



EU-supported research on Alzheimer's disease

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**~ 6,1 billion EUR for
excellent health
research & innovation**

The FP7 Health Programme

- The largest supra-national fund for research
- To fund unique international consortia, public-private partnerships and global cooperation
- Involving leading players from Europe and across the globe
- To deliver excellent research and innovation
- To tackle key challenges which are too big for any one country alone

What are the challenges for brain research ?

- Understanding the human brain and its diseases is one of the greatest scientific challenges
- Complex and multidisciplinary research
- Brain diseases constitute a major burden to our society, with a cost of about EUR 800 billion in Europe in 2010
=> EUR 1.5 million per minute
- In the last few years, several pharmaceutical companies reduced or closed their neurosciences R&D facilities because of lower perspectives of return on investment
- Europe's population is getting older

EU response to this challenge

- Provided a comprehensive support for brain research in FP7
- Dedicated financial resources unmatched by any previous research framework programme
- More than EUR 1.9 billion dedicated to brain-related research since 2007 (yearly allocation of more than EUR 300 million)
- 1,268 projects
- 4,312 participations of 1,515 institutions

FP7-supported research on Alzheimer's disease

- Research on neurodegenerative diseases, including Alzheimer's disease, is a priority in FP7
- Support of about EUR 400 million for research on neurodegenerative diseases, including EUR 200 million on Alzheimer's disease since 2007
- Tackle this global challenge by various tools, from individual frontier research grants to joining forces with industry (IMI), and supporting coordination among Member States (JPND)

Supported research focuses on:

- Genetic variations and pathophysiology
- Development of imaging probes and biomarkers for diagnostic, monitoring and prognosis
- Brain plasticity and repair
- Development of restorative approaches and identification of new drug targets

MEMOLOAD: Neurobiological Mechanisms of Memory Loss in Alzheimer's Disease

- Aims to elucidate the molecular level mechanisms by which accumulation of A β in the brain results in impaired synaptic plasticity and memory loss
- About EUR 3.0 million EU contribution
- Coordinator: University of Kuopio

LUPAS:

Luminescent polymers for in vivo imaging of amyloid signatures



- Aims to develop novel agents and methods for diagnostic, prevention of protein aggregation and treatment of Alzheimer's and prion diseases
- About EUR 5.0 million EU contribution
- Coordinator: Linköping University

PHARMA-COG: Prediction of cognitive properties of new drug candidates for neurodegenerative diseases in early clinical development



Advancing science and treatment of Alzheimer's Disease

- Aims to develop a signature giving information on the progression of the disease and the effect of candidate drugs
- Innovative Medicine Initiative Joint Undertaking (IMI JU)
- About EUR 9.6 million IMI JU (EU) contribution and EUR 10.2 from pharmaceutical industries
- Coordinators: GlaxoSmithKline & Université Méditerranée – Aix-Marseille II

CHANCES: Consortium of longitudinal studies of ageing and health



- Aims to produce evidence on ageing-related health characteristics and determinants in Europe and their socio-economic implications. Alzheimer's is one of the chronic condition/disabilities to be studied
- About EUR 11.9 million EU contribution

EU Joint Programming Initiatives

Why Joint Programming?

- Europe faces a series of major societal challenges
- Most of European research budget is spent nationally
- Risk of fragmentation, duplication, lack of critical mass

What is Joint Programming?

- Joint Programming is a structured and strategic process whereby Member States agree on a voluntarily basis on the definition, development and implementation of common strategic research agendas, based on a common vision to address major societal challenges
- It may involve collaboration between existing national programmes or the setting up of entirely new ones
- It entails putting resources together
- Joint Programming is about making research in Europe more strategic, more focused, more effective, and with more impact

Joint Programming Initiative on Neurodegenerative disease, in particular Alzheimer (JPND)



- Council Conclusions of 3 December 2009: adopted the JPND
- **Ultimate objective:** to find cures for neurodegenerative diseases and to enable early diagnosis for early targeted treatments
- **Interim objective:** to identify common research goals that would benefit from joint action between countries in order to accelerate progress on solutions that can alleviate the symptoms, and lessen the social and economic impact for patients, families and health care systems

JPND membership and governance

- 27 participating countries, including non-European (Canada)
- Work with a Management Board (representing all countries, chaired by Professor Philippe Amouyel), an Executive Board and a Scientific Advisory Board (15 experts)
- The JPND adopted its Research Strategy on 7 February 2012
- Addresses basic science, clinical research and healthcare research

