Energy Research in Europe – The Future Direction? Opportunities within Horizon 2020

HRK, Strasbourg, 17 Jan 2012

Prof. Dr. Hans-Jörg Bauer

KIC InnoEnergy
2014 – 2020: Horizon 2020 1/2

- Focus on three major topics:
  - Excellent Science
    - Frontier research (ERC)
    - Collaborative research
    - Support of excellent young scientists (Marie-Curie)
    - Research infrastructures
  - Industrial leadership
    - Key technologies
      - ICT, nanotechnologies, advanced materials, biotechnology, advanced manufacturing, space
    - Access to VC
    - Innovation in SMEs
2014 – 2020: Horizon 2020 1/2

- Focus on three major topics (continued):
  - Grand societal challenges
    - Interdisciplinary (natural & engineering & social sciences)
  - Research and innovation
  - Topics:
    - Secure, safe, clean & efficient energy
    - Climate protection, resource efficiency, raw materials
    - Smart, green and integrated transportation
    - …

- Sustainable development (35% of budget for climate action)
- Leading role of EIT to strengthen innovation in Europe
  - Integrating the knowledge triangle
  - Operation through Knowledge and Innovation Communities (KIC)
**KIC InnoEnergy**

- Integrating key players from academia, research and industry
- Aligned with the SET plan (Sustainability)
- Organised and run like (as) a business
  - SE registered in the Netherlands
    - Executive board, chaired by a CEO
  - Structured in 6 Collocation Centers (CC)
  - Operating through a detailed business plan
  - Output oriented (KPI)
  - E, R, I organised as projects

- Linking Education, Research and Innovation:
  - Generating new business, turning research into products & services
  - Providing entrepreneurial skills and raising entrepreneurial spirit
  - Generating international mobility
KIC InnoEnergy will bring innovation to the whole energy-mix coherent with the SET Plan

- **CC BENELUX**
  - Intelligent energy-efficient buildings and cities
  - Setting up an intelligent house with minimum energy needs

- **CC IBERIA**
  - Renewables (wind, CSP, photovoltaics, wave and tidal energy)
  - Demonstration project solar CSP

- **CC ALPS VALLEYS**
  - Sustainable nuclear & renewable energy convergence
  - Nano-materials for high energy / high power batteries

- **CC SWEDEN**
  - European Smart Electric Grid and Electric Storage
  - System and markets for the smart super grid of the future

- **CC POLAND PLUS**
  - Clean Coal Technologies
  - Gasification of coal with CO2 internal reduction

- **CC GERMANY**
  - Energy from chemical fuels
  - Demonstration unit hybrid power plant based on micro gas turbine