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Sustainable nutrition: is changing diet the solution?

by Giovanni de Santi

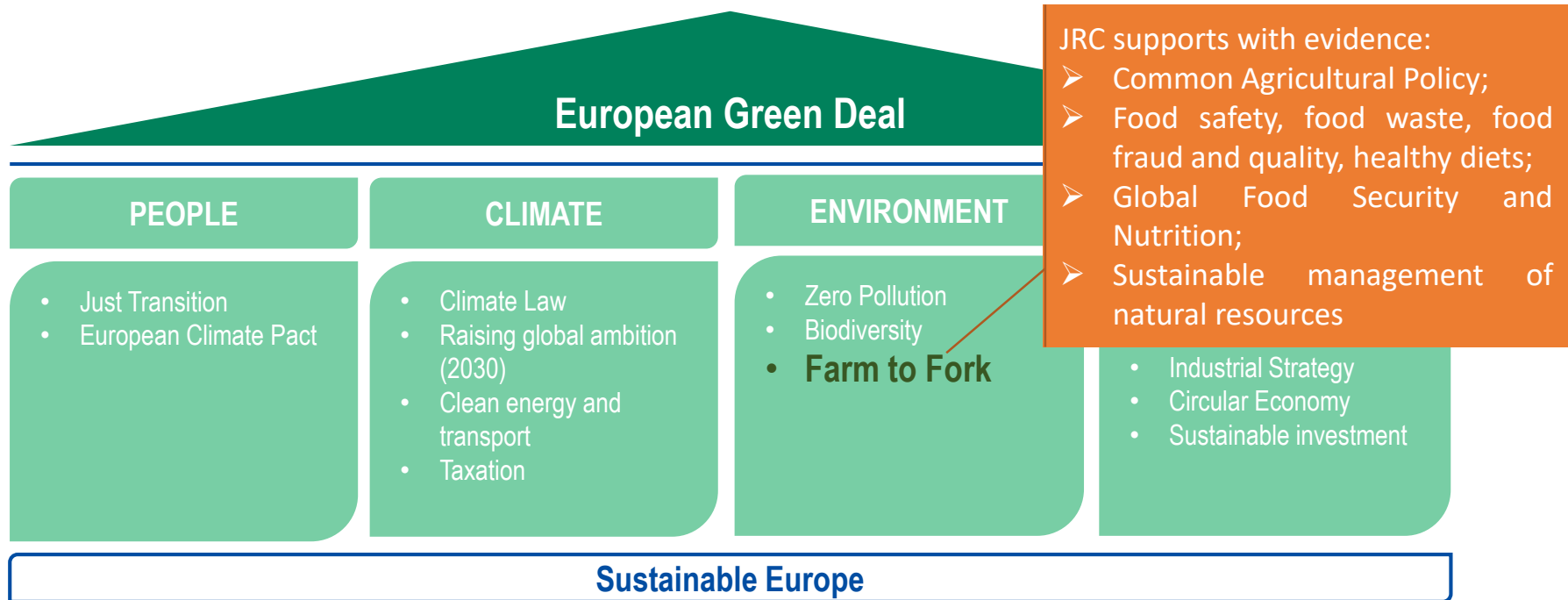
Director, Sustainable Resources,

DG Joint Research Centre, European Commission

*The 2019 EU Agricultural Outlook conference: Sustainability from Farm to Fork
Tuesday 10 December 2019*