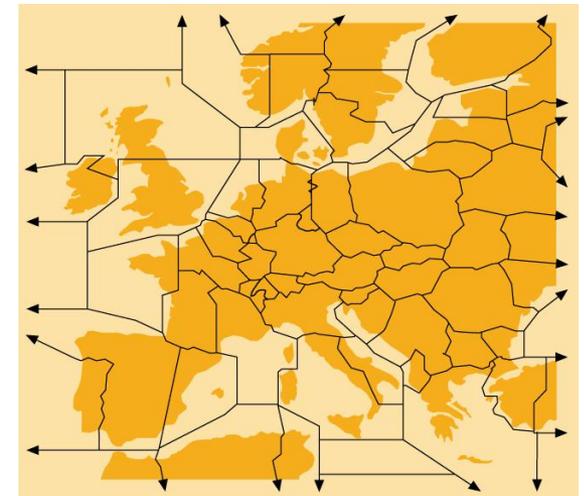
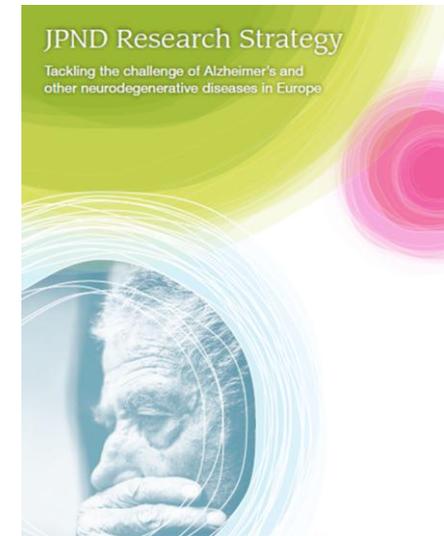
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Joint Programmings are Defragmentation tool

- The JPND adopted its Research Strategy on 7 February 2012

Addresses basic science, clinical research and healthcare research

- Definition of national research agendas and alignment of those agendas towards common research goals
- Joint transnational calls



JPND calls for proposals



- May 2011 and December 2012
- Topics:
 - ✓ Optimisation of biomarkers and harmonisation of their use between clinical centers
 - ✓ Identification of genetic, epigenetic and environmental risk and protective factors
 - ✓ Evaluation of health care policies, strategies and interventions
- EUR 15 million (1st call) and EUR 30 million (2nd call)
- Results of 1st call: 4 projects supported (collaborative research)

Organisation of a dissemination/communication event to:

- (i) Cap EU efforts for brain research
- (ii) Foresight preparation

=> European Month of the Brain

<http://ec.europa.eu/research/brainmonth2013>



Two main conferences (Brussels and Dublin), with recommendations:

1. Support for research, including basic
2. Better integration of patients at all levels
3. Data sharing
4. Clinical trials and regulatory landscape
5. Development of national strategies and alignment of national programmes



After FP7: Horizon 2020

Commission proposal: €80 billion

- A single programme
- More innovation – “from research to retail”
- Focus on societal challenges
- Simplified & broader access

- Proposal approved by the Commission on 30 November 2011
- Currently discussed at the European Council and European Parliament

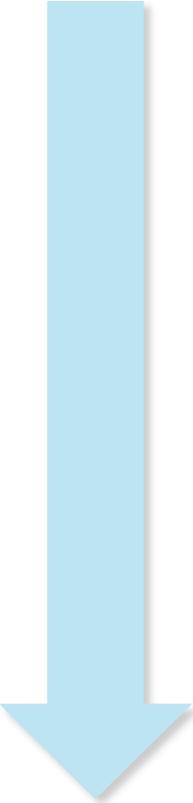
Structure proposed for Horizon 2020



Where Alzheimer research ?

- In all three main pillars
- Within the societal challenges: in particular under the **“Health, demographic change and well-being”** (about **EUR 8.5 bil**)

Horizon 2020 timelines

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- **From 30/11** Parliament and Council negotiations on the basis of the Commission proposals
 - **Ongoing** Parliament and Council negotiations on EU budget 2014-20 (including Horizon 2020)
 - **Mid 2012** Final FP7 calls
 - **By end 2013** Adoption of legislative acts by Parliament and Council on Horizon 2020
 - **January 2014** Horizon 2020 starts; launch of first calls



**Thank you for your
attention**

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