

# Food, Nutrition and Health Research Infrastructure - Supporting research on the diet of the future -

Karin Zimmermann

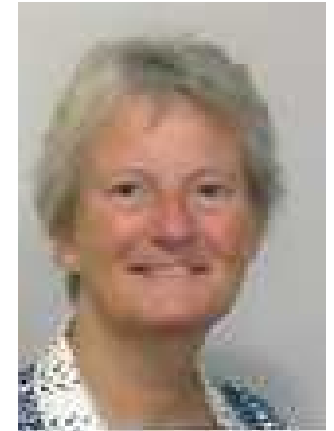
World Food Summit - Better Food for More People; Theme Food Safety  
Denmark, Copenhagen, 2018 31<sup>st</sup> of August



# Biography:

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- Karin Zimmermann, BSc [karin.zimmermann@wur.nl](mailto:karin.zimmermann@wur.nl)
- WUR, Wageningen Economic Research,
- Division Consumer and Chains
- Research leader Research Infrastructure Food & Health at WUR
- Vice-chair of the EMB board of European Food, Nutrition and Health Research Infrastructure
- Member of the FNH-RI Dutch national node DISH.nl
- Research interests: marketing, consumer driven product development, innovation
- RM - European expert in marketing



# Content

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## Scientific Domain

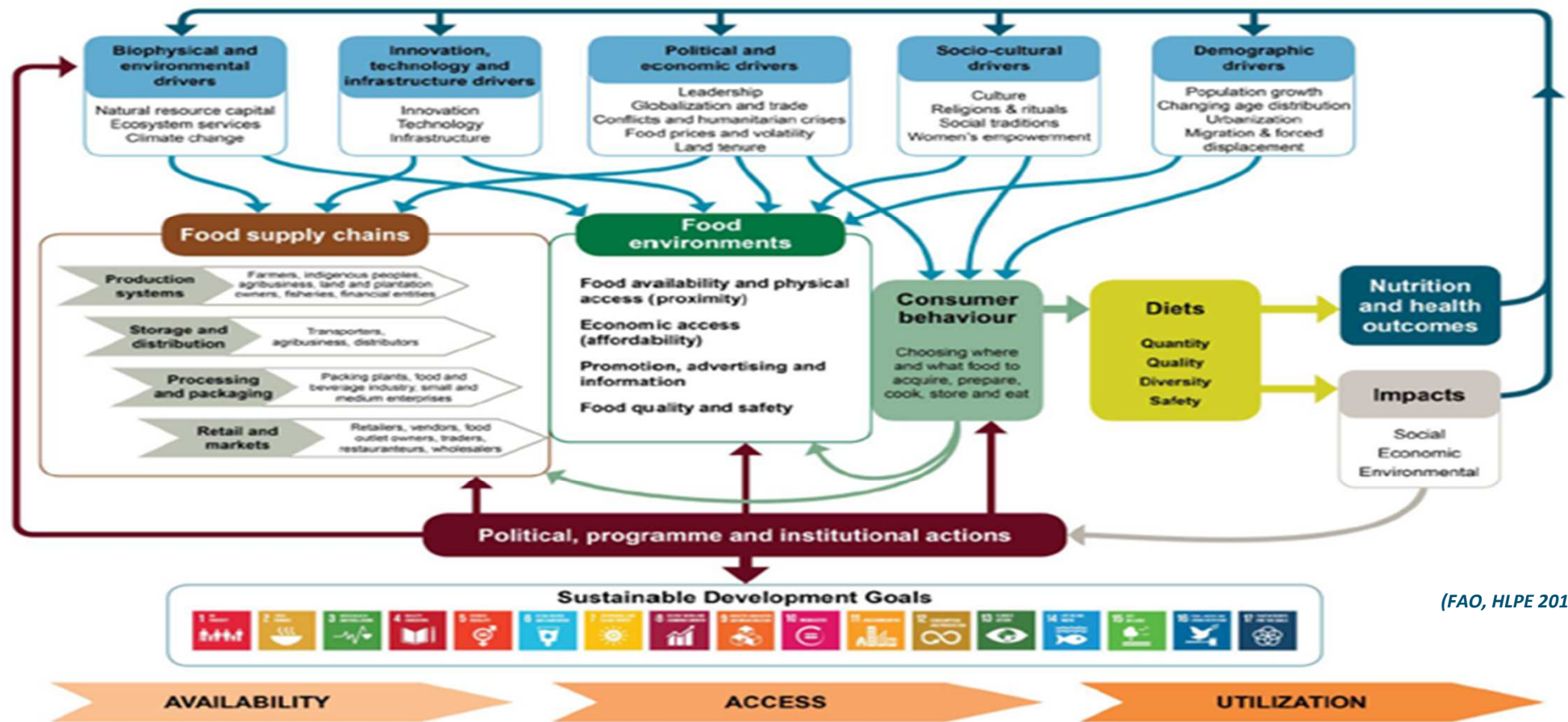
- underpin the design of the future diet for consumer's well being and healthy planet
- consumer as linking pin between food system and health system
- enabling new research paradigms based on big data

