




**HighTech Europe –**  
**First European Network of**  
**Excellence for integrating novel**  
**technologies for food**  
**processing**


**Dr. Kerstin Lienemann**

The first European food processing Network of Excellence



**General Overview**

**Acronym:** HighTech Europe  
**Project Full Title:** European Network for integrating novel technologies for food processing  
**Funding Scheme:** FP7  
**Instrument:** Network of Excellence  
**Partners Involved:** 22 from 10 countries incl. Australia  
**Funding:** 5,87 mio €  
**Kick off:** August 2009  
**Duration:** 4 years  
**Coordinator:** DIL - German Institute of Food Technology  
Germany



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## Background



- Changing society
  - Increase of single households
  - Lifestyle-related diseases
  - Ageing population
- More than 80 % of European food business are family driven (SME and Micro SME)
- Nearly 1/3 of European patents are not used (sleeping/ blocking)
- Knowledge transfer chains are mainly national

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## Overall Aim



- **Identify potential innovations** to be use by SMEs
- Achieve a **long-lasting integration of the European R&D activities** into high-tech food processing
- **Taking away barriers** for the transfer of knowledge to real innovation



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## General Objectives



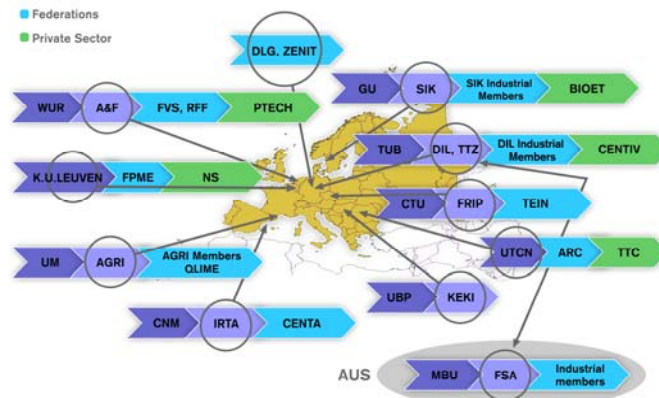
- Set up a network in food processing across Europe among leading universities and R&D centres
- Create and strengthen links to European food processing industry (in particular SME)
- Frame and develop an efficient and transparent technology selection, evaluation and implementation process
- Ensure permanent co-operation between industry, federations and knowledge centres in Europe
- Establish an European Institute for Food Processing (EU-IFP)

