

**Economia Circolare, riduzione degli sprechi in cucina,
supporto all'innovazione.**

**Come ridurre lo spreco alimentare
nella ristorazione?**

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The food we eat and **how we produce** it will determine the health of **people** and **planet**, and major changes must be made to avoid both reduced life expectancy and continued environmental degradation

THE LANCET, JANUARY 2019 Food in the Anthropocene: the EAT –Lancet Commission on healthy diets from sustainable food systems

THE FOOD WASTE DILEMMA

Every year around the globe 1.3 billion tonnes of food is **lost or wasted** throughout the agrifood supply chain

This equates to 1/3 of all food produced for human consumption (FAO, 2011)

88 million tonnes of food are wasted annually in the EU (estimate for 2012, FUSION data).

Modelling suggests if nothing is done, food waste could rise to **over 120 million tonnes by 2020**.

The food resources being lost and wasted in Europe **would be enough to feed all the hungry people in the world two times over** (European Commission 2015)



THE FOOD WASTE TRILEMMA

DIET-ENVIRONMENT-HEALTH

the metabolic food waste

(Serafini & Toti, 2016)

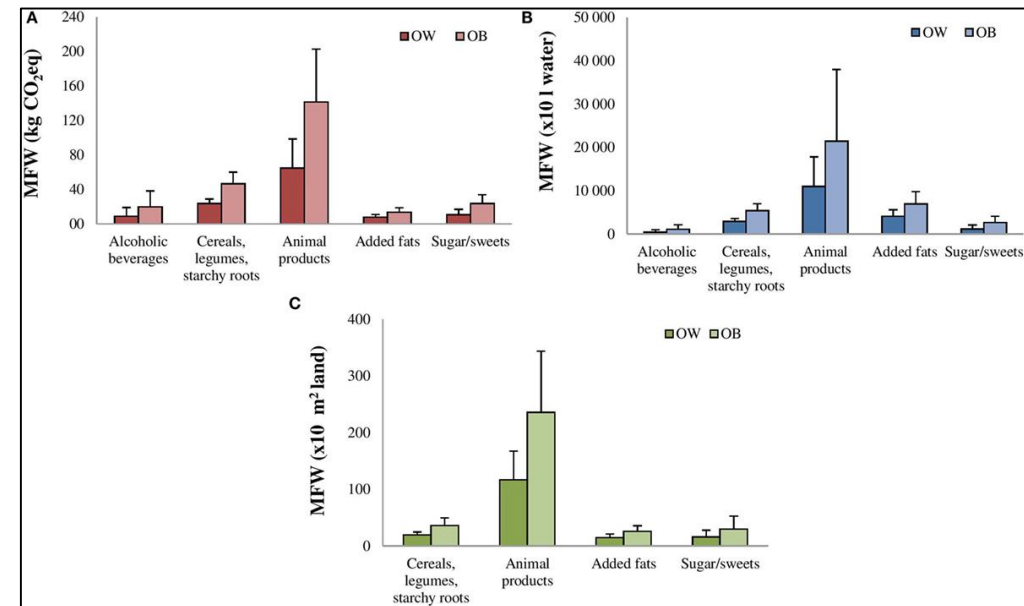
«Food eaten above physiological needs, manifesting as obesity, should be considered waste»

Results shows that the average amount of MFW_(kg of food) was of 63.1 and 127.2 kg/capita in a observational study on 60 OW and OB subjects

This surplus has a water equivalent estimated at 2.2 billion cubic meters of water and an emission equivalent of 4 tons of CO₂



Serafini M and Toti E (2016) Unsustainability of Obesity: Metabolic Food Waste. *Front. Nutr.* 3:40



