



EU activities in brain research

Patients' right to avoid pain: reducing the burden of Covid-19,
promoting best practices across EU

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Content

- Activities in brain research under Horizon 2020 (2014-2020)
 - Investments made
 - Initiatives/partnerships
 - Brain research & pain
- Introduction to Horizon Europe (2021-2027)

Burden of brain disorders

Global Burden of Disease Study, 2016

- Globally, in 2016, **neurological disorders** were the leading cause of DALYs & second leading cause of deaths
- Increasing burden of **mental health disorders** (pre- & post-COVID19)

	Global	East Asia	Southeast Asia	Oceania	Central Asia	Central Europe	Eastern Europe	High-income Asia Pacific	Australasia	Western Europe	Southern Latin America	High-income North America	Caribbean	Andean Latin America	Central Latin America	Tropical Latin America	North Africa and Middle East	South Asia	Central sub-Saharan Africa	Eastern sub-Saharan Africa	Southern sub-Saharan Africa	Western sub-Saharan Africa	
Stroke	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1
Migraine	2	3	3	3	2	2	2	2	1	1	2	2	2	2	2	3	2	2	4	3	3	3	3
Alzheimer's disease and other dementias	3	2	2	2	4	3	3	3	3	3	3	3	3	3	3	2	3	4	3	4	4	4	4
Meningitis	4	11	5	4	9	12	10	14	13	13	11	13	4	9	10	8	5	3	2	2	5	2	2
Epilepsy	5	5	4	5	3	7	8	6	7	6	5	6	5	4	4	4	4	6	5	5	2	5	5
Spinal cord injury	6	7	8	9	7	6	5	4	4	4	4	4	9	8	9	9	6	9	6	7	10	9	9
Traumatic brain injury	7	6	6	7	5	4	4	7	8	8	9	8	7	7	6	7	9	7	7	8	6	7	7
Brain and other CNS cancer	8	4	9	10	6	5	6	8	5	5	6	5	8	6	7	5	8	10	9	11	9	10	10
Tension-type headache	9	8	10	8	10	8	7	5	6	7	7	7	6	5	5	6	7	8	8	9	7	6	6
Encephalitis	10	9	7	6	8	13	11	11	14	14	12	14	11	10	11	12	10	5	10	10	11	8	8
Parkinson's disease	11	10	11	12	12	9	9	10	9	10	8	9	12	11	12	11	12	13	13	13	12	13	13
Other neurological disorders	12	12	12	11	11	10	12	9	10	9	10	10	10	12	8	10	11	12	12	12	8	12	12
Tetanus	13	15	13	14	15	15	15	15	15	15	15	15	13	15	15	15	14	11	11	6	15	11	11
Multiple sclerosis	14	14	15	15	13	11	13	13	12	11	13	11	15	14	14	14	13	14	14	14	13	15	15
Motor neuron diseases	15	13	14	13	14	14	14	12	11	12	14	12	14	13	13	13	15	15	15	15	14	14	14

Figure 1: Ranking of age-standardised DALY rates for all neurological disorders by region, 2016
DALY=disability-adjusted life-year.

Support to brain research - Horizon 2020

Funding the full spectrum of research

basic • clinical • preventive • healthcare services • ...