## Food, Nutrition and Health Research Infrastructure

- enables and serve researchers to develop top level research
- overcomes fragmentation to collate, connect and share innovative and existing research data, tools and labs & experimental facilities
- explain FNH-RI architecture and next steps

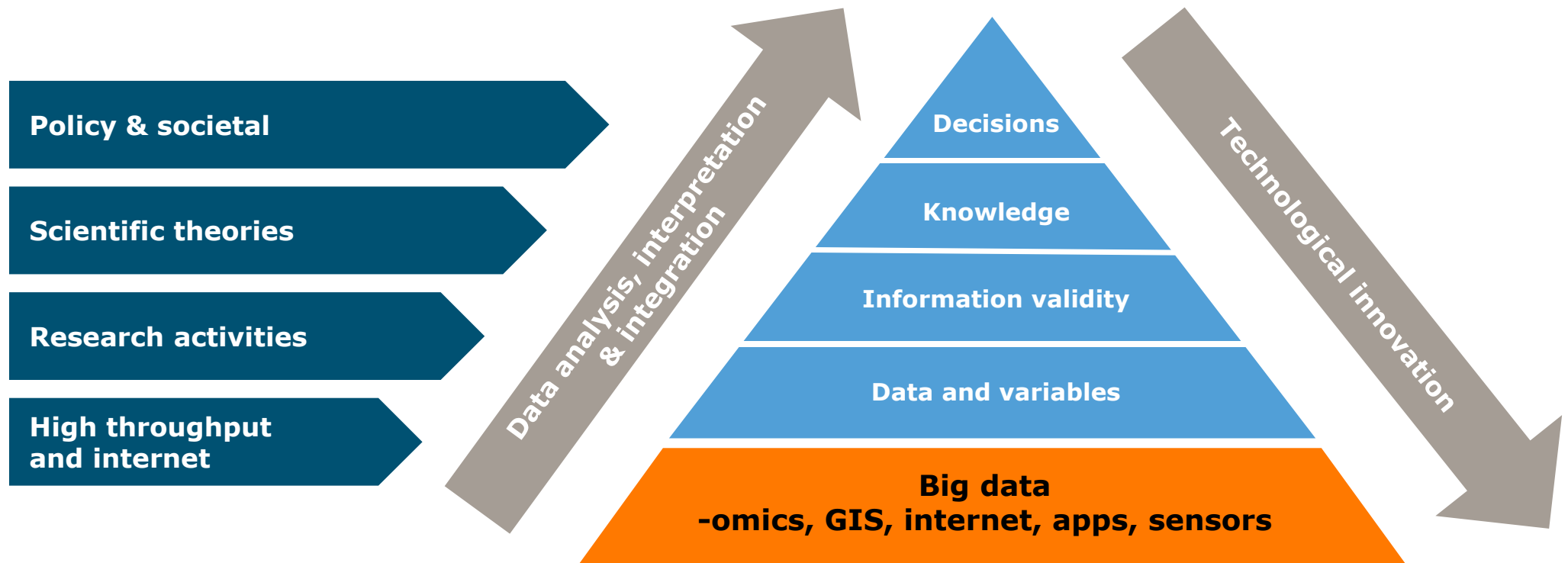
# Conceptual framework of food systems for diets and nutrition

