

Research priorities and Networks



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Health Directorate,
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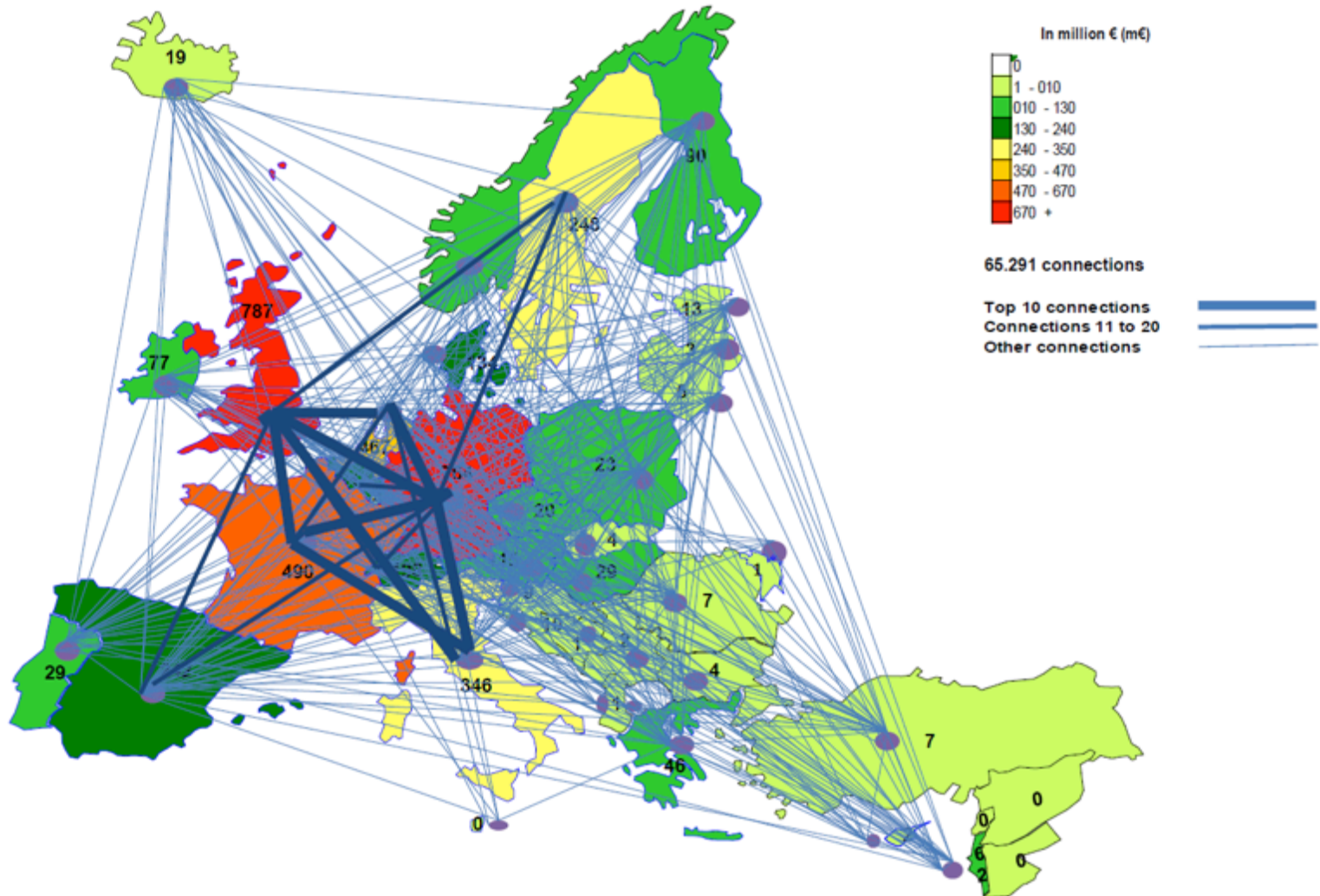
EU Research Framework Programmes

The largest supra-national fund

- to fund unique international consortia, public-private partnerships and global cooperation
- involves leading players from Europe and across the globe
- to deliver excellent applied research and innovation
- to tackle key challenges which are too big for any one country alone



Connecting Researchers





FP 7 Health research €6 billion EU investment

- **1,000 projects**
- **11,000 teams**
- **3,500 organisations**
- **130 countries**

A group of scientists in white lab coats are gathered around a table, looking at a computer screen. The background is a blurred laboratory setting.

