



# **COMMITMENT and COHERENCE**

**essential ingredients for success in science and innovation**



# Data sources and evidence

- publicly available data on **projects, budgets**, participating **organisations** (types of organisations, regions), publications (openAIRE)
- Partly confidential data provided by DG R&I on **proposal** (participating organisations, budgets, evaluation scores)
- More than **120 reports of evaluation studies** contracted by DG R&I for the first time assembled in a structured repository
- More than **50 experts** from the EU Member States, the EC, umbrella organisations and national contact points were consulted
- Building on the **knowledge, experiences and expertise** of the members of this High Level Expert Group as well as the findings and recommendations of the FP7 mid-term evaluation

# annual budget

FP6

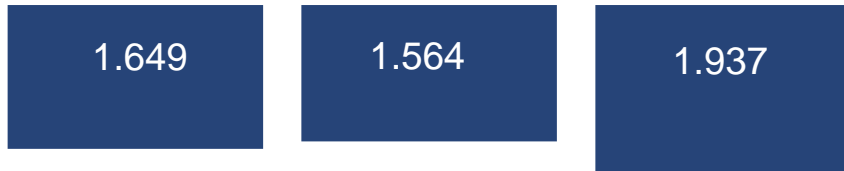
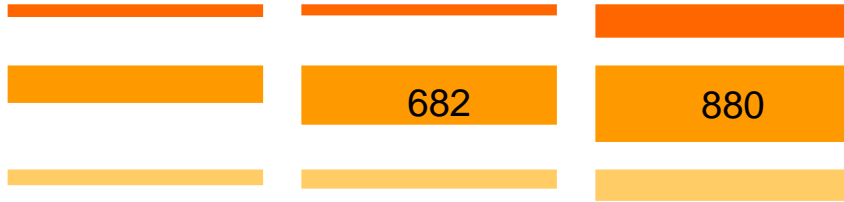
FP7

H2020



## I. EXCELLENT SCIENCE

- European Research Council (Frontier research by the best individual teams)
- Future and Emerging Technologies (Collaborative research to open new fields of innovation)
- Marie Curie Actions (Opportunities for training and career development)
- Research infrastructures (Ensuring access to world-class facilities)



## II. INDUSTRIAL LEADERSHIP

- Leadership in enabling and industrial technologies (ICT, nanotechnologies, materials, biotechnology, manufacturing, space)
- Access to risk finance (Leveraging private finance and venture capital for research and innovation)
- Innovation in SMEs (Fostering all forms of innovation in all types of SMEs)



## III. SOCIETAL CHALLENGES

- Health, demographic change and wellbeing
- Food security, sustainable agriculture, marine and maritime research & the bioeconomy
- Secure, clean and efficient energy
- Smart, green and integrated transport



7 years programme running time

55 billion euro total voted budget

~ **139.000 research proposals**

~ **25.000 projects** selected and received funding

~ **29.000 organisations** participated in FP7

- universities (44% of the FP7 funding)
- research and technology organizations (27%)
- large private companies (11%)
- SMEs (13%)
- public sector (3%)
- civil society organizations (< 1%)

## (adjusted) success rate

- ~ 139.000 proposals, ~ 250 billion euro requested EU contribution
- ~ 67.000 below threshold (48%)
- ~ 43.000 above threshold but not funded (31%)
- ~ 25.000 funded (18%)