Assumptions

Dietary shift	Reference (table 1); vegetarian: meat-based protein sources replaced by a mix of plant-based proteins and fruits and vegetables (eggs and dairy consumed); vegan: all animal-based protein sources replaced by a mix of plant-based proteins and fruits and vegetables (no eggs and dairy consumed); pescatarian: meat-based protein sources replaced by a mix of seafood and fruits and vegetables (eggs and dairy consumed)
Improved production practice (PROD)	Standard level of ambition for improved food production practices including closing of yield gaps between attained and attainable yields to about 75%; ^{184,211} rebalancing nitrogen and phosphorus fertiliser application between over and under-applying regions; ¹⁸⁴ improving water management, including increasing basin efficiency, storage capacity, and better utilisation of rainwater; ²¹¹ and implementation of agricultural mitigation options that are economic at the projected social cost of carbon in 2050, ²¹² including changes in irrigation, cropping and fertilisation that reduce methane and nitrous oxide emissions for rice and other crops, as well as changes in manure management, feed conversion, and feed additives that reduce enteric fermentation in livestock ²¹³
Improved production practice (PROD+)	High level of ambition for improved food production practices on top of PROD scenario, including additional increases in agricultural yields that close yield gaps to 90%; ¹⁸⁴ a 30% increase in nitrogen use efficiency, ²¹⁴ and 50% recycling rates of phosphorus; ²¹⁵ phase-out of first-generation biofuels, and implementation of all available bottom-up options for mitigating food-related greenhouse-gas emissions ²¹³
Reduced food waste and loss (halve waste)	Food losses and waste reduced by half, in line with Sustainable Development Goals target 12.3

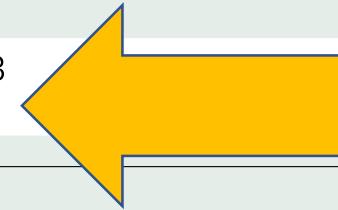


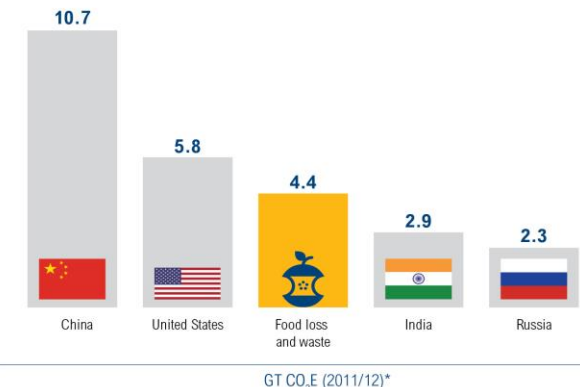
Table 4: Measures considered for reducing environmental effects of food production

THE LANCET, JANUARY 2019 Food in the Anthropocene: the EAT –Lancet Commission on healthy diets from sustainable food systems, vol 393, p.470.

Together with moving to more sustainable diets and reaching major improvement in food production practices, **reducing food waste** both in and out of the home is the **most significant demand-side measure for reducing the carbon impact of the food system.**

This universal goal for all humans is **within reach** but will require adoption of **scientific targets** by all sectors to stimulate a range of actions from **individuals and organisations working in all sectors and at all scales.**

If Food Loss and Waste Were its own Country, it Would Be the Third-Largest Greenhouse Gas Emitter