Figure 1 Conceptual framework of food systems for diets and nutrition

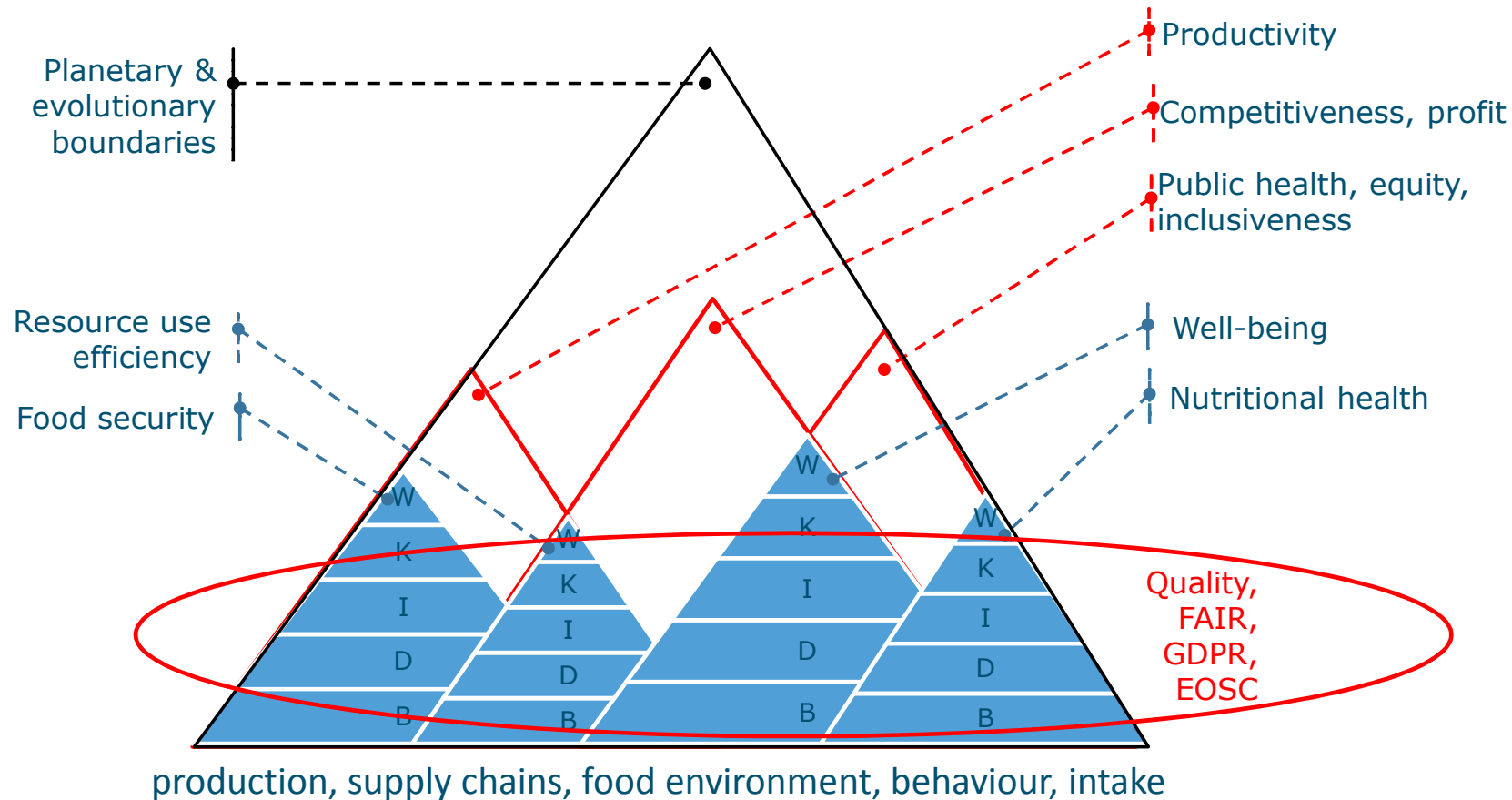


(FAO, HLPE 2017)