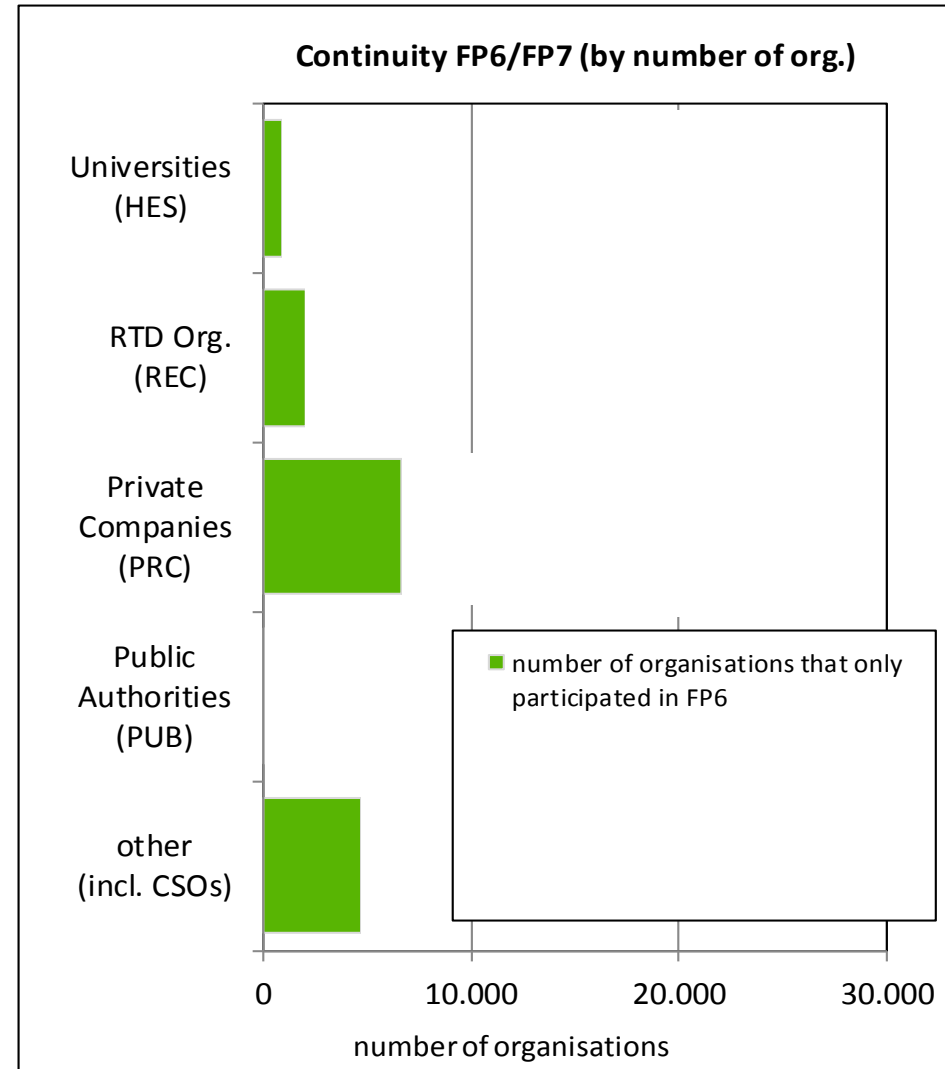
number of proposals	total number of proposals	proposals that received EU funding	proposals above threshold that did not receive	proposals below threshold	ineligible or withdrawn proposals	adjusted success rate	high quality proposals
FP7-COOPERATION	42.026	7.912	11.575	20.685	1.854	41%	46%
FP7-IDEAS	36.283	4.525	4.850	25.937	971	48%	26%
FP7-PEOPLE	50.168	10.715	23.950	14.921	582	31%	69%
FP7-CAPACITIES	10.815	2.025	2.802	5.493	495	42%	45%
<b>total</b>	<b>139.292</b>	<b>25.177</b>	<b>43.177</b>	<b>67.036</b>	<b>3.902</b>	<b>37%</b>	<b>49%</b>
		18%	31%	48%	3%		

