

MISSIONE 4
ISTRUZIONE
RICERCA

**ON FOODS - RESEARCH AND
INNOVATION NETWORK ON
FOOD AND NUTRITION
SUSTAINABILITY, SAFETY
AND SECURITY – WORKING
ON FOODS
SUSTAINABLE NUTRITION MODELS**



Tematica: 10. Sustainable nutrition models

Obiettivi *(Sez A dell'Annex 1)*

Background, objectives, and activities planned in the programme.

The concept of sustainability has only recently entered everyday use. Sustainability refers to patterns of production and consumption that respect natural resources and their usual rhythms, focusing on long-term resilience and avoiding depletion of resources and environmental degradation.

The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, describes 17 Sustainable Development Goals (SDGs), ranging from ending poverty to improving health and education, reducing inequality, spurring economic growth, tackling climate change, and working to preserve our oceans and forests. The number of SDGs potentially targeted in the framework of this call and through the action of this project and the selected consortium is considerably high, covering those aimed at ending poverty and hunger, achieving food security and improved nutrition (SDGs 1 and 2), ensuring healthy lives and promoting well-being for all at all ages also through education (SDGs 3 and 4), but also those reducing inequalities and promoting sustained, inclusive, and sustainable economic growth (SDGs 8 and 10) and, finally, making cities and human settlements inclusive, safe, resilient also through the promotion of sustainable consumption and production patterns and through the development of resilient infrastructure and inclusive and sustainable industrialization (SDGs 11 and 12).

Based on what stated by the High-Level Panel of Experts on Food Security and Nutrition (HLPE), the framework of food systems encompasses food production, food supply chains, food environments, dietary habits, and food choices made by consumers, also including the related nutritional, environmental, and socio-economic outcomes. Food supply chains, often called food production and distribution networks, are increasingly complex and include all the stages and actors playing a role from food production to processing, distribution, retail marketing, consumption, and waste disposal. If food and agriculture are responsible for over a quarter (26%) of global greenhouse gas emissions (GHGs), the share of GHG emitted by the global food system, that includes post-retail activities, such as consumer cooking and waste, is estimated to be even higher (34% of total GHGs). Even if the primary production stage is clearly the main contributor, the subsequent activities along the supply chain account for 18% of the food related GHGs (processing, 4%; transport, 5%; packaging, 6%; and retail, 4%). Finally, food waste emissions are huge, with around one-quarter of emissions (3.3 billion tonnes of CO₂e) from food production which becomes wastage either from supply chain (15% of food related GHGs) or consumers losses.

Food is also linked to human health at many levels. Based on the latest WHO report, contaminated food causes 600 million cases of foodborne diseases and 420.000 deaths every year, with globally 33 million years of healthy lives lost from eating unsafe food within the same timeframe, and this number is possibly an underestimation. For this reason, food safety and food risk management represent extremely relevant tasks in the context of the food system revision and implementation. Moreover, it is a fact that noncommunicable diseases (NCDs) kill 41 million people each year, equivalent to 71% of all deaths globally, and that an affordable healthy diet is of primary importance to reduce this burden and the consequent costs for the health system. More recently, then, the evidence that interindividual differences in the way humans respond to food intake are modulating the effects of food on human health is mounting. The growing understanding of what physiological aspects are better descriptors of these differences is unavoidably requiring a more personalised approach to human nutrition, where individuals, beside the general population, are taken into consideration. This knowledge can significantly impact not only on the definition of more effective intervention

strategies, but also on the design of new and/or improved food products and diets, able to target individual nutritional needs affecting individual metabolic and physiological responses.

Moreover, the recent dramatic and unexpected events, Covid 19 pandemics and the Russia-Ukraine war, have highlighted the clear need for better research and innovation plans to promote resilience and sustainable productivity in the framework of the food system. This could be achieved through a) implementing actions to reduce long-term vulnerabilities, b) ensuring food security covering all population needs; c) strengthening the resilience of food companies by implementing their flexibility and management capacity in terms of alternative strategies to maintain and/or increase quality and productivity. This implies a virtuous approach that can rely on adequate contingency plans and count on interdisciplinary expertise and capacity to cope with and contrast future unexpected critical scenarios. This initiative embodies this vision and represents the holistic and multidisciplinary strategy to contribute to this much-needed increase in food system resilience.

Finally, when addressing the goal for an increased food and diet sustainability, able to positively impact on human and planetary health, it is paramount to take into consideration the recognized interconnection among human, animal health, and the environment, as much as the fundamental reciprocal contribution that most, if not all, of these factors might have on climate change, food safety, and food security.