<https://ec.europa.eu/jrc>

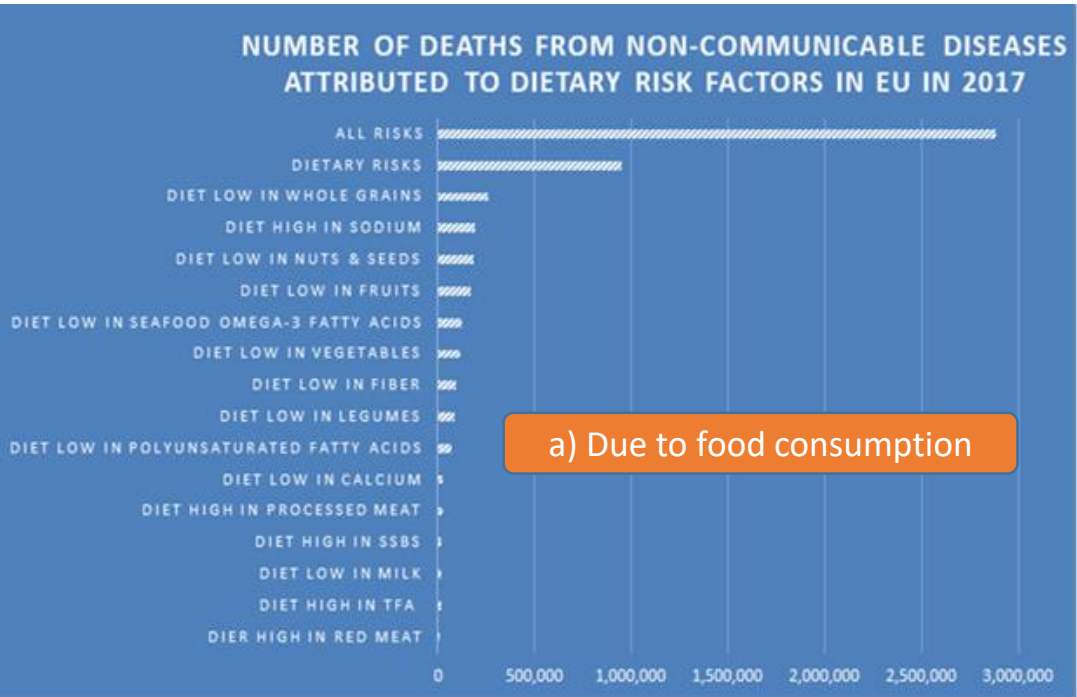
Green Deal and Farm to Fork food sustainability strategy



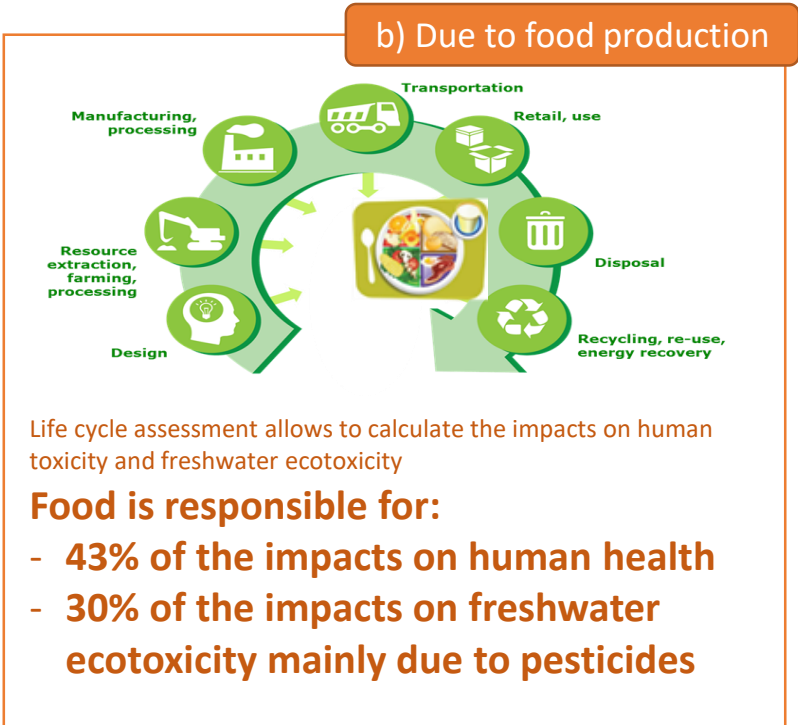
Supporting also SDGs:



Impact of current Food (a) Consumption and (b) Production on Human and Ecosystems health



