



EU GREEN DEAL

**MAKE IT
REAL**

PARTNER EVENT
#EUGREENWEEK
30 MAY – 5 JUNE 2022

DISTAL



ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA
DIPARTIMENTO DI SCIENZE E TECNOLOGIE
AGRO-ALIMENTARI

STAAA PhD OPEN DAY

Dipartimenti di Eccellenza 2018-2022
DISTAL The Nexus Approach for Sustainability in Agriculture,
Food, Energy & Water

June 1st, 2022

Production and analytical characterization of new and traditional foods: focus on sustainability

PhD candidate: **Celeste Lazzarini**

Cycle: **XXXVII**

(supervisor: Prof. *Tullia Gallina Toschi*;

co-supervisor: Dr. *Enrico Valli*)

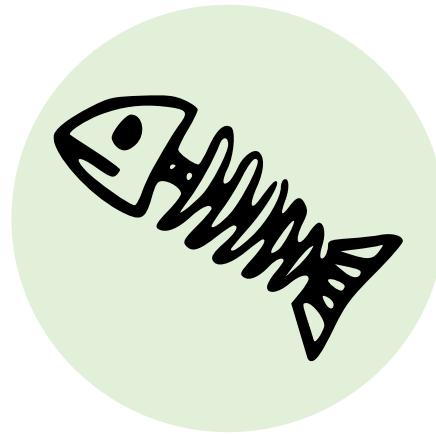
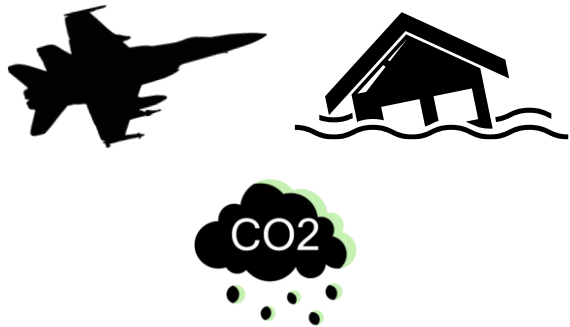
**next
gen
EU**

State of the art



Hunger¹

In 2019, 135 million people suffer of hunger



Food waste & losses²

1.3 billion tonnes are wasted globally each year



$\frac{1}{3}$ of the production



Sustainability

The use of by-products could improve sustainability toward a more circular economy



Target 2.4

1. FAO Food and Agriculture Organization of the United Nations, 2020. *A statement by FAO Director-General QU Dongyu. Congressional Briefing - The Coming Hunger Crisis: Preventing a Food Catastrophe amid the COVID-19 Pandemic.*
2. FAO, Food and Agriculture Organization of the United Nations, IFAD, UNICEF, WFP, and WHO, 2020 *The state of food security and nutrition in the world. Transforming food systems for affordable healthy diets.* Rome.

Objectives and activities

Enhance the differentiation of food production through the application of sustainable technologies



- Production
- Characterization



Of new and traditional foods also using by-products

- Investigation of sensory liking and acceptability



Gantt diagram



Tomato



Hemp



Orange



ACTIVITIES

2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36

Bibliographic research

Sustainable food technologies

Vacuum distillation

Non-thermal drying

...

Analytical characterization

Raw materials

By-products

New food products

Labelling

Writing and editing of papers and final thesis



Expected results and benefits



By-products valorization

Innovative extraction and technologies

Instrumental and sensory characterization

Improve the knowledge regarding food products both new and already known



Enhance consumer acceptability

To produce more attractive and accepted foods