Collaborative research
Real-life solutions based on joint problem-solving

A group of scientists in white lab coats are standing around a table, looking at a computer screen. The background is a blurred laboratory setting.

Public-private partnerships
Investing together for next generation medicines and treatments

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Global co-operation
One world, one team working to solve common health challenges

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Public partnerships
Harnessing global expertise to fight poverty-related diseases

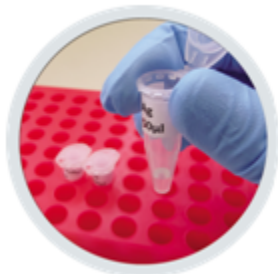
Examples of FP7 funded research contributing with research for better care

- **Coordination actions**
- **Collaborative research projects**
- **ERA-nets (national and regional research funding bodies co-investment)**
- **Large scale international research consortia – programme level cooperation at international level**
- **Disease examples: rare diseases, traumatic brain injuries, cancer**

EuroGentest



- **Harmonisation, validation and standardisation in genetic testing**
- **Support professionals in achieving high quality in all aspects of genetic testing services**
- **Provide information on genetic testing to professionals and to the public**
- **Promote the implementation of novel technologies into current practice**



Coordinator: Gert Matthijs, University of Leuven



RARE-Bestpractices



- **create a platform to improve the management of rare disease patients**
- **promote communication on the management of rare diseases by disseminating trustworthy guidelines globally**
- **identify and prioritise rare diseases research needs**
- **facilitate timely, effective and efficient translation of research results into patient oriented strategy on the clinical as well as the public health level, in support to IRDiRC activities.**

Coordinator: Domenica Taruscio, ISS, Italy



E-RARE 2 – coordinating European funders and beyond

- **Yearly launching of joint calls on rare disease research**
- **17 research agencies from 13 European and Associated countries**
- **Currently over 60 on-going projects**
- **Current investment of € 45,7 M (2007-2013) with EU investment of around € 2 M**





IRDiRC

INTERNATIONAL
RARE DISEASES RESEARCH
CONSORTIUM

**200 therapies
and
means to
diagnose most
rare disease by
2020**

IRDIRC – basic principles

- **Co-operation at international level to stimulate, better coordinate & maximise output of rare disease research efforts around the world**
- **Teams up public and private organisations investing in rare diseases research**
- **Research funders with relevant programmes >\$10 million US over a 5-year period can join & work together**
- **Each organisation funds research its own way**
- **Funded projects adhere to a common framework**



Committed members

Europe

E-RARE 2 Consortium (EU)

European Commission

EURORDIS (EU)

Academy of Finland

French Muscular Dystrophy Association

French National Research Agency

French Foundation for Rare Diseases

Children's New Hospitals Management Group (GE)

German Federal Ministry of Education and research

Italian Higher Institute of Health Research

Italian Telethon Foundation

Lysogene (FR)

Netherlands Organisation for Health Research and Development

Prosensa (NL)

Spanish Carlos III Health Institute

UK National Institute for Health Research

Australia

Western Australian Dept. of Health

Asia

BGI (CN)

Chinese Rare Disease Consortium

Korea National Institute of Health



North America

Canadian Institutes for Health Research

Genome Canada

FDA Orphan Products Grants Program

Genetic Alliance (US)

Genzyme (US)

Isis Pharmaceuticals (US)

Mendelian Disorders Genome Centres (US NIH)

National Centre for Translational Sciences (US NIH)

National Cancer Institute (US NIH)

National Institute of Neurological Disorders and Stroke (US NIH)

National Institute of Arthritis and Musculoskeletal and Skin Diseases (US NIH)

National Institute of Child Health and Human Development (US NIH)