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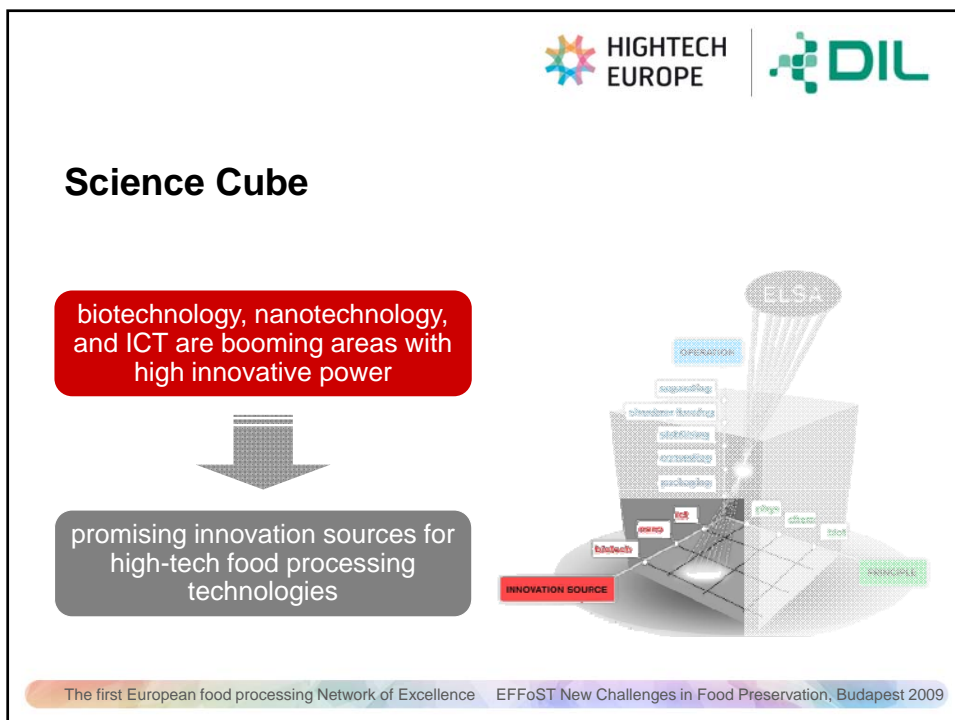
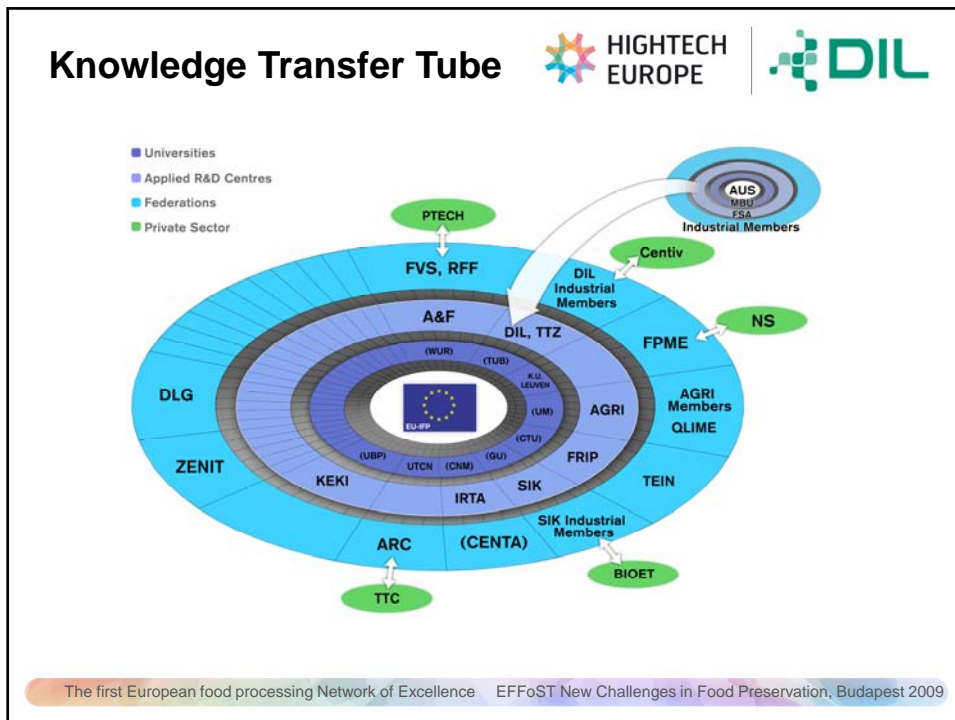
## Knowledge Transfer Chains





- Universities
- Applied R&D Centres
- Federations
- Private Sector



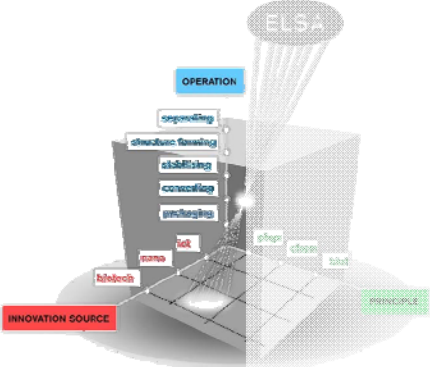
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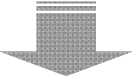


## Science Cube



biotechnology, nanotechnology,  
and ICT are innovation sources  
for high-tech food processing





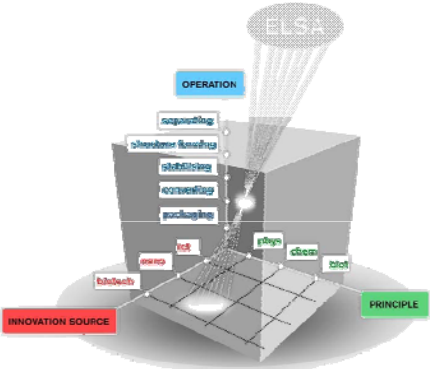
identification of operations  
benefiting from replacing  
traditional processing means  
by advanced technologies

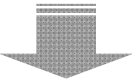
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## Science Cube