**Adjusted success rate: 37%**

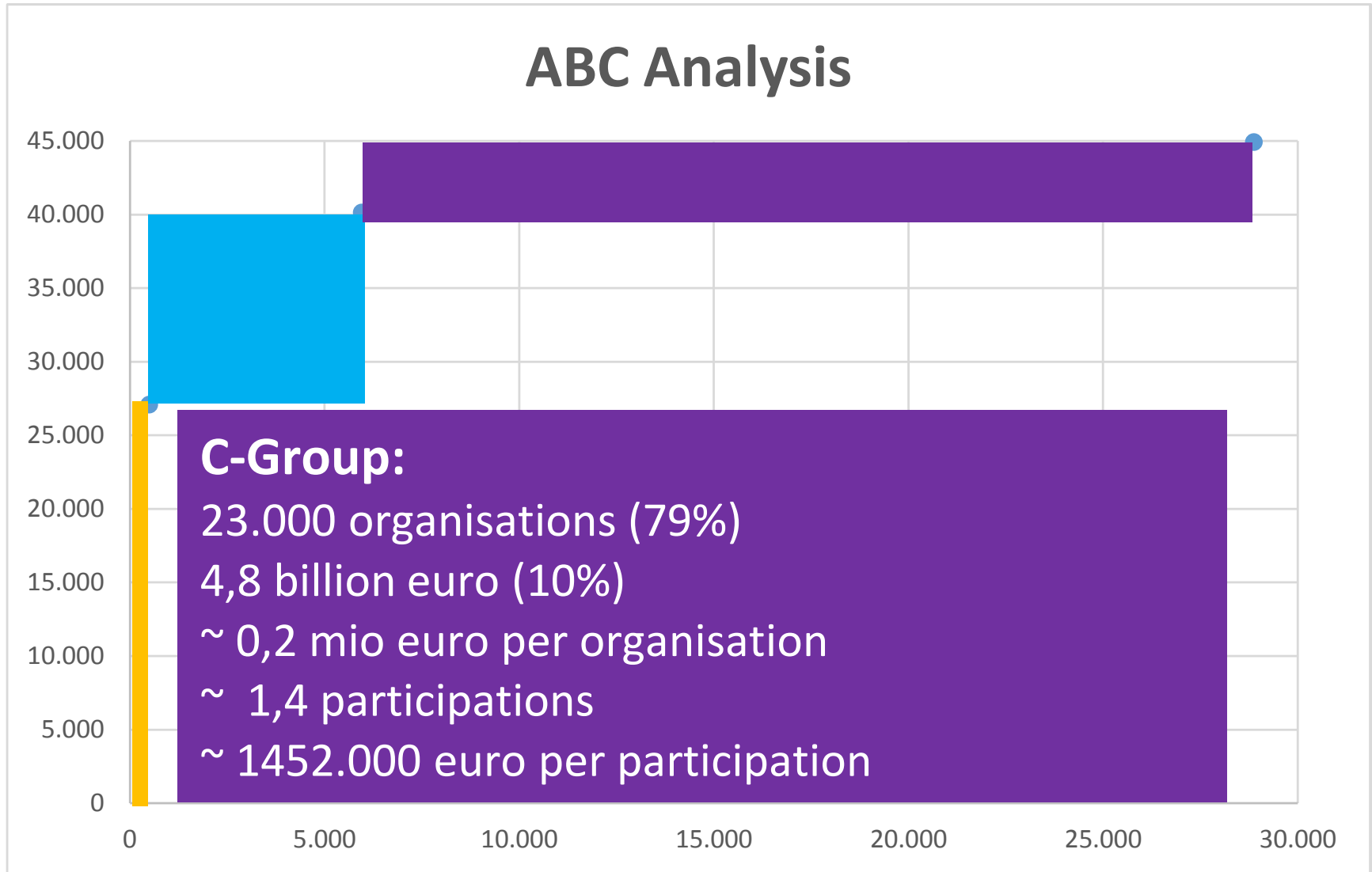
# Continuity vs. openness

~ 14.500 organisations participated in FP6 but not in FP7 (“outflow”)