National Eye Institute (US NIH)

NKT Therapeutics (US)

NORD (US)

Office of Rare Diseases (US NIH)

PTC Therapeutics (US)

Sanford Research (US)

Shire (US)

Going for global health research

**International Human
Microbiome Consortium**

**Global Alliance for Chronic
Diseases**

**International K.O.
Mouse Consortium**

**International Rare
Disease Research
Consortium**



**International Cancer
Genomics Consortium**

**International Initiative
for Traumatic Brain
Injury Research**

**International Human
Epigenome Consortium**

International Initiative for Traumatic Brain Injury Research



Global effort between EC, NINDS (US) and CIHR (CAN)

- **Objective?** To improve clinical outcomes of TBI
- **How?** Through the discovery of causal relationships between treatments and clinically meaningful outcomes
 - => Global effort for better standardisation and comparative effectiveness research for diagnosis and treatment of TBI
 - ✓ Longitudinal observational studies
 - ✓ Meta-analysis of individual patient data
- **Expected final deliverable?** Deliver evidence-based clinical guidelines
- **Implementation?** 2 EU projects, 2 US projects, 5 CAN projects



Research and
Innovation



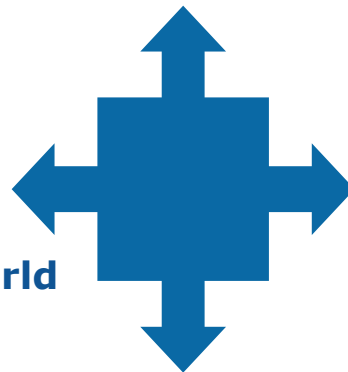
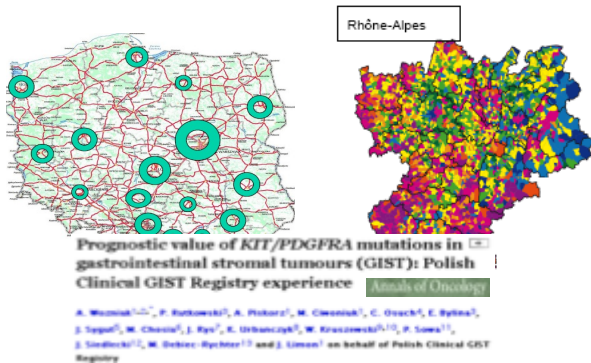


CONnective TIssue CAnCers NETwork in Adults and Children

Conticanet

Epidemiology, clinical registries

Various phase I/II-III IDCTs: treatments, care, predictive and prognostic markers



Largest sarcoma db in the world

Discontinuation of imatinib in patients with advanced gastrointestinal stromal tumours after 3 years of treatment: an open-label multicentre randomised phase 3 trial

Axel Le Cesne, Isabelle Ray-Coquard, Binh Nguyen-Bui, Antoine Adenis, Maria Rio, François Berbecci, Florence Duffaud, Christine Chevreau, Didier Cupissot, Angella Ciuffi, Jean-François Emile, Sylvie Chabaud, David Pérol, Jean-Yves Blay for the French Sarcoma Group

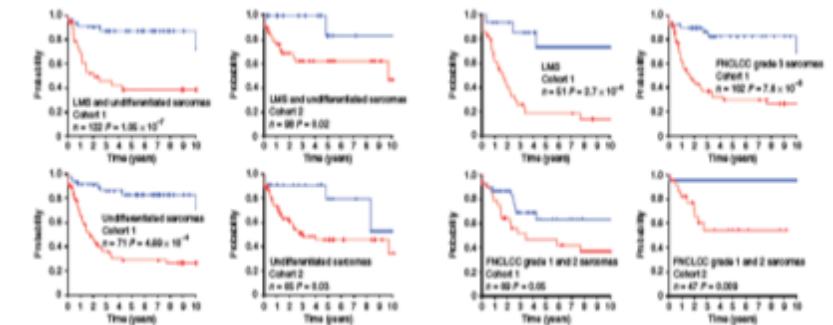
Lancet Oncol 2010; 11: 942-49

Risk of recurrence of gastrointestinal stromal tumour after surgery: an analysis of pooled population-based cohorts

