

Criteria for success: the future of collaborative brain research: the European Commission's perspective



Dr Karim Berkouk Deputy Head of Unit **European Commission** DG Research & Innovation Health Directorate Non-Communicable Diseases and the challenge of Healthy Ageing

Why Collaborative Research?



"If you want to walk fast, walk alone
If you want to walk far, walk with others"

Historical reasons

- ✓ From "individual" research to "collaborative lab" research (Prussia-1850)
- ✓ Building the EU: political will to bring together countries





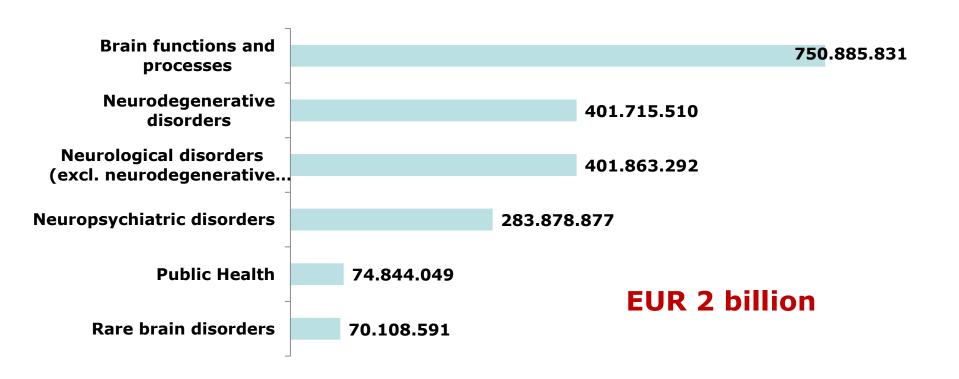
To create a nurturing ground for excellence to flourish

- Bring together high expertise, from various disciplines and sectors
- Bring together great minds
- Create links between People and between Institutions
- Spread excellence through the consortia
- Reach critical mass to address issues that cannot be tackled at institutional or national level

FP7 Brain Research 2007-2012

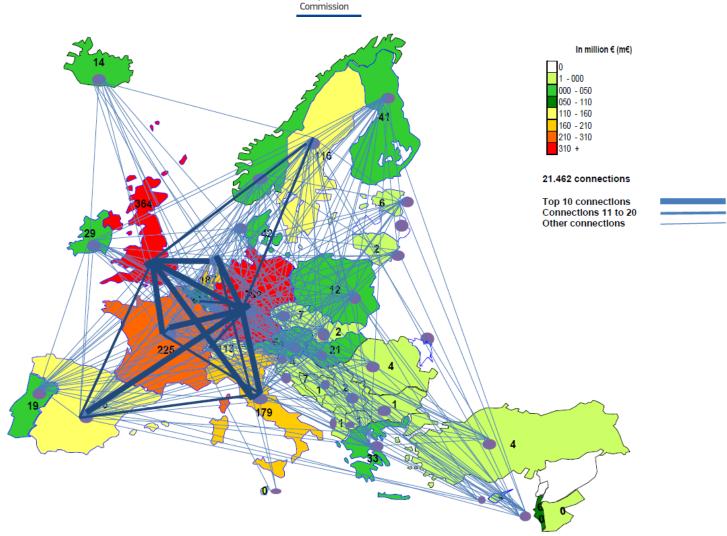


FP7 funding support for brain research



FP7 Brain Research 2007-2013





21,500 connections



FP7 Health Cooperation Programme (2007-2013)- Brain

Key figures

First outcomes

(on 57 closed projects from Health Programme)

785 M€ invested to date

2 031 publications

138 projects

3,1 average SJR* (average IF of 8.8)

1 732 participations

52 patent applications

810 organisations

4 spin-offs created

56 countries

Horizon 2020 and partnering European Commission

Public-private partnerships:

Through Joint Technology Initiatives or other formal structures (Art. 187)
Through contractual agreements, which provide inputs for work programmes
Only when criteria met, e.g. clear commitments from private partners

Public-public partnerships:

Through « ERA-Nets » for topping up individual calls/actions (replacing current ERA-Net, ERA-Net Plus, Inco-Net, Inno-net)

Through participation in joint programmes between Member States (Art. 185)