The core group received ~ 80% of the total EU funding

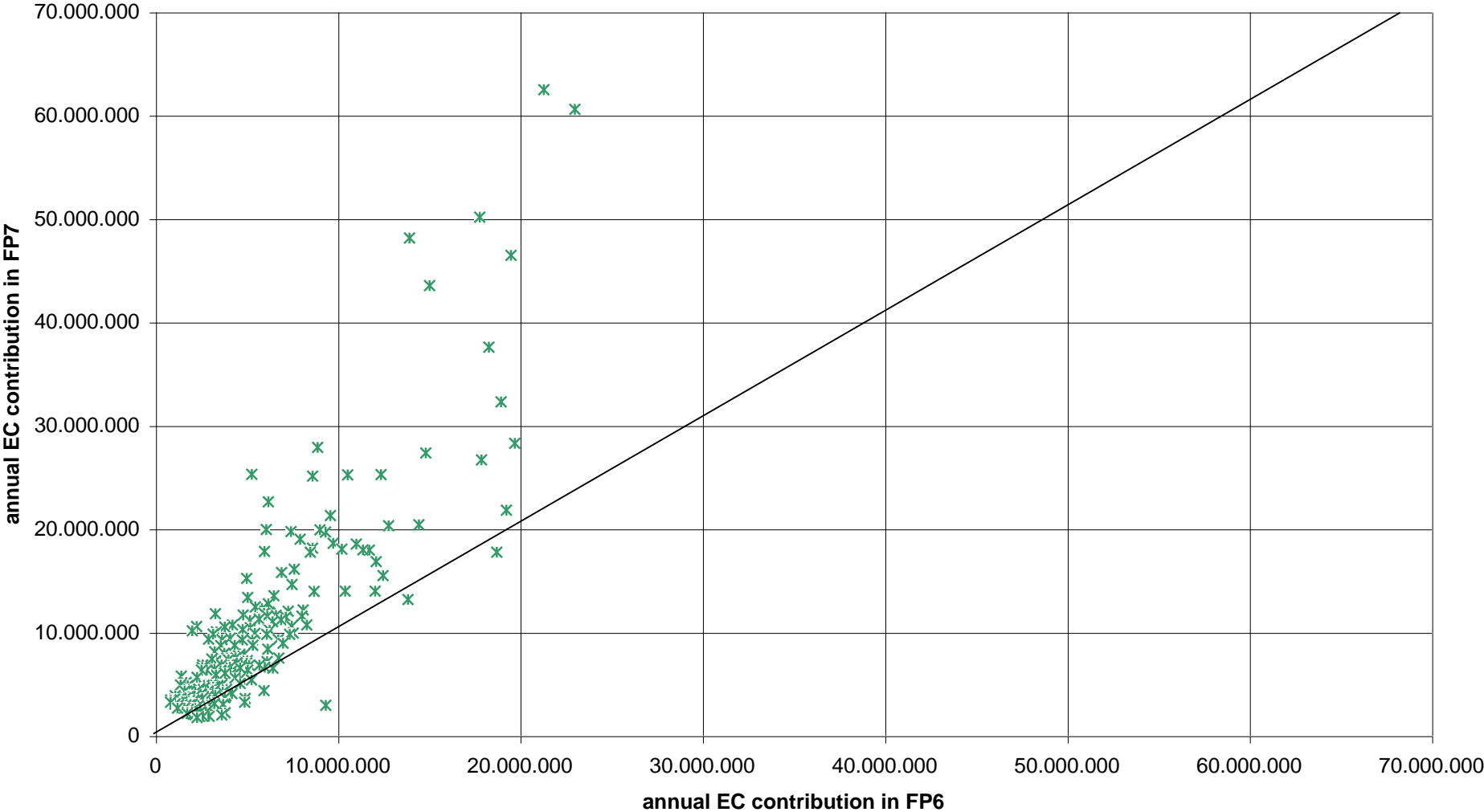