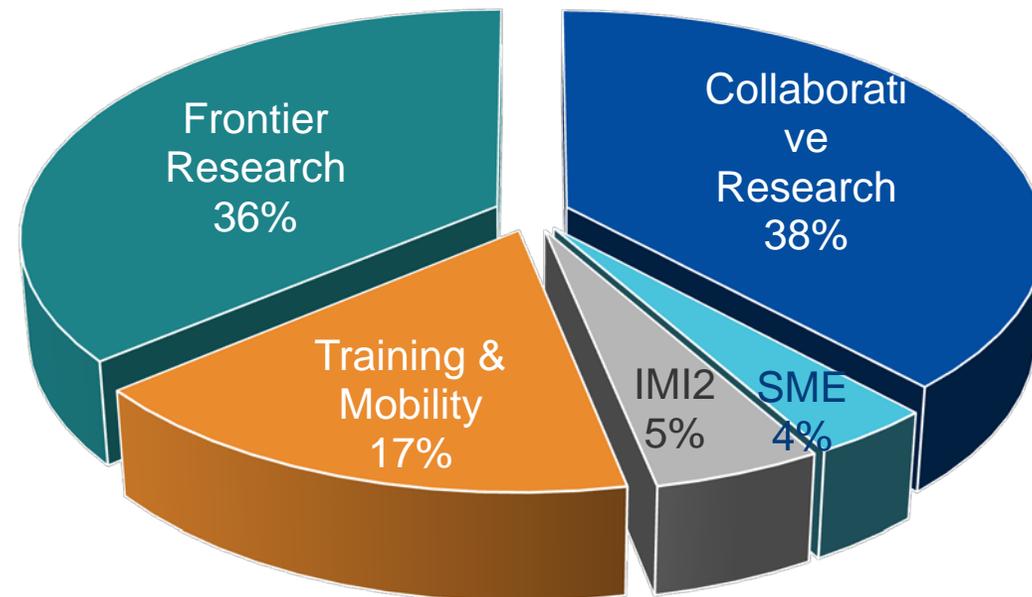
H2020 (2014-2020)
€4.8 billion

± 2800 projects
± 100 countries

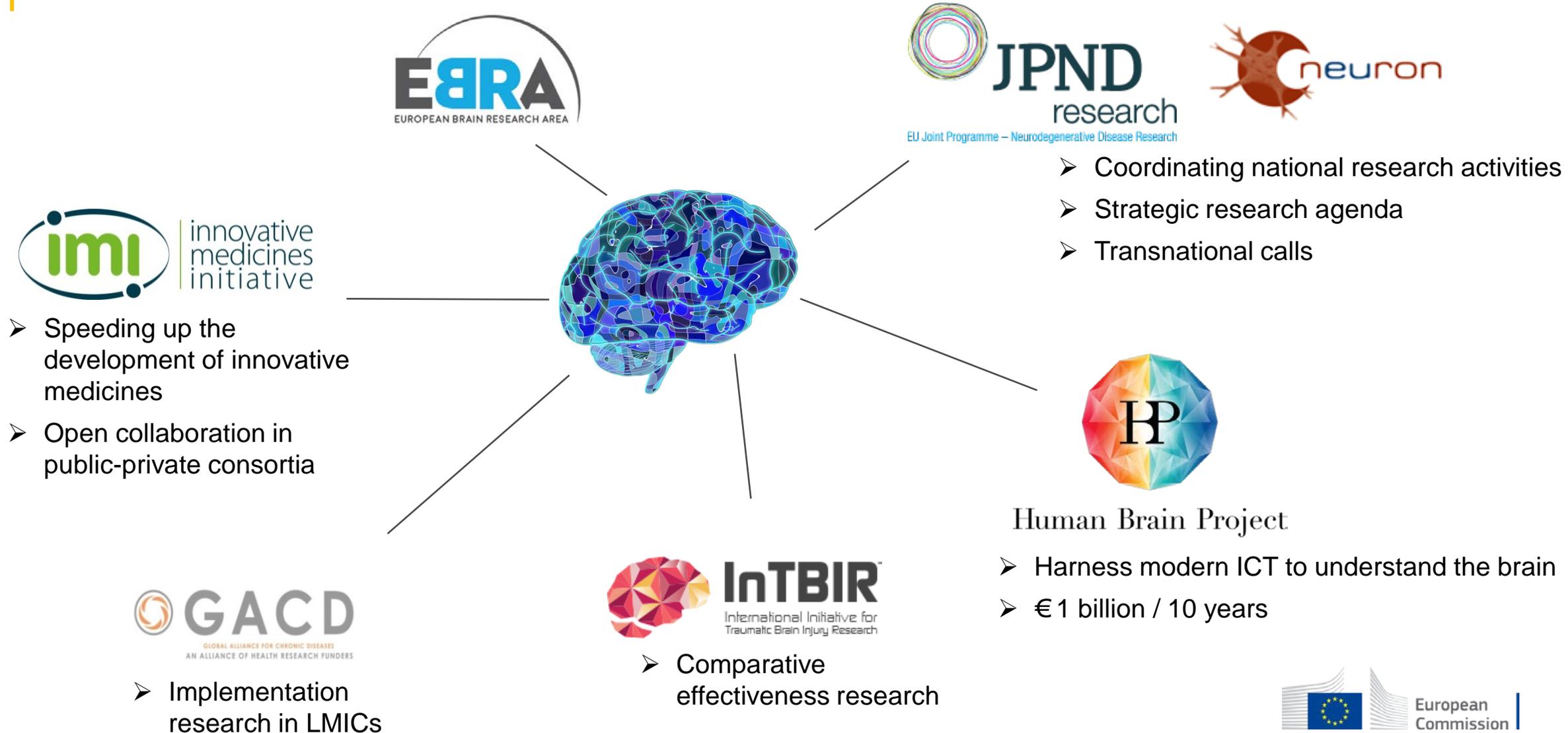


FP7 (2007-2013)
€3.1 billion

Distribution of funding (H2020)



EU brain research initiatives



Brain research & pain

- **NGN-PET** (H2020/IMI)
Modelling Neuron-Glia Networks into a drug discovery platform for Pain Efficacious Treatments
→ Towards better treatment options for neuropathic pain focused on neuron-glia co-cultures
- **DOLORisk** (H2020/RIA)
Understanding risk factors and determinants for neuropathic pain
→ Algorithms for patient stratification and risk prediction to enable better treatment selection
- **TargetCaRe** (H2020/MSCA/ITN)
Targeting Cartilage Regeneration in joint and intervertebral disc diseases
→ Exploring cartilage regeneration as a treatment for chronic lower back pain and osteoarthritis
- **RELIEF** (H2020/COFUND-PCP)
Recovering life wellbeing through pain self-management techniques involving ICTs
→ Technological enablers for self-management of chronic pain

