



**EFCE Forum**  
**Berlin, 25 September 2011**



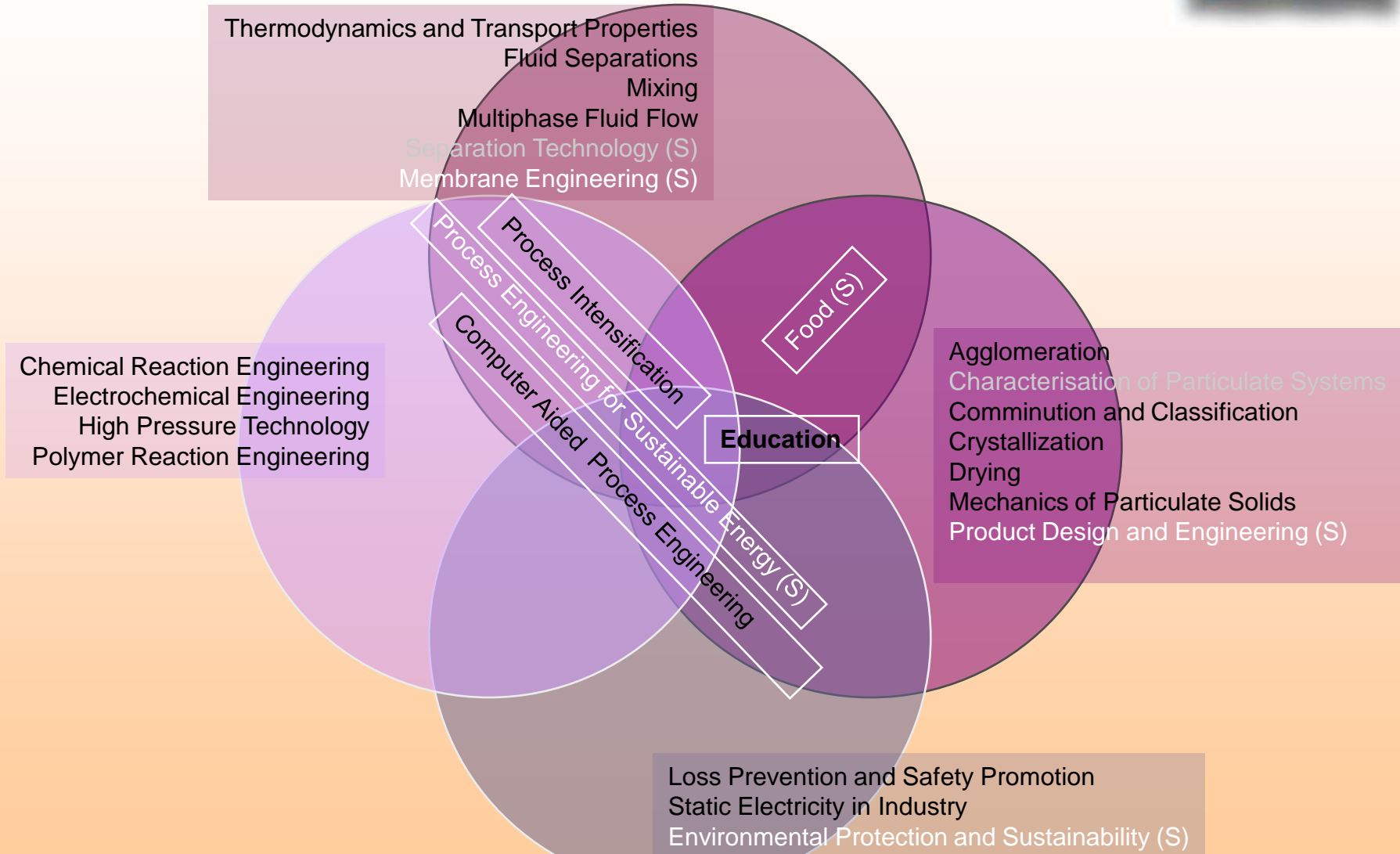
# **Scientific Challenges for EFCE**

**Dr. Hermann J. Feise**

**BASF SE**  
**GC / Chemical & Process Engineering TT**  
**Carl-Bosch-Strasse 38**  
**67056 Ludwigshafen**



# EFCE – Working Parties and Sections





# What does Chemical Engineering cover?

- **Old vs. New Fields of Science**

- Unit Operations, Transport Phenomena (Thermodynamics, Fluid Separations, Drying ...)
- Industry Sectors (Food, Polymer Reaction Technology ...)
- Outreach (CAPE, Loss Prevention, Education ...)
- Engineering Occupations (Product Design)
- Megatrends (Energy)

- Engineering Occupations (Bioprocess Engineering)
- Megatrends (Water, Noise)