Supporting agendas of Joint Programming Initiatives when in line with Horizon 2020

Only when criteria met, e.g. financial commitments of participating countries

European Innovation Partnerships:

Not funding instruments, but for coordination with broader policies and programmes

EU research in Brain

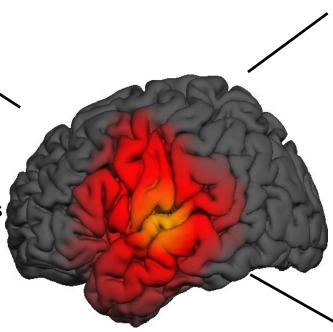


Collaborative research

- > FP7: 2 Billion 2007-2012
- Neurodegenerative diseases
- Pathophysiology
- Treatment
- Diagnostic
- Quality of Life
- > H2020
- Comparative effectiveness
- Therapies proof of concept

IMI

 Speeding up drug development through open public-private collaboration



JPND

- > SRA (2011)
- > 7 transnational calls (2011-15)
- ➤ €30 Million in 2015:
- Longitudinal Cohort
- Experimental Models
- Risk and Protective Factors

Human Brain Project

- Harness modern ICT to understand the brain
- > € 1 Billion

Enabling collaboration



Open Access to data H2020 Pilot:

- Deposit data into a research data repository of their choice
- Take measures to make it possible to access, mine, exploit, reproduce and disseminate free of charge
- Provide information about tools and instruments
- Projects can opt out for a variety of reasons (e.g. privacy, IP protection, security ...)



EU Data Regulation

- Strengthen individuals' rights to personal data protection
- Help data subjects better manage risks associated to online processing of their personal data
- Ensure a harmonised approach at EU level ('one-stop-shop' mechanism)

High Performance Computer

- accelerate processes & decrease costs in data analysis from different sources, modeling & simulation
- Currently not adapted to health applications

Patients at the heart of R&I



In Research

- Patients involved in projects as partners & through ethics board, safety monitoring board, and patient input platform
- Offered patients'
 perspective on recruitment,
 study design, project
 communication &
 dissemination
- translate results in lay language, modify guidelines to better fit patients' needs



Month of the Brain 2013: Recommended policy principles "Promote the role of patients in all stages of Research"

In Policy Making

- Research priorities based on wide stakeholder consultations patient organisations
- Horizon 2020 topics are patient-centred
- Health Advisory group: European Patient Associations representative
- Workshops: patients participation
- Many events are triggered by patient organisations

General opening



- Horizon 2020 is open to participation from across the world
- Automatic funding:
 - Member States (including overseas departments and overseas territories)
 - Associated Countries
 - Exhaustive list of countries in annex to work programme (but: no longer BRIC + Mexico)
- Participants from other countries only funded in exceptional cases:
 - when provision is made in the call text
 - bilateral agreement (e.g. Health challenge NIH)
 - when the Commission deems it essential (case by case assessment)



International cooperation



 Identify and define shared strategic goals



- Agree to approach jointly and share tasks (and costs)
- Let each agency use its own funding mechanisms/timing
- Agree to share data / standards / analysis



Alignment – Flexibility – Commitment

Example: Global Alliance for Chronic Diseases (GACD)





When? launched in October 2011 in Brussels

Who? Founding Members: EU (European Commission), US

(National Institute of Neurological Disorders and Stroke)

and Canada (Canadian Institutes of Health Research)

What? coordinate clinical research activities across the full spectrum of TBI injuries

Why? to improve clinical outcomes and lessen the global burden of TBI by 2020

How? through the discovery of causal relationships between treatments and clinically meaningful outcomes

G8 summit dementia



When? December 2013 in London ($\overline{\text{next}}$ = February 2015)

Who? CA, DE, FR, JP, IT, RU, UK, US

EC closely associated in follow-up events, as well as OECD, WHO, JPND, civil society

What? Identify a cure or a disease-modifying therapy by 2025

Why? Recognised impact of dementia for patients and carers and increasing socio-economic burden

How?

- > Increase amount of funding for dementia research
- work together: co-ordinated international research action plan
 - (i) sharing information about funded research
 - (ii) identify strategic priority areas
 - (iii) strenghten collaborations