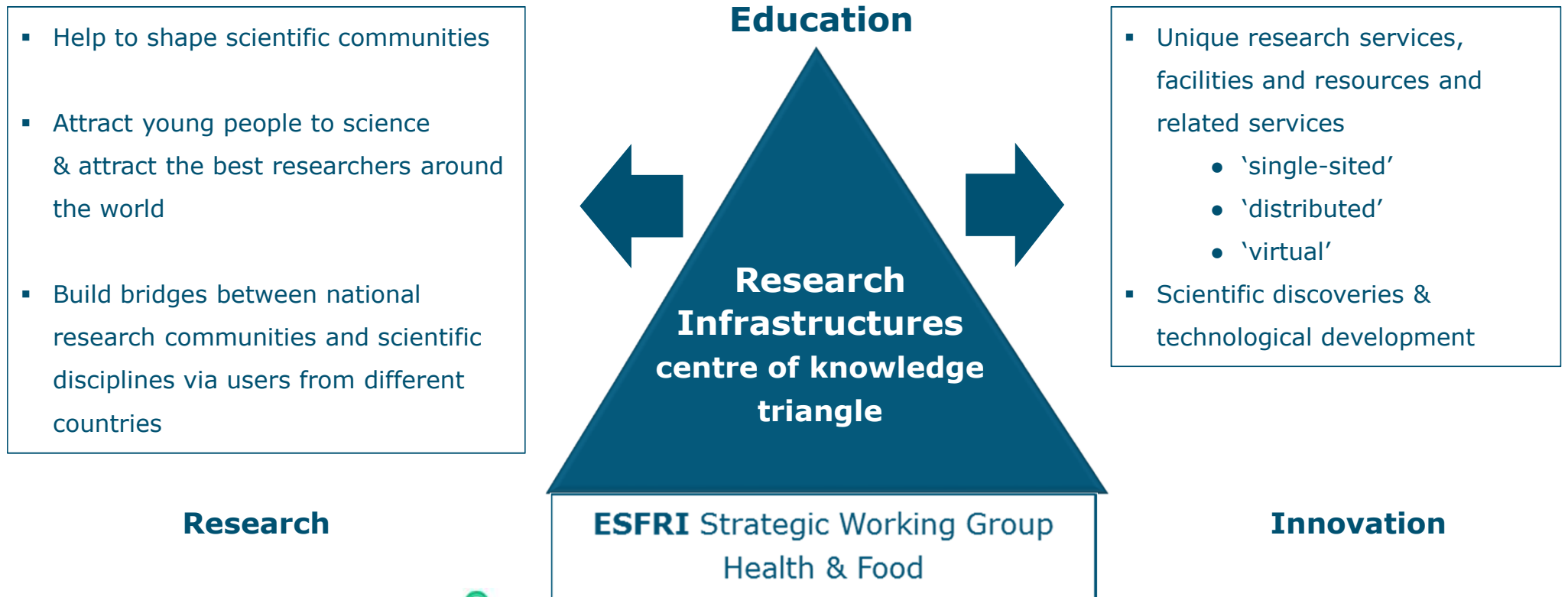
# Scientific trends: BIG data & data integration



# Need food systems science: Best solutions for subdomains lead to underperformance of system at large



# RIs: enabling response to scientific & societal challenges





# Food, Nutrition and Health RI

- To enable **top-level research**, breakthroughs and innovations that promote personal, public and planetary health, in innovative and inclusive communities.
- To serve the pan-European research community **to overcome fragmentation** to collate, connect and share innovative and existing research data, tools and labs & experimental facilities.



underpins the design of the  
diet of the future



# FNH-RI Architecture

## FNH-RI Services:

Integrating of existing data bases, Graphical interface development, Data sharing, Tools, Models, Dissemination, Training and Education

## Food, Nutrition & Health Linked Data Platform

Ontology

Semantic modelling

Meta data

FAIR

Protocols and metrics

Software and tool development

Standards

Harmonisation

Thesaurus

Protocols

Data collection

### Labs and facilities

### Databases

### FNH Consumer Data Platform

#### Experimental labs

#### Facilities

#### Food data

#### Adjacent RI's

#### Platforms

RICHFIELDS Research app for data on food- related behaviour of consumers and intake



- Virtual buffets
- Restaurants of the future
- Virtual supermarkets
- Scape lab
- Mood rooms