Hirotaka Joensuu, Aki Vehtari, Jaakko Mäkitö, Toshiro Nishida, Soraja E Steigen, Peter Bräber, Lukas Plank, Bengt Nilsson, Claudio Criri, Chiara Braconi, Andrea Bardoni, Magnus K Magnusson, Zdenek Linke, Jozef Sufjaneky, Massimo Federico, Jan G Jonasson, Angelo Paolo Dei Tos, Piotr Rutkowski

Lancet Oncol 2012; 13: 265-74

Prognostic CINSARC sarcoma signature



Validated prediction of clinical outcome in sarcomas and multiple types of cancer on the basis of a gene expression signature related to genome complexity



Felipe Chaves^{1,2}, Pauline Leggett^{3,4}, Sebastian Haber⁵, Gaila Pineda⁶, Vignesh Raveendran⁷, Carlo Lucchini⁸, Aurélien de Reynier⁹, Andrew Knudsen¹⁰, Blake Bow¹¹, Philippe Terrier¹², Sylvia Barakat¹³, Axel Le Cesne¹⁴, Dominique Vignat-Rambaud¹⁵, Jean-Yves Blay¹⁶, Françoise Collet¹⁷, Louis Guillou¹⁸, Agnès Lemaire¹⁹, Jean-Michel Coindre^{20,21} & Alan Aster²²





European Network for cancer research in children and adolescents



AIMS

- **European comprehensive strategy for clinical trial paediatric oncology**
- **Biology to guide innovative targeted therapy development**
- **Standardised and innovative methodology for clinical trial design and analysis**
- **Early evaluation and prioritisation of new anticancer drugs**
- **Risk adaptation via prognostic biomarkers**
- **Clinical epidemiology and prospective registries**
- **Survivorship**
- **Education and training**

EXPECTED OUTCOME

- **European-wide structure for paediatric oncology**
- **Central prioritisation and execution of biology-driven trials**
- **EU-wide implementation of trial outcome**
- **EU-wide monitoring of disease outcome and quality of life**



- Strengthen scientific and technological excellence in research and treatment of leukemias
- Promote clinical trials
- Prepare guidelines
- Spread excellence

- 95 national leukemia study groups
- 102 interdisciplinary partner groups
- 1000 physicians and scientists
- Caring for ten thousands of patients

**> 147 centers
in 28 countries !!**

**Recommendations and Guidelines,
implemented world-wide**

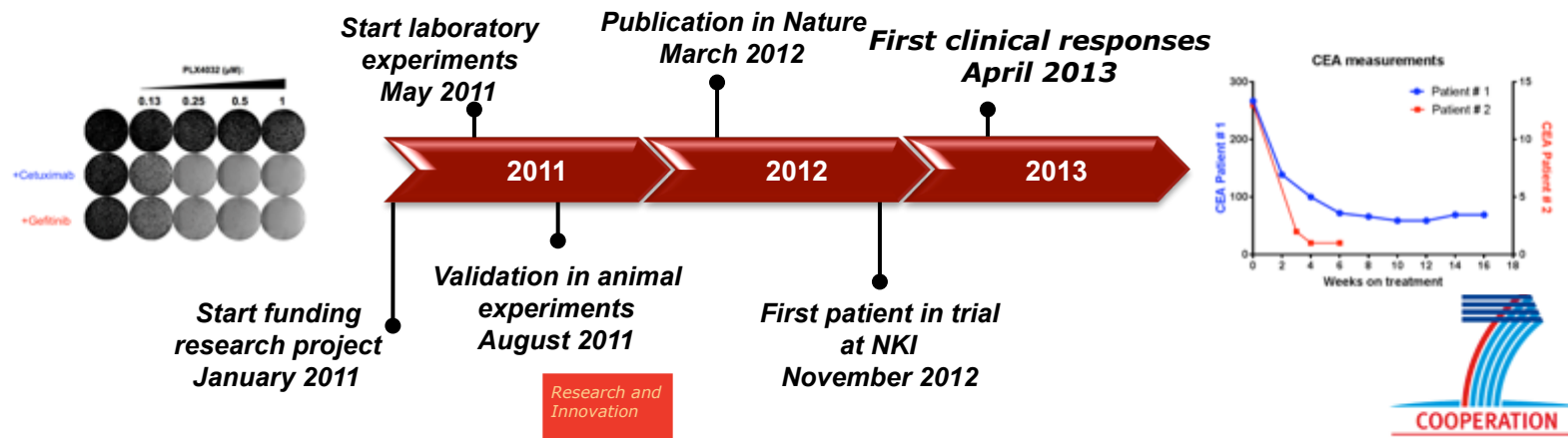
Topic	Reference
CML management recommendations	Baccarani et al, J Clin Oncol 2009;27:6041-51 Hehlmann et al, Lancet 2007;370:342-50 Baccarani et al, Blood 2006 ;108 :1809-20
CML molecular monitoring	Müller et al, Leukemia 2009;19:57-63). Hughes et al, Blood 2006;108:28-37
CLL guidelines	Hallek et al, Blood 2008;111:5446-56
CLL molecular and Flow cytometric monitoring	Ghia et al.; Leukemia 2007; 21:1-3 Rawstron et al, Leukemia 2007; 21:956-64
AML management recommendations	Döhner et al., Blood 2009, e-pup ahead of print
APL management recommendations	Sanz et al., Blood 2009;113:1875-91

