve things	I can actively look for, compare and contrast different sources of information that help me reduce ambiguity, uncertainty, and risks in making decisions.	I can find ways of making decisions when the information is incomplete.	I can pull together different viewpoints to take informed decisions when the degree of uncertainty is high.

Ethical	Assess the consequences and impact of ideas, opportunities and actions	I can identify ethical relevant actions and consequences and can provide relevant perspective premises.	I can describe in my own words the importance of integrity and ethical values	I am driven by honesty and integrity when taking decisions	I can take responsibility for promoting ethical behaviour in my area of influence (for example, by promoting gender balance, highlighting inequalities and any lack of integrity)	I make it my priority to make sure that ethical behaviour is respected and promoted in my area of influence
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- To be done individually
- Select the top skills/competences you want to focus on improving
- Check your current level and document progress in E-portfolio. We will check your final progress at the end of the ILL

E-Portfolio

- Develop your (personal) E-Portfolio.
 - You can use Bulb or other apps
<https://my.bulbapp.com>
- Make weekly entries (you can use photos, videos, etc.). Do not forget to document your progress
- Select a partner for reflection about your portfolio (or ask us to appoint someone for you)
- Check Learners Guide on Unicampus

Student-Checklist for the Porfolio

1. Onboarding Week

Who am I and why have I enroll to an EUDRES ILL?

Why have I chosen this Challenge?

What is my field of study?

What do I plan to do after finishing my studies?

Who/What motivates me?

What do I do in my free time?/ What am I passionate about?

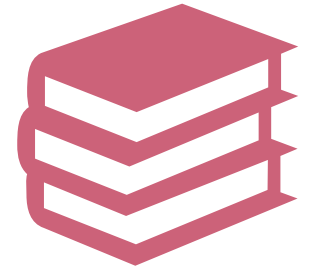
What are my strenghts?

**What do I know about the challenge topic already
(when/where/how did I first encounter it)?**

Design thinking

Next steps and Homework

- Prepare desk research on food waste and major reasons of food waste at universities. Identify the major actors in your problem statement. Miro board can be used for outlining the research findings
- **Prepare a list of interview questions for your meeting with stakeholder next week. The meeting will be 1 hour max on 29th March 5:30 PM CET**
- Complete your training on Unicampus
- Start your E-portfolio
- Set up a plan for collaboration among yourselves, e.g., regular meetings, communication channels, contacts



References and further material

- FAO.org, 2021. The State of Food Security and Nutrition in the World 2021: Transforming food systems for food security, improved nutrition and affordable healthy diets for all. FAO, IFAD, UNICEF, WFP and WHO.
- Galli, F., Cavicchi, A., Brunori, G., 2019. Food waste reduction and food poverty alleviation: a system dynamics conceptual model. *Agric Hum Values* 36 (2), 289–300.
- Liegeard, J., Manning, L., 2020. Use of intelligent applications to reduce household food waste. *Critical reviews in food science and nutrition* 60 (6), 1048–1061.
- Wang, H., Ma, B., Cudjoe, D., Farrukh, M. and Bai, R., 2023. What influences students' food waste behaviour in campus canteens? *British Food Journal* 125 (2), 381-395.
- Report “Free food on campus! Using instructional technology to reduce university food waste and student insecurity <https://www.tandfonline.com/doi/abs/10.1080/07448481.2020.1846042>
- Food waste on college campuses <https://www.youtube.com/watch?v=Cw69QMxrEec>
- What happens to all of BU's food waste? <https://www.youtube.com/watch?v=TSzJGjdy-1A>