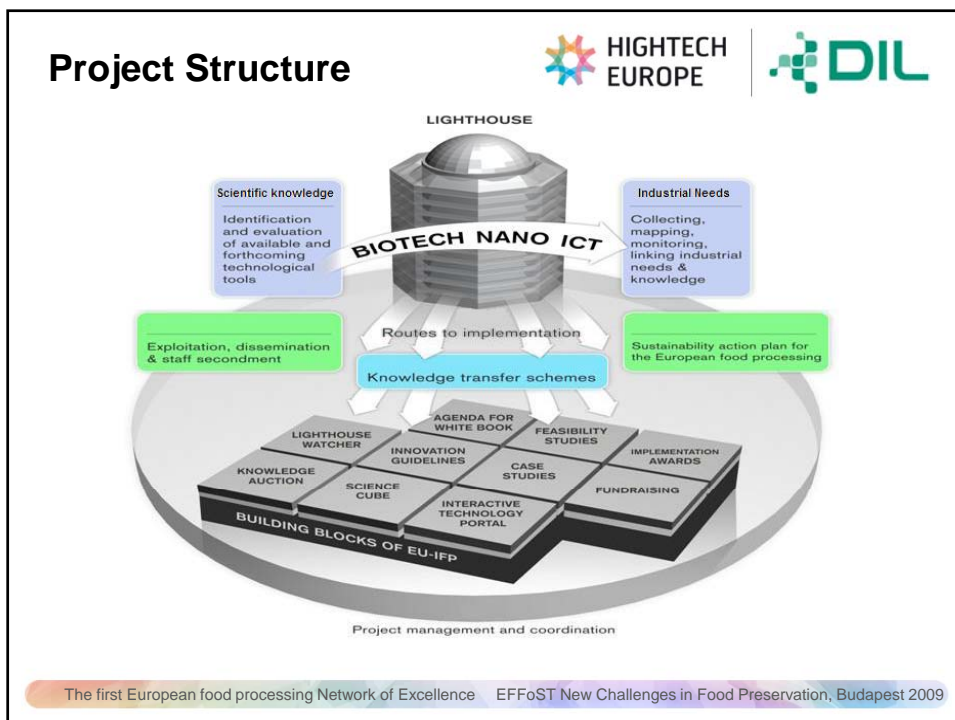
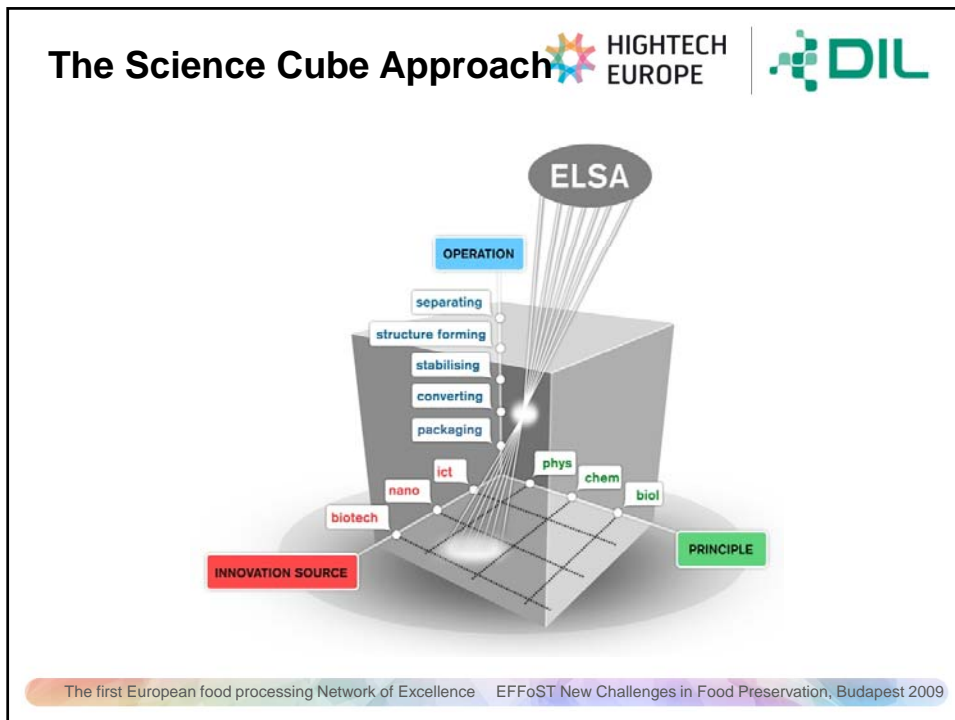
targeted advances in technologies



