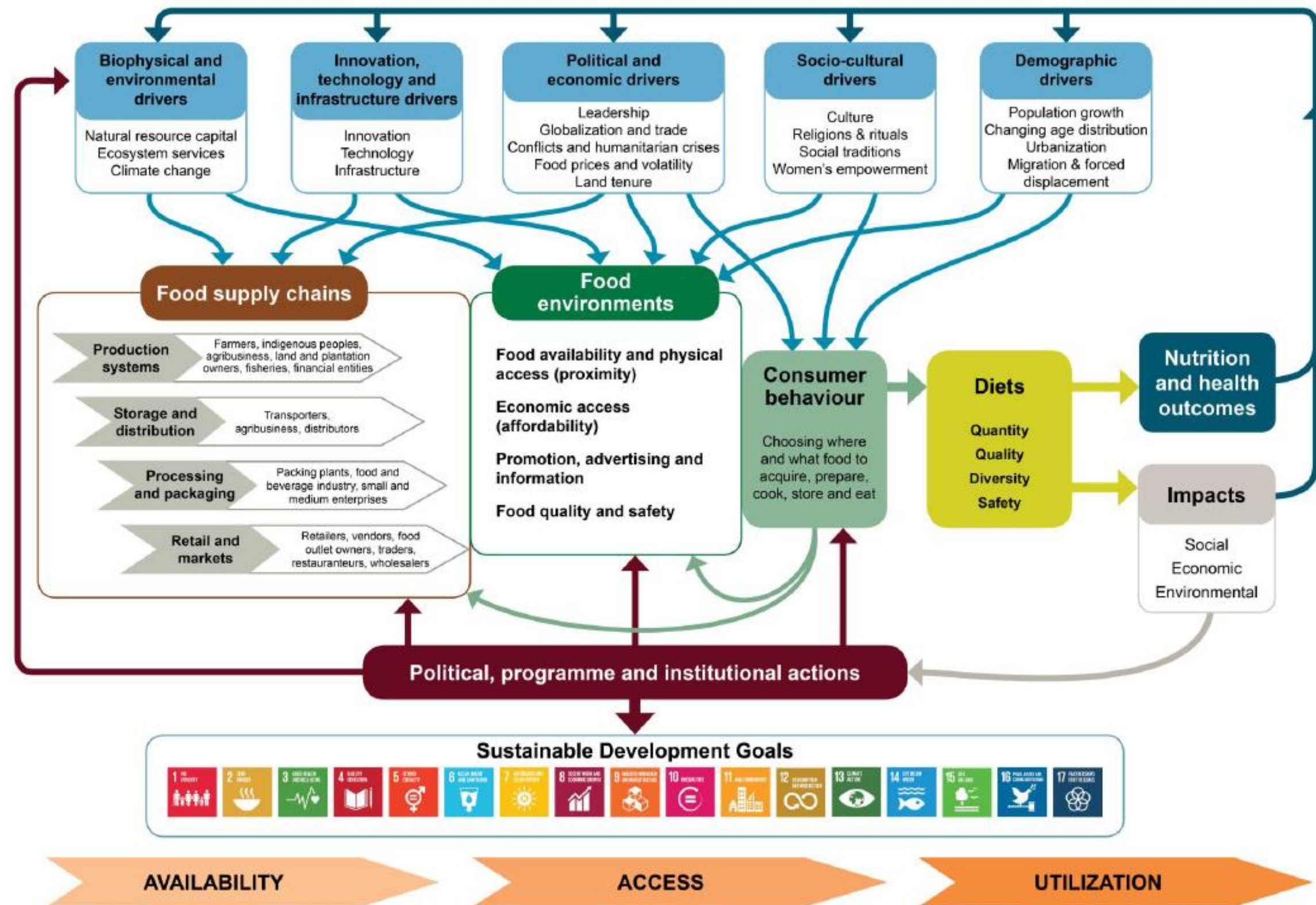# PARMA SUMMER SCHOOL

28 – 30 SEPTEMBER 2021, Parma

Introduction – "Food Safety Aspects of Integrated Food Systems"

Davide Menozzi – *University of Parma*

What are Food Systems?