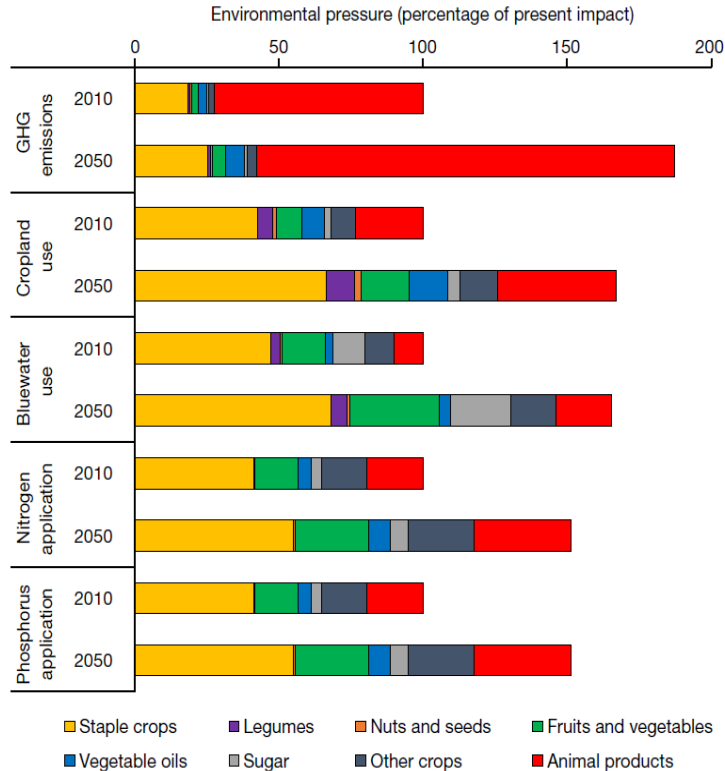
a) Due to food consumption



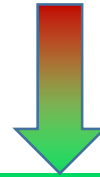
Sources: www.thelancet.com vol 393 May 11, 2019



Changing diets could reduce the pressure on the environment



High increases in food demand will put additional pressure on the environment



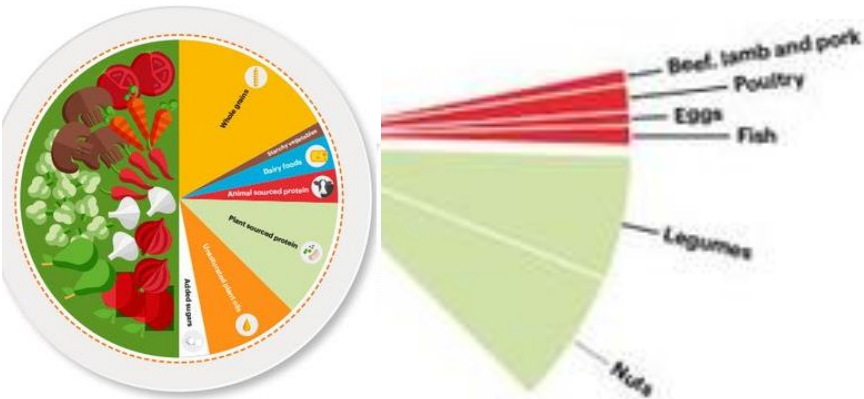
Combined efforts to

- reduce GHG emissions on the farm
- reduce food waste and
- **change diets**

keeps the environment pressure below the planetary boundaries

How can diets be both environmentally Sustainable and Healthy?

‘Planetary healthy plate’: combines both the concepts of health and sustainability



Protein contribution to the planetary healthy diet by source

- Largely based on diverse plant-based foods
- Caloric contribution mainly from whole grains
- Drastic reduction of animal source foods
- Protein contribution mainly from plant foods
- Unsaturated plant oils