# Concentration effects (1)



# Concentration effects (2)

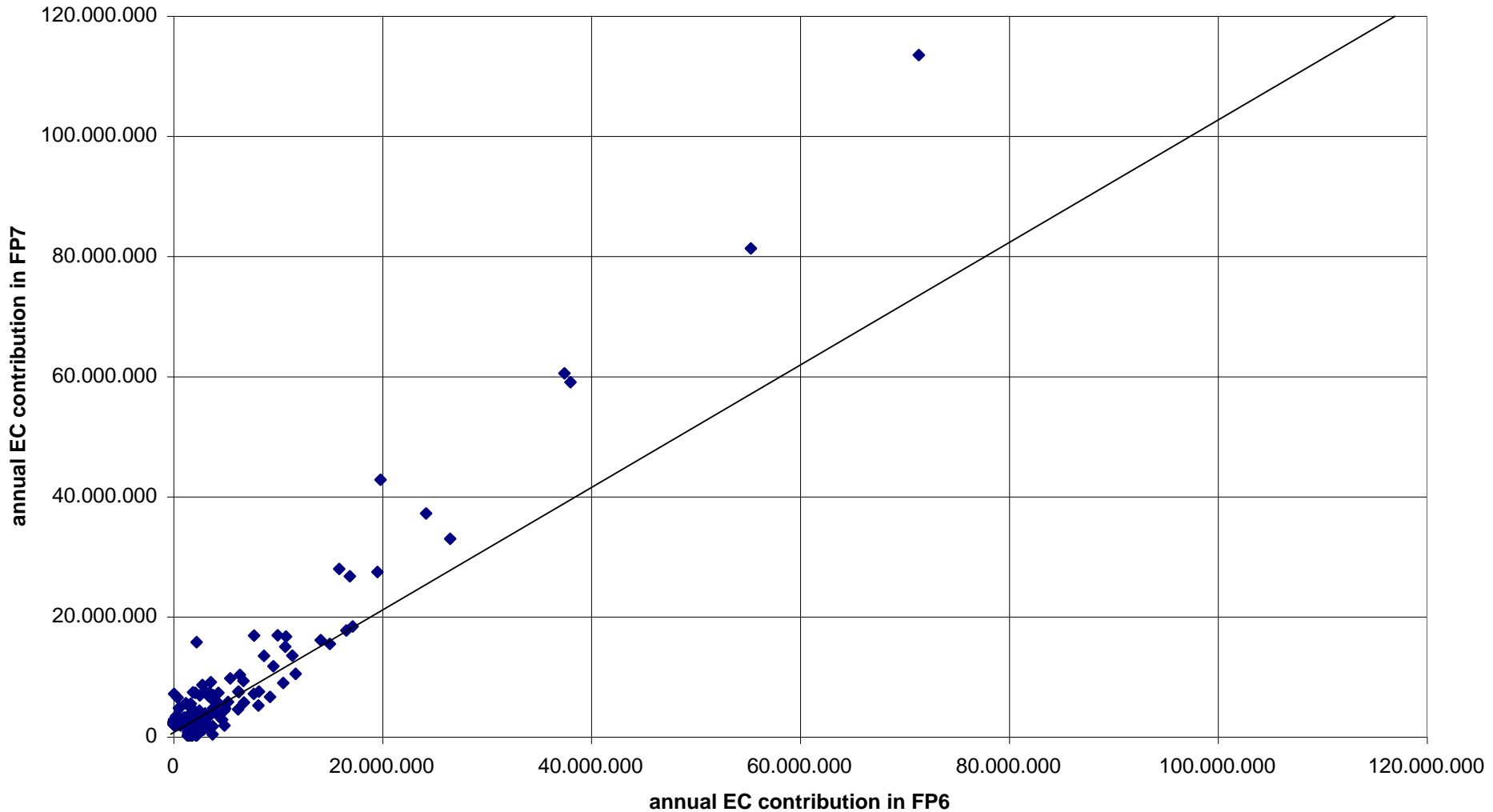