Modelling and predicting sensitivity to targeted therapies in colorectal cancers

- *Determining resistance biomarkers*

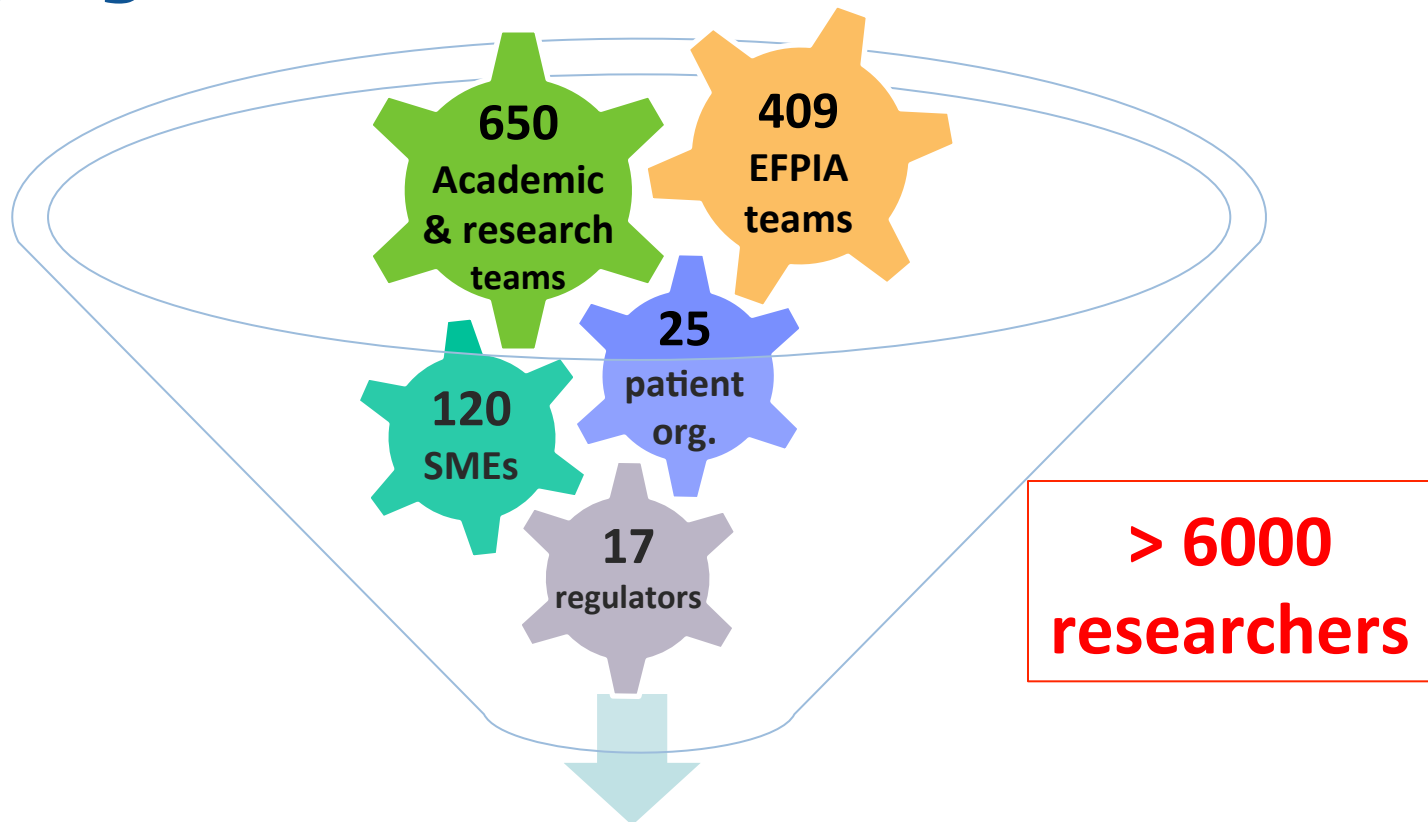
- Molecular profiling of colon cancer patient samples
- Building and screening of predictive *in vitro* models
- Screen for genes mediating resistance and sensitivity to targeted therapies in CRCs
- Building of new algorithms to accelerate the design of rational therapies