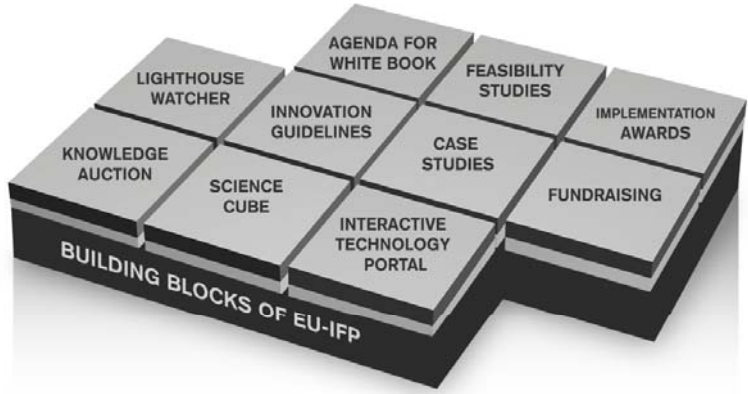



identification of underlying  
principles (commonly applied or  
recently discovered)

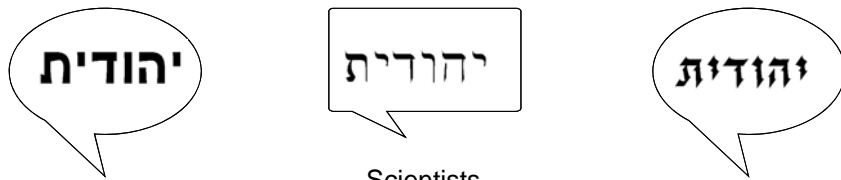
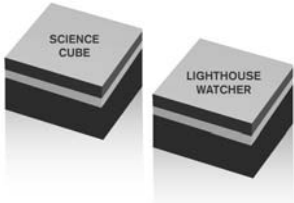

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## Building Blocks EU-IFP



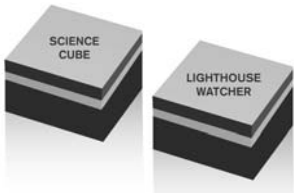

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Consumer      Scientists      Industry

Problem: They are all speaking different languages!

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**Data to be handled**

**Scientific knowledge**

**Areas**

- Biotechnology
- Nanotechnology
- Information & communication technology

**Source**

- Results (publications, reports, etc.)
- Patents
- Other (e.g. other findings, subjects of projects)

**Industrial needs**


**Areas**

- Food processing
- Food production

**Source**

- Questionnaires
- Interviews
- Literature reviews

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**Example of a problem**

**Scientific knowledge**

*Nanotechnology*

- encapsulation
- biochemical agent (protein)
- protection
- protein therapeutics