FP6 FP7 comparison HES





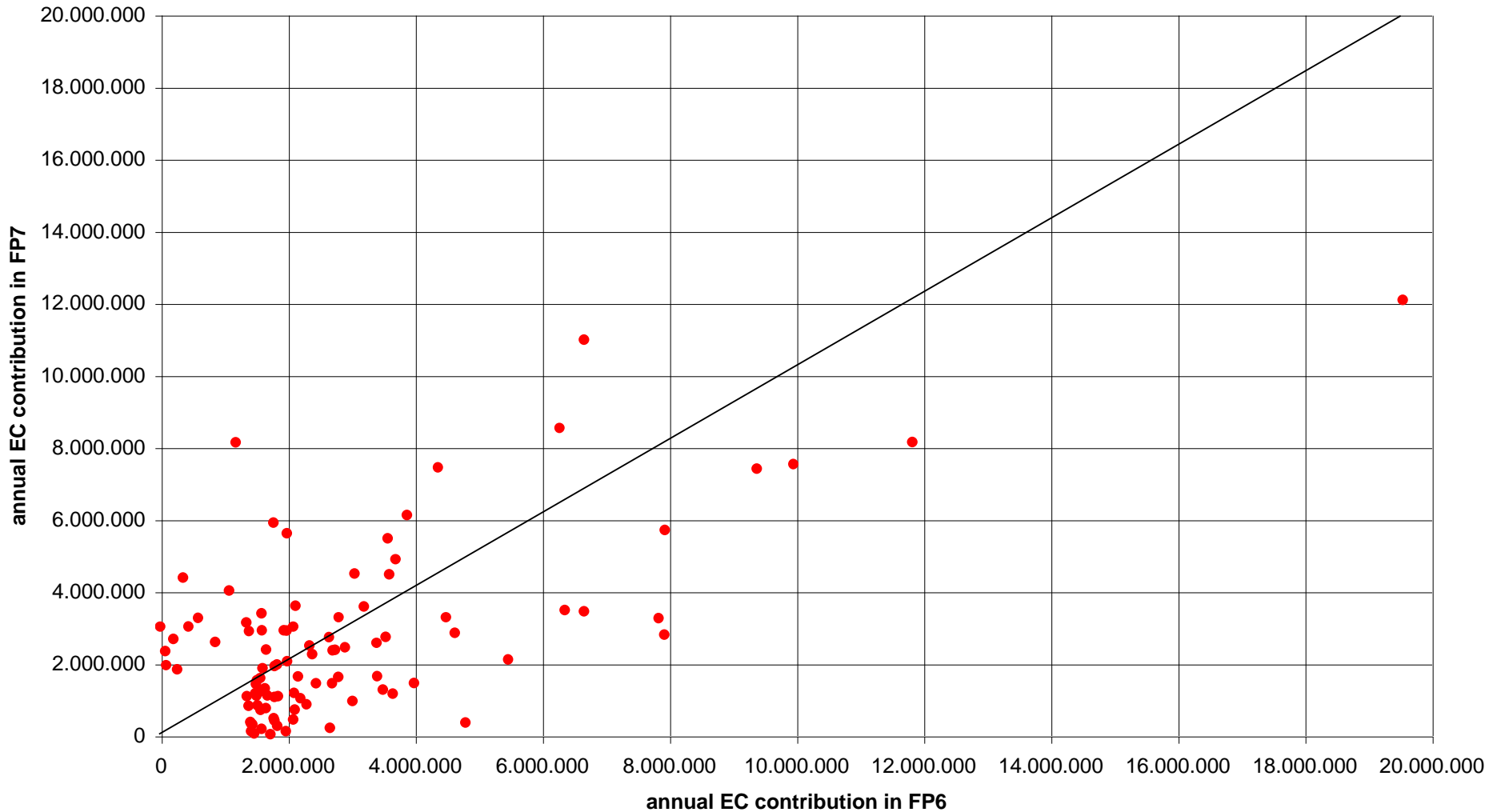
# Concentration effects (2)