- Sensory labs
- MRI scan

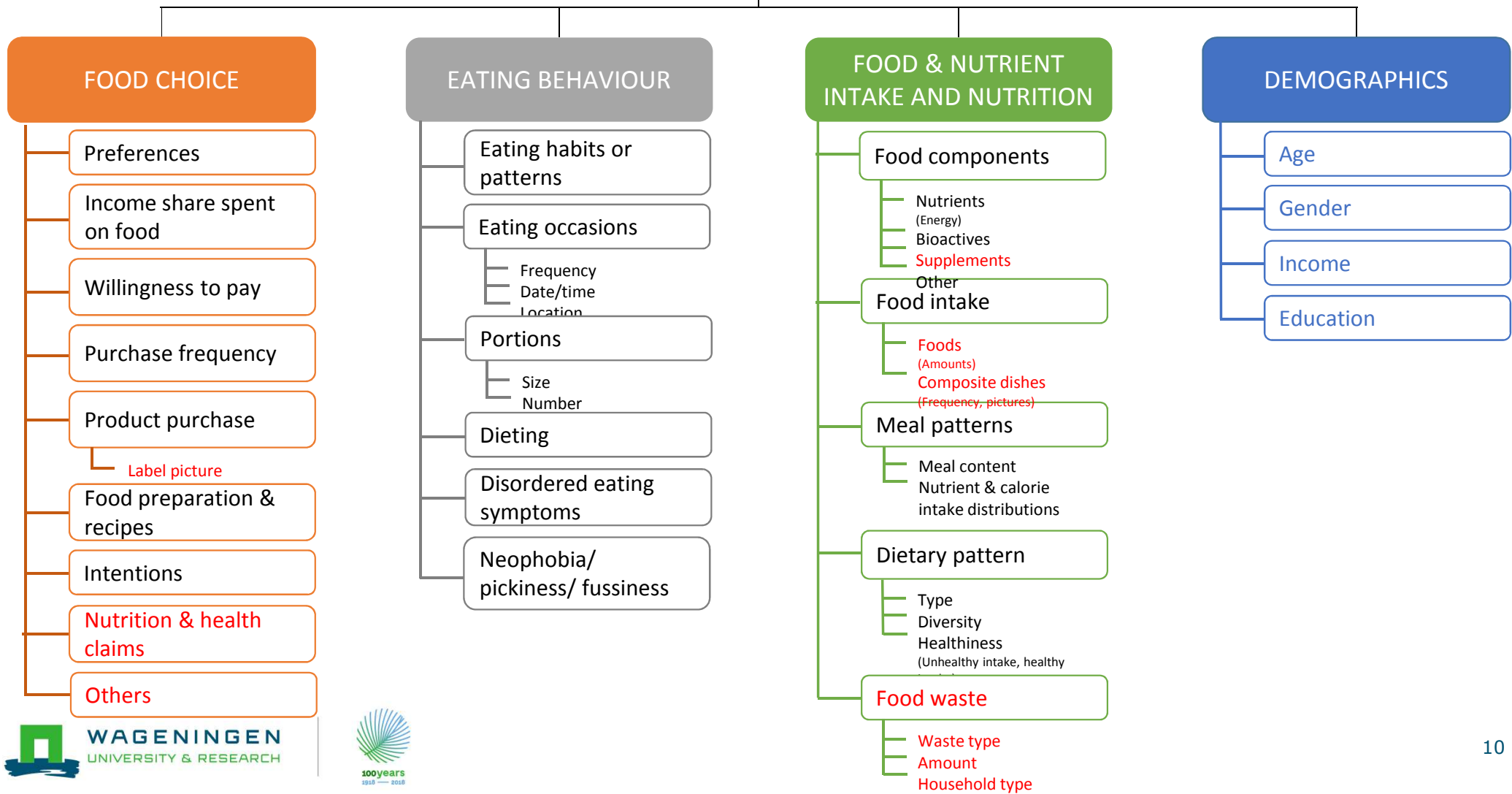
- Purchase
- Preparation
- Dietary intake
- Composition
- LCA