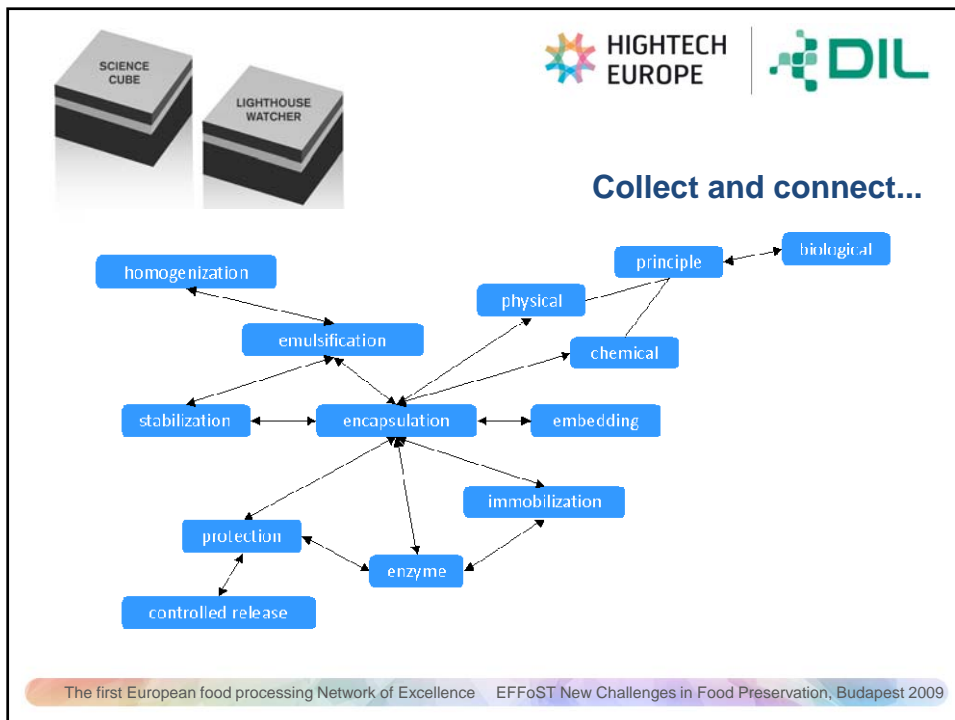
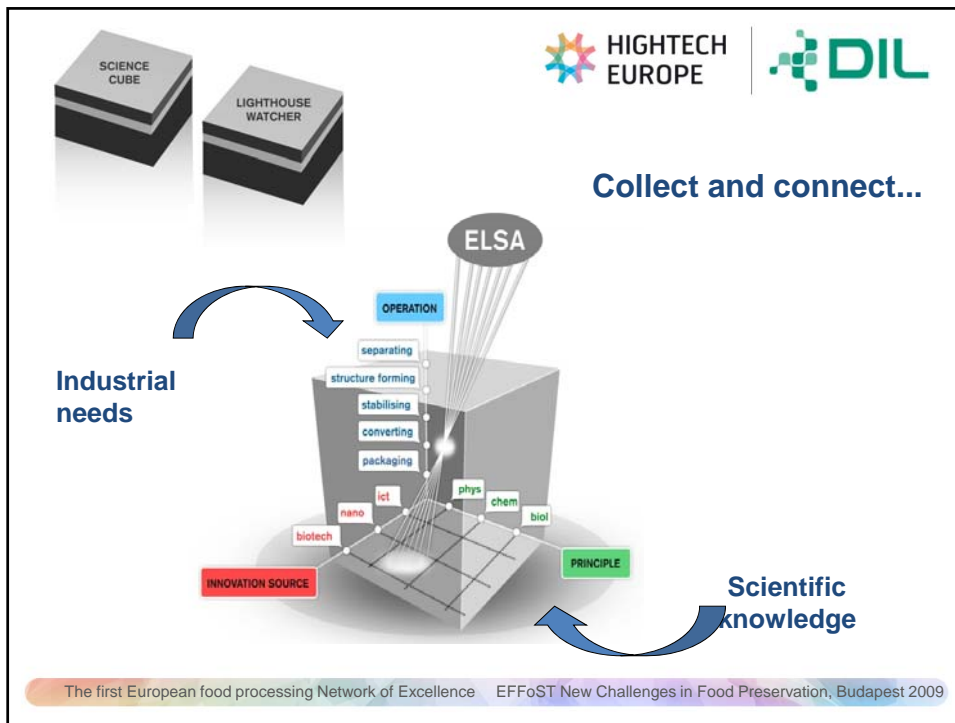
**Industrial needs**

*Beverage producer*

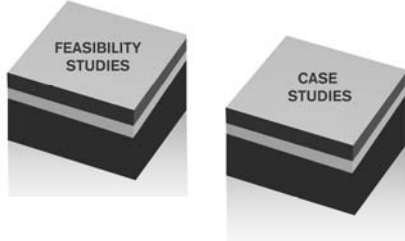
- development of a functional food
- instability of a vitamin
- **need:** stabilization without affecting its bioavailability

**no simple matching based on terms possible**

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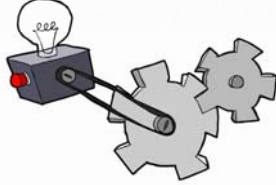
FEASIBILITY STUDIES

CASE STUDIES



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Identified knowledge and technologies will be investigated with respect to their potential applicability and shown to the industry



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IMPLEMENTATION AWARDS



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**The European Food Processing Award**  
Honours innovations from basic science to implementation

Awarded every two years



Excellent  
 Very good  
 Good  
 Average  
 Poor

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Knowledge providers will demonstrate their innovative findings.

Afterwards a broad audience will be allowed to make bids to enter into initial negotiations over I.P. rights.



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Content: Key issues in the high-tech food area

Provides: well balanced information about pros and cons of high tech food methodologies

For: Politicians, captains of industry, science managers...

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**Partners**

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Further information:  
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