- *Design stratified, biomarker-driven phase II trials*



IMI key figures

up to call 9



Collective intelligence networks
Improved R&D productivity of pharma industries
Innovative approaches for unmet public health needs

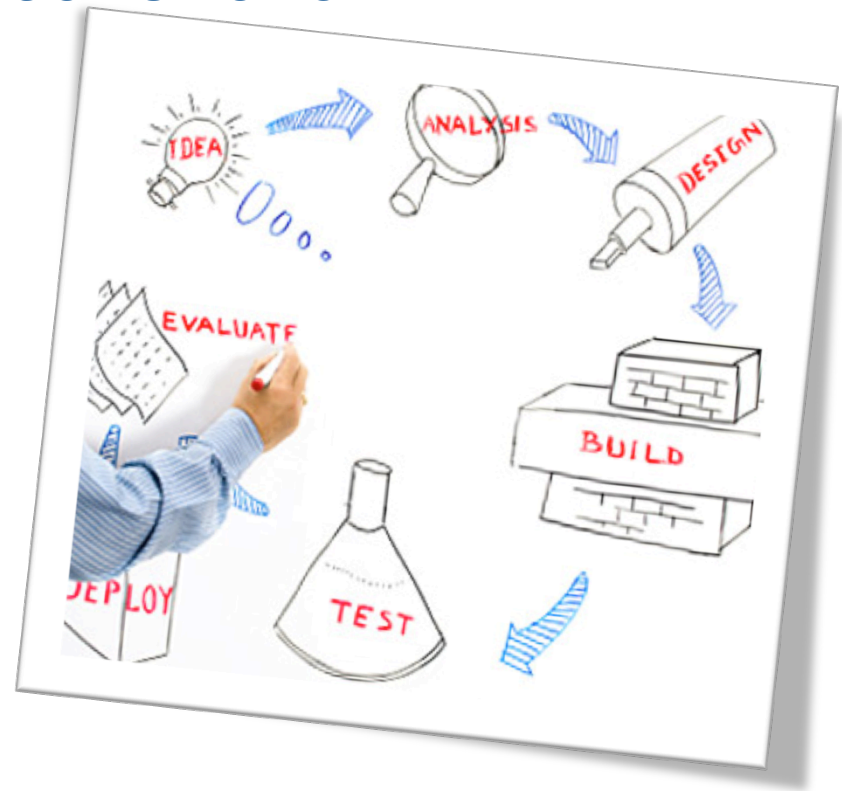
What is Horizon 2020?

