



**Collaborative projects from a
SME perspective: A call for
the development of fresh
functional foods with an
integrated approach**

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Introduction (background)

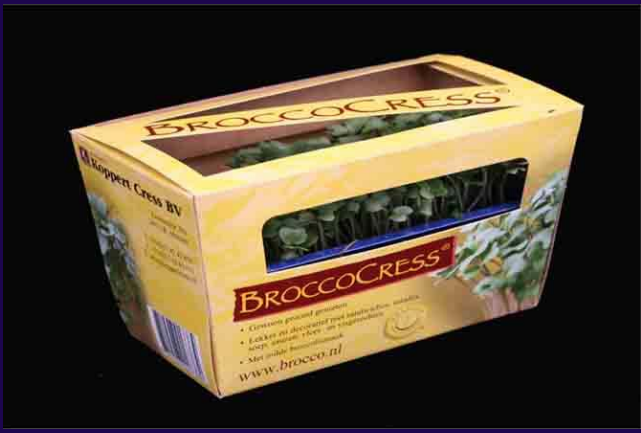
- Active in the field of breeding and commercialization of (micro)vegetables, potatoes and fruit (VPF)
- Focus on the R&D of functional and preventive VPF with health claims
- Functional fresh produce has increased attention of consumers but marketing and promotion of VPF is still in a general way (e.g. 5 a day campaign)
- Functional VPF based on hard health claims is hardly, if not, available in the market today

Example: Biochemistry of healthy components in sprouts and cresses

- Brassica: glucosinolates



Mustard cress



Brocco cress in box



Brocco cress



Rucola cress



Daikon cress



Interesting facts

- The content of health promoting phytochemicals varies highly over species and varieties of the same species as function of genetic design and environmental circumstances during production and post-harvest conditions
- Specific varieties of specific crops/species can contain very high levels of functional components, others nothing at all
- Conclusion: Varieties or cultivars can be differentiated for their content of functional components
- Specific varieties of VPF are very effective carriers for functional components: **BEST FRESH FUNCTIONAL FOODS**
- Functional components include: specific carotenoids, glucosinolates, terpenoids, flavonoids, anthocyanins etc.



Best Fresh Functional Foods

- **Goal:**
 - Create certified fresh food products with functional applications to improve the health of its consumers
- **Scope:**
 - Europe and interested partners outside EC
 - Medium and small sized companies in the food and agro sector
 - SME's with rather small R&D budgets relative to the high costs of 'health claim' R&D



Optimal collaborative design for BF3; join forces....

