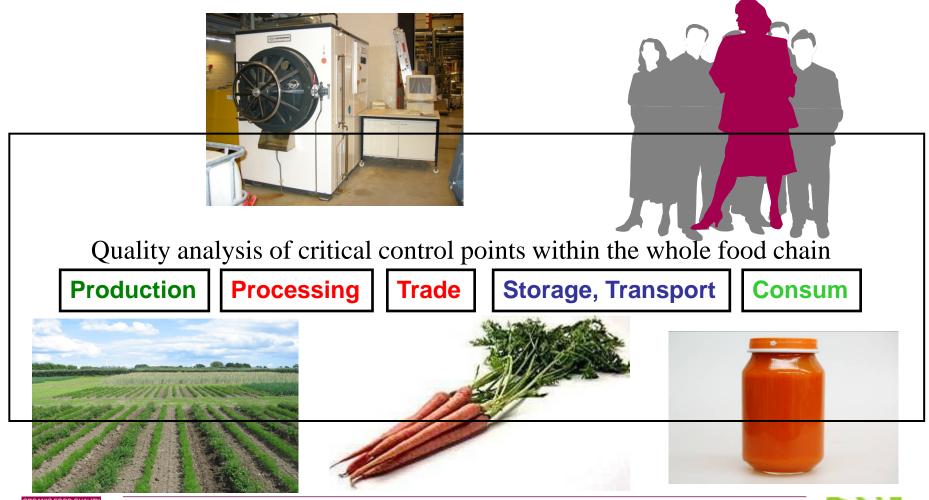


Quality analysis of critical control points within the whole food chain and their impact on food quality, safety and health (QACCP)