Horizon Europe

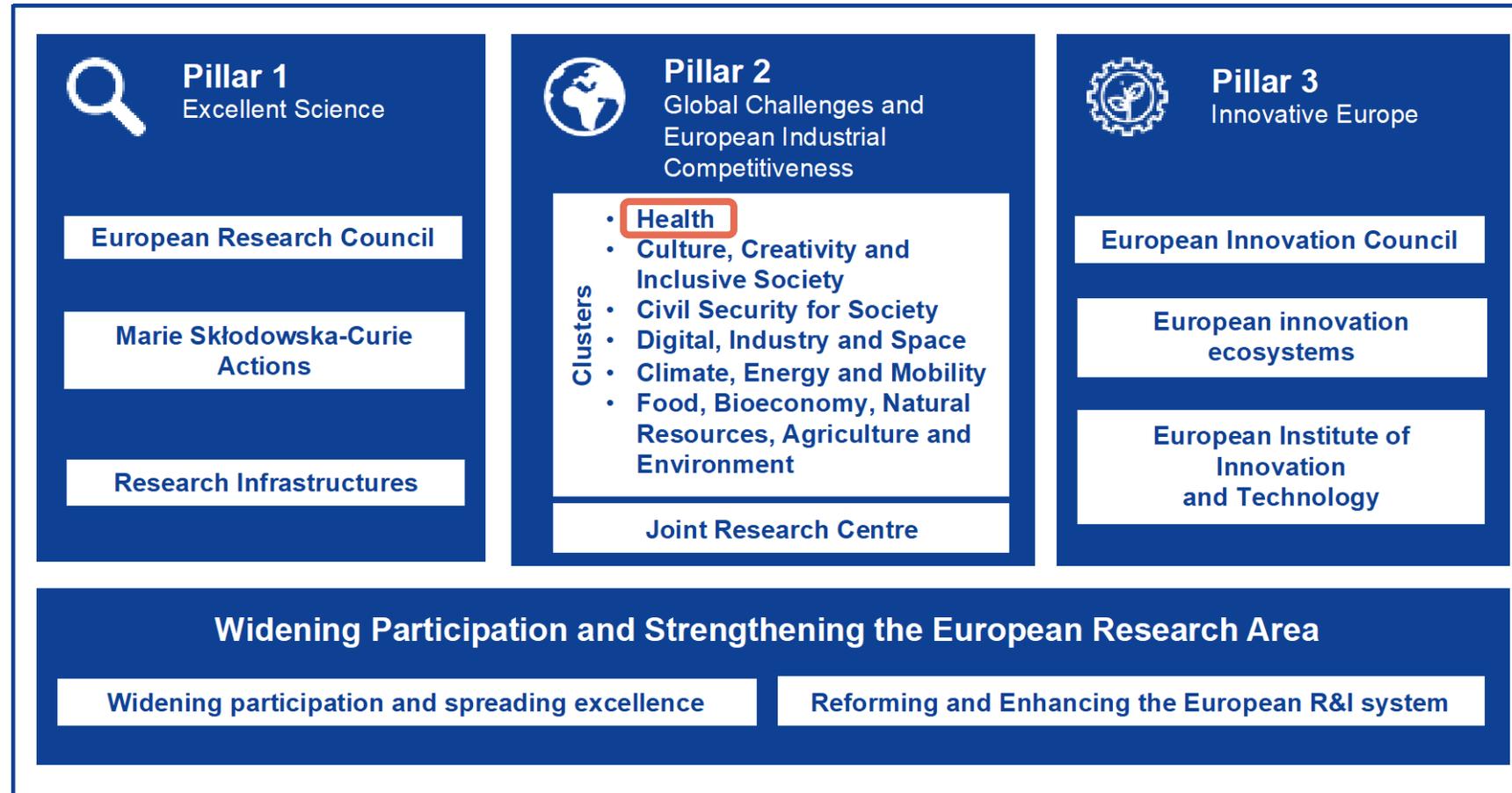
The EU R&I Programme 2021-2027

- Builds on past experiences, investments, networks...
- Co-design process with all stakeholders
 - Shaped by the open stakeholder consultations & the European R&I Days
- Impact-oriented
 - Maximising impact, notably through Missions and Partnerships
- Plenty of opportunities for collaboration
 - European & global level
- Strategic plan for Horizon Europe (2021-2024)
- Programme budget: €95.5 billion

https://ec.europa.eu/info/sites/default/files/research_and_innovation/funding/documents/ec_rtd_horizon-europe-strategic-plan-2021-24.pdf



Horizon Europe Structure



https://ec.europa.eu/info/horizon-europe_en

Horizon Europe

Cluster 1 - Health

- Health cluster budget: €8.2 billion
- Cluster is structured around six ‘Destinations’
 1. Staying healthy in a rapidly changing society
 2. Living and working in a health-promoting environment
 3. Tackling diseases and reducing disease burden
 4. Ensuring access to innovative, sustainable and high-quality health care
 5. Unlocking the full potential of new tools, technologies and digital solutions for a healthy society
 6. Maintaining an innovative, sustainable and globally competitive health-related industry
- Mission on Cancer



Horizon Europe

Cluster 1 – Health

What to expect in the Work Programme?

- Broader topics focusing more on impacts and requesting pathways to impact
- The topic will detail the outcomes expected from the research, and it will be up to the applicants to present a convincing trajectory to achieve the impacts described in the topic
- Evaluation criteria are maintained

Publication WP 2021-2022 16 June 2021 (see the EU Funding & Tenders portal)

How to get information

- European R&I Days 23-24 June 2021: <https://ec.europa.eu/research-and-innovation/en/events/upcoming-events/research-innovation-days>
- Cluster 1 Info Day on 2 July 2021: <https://www.horizon-europe-infodays2021.eu/>
- Access the EC portal for funding & tender opportunities: <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/home>
- Reach out to your National Contact Points: <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/support/ncp>
- Become involved as an independent evaluator for HE proposals



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Thank you!



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