FP6 FP7 comparison REC



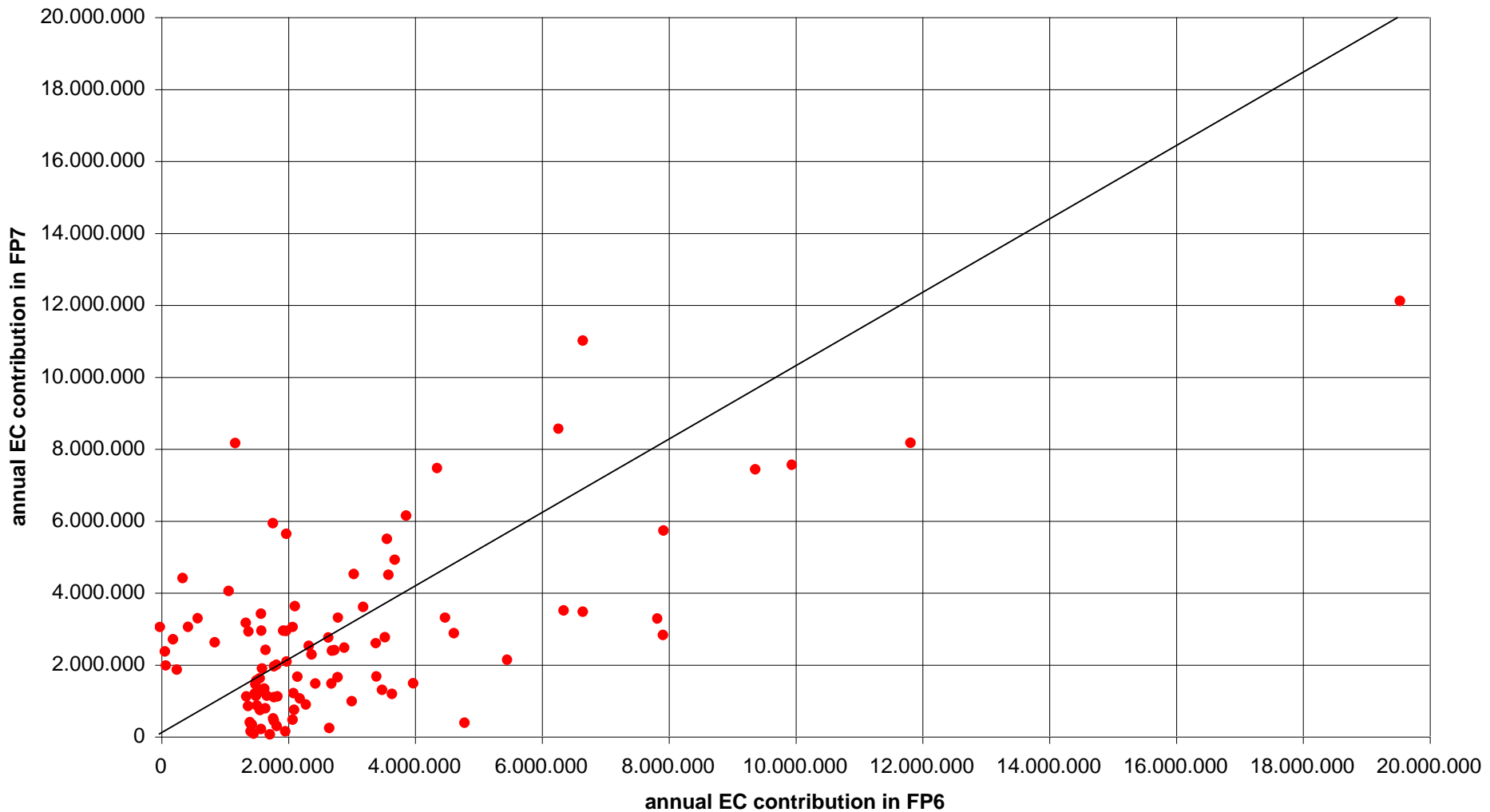
# Concentration effects (2)