- **Knowledge fields**

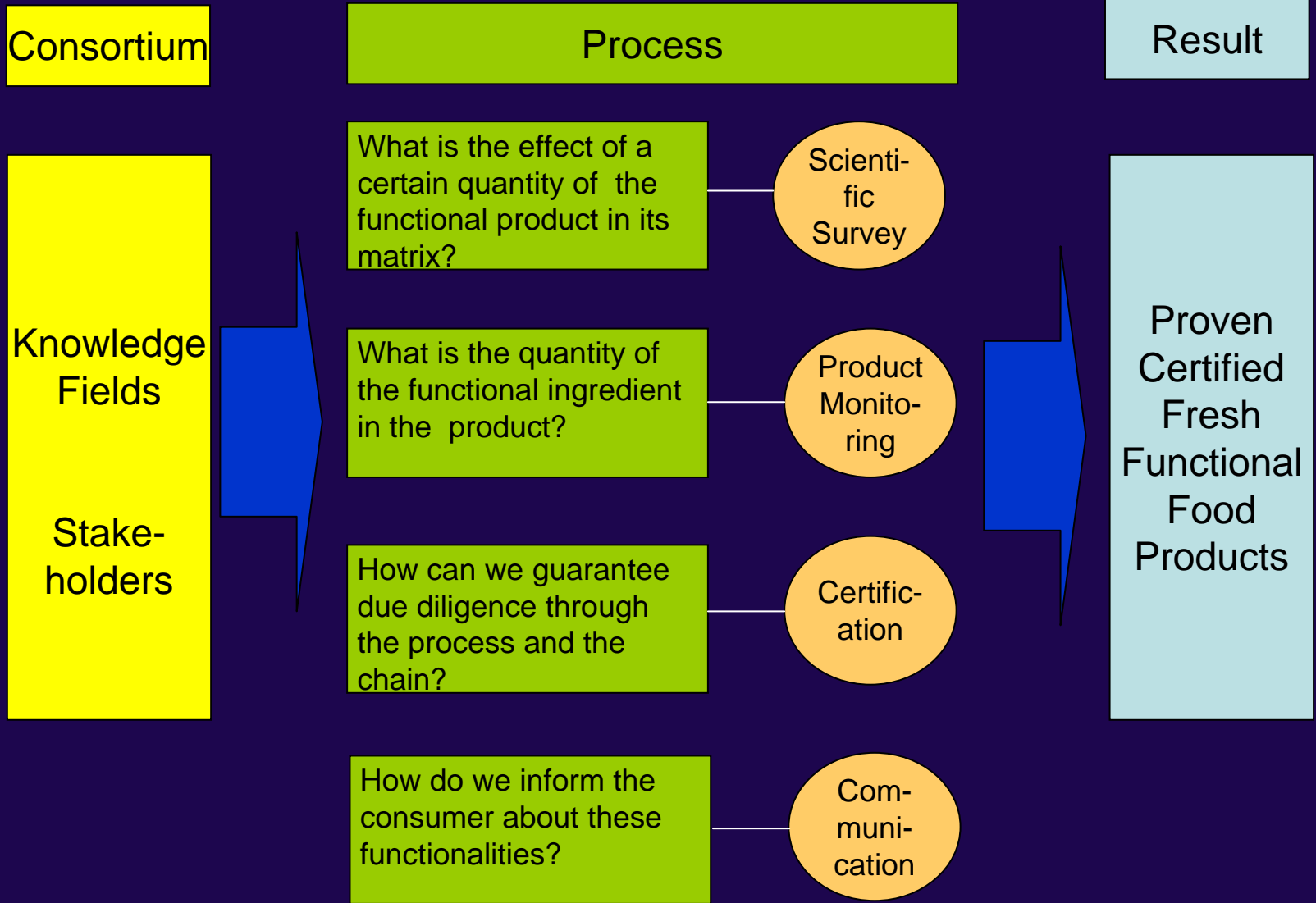
- Medicines
- Nutrition Science
- Phytochemistry
- Biochemistry
- Agro and Crop Science
- Postharvest Physiology
- Food Technology
- Marketing and Communication
- Food Legislation

- **Stakeholders**

- Growers
- Breeding Companies
- Producers
- Retail, Catering and Hotels
- Governments
- Universities
- Laboratories
- Sports and Health Organisations
- Hospitals
- Assurance Companies
- Consumers



Process Model





Best practices/requirements for Health Claims

- Health claim development in line with new EC (or FDA, FOSHU....) regulations: a must
- Health claim development is a challenging role for Universities and Research Organizations??
- Development of functional and preventive VPF is a challenging role for breeding companies and dedicated departments in Universities, Institutes and Research Organizations??
- Integrated approach of all business chain members: contribution based on expertise and specialisms



Proposed process

- Scientific survey: health claim development
 - Effect of nutritional matrices on human mechanisms
 - Use of labelled produce and components
- Product monitoring: quality control
 - Conducted by accredited laboratories according to set product specifications
- Certification: quality control
 - Due diligence by certification of accredited certification bodies
 - Quality standard based on ISO guide 62 & 65
- Communication: promotion and education
 - Databases on internet available for consumer and industry
 - Certification label on the products



Aim/result

Proven certified fresh functional food products

Benefits

- More added value for the agro industry
- More fresh functional products available for health promotion for consumers and the society
- First step towards decrease of corrective health costs



**Thanks for your
attention**

Questions???