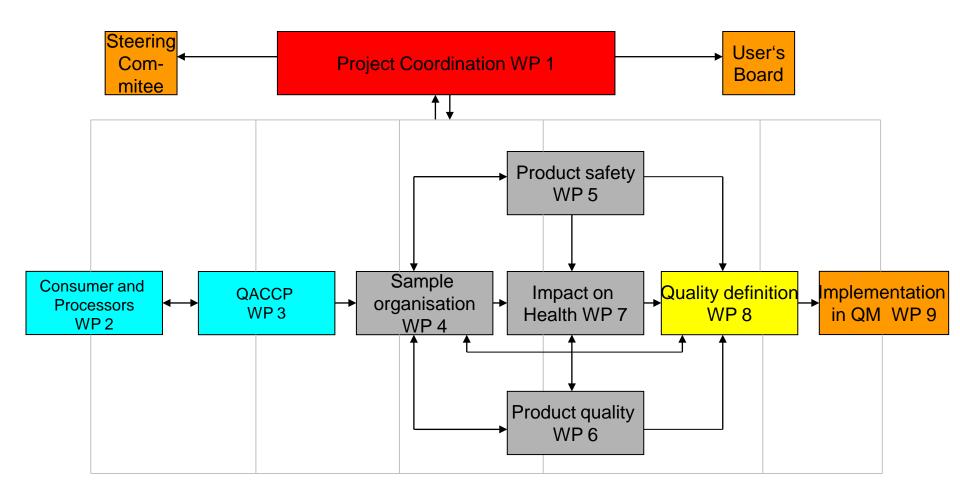






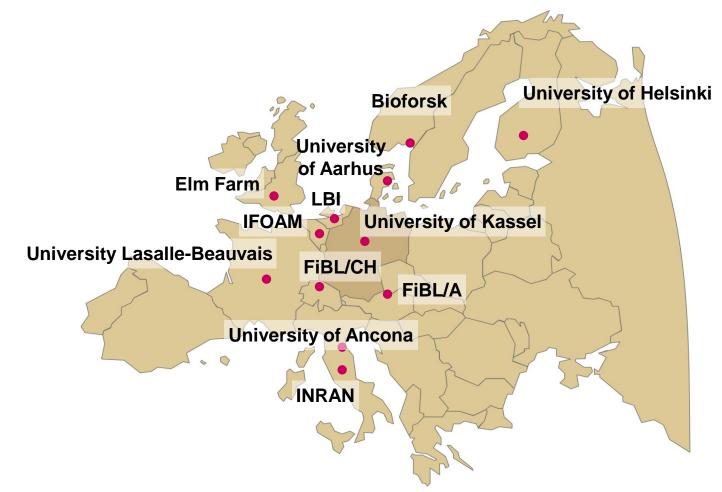






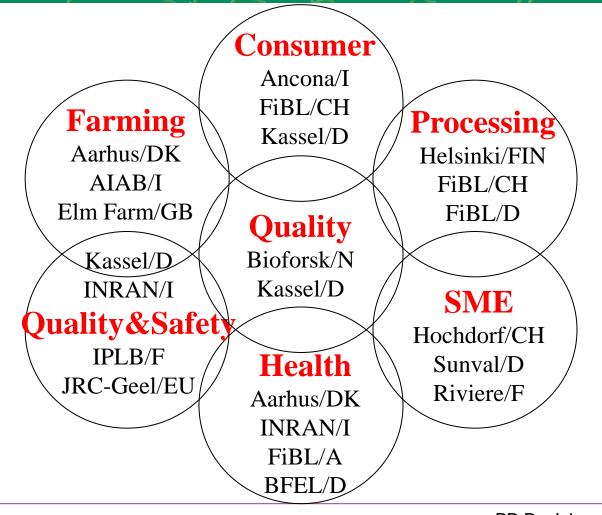












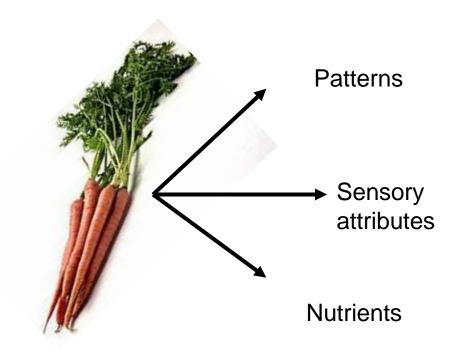


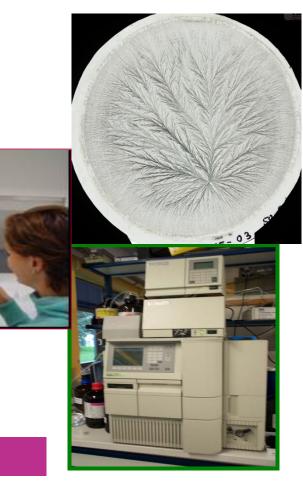


This figure illustrate the critical steps where quality could be changed during production of a baby food puree product made of organic carrots. Variety Soil type Fertilisation Watering regime Field production Temperature Wind Mechanical stress Hail damage Insect attach Temperature Humidity Storage of Oxygen level fresh carrots Ethylene exposure Pathogen infections Washing and grading Fresh Raw material carrots Cutting Critical factors in the Processed (frozen) carrots oduction chain: Heat treatment Mash treatment Organic carrot puree for baby food Processing Sugar, salt, fat Additives Process remedies Pasteurisation Packaging Technological concerns Other limiting factors Economical concerns Temperature Storage of canned Light exposure products Time Serving temperature Heating Microwave **Heating method** Water bath Home Prior to opening treatment Storage After opening After heating Project no. 2006-1885, Quality analysis of critical control points within the whole food chain and their impact on food guality, safety and health (QACCP)





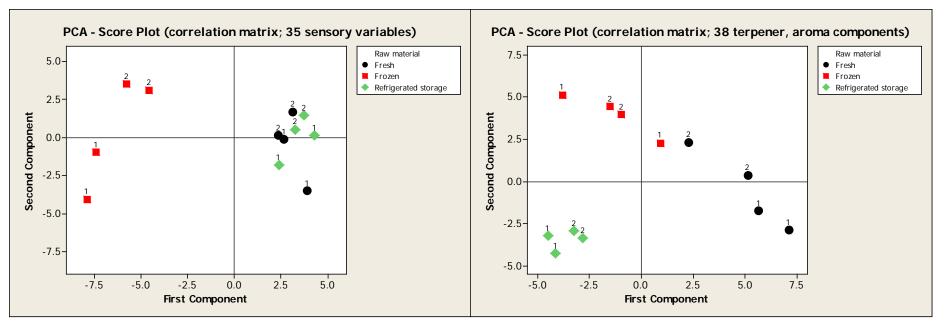




Food as the fundamental unit













QACCP identified raw material treatment as critical factor

Freezing the raw material decreases the quality of the final product (carrot baby food)

Using fresh material meets consumers + processors expectations more natural, more low-input, higher quality

Consumers are willing to pay more for the fresh





Take home messages

1. Food authentication: from single compound to patterns (from profiles, fingerprints, spectra, pictures)

2. QACCP is essential to identify key factors for quality improvement and to sustain the market growth

3. Quality evaluation needs a multi-criteria approach (e.g. sensory, nutrition, safety etc.)





End users and countries

Organic processors, retailers, label organizations

Reached by

31 publicationsBiofach workshopDirect communication

In all participating countries (10 by translations into the different languages)





New research question

80% of the food is processed!

EU-Reg. 834/2007: Careful processing methods should be applied

But there is no definition nor detailled regulation in order to select technologies

Careful processing: Code of Practice Evaluation of technologies regarding careful processing



