




**EU health  
research**  
Inspiring collaboration

**The societal challenge  
'Health, demographic  
change and well-being'**

**Work programme  
2016-2017**

**INFO DAY  
Budapest  
14 December 2015**

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DG Research and Innovation*



# Health research in Horizon 2020 and in the Societal Challenge 1

# H2020 should contribute to Commission priorities



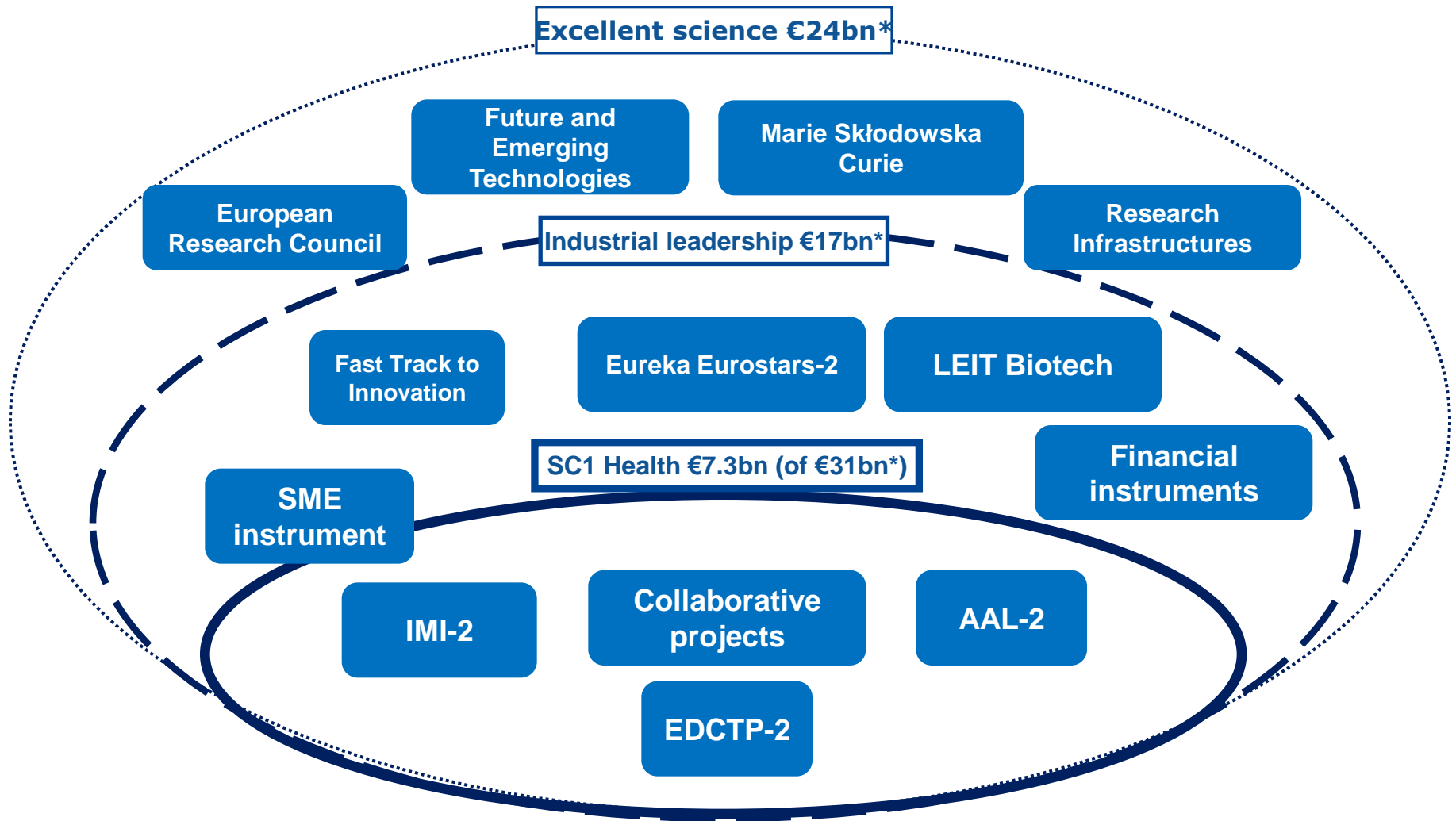
**Research and innovation is a  
priority for the EU ...  
... Horizon 2020 must deliver**



- EXCELLENT research and innovation
- Projects must have an IMPACT
- Show ADDED VALUE, be multidisciplinary and well-implemented

Reflected in the  
evaluation  
criteria

# Health Research in H2020



# SC1 main research priorities 2016-17



€ 935  
million



***Personalised medicine***



***Promoting healthy ageing***



***Human biomonitoring***



***Health ICT***



***Infectious Diseases  
InnovFin***



***Maternal and child health***

# Participant portal



## RESEARCH & INNOVATION

### Participant Portal

European Commission > Research & Innovation > Participant Portal > Opportunities

HOME FUNDING OPPORTUNITIES HOW TO PARTICIPATE EXPERTS SUPPORT Search PP LOGIN REGISTER

#### EU Programmes 2014-2020

Search Topics

Updates

Calls

H2020

Research Fund for Coal & Steel

3rd Health Programme

Promotion of Agricultural Products

Consumer Programme

COSME

Justice Programme

#### FP7 & CIP Programmes 2007-2013

Calls

Other Funding Opportunities

#### CALL: PERSONALISED MEDICINE

[Call budget overview](#)

Call Identifier: H2020-SC1-2016-2017

Publication date: 14 October 2015



Horizon 2020  
> Societal Challenges

[H2020 website](#)

#### Call summary

[+ More](#)

##### Budget Information:

Beneficiaries will be allowed to charge the cost of clinical trials on the basis of unit costs established in line with a methodology set up in the Commission Decision (C2014) 1393, which is available on the Participant Portal. This

#### Call updates

[+ More](#)

- **20 October 2015 10:43** The submission session is now available for: SC1-HCO-06-2016(CSA), SC1-PM-06-2016(RIA), SC1-PM-04-2016(RIA), SC1-PM-21-2016(RIA), SC1-HCO-02-2016(CSA), SC1-HCO-04-2016(CSA), SC1-PM-05-2016(CSA), SC1-PM-05-2016(CSA), SC1-PM-11-2016-2017(RIA), SC1-PM-

#### Topics and submission service

To access the **Submission Service**, please **select the TOPIC** of your interest and then open the Submission Service tab.  
To access **existing draft proposals**, please login to the portal and select My Proposals from the My Area menu.

Status  Forthcoming  Open  Closed

Sort by  (Planned) opening date  Deadline  Topic title  Topic identifier

Topic: [SC1-HCO-01-2016:Valorisation of FP7 Health and H2020 SC1 research results](#)

[Open](#)

Publication date: 14 October 2015

Types of action: CSA Coordination and support action

Deadline Model: single-stage

Deadline