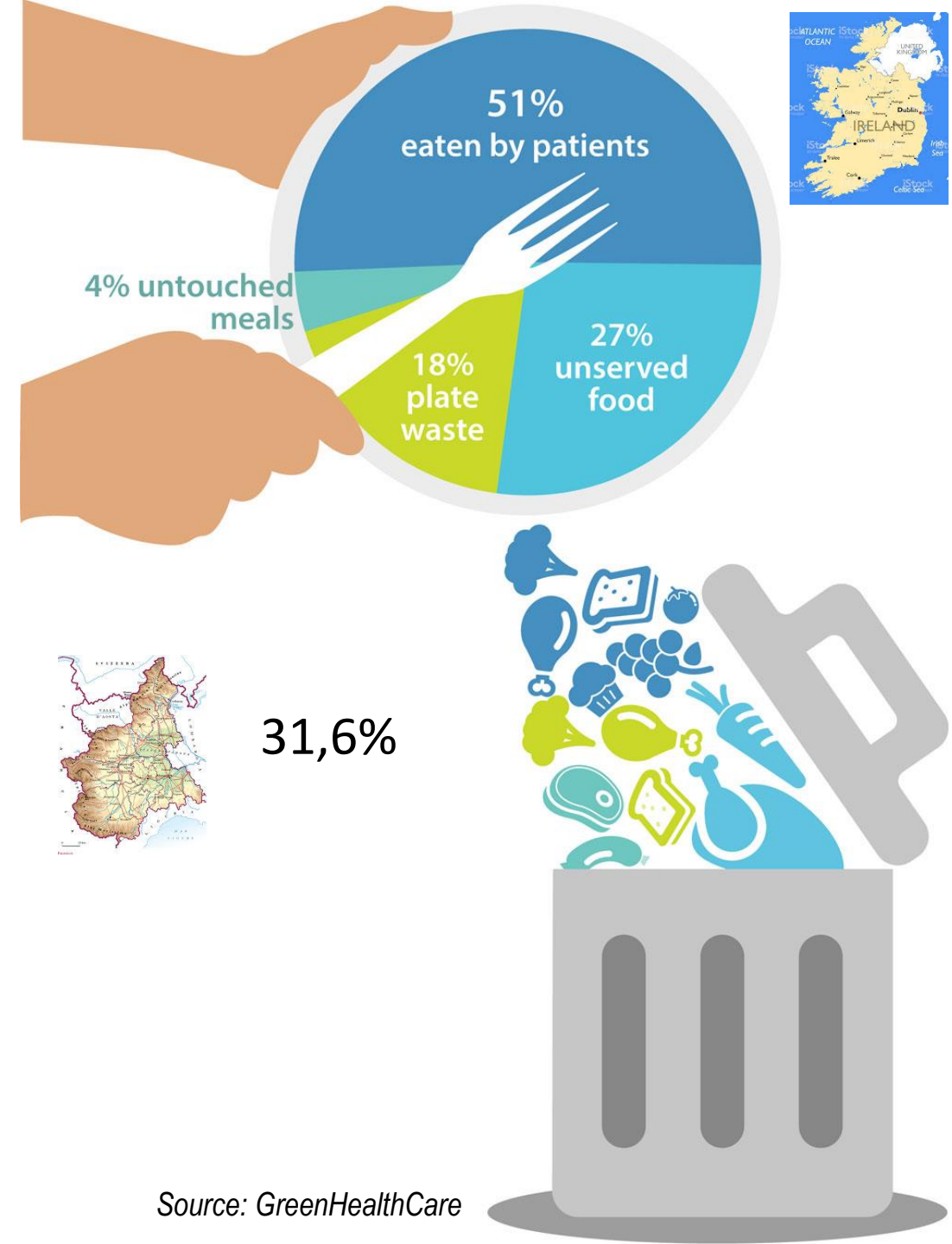
* Figures reflect all six anthropogenic greenhouse gas emissions, including those from land use, land-use change, and forestry (LULUCF). Country data is for 2012 while the food loss and waste data is for 2011 (the most recent data available). To avoid double counting, the food loss and waste emissions figure should not be added to the country figures.

Source: CAIT, 2015; FAO, 2015. Food waste footprint & climate change. Rome: FAO.

FOOD WASTE & hospitals

- a quarter of the total meals produced by collective food service in Italy (296 MLN)
- not a mere hotel function but above all with **a therapeutic value**
- meals not consumed by hospital patients represent not only a waste of human and economic resources but also **a cause of nutritional deficit and reduced comfort for the hospitalized patient.**
- food waste can be a significant issue in hospitals, and due to the **nature of the sector** (urgency/emergency only partially programmable, unexpected changes in the clinical conditions of some patients), is often difficult to address.

•“Linee di indirizzo rivolte agli enti gestori di mense scolastiche, aziendali, ospedaliere, sociali e di comunità, al fine di prevenire e ridurre lo spreco connesso alla somministrazione degli alimenti” Ministero della Salute



Source: GreenHealthCare

PROJECT GOALS



1. **Raise awareness** about **food waste** as a major problem in the restaurant industry and the possibility of **preventing** and **reducing** it through the application of more sustainable practices.
2. **Train trainers & students**, as well as **professionals** (back/front in-house staff), of the restaurant industry in the adoption of more **sustainable practices**.
3. **Raise policy makers' awareness** of the need for **measures & instruments** that favour food waste prevention and reduction.

