EU FOOD SAFETY FORUM

28-29.11.2023

Brussels

FOOD SAFETY FOR THE FUTURE

Marta Hugas, Independent Expert

"Food safety has achieved very high standards in the last 20-25 years in the EU. Today, sustainability needs to be embraced in food systems including safety. Innovative research is the most important tool to help us achieving the challenges ahead."

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www.foodsafety4.eu

MARTA HUGAS

Grant agreement ID: 101000613

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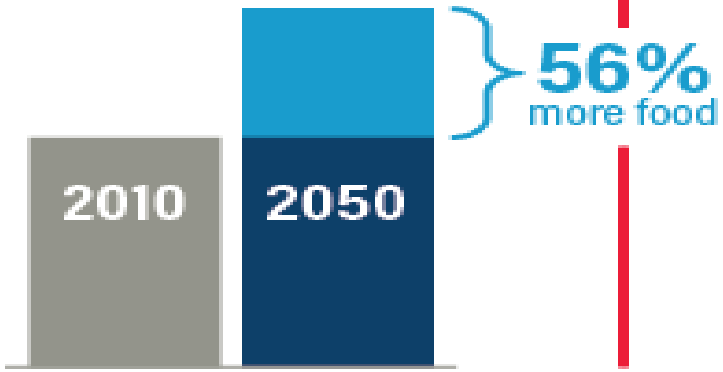
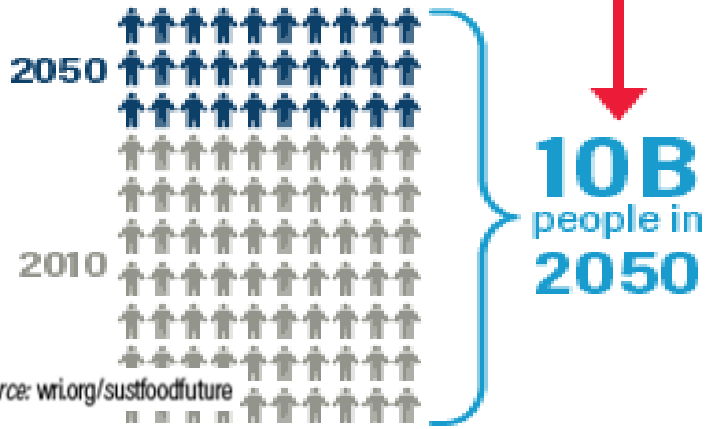
Sustainable food future by 2050

How do we feed 10 billion people...

WE WILL NEED



TO FEED NEARLY

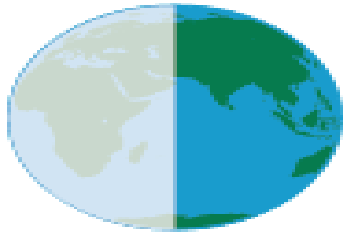


10B people in 2050

Source: wri.org/sustfoodfuture

...without using more land...

WE NEED TO PREVENT AGRICULTURE FROM EXPANDING

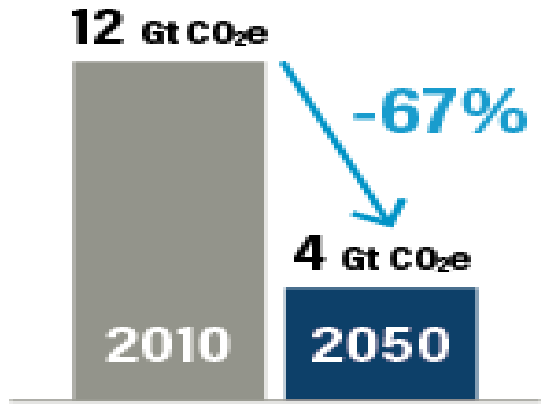


we currently use ~50% of the world's vegetated land for agriculture

TO SAVE AN AREA OF FORESTS NEARLY 2X the size of India

...while lowering emissions?

WE CAN LOWER EMISSIONS



WITH INNOVATIVE TECHNOLOGY LIKE

Improved feeds

Plant-based burgers

Resilient crop breeds

WORLD RESOURCES INSTITUTE

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Sustainable Development Goals by 2030

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F2F Strategy: Food Sustainability Challenges

SOCIAL SUSTAINABILITY (INCL. HEALTH)

Healthier diets – reduce overweight *

Improve animal welfare *

Social rights workers in food chain

Food affordability *

ENVIRONMENTAL SUSTAINABILITY

Tackle climate change *

Protect the environment *

Preserve biodiversity *

Reduce food losses and waste *

Circular bio-based economy *

ECONOMIC SUSTAINABILITY

Fairer incomes for farmers, fishers & aquaculture producers

Just transition

New business & job opportunities *

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* *FOOD SAFETY RELEVANT*

DRIVERS AND TRENDS FOR A FOOD SAFETY FORESIGHT

- Climate change
  - Disruption of our production capabilities to produce enough nutritious food
  - multi-faceted impacts of climate change on various food safety hazards (both biological and chemical)
- Consumer behaviours are shifting
  - changes in the food purchasing and consumption habits of consumers. which can be accompanied by potential food safety risks
- Innovation - New food sources
  - Farming of edible insects
  - Plant-based alternatives to animal derived products
  - Cell-based food production
  - Intra-urban agriculture
  - Technological innovations: food packaging, nanotechnologies, 3D printing etc

(Source: FAO foresight rpeort on food safety)

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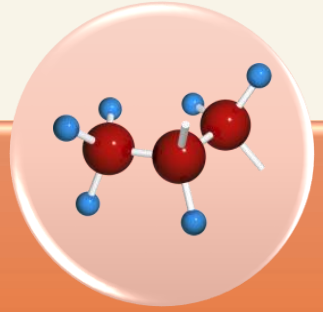
Novel Foods Categories

New production process



New or modified molecular structure

From micro-organisms, fungi, algae

From plants or their parts

Vitamins and mineral from new process/ nanomaterials

Of mineral origin

From animals or their parts

Cell or tissue cultures derived from animals/ plants/ fungi/ algae

Engineered nanomaterials

Exclusively in food supplements

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FOOD SAFETY ACHIEVEMENTS 2002- 2022 - MANY

FOOD SAFETY CHALLENGES 2022-2030 – MANY MORE

- Should Food Safety be approached as it is today?
- Or Should there be an integration of:
  - Food safety,
  - Nutrition – already in the deffinition for UN food systems
  - AND Environmental components of Sustainability (e.g. food security etc)?,
  - In a systematic matter?

  - SCIENCE for risk Benefit assessments?

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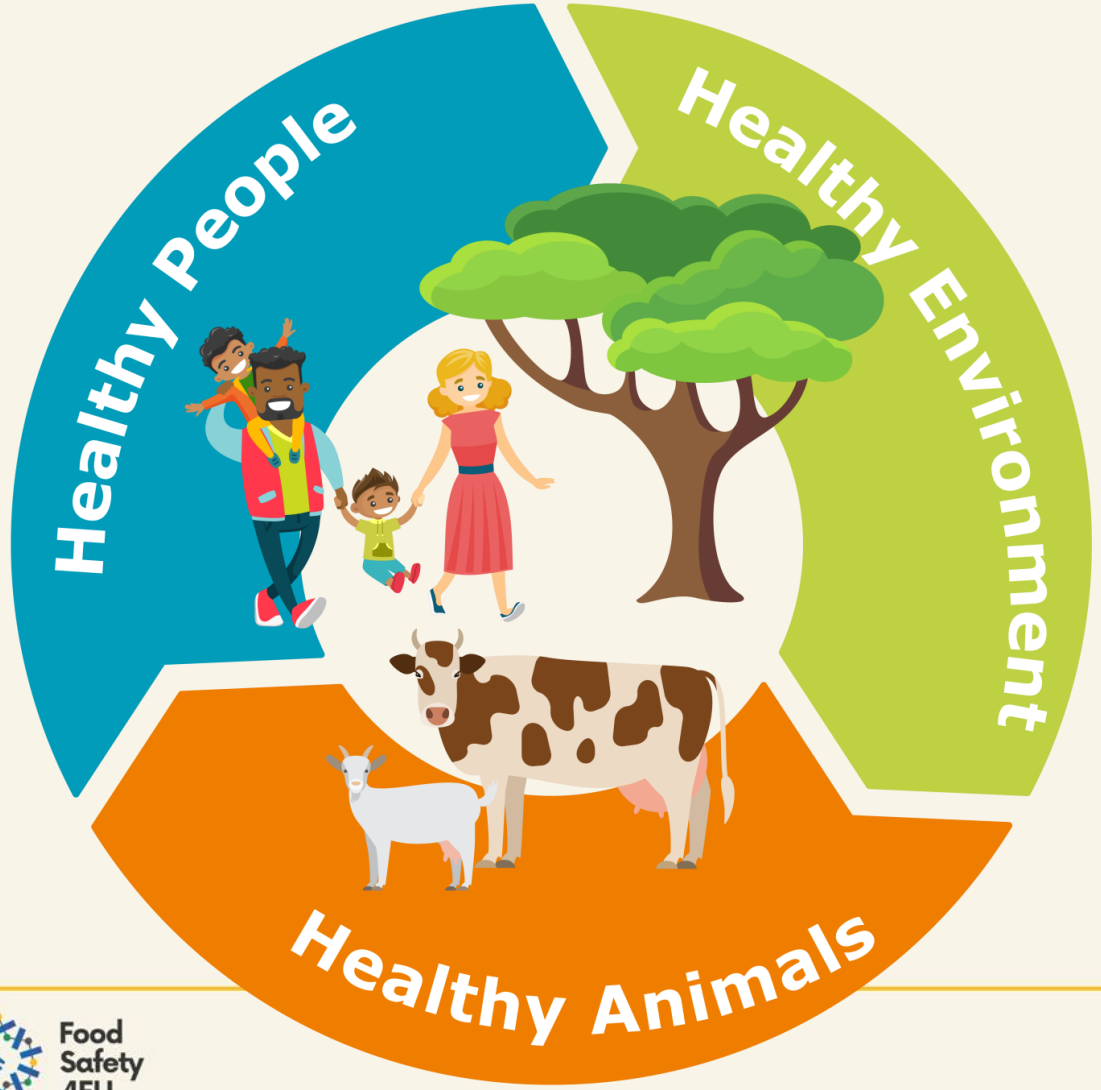
ONE HEALTH APPROACH is the proposed SOLUTION but……



- Are we ready to integrate the ONE HEALTH approach into our scientific advice?
  - Methodologies
  - Data streams
  - Expertise
  - Multidisciplinarity
  - transdisciplinarity…

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How to move ahead?

Some FOOD for thought….

- How to assess sustainability?
  - Metrics needed?
  - Standards?
  - Guidelines?
  - Policies?
  - Impact on trade?
  - Currently, safety assessment focus on final product:
    - How to integrate the whole food production chain into the assessment?
    - Product assessment (as is) plus process assessments (to be)?
    - Methodologies are they ready and validated/accepted?
      - E.g. life cycle assessment
- Risk – Benefit assessments to become increasingly important?
  - Health risks vs environmental benefits? Or viceversa?
  - ~~Should food security be taken into account in RIsk-Benefit assessments?~~

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THANK TO ALL

Grant agreement ID: 101000613