- ELIXIR
- ECRIN
- BBMRI
- METROFOOD

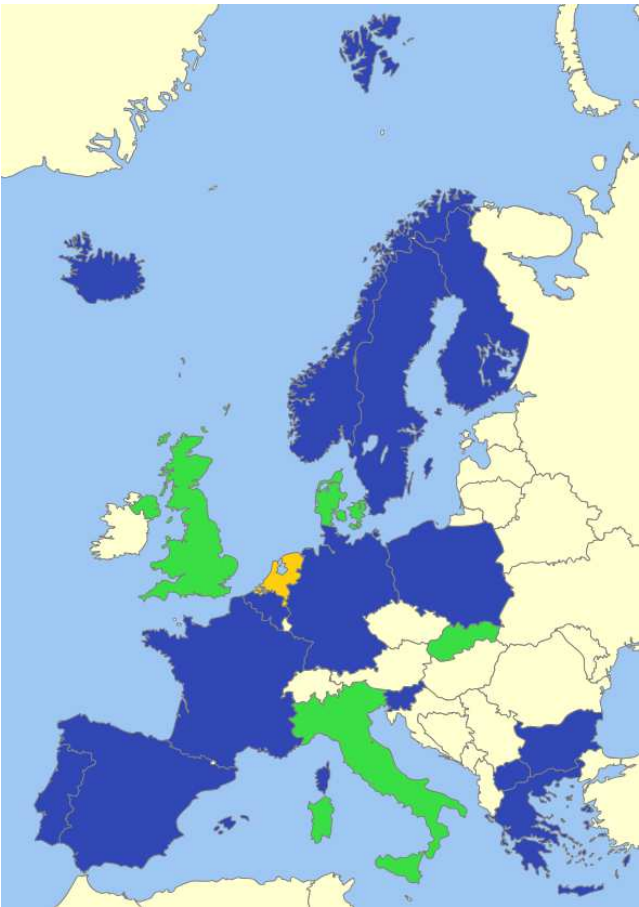
- EUROFIR
- Quisper



- FFQ
- FCMQ
- 24 hour recall

# DETERMINANTS OF EATING AND NUTRITION



# FNH-RI Consortium



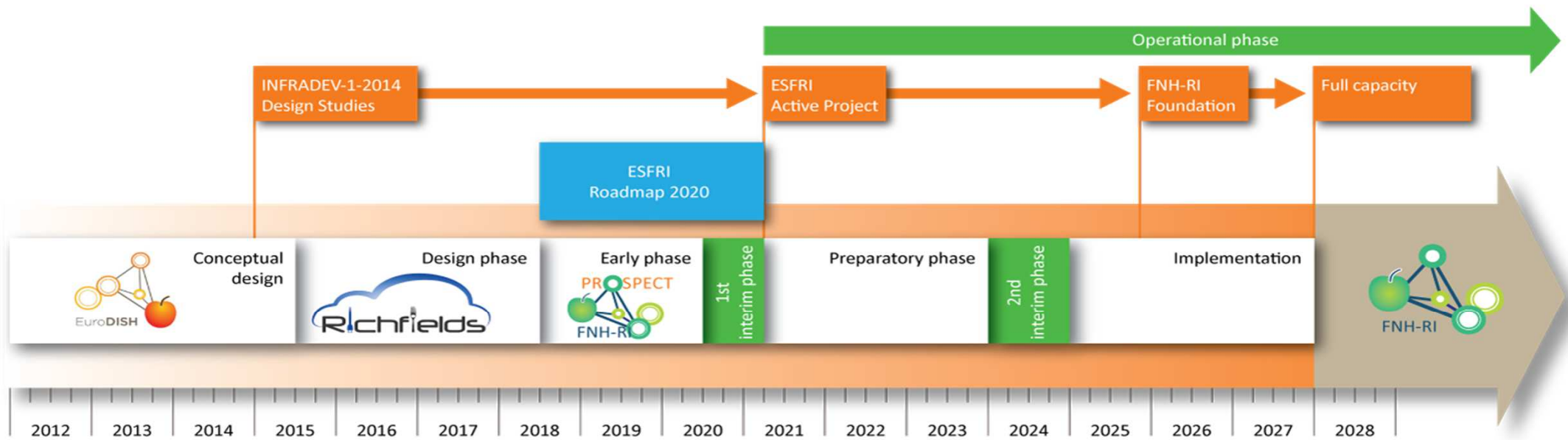
-  Lead country
-  Prospected countries
-  Participants

“Nearest Neighbours”:  
Adjacent and emerging RIs

Network of experts  
& Knowledge hub

# Time line

Time line of the Food, Nutrition and Health RI



On behalf of all partners of the FNH-RI consortium and the partners of EuroDISH and RICHFIELDS

**THANK YOU FOR YOUR ATTENTION**



FNH-RI will underpin the design of the diet of the future