The High Level Panel of Experts (HLPE) of the Committee on World Food Security defines food systems as "all the **elements** (environment, people, inputs, processes, infrastructures, institutions, etc.) and **activities** that relate to the production, processing, distribution, preparation and consumption of food, and the **outputs** of these activities, including socio-economic and environmental outcomes".
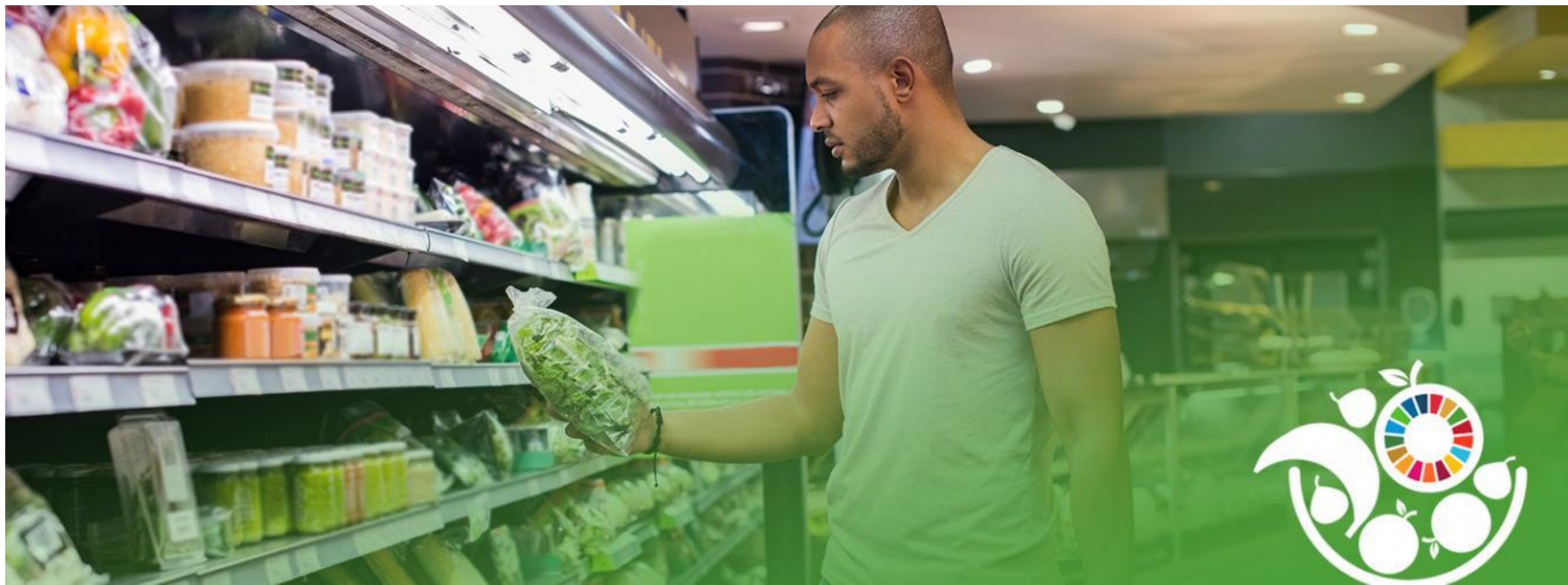
Why Food Systems?

Why Food Systems?

Moving towards **more sustainable** and **resilient food systems**: affordable, safe, healthy, nutritionally adequate, and ecologically-sound food

How
Food Systems?

Multiple challenges

Needs to take into account climate change, ecology, biodiversity, equity, access to food, etc.

Interdisciplinarity

Understanding of underlying factors and variables from different disciplines, combining trade-offs and balances (holistic and coordinated approach)

Tools to make decisions

Need to have new tools, for a greater understanding of the dynamics, management of big data

Food Safety Aspects of Integrated Food Systems

The relevance of the **food safety** issues, together with the **technological innovation** and the necessary adaptation of the **risk assessment procedures**, will be addressed in the frame of **food systems transformations**

Food Safety Aspects of Integrated Food Systems

Food systems are highly **heterogeneous** and **complex**, requiring **multi-scale governance** that integrates a wide range of actors and activities

Food Safety Aspects of Integrated Food Systems encompass …

Activities

all the activities and elements (people, environment, inputs, processes, institutions, etc.) related to the food production, processing, distribution, and consumption

Interactions

interactions and feedback between bio-physical, political and socio-economic drivers, and to understand the potential trade-offs and synergies between nutritional, socio-economic and environmental outcomes

Approach

a multi-disciplinarily and multi-stakeholder approaches, combining resources and expertise from different categories of stakeholders, might be able to that tackle the most wicked problems that cannot easily be solved by a single actor

Framing the **Parma** Summer School 2021: three perspectives

Demand-oriented perspective

Food consumption, altered **consumers' habits** and **modified behaviour**, consumers' **attitudes** and **risk perception** and their impact on food systems dynamics, the role of **food contexts** (physical and economic access to food, food promotion, advertising, public campaigns, etc.) in facilitating **nutritious**, **healthy** and **sustainable food choices**

Science-oriented perspective

Changes in the food systems driven by climate changes, population growth and new consumption trends, innovation and new technologies, can lead to the **emergency of new risks** and expose the citizens/consumers to **new hazards**. What innovation for accurate risk assessment? How these factors affect the availability of safe and nutritious food? How **food safety** and **food security** interact at a global scale?

System-oriented perspective

Governance issues affecting food safety, including **risk analysis** and management, large scale adjustments in **food systems relationships**, implications of food system transformation for social groups (e.g., women, small farmers, etc.), economic and social issues (e.g., GDP, welfare, social protection and democracy) **influencing food safety**.

Framing the **Parma** Summer School 2021: the Case studies

Demand-oriented perspective

Science-oriented perspective

System-oriented perspective

Case study 1: Biodiversity and Environmental Safety

This session will illustrate the need to further advance environmental risk assessment (ERA) approaches for regulated products to better protect the environment, as illustrated for pesticides and bees

28ᵗʰ September

Case study 2: Chemical Mixtures

This session will deal with the human health risk assessment of chemical mixtures, which are a major issue for the assessment of chemical hazards in real-life scenarios

29ᵗʰ September

Case study 3: Novel Food and Technologies

This session will address some of the technical, social and regulatory challenges in novel food technologies, including synthetic biology, focusing on societal and market acceptance of related products

30ᵗʰ September

Learn and try

Activities

The **morning sessions** will provide the more recent advancements of the case studies, from the three perspectives: science-, demand-, and systems-oriented. Scientists and experts have been invited to provide participants with different views.

During the **afternoon sessions** a limited number of participants will have the chance to meet experts in the fields for sharing their own experiences, projects, studies, etc.

PARMA
SUMMER SCHOOL
28 – 30 SEPTEMBER 2021, Parma

Food Safety Aspects of Integrated Food Systems

Thank you for attending the 2021 Parma Summer School!

Davide Menozzi
davide.menozzi@unipr.it