The EU's 2014-20 programme
for research & innovation

A core part of Europe 2020, Innovation Union &
European Research Area

Three priorities:

1. Excellent science
2. Industrial leadership
3. Societal challenges



A new approach



**Research and innovation:
From bench to bedside**

**From vertical themes to
horizontal challenges**

**Broad, less prescriptive, 2-
year work programme**

Stronger focus on end users



The direction

- **Translate science into better health outcomes**
- **A competitive health and care sector**
- **New health and care models and tools**
- **Healthy and active ageing**

**Over
€ 7 billion
to health
research**

Work Programme 2014/15



HORIZON 2020
The EU Framework Programme for Research and Innovation

European Commission > Horizon 2020

Home | What is Horizon 2020? | Find Your area | How to Get funding? | News | Events | Multimedia | Publications | Project Stories

Sections navigation

Societal Challenges

Health, Demographic Change and Wellbeing

Find Your area

Health, Demographic Change and Wellbeing

Responding to this challenge, research and innovation (R&I) under Horizon 2020 is an investment in better health for all. It aims to keep older people active and independent for longer and supports the development of new, safer and more effective interventions. R&I under Horizon 2020 also contributes to the sustainability of health and care systems.

During the first two years of Horizon 2020 (Work Programme for 2014/15), the EU will invest some €1 200 million in this Challenge.

Personalising health and care

Research & Innovation supported by this call will:

- improve our understanding of the causes and mechanisms underlying health, healthy ageing and disease;
- improve our ability to monitor health and to prevent, detect, treat and manage disease;
- support older persons to remain active and healthy;
- and test and demonstrate new models and tools for health and care delivery.

- **€ 1,2 billion of EU funding for health research and innovation**
- **34 'personalising health and care' topics**
- **16 'co-ordination activities' topics**
- **Two 'inducement prizes'**

34 personalising health and care topics

- **Understanding health, ageing and disease**
- **Effective health promotion, disease prevention, preparedness and screening**
- **Improving diagnosis**
- **Innovative treatments and technologies**
- **Advancing active and healthy ageing**
- **Integrated, sustainable, citizen-centred care**
- **Improving health information, data exploitation and providing an evidence base for health policies and regulation**

Participant Portal– your one-stop shop



The screenshot shows the top navigation bar of the Participant Portal. It includes the European Commission logo, the text "RESEARCH & INNOVATION Participant Portal", and a search bar. Below the navigation bar, there is a section titled "Horizon 2020 Funding" with the text "Starting from 1/1/2014". The main content area lists EU programmes and provides information for both non-registered and registered users.

(A-Z) Sitemap About this site Contact Legal Notice Search English

European Commission

RESEARCH & INNOVATION
Participant Portal

European Commission > Research & Innovation > Participant Portal > Home

HOME FUNDING OPPORTUNITIES HOW TO PARTICIPATE EXPERTS SUPPORT

LOGIN REGISTER

Horizon 2020 Funding

Starting from 1/1/2014

On this site you can find and secure **funding** for research & innovation projects under the following EU programmes:

- 2014-2020 Horizon 2020 - research and innovation framework programme
- 2007-2013 7th research framework programme (FP7) and Competitiveness & Innovation Programme (CIP)

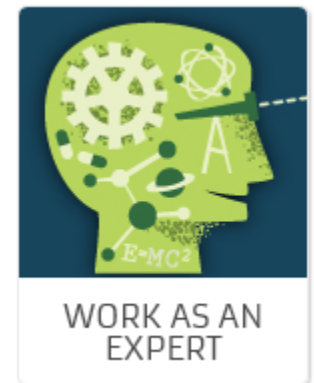
Non-registered users

- search for funding
- read the H2020 Online Manual & download the legal documents
- check if an organisation is already registered
- contact our support services or check our FAQs

Registered users

- submit your proposal
- sign the grant
- manage your project throughout its lifecycle

COOPERATION



<http://ec.europa.eu/research/participants/portal>



Thank you

www.ec.europa.eu/research/health

www.ec.europa.eu/research/horizon2020