EXPECTED IMPACT







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LIFE ENVIRONMENTAL GOVERNANCE AND INFORMATION

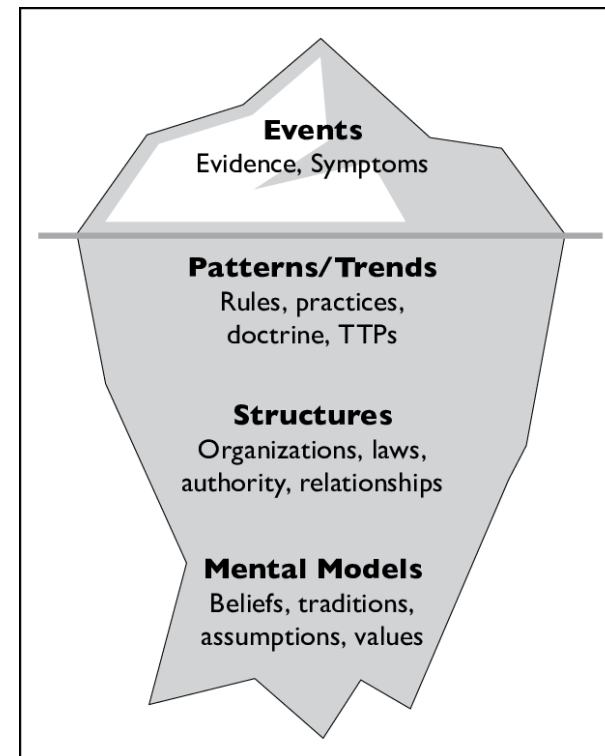
LIFE FOSTER: TRAINING, EDUCATION AND COMMUNICATION TO REDUCE FOOD WASTE IN THE FOOD SERVICE INDUSTRY

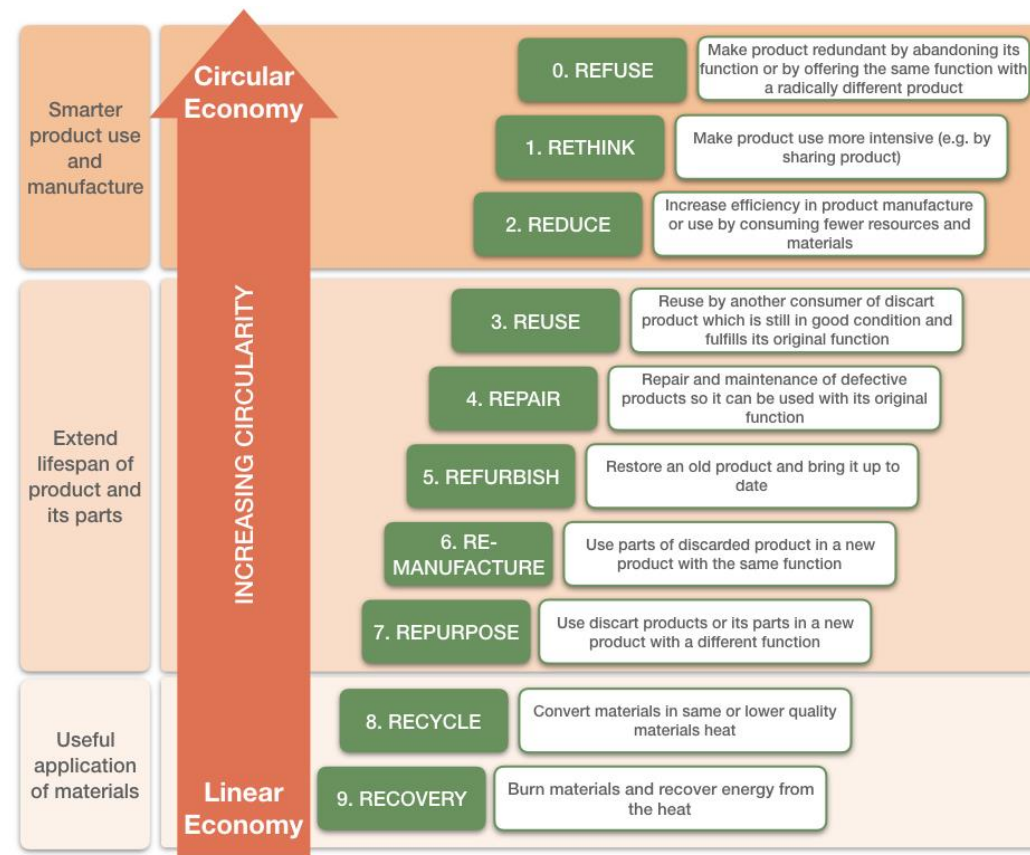
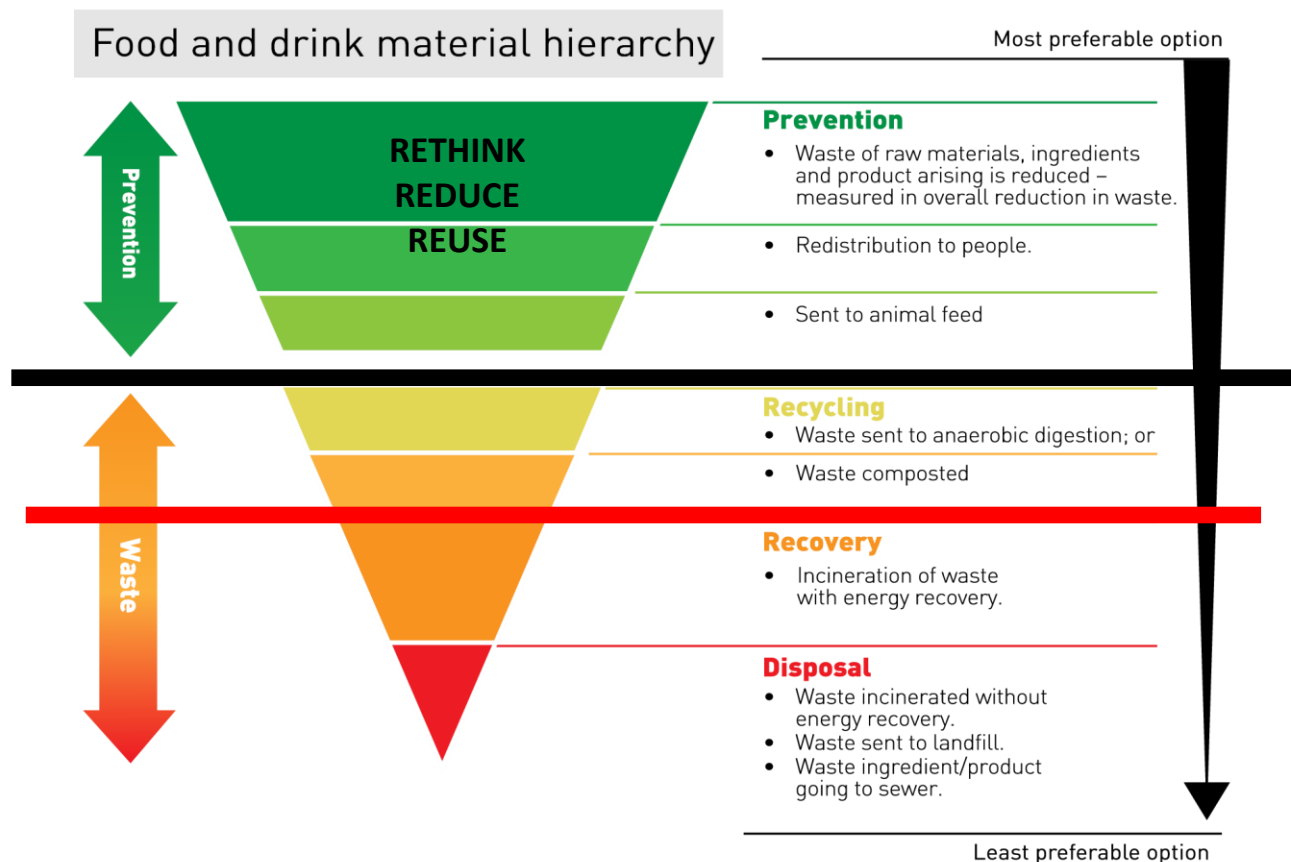


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Sharing of operational processes which, from procurement to food delivery, involve, in various capacities, both the staff in charge of the catering service and the health care staff responsible for clinical-nutritional management.



THANK YOU!!!!