Partner

N TOTALE SOGGETTI:25

Proponente: Università degli Studi di Parma

Partecipanti:

SOGGETTI PUBBLICI

Università

- Università degli Studi di Parma
- Alma Mater Studiorum Università di Bologna
- Libera Università di Bolzano
- Politecnico di Milano
- Sapienza Università di Roma
- Università degli Studi di Bari Aldo Moro
- Università degli Studi di Catania
- Università degli Studi di Milano
- Università degli Studi di Milano-Bicocca
- Università degli Studi di Napoli Federico II
- Università degli Studi di Pavia
- Università di Pisa

Organismi di Ricerca

- Consiglio Nazionale delle Ricerche
- Consiglio per la ricerca in agricoltura e l'analisi dell'economia agraria

- Agenzia nazionale per le nuove tecnologie, l'energia e lo sviluppo economico sostenibile

SOGGETTI PRIVATI:

Organismi di Ricerca

- Fondazione Edmund Mach
- Istituto di Ricerche Farmacologiche Mario Negri
- Università Cattolica del Sacro Cuore

Imprese

- Tecnoalimenti S.C.p.A.
- Barilla G. e R. Fratelli S.p.A.
- Bolton Food S.p.A.
- Cirfood Sc
- De' Longhi Appliances S.r.l.
- Istituto Neurologico Mediterraneo Neuromed S.p.A.
- Sacco S.r.l.

Gli Spoke

Commentato [BS1]: Mancano i nomi di tutti gli spoke

Spoke n. 1 Global Sustainability

Leader spoke: Università degli Studi di Parma

Affiliati allo spoke

- Università degli Studi di Bari Aldo Moro
- Università degli Studi di Milano
- Università degli Studi di Napoli Federico II
- Politecnico di Milano
- Sapienza Università di Roma
- Università di Pisa
- Università degli Studi di Catania
- Cirfood Sc

Spoke n. 2 Smart and circular food system and distribution

Leader spoke: Consiglio Nazionale delle Ricerche

Affiliati allo spoke

- Università degli Studi di Bari Aldo Moro
- Università degli Studi di Milano
- Università degli Studi di Napoli Federico II
- Alma Mater Studiorum Università di Bologna

- Politecnico di Milano
- Università Cattolica del Sacro Cuore
- Libera Università di Bolzano
- Agenzia nazionale per le nuove tecnologie, l'energia e lo sviluppo economico sostenibile
- Bolton Food S.p.A.
- De' Longhi Appliances S.r.l.
- Tecnoalimenti S.C.p.A.

Spoke n. 3 Food safety of traditional and novel foods

Leader spoke Università degli Studi di Bari Aldo Moro

Affiliati allo spoke

- Università degli Studi di Parma
- Consiglio Nazionale delle Ricerche
- Università degli Studi di Milano
- Università degli Studi di Napoli Federico II
- Università degli Studi di Pavia
- Alma Mater Studiorum Università di Bologna
- Sapienza Università di Roma
- Università Cattolica del Sacro Cuore
- Libera Università di Bolzano
- Fondazione Edmund Mach
- Agenzia nazionale per le nuove tecnologie, l'energia e lo sviluppo economico sostenibile
- Barilla G. e R. Fratelli S.p.A.
- Sacco S.r.l.
- Tecnoalimenti S.C.p.A.

Spoke n. 4 Food quality and nutrition

Leader spoke Università degli Studi di Milano

Affiliati allo spoke

- Università degli Studi di Parma
- Consiglio Nazionale delle Ricerche
- Università degli Studi di Bari Aldo Moro
- Università degli Studi di Napoli Federico II
- Alma Mater Studiorum Università di Bologna
- Sapienza Università di Roma
- Università di Pisa
- Università degli Studi di Catania
- Università Cattolica del Sacro Cuore

- Libera Università di Bolzano
- Consiglio per la ricerca in agricoltura e l'analisi dell'economia agraria (CREA)
- Fondazione Edmund Mach
- Barilla G. e R. Fratelli S.p.A.
- Bolton Food S.p.A.
- De' Longhi Appliances S.r.l.
- Sacco S.r.l.
- Cirfood Sc
- Tecnoalimenti S.C.p.A.

Spoke n. 5 Lifelong nutrition

Leader spoke Università degli Studi di Napoli Federico II

Affiliati allo spoke

- Consiglio Nazionale delle Ricerche
- Università degli Studi di Milano
- Università degli Studi di Pavia
- Alma Mater Studiorum Università di Bologna
- Sapienza Università di Roma
- Università degli Studi di Catania
- Consiglio per la ricerca in agricoltura e l'analisi dell'economia agraria (CREA)
- Istituto Neurologico Mediterraneo Neuromed S.p.A.
- Sacco S.r.l.

Spoke n. 6 Tackling malnutrition

Leader spoke Università degli Studi di Pavia

Affiliati allo spoke

- Consiglio Nazionale delle Ricerche
- Università degli Studi di Bari Aldo Moro
- Università degli Studi di Napoli Federico II
- Università degli Studi di Milano-Bicocca
- Sapienza Università di Roma
- Istituto di Ricerche Farmacologiche Mario Negri

Spoke n. 7 Policy behavior and education

Leader spoke Alma Mater Studiorum Università di Bologna

Affiliati allo spoke

- Università degli Studi di Parma
- Università degli Studi di Pavia

- Università degli Studi di Milano-Bicocca
- Consiglio per la ricerca in agricoltura e l'analisi dell'economia agraria (CREA)
- Istituto di Ricerche Farmacologiche Mario Negri
- Barilla G. e R. Fratelli S.p.A.
- Bolton Food S.p.A.
- De' Longhi Appliances S.r.l.
- Cirfood Sc

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