

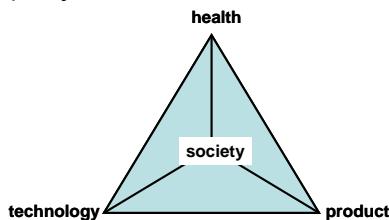
Wageningen UR research portfolio on Food & Nutrition

Scope

Increasing affluence in many societies worldwide has led to a significant increase in life expectancy and quality of life in general. However, several diseases that are related to modern life style are on the rise. In particular an unbalanced caloric intake and energy expenditure but also nutritionally unbalanced food consumption patterns are a risk to public health.

The challenges are (1) to increase the understanding of causal relations between food intake and occurrence of disease and (2) to increase public awareness aimed at qualitatively improving their nutritional intake.

Wageningen University and Research Centre has a comprehensive portfolio of research and development to contribute to both challenges and thereby increasing the quality of life of citizens worldwide.



The overall research portfolio is derived from the interrelationships between food products, (life sciences & production) technology, human health and societal context. It has a yearly turnover of some 50 M€ at the university and contract research institutes that are part of Wageningen UR.

Wageningen UR is proud participant in institutes and networks such as Food Valley, TIFN and European Technology Platforms, which enables us to seek partners from ngo's, government, business and science for optimal use of knowledge, competencies and facilities.



Research topics

The following list of topics is indicative of the scope of the R&D portfolio. These topics are studied in depth using highly skilled and motivated personnel and modern facilities.

Human nutritional sciences

- molecular level: cell systems
- individual level: controlled dietary interventions
- population level: observational studies

Ingredient functionality

- biomarkers identification and validation
- ingredient sourcing and characterisation
- molecular farming
- novel ingredients, e.g. from algae and fungi

Design of healthy foods

- plant foods: cultivar selection and breeding
- animal foods: high quality and healthy dairy and meat through breeding and feeding
- new food processing technologies with minimal impact on health attributes

Methodologies

- genomics toolbox (nutri-, toxicological, metabolomics)
- animal disease models, e.g. pigs
- quality modelling tools, e.g. QACCP

Consumer behaviour

- descriptive, sociological research
- observational research, e.g. sensory profiling, behavioural observations
- impact of environmental factors on human health, e.g. city parks, green corridors