## Megatrends

Energy  
Efficiency

Construction  
and Housing

Health and  
Food

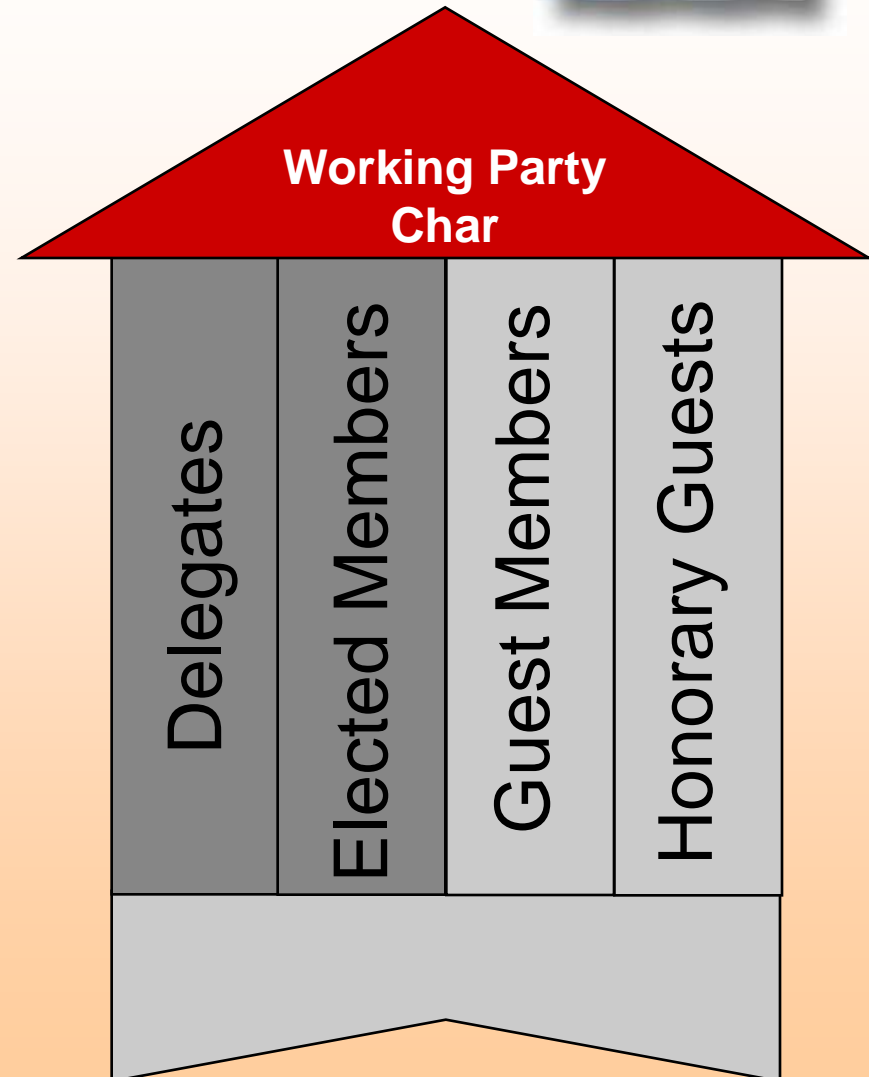
Mobility and  
Communication

Demographic  
Change



## Membership in Working Parties and Sections

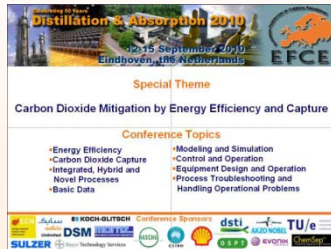
- **Small Working Parties** without critical mass (12 people)
- **Cumbersome delegation procedure**
- **New membership structure** (delegate, elected, guest, honorary); **General Assembly 2009**; slowly implemented
- **Sections with little outreach**
  - Online membership forms (professionals)
  - Section flyers
- **We rely on the leadership of the Working Party and Section chairs**



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# EFCE Scientific Activities

- **Conferences**



- **Standards**

- **Scientific Publications**

- **Prizes**

- Dieter Behrens Medal
- Jacques Villermaux Medal
- Student Mobility Award
- Excellence Awards in
  - CAPE
  - Chemical Reaction Engineering
  - Crystallization
  - Drying
  - Fluid Separations
  - Membrane Engineering
  - Mechanics of Particulate Solids
  - Process Intensification
  - Process Safety
  - Product Design and Engineering
  - Thermodynamics and Transport Properties
- Georg Carl Hahn Research Prize
- Julius Maggi Research Award
- Carl Wagner Medal

## EFCE Section on Food

- **European Workshop  
Food Engineering**

- Annual Workshop
  - 2007, Berlin, D
  - 2008, Massy, F
  - 2009, Naples - Portici, I
  - 2010, Belgrade; SER
  - 2011, Valencia, E
  - 2012, Singen, D
- Presentations by 15 to 18 selected PhD students
  - invitations to Food Engineering Professors in all European countries
  - only top candidates in food engineering
  - one student per country
- Julius Maggi Research Award; 2500€ (industrial sponsor)





## Closing Comments

- **EFCE volunteers in Working Parties and Sections do excellent scientific work, but ...**
  - ... we need to make their work more visible
  - ... we need to incorporate new subject areas outside the classical canon
- **EFCE volunteers need ...**
  - ... recognition and support in their national societies
  - ... more participants, esp. for sections
- **EFCE volunteers ...**
  - ... are the heart of the European Chemical Engineering Community
  - ... need more colleagues to work with them