FP6 FP7 comparison PRC



# Concentration effects (2)

FP6 FP7 comparison PRC



## **on European excellence in science:**

~ 160.000 publications; establishment of ERC; EU wide fair competition; EU wide seal of excellence in research; structuring effects in developing an excellence-orientation in research (funding) institution; better career development

## **on European research and innovation systems:**

promoted a culture of networking and cooperation; strengthened research capability and capacity; impacts on mobility; low share of partners from outside EU

## **on value creation and economic growth:**

Each euro caused ~ 11 euro of economic effects; additional annual GDP of 20 billion euro over a 25 year period; job effects the results seem modest; JTI's have been instrumental and effective; too early for final assessment of market impacts

## **on citizens and society:**

SSH, SiS and involvement of CSOs were marginal; FP7 introduced the vision of 'Responsible Research and Innovation (RRI)'; gender inequality persisted; lack of sustainability related research agendas and an effective monitoring system

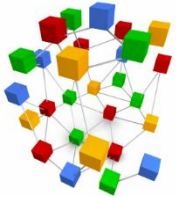
# Conclusions and recommendations



(a) **Ensure focus** on critical challenges and opportunities in the global context



(b) **Align research** and innovation instruments and agendas in Europe



(c) **Integrate the key components** of the Framework Programmes more effectively



(d) Bring science **closer to the European people**



(e) Establish strategic programme **monitoring and evaluation**

## (a) Ensure focus on critical challenges and opportunities in the global context



- **Identify a number of key areas** in which Europe can play a truly leading role on a global scale.
- Establish a **permanent mechanism of dialogue with the private sector** and develop a strong European Innovation Strategy.
- The instrument of **JTIs** should be further strengthened and the contractual framework should be simplified.
- Improvements are required to ensure that **SMEs** play an increasingly important role in the innovation value chain.

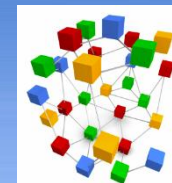
## (b) Align research and innovation instruments and agendas in Europe



- The potential of a "**Common Science, Technology and Innovation Policy**" across the EU should be explored.
- A dedicated science, technology and innovation support fund within the **Structural Funds** is recommended.
- **National and EU programmes** should align their research priorities better using appropriate tools and incentives (such as pooling of funding in order to improve leverage effects).
- **Establishing EU-Seals of Excellence** for outstanding scientific and enterprise driven proposals, successful proposers would be allowed to apply for funding at the national level in a streamlined manner.



## (c) Integrate the key components of the Framework Programmes more effectively



- **Synergy potentials should be assessed and implemented**, while duplications between sub-programmes should be avoided in the future.
- The programme structure should allow **budget transfers between programme years**.
- **Effective coordination processes between the agencies** in charge of implementing HORIZON 2020 should be established to minimise fragmentation and ensure a high level of transparency.
- Future Framework Programmes will benefit from **making successful elements available across the programme**.



## (d) Bring science closer to the European people



- **Involve stakeholders** and integrate civil society organizations in a more substantial way.
- Citizens and stakeholders should be engaged in a **dialogue about the purpose and benefits of research** and the way it is conducted.
- More tailored and targeted **dissemination activities** should be enforced and monitored.
- Combine the current initiatives for agenda setting and stakeholder involvement in **a sub-programme dedicated to “Visions and Agendas”**.
- The dissemination of **gender equality, diversity, ethics and participation** should be fostered.

## (e) Establish strategic programme monitoring and evaluation



- A **strategic and professional monitoring and evaluation system** is required that serves as a comprehensive and trusted source of evidence-based decision making.
- **Key data sets should be developed** (e.g. tracing of individual researchers, gender monitoring, proposal evaluation results).
- The wide range of individual evaluations should be better planned and utilized to build up a **coherent knowledge base**.
- More focus should be given to **quality control and standardisation** of data sets.
- **Evaluation syntheses and meta-evaluations** will enable systematic access to findings and ensure a better quality of evaluation studies.



# The members of the HLEG

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