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TU9 German Institutes of Technology

HORIZON 2020

A critical comment on the framework program for research and innovation from the point of view of TU 9

Sept. 22, 2012

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TU9 German Institutes of Technology

TU9:

Alliance of the 9 largest, strongest and most traditional German universities in research and technology

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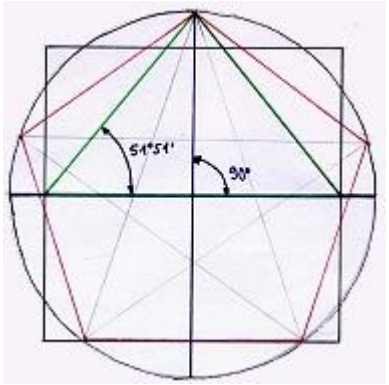
The network of the leading Institutes of Technology in Germany

HORIZON 2020 – Squaring the circle?



- conversion of approved elements of research program 7 (RP7)
- illustration of the whole „chain of innovations“ (market of ideas)
- benefit for basic research und industry
- inclusion of the departments of the European Commission (Directorates-General) for the setting of the agenda
- radical simplification

The European Commission…

claims leadership in research funding by:

- coordinating research subjects (national funds)
- activating private capital

aims at simplification in order to:

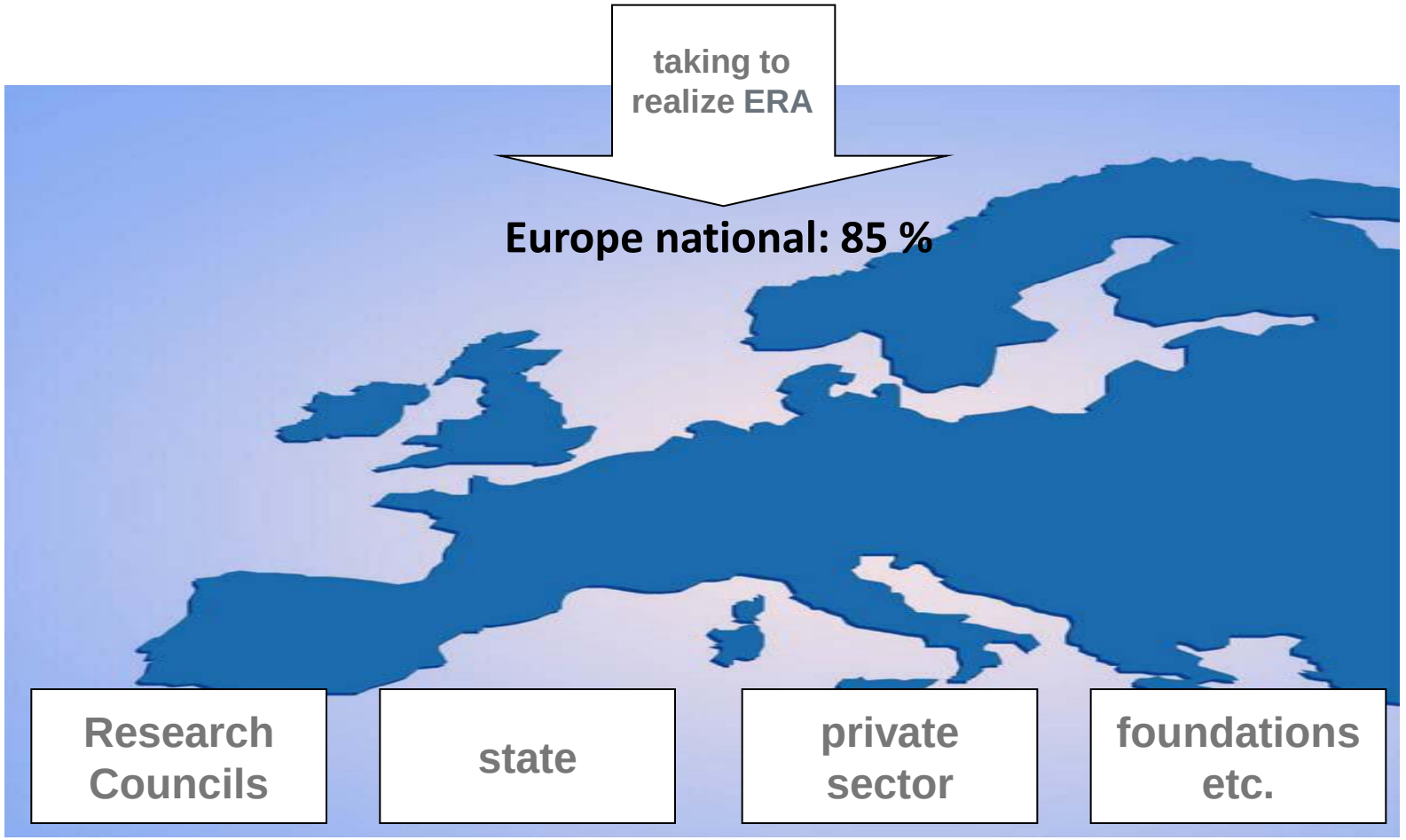
- reduce the "time to contract"
- reduce rate of errors

aims at outsourcing of project- / program management

Funds for research and development in Europe (approx.)

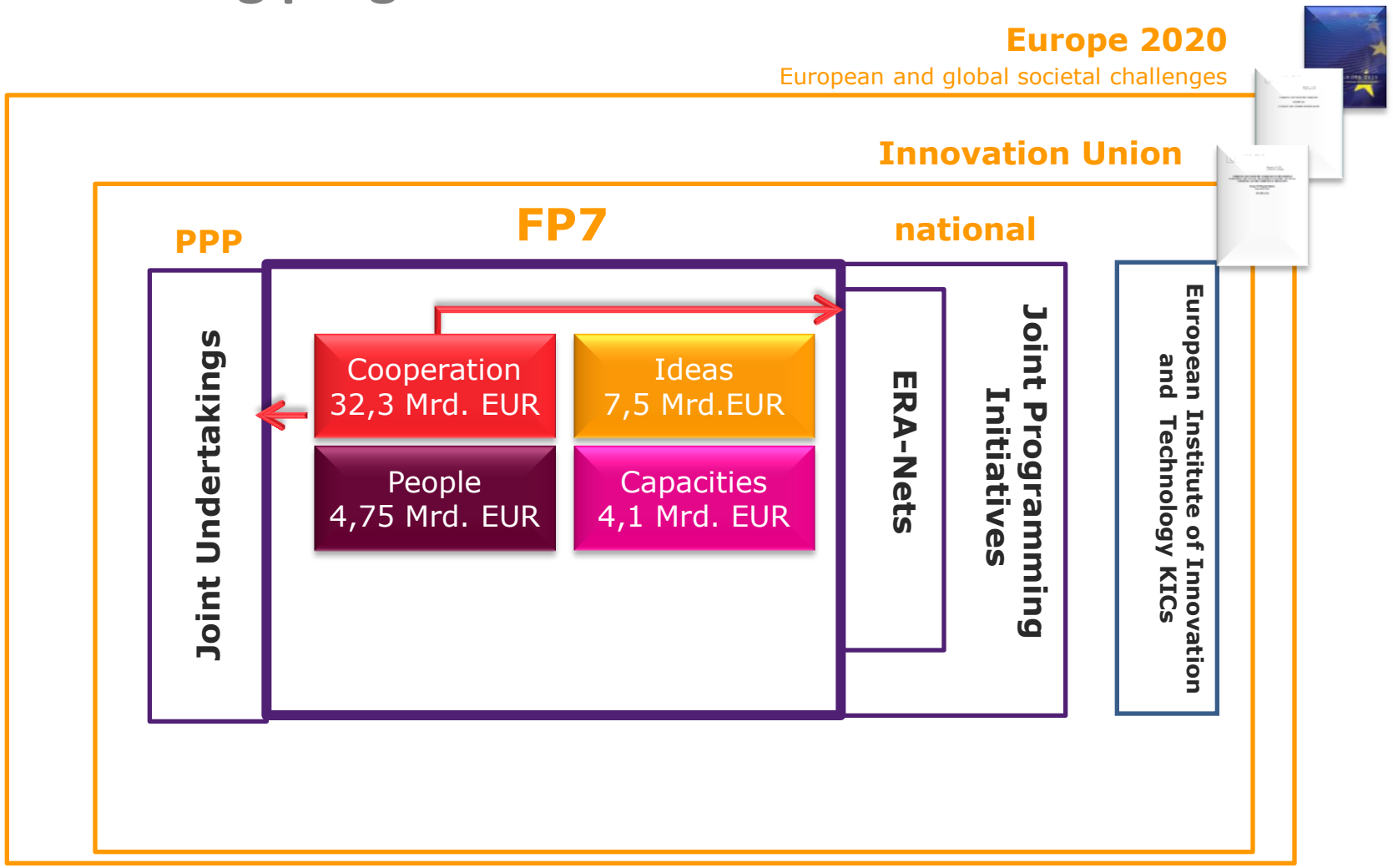
EU: 5 %

Europe intergovernmental: 10 %



source: KOWI

EU-funding program 7 within context of Horizon 2020



source: KOWI

Horizon 2020 – the Framework Program for Research and Innovation

Suggestion of the European Commission: Nov. 30, 2011

1. Excellent Science

24,598 bn €

- European Research Council
- Future and Emerging Technologies
- Marie Curie Actions
- Research Infrastructures

2. Industrial Leadership

Leadership in Enabling & [illegible]ogies

- Information and communication technologies
- Nanotechnologies
- Advanced materials
- Biotechnology
- Advanced manufacturing and processing
- Space

Access to Risk Finance

Innovation in SME

3. Societal Challenges

17,938 bn €

6 Challenges

- [illegible]hic Change and Wellbeing
- Food security, sustainable agriculture, marine and maritime research and the bio-economy
- Secure, Clean and Efficient Energy
- Smart, Green and Integrated Transport
- Climate Action, Resource Efficiency and Raw Materials
- Inclusive, Innovative and Secure Societies

4. Direct Actions of the Joint Research Centre (JRC)

31,748 bn €

1,962

European Institute of Innovation and Technology (EIT)

2,88

Joint Programming

P2P

Joint Technology Initiatives (JTIs)

P2B

European Institute of Innovation and Technology (EIT)

Knowledge and Innovation Community (KIC):

- KIC InnoEnergy SE (Einhoven): founded in spring 2012
- KIC InnoEnergy GmbH Germany: founded Sept. 2012

Members:

Universität Stuttgart

Karlsruher Institut für Technologie

EnBW

Steinbeis

KIC InnoEnergy Knowledge & Innovation Community

Innovation concept

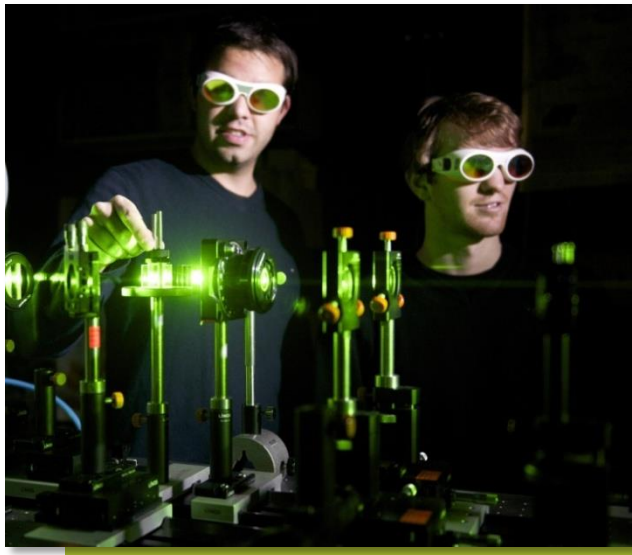
- identifies and exploits the knowledge already created in research centers, companies and universities
- increases industrial involvement with universities and research centers
- Innovation project of the Co-Location Center Germany: in the thematic field of "Energy from Chemical Fuels"
- mainly focused on characterization, conversion and storage of chemical fuels, which are of fossil origin, biomass based or derived from waste fractions

Consequences for the German Institutes of Technology

- **Funding of excellent science:**

excellent research infrastructure and programs such as Marie Curie and ERC grants excellent chances for the career of excellent scientists

only 6 % of the submitted projects are selected and get funded



Consequences for the German Institutes of Technology

- **Industrial leadership:**

universities should be part of the network built in the 7th research program

universities essential partner in research

further chances to participate in the funding due to high research quality at the universities

High risk!
Research departments of big companies might not involve universities.

Consequences for the German Institutes of Technology

- **Societal challenges:**

universities essential partner in research (participation, philosophy of technology, empiric social sciences…)

interdisciplinary applied research in science and engineering of high quality with close reference to practice at the universities

Are technical universities the right partners?

Consequences for the German Institutes of Technology

Simplification - suggestions of the EU:

- **Rules of participation:**

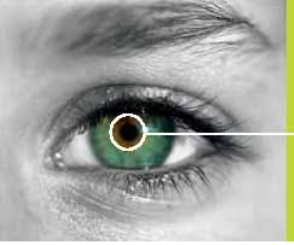
  100 % funding of projects in research and technical development

  70 % max. for

  - **co-financing of programs**
  - **development of prototypes, tests, experimental development, pilot projects, market realization, demonstrators**

  overhead costs: 20 %

- **time recording**
- **sales tax**



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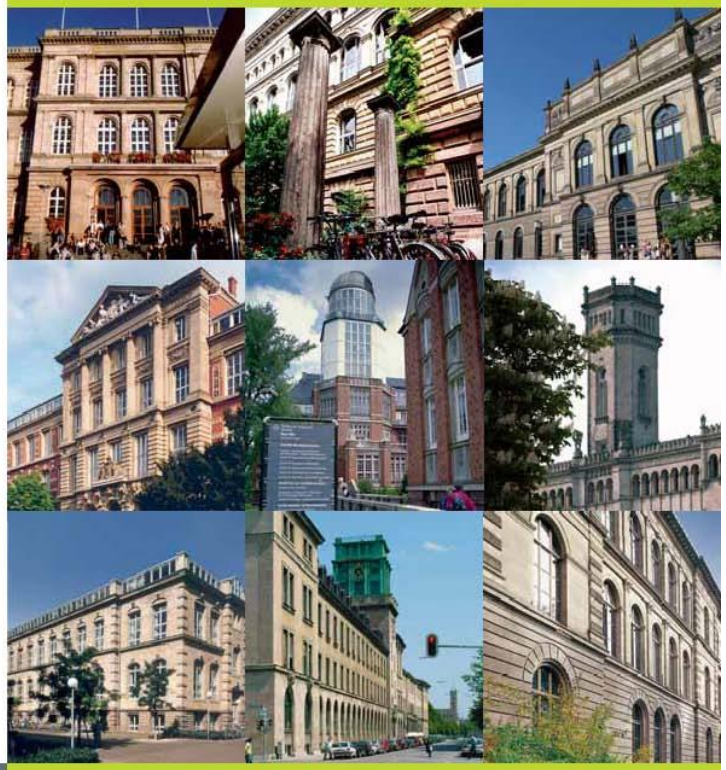

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