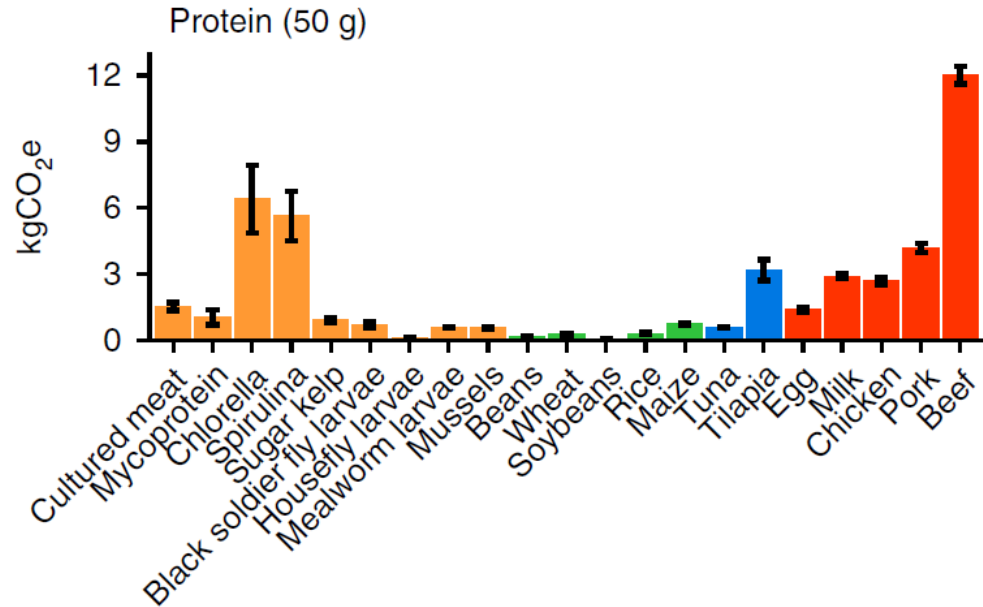
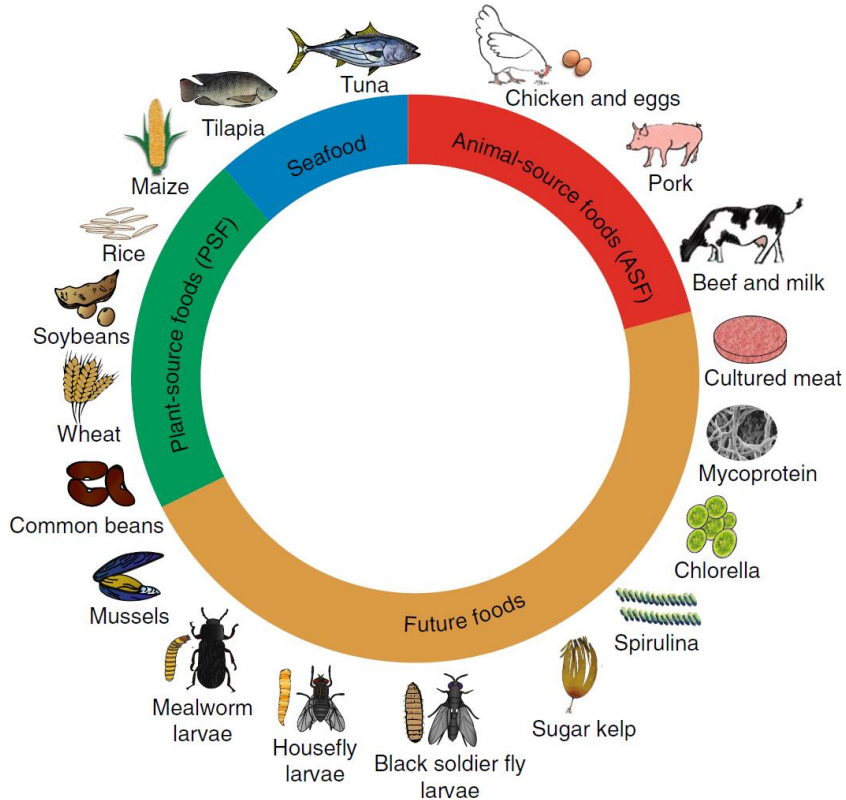
Sustainable Healthy Diets are dietary patterns that:

- promote all dimensions of individuals' health and wellbeing;
- have low environmental pressure and impact;
- are accessible, affordable, safe, equitable and culturally acceptable.

Source: Sustainable healthy diets guiding principles (FAO,WHO, 2019)

Source: Summary Report of the EAT-Lancet Commission.

How will the Diet of the Future look like?



Greenhouse gas emissions of conventional and future foods [kg CO_{2eq} cap⁻¹ day⁻¹] calculated for the recommended (WHO) average protein intake of 50 g proteins per person and day

Scenario: what if EU consumers would shift to a 50/50 intake of proteins from livestock and vegetable sources?

✓ Consumption trends to 2030:

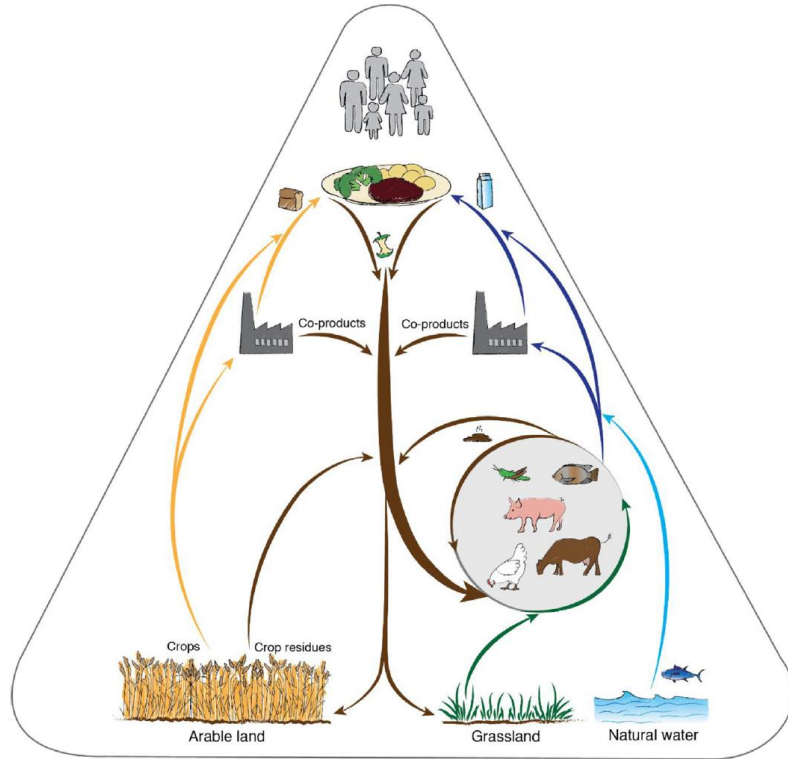
- EU meat consumption slightly declining (from 70 kg per person today to 69 in 2030);
- Pork and beef consumption mainly affected, some increase in poultry consumption;
- Surge of new alternatives to meat (plant based, lab-meat, ...).



✓ Modelling less meat consumption in the EU:

(see JRC presentation by I. Pérez on Day 2 of the Conference)

How much protein from livestock could be produced sustainably?

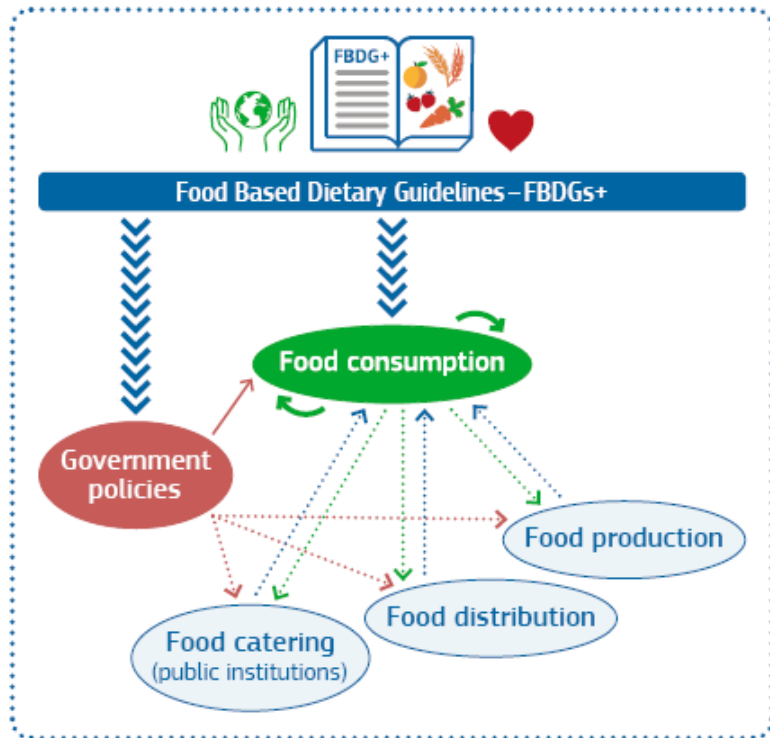


Circular food system concept:

- **Avoid competition** between production of livestock and plant foods.
- **Use marginal lands** for grazing.
- **Use biomass residues** to feed animals (crop residues, food waste, by-products).

➔ **Sustainable livestock** production could supply **9-23 g protein** per person and day

Healthy and sustainable diets – a central role in food systems and key target for 2030 SDGs



In Leite J et al, in press

Food consumption:

- plays a **central role for the outcomes of a food system** that drives **population and planetary health**;
- is **influenced by** and **influences in return** other elements of the food system.

Need to assess carefully the impacts and trade-offs of different policies towards sustainable and healthy diets.

THANK YOU !



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THE 2019
**EU AGRICULTURAL
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Sustainability
from Farm
to Fork