How to move on beyond the “Horizon 2020” decision?
The future EU Framework Programme for Research and Innovation as of 2014 and the strategic positioning of the German Universities

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### Funding Innovation

#### Funding of Ideas

**TOP PRIORITIES**
- Quality of idea
- Quality of Investigator

**ERC grant**
- No need for issued call.
- Bottoms up, academia driven innovation.
- Once in a life-time opportunity
- Balances & checks in peer review.

€ 1 billion p.a.

#### Funding of Call-Driven Consortia

**TOP PRIORITIES**
- Adapt to a call
- Find the right consortium structure

**RO1 mechanism**
- No need for issued call.
- Bottoms up, academia driven innovation.
- Continuous application - sustainability
- Balances & checks in peer review.

$ 30 billion p.a.
What makes Germany attractive / unattractive for a researcher from abroad?

• Recognition and reward of merit (meritocracy).

• Investment in a social system.

• Core support enables better investment into ideas.

• Combination of University and Research Centers is attractive for research investment.

• Stellar opportunities for interaction with industry.

• Good Funding Opportunities
What makes Germany attractive / unattractive for a researcher from abroad?

1. Social science
2. Flexibility
3. Red tape
Social science
Top down vs. bottom’s up research


10,000 top funded ideas / year bottoms up, top-investigator driven collection of where research is going

“Political” fund distribution

Paradox: Adaptation of ideas to structures!

Do politics & few investigators know better what is good for science?

European / German funding

Need for calls issued with little transparency. Top down policy making. No checks in peer review process.
2

Flexibility
20th century: a century of progress

Communication

Computing

Cure
(absence of catalytic engineering culture)

19th century 20th century 21st century
Departmental standing

Physics, Materials

MECHANICAL ENG.
ELECTRICAL ENG.
COMPUTER SCI.

CHEMICAL ENG.

Mathematics

Chemistry

BIO-ENGINEERING

Medicine

Biology, Life sciences

Improve cross-campus competence
MIT Response

Harvard-MIT Division of Health Sciences and Technology (HST)
Department of Biological Engineering
Center for Biomedical Engineering
Whitehead Institute for Biomedical Research
McGovern Center for Brain Research
Koch Integrative Center for Cancer Research
Broad Institute

USA Developments

Risk taking vs.
Definition of success /failure
Red Tape

is excessive regulation or rigid conformity to formal rules that is considered redundant or bureaucratic and hinders or prevents action or decision-making. (wiki definition)
ERC Proof of Concept

Helping grant-holders bridge the gap between their research and the earliest stage of a marketable innovation.
35 years old applicant to ERC PoC

Education

• MBA - MIT Sloan School of Management Cambridge, USA
• BS - MIT – Engineering Cambridge, USA – Management of Technology

Experience

• 1.5 years - Massachusetts Institute of Technology (MIT) Cambridge, USA
  School of Engineering Development Officer
  Worked with Chancellor to raise funds and support MIT startups.

• 2 years Co-founder of 4 companies
  Advisory and Operational Services for startups.

• 8 years - Siemens AG Healthcare Solutions Forchheim & Erlangen, Germany
  Regional Business Manager, Product Manager, Sales Manager – Medical Solutions
  (Tasks: Strategy & Execution, Product Positioning)

Languages: English, Spanish, German.
Possible salary allowed?

60K
Higher trust on the ideas and the ethics of the INDIVIDUAL INVESTIGATOR

CAN

1. Drive a bottoms up approach on the scientific landscape
2. Find and fund true innovation
3. Reduce red tape – Improve flexibility & decision making
ERC Funding Improvements

1. Increase funding
2. Ensure Sustainability
   - Multiple applications per PI allowed
   - Maintain Quality
3. Improving peer-review process
   - Establishing Checks & Balances

40 Senior grants / year
500 highest qualified individuals
Average senior career of 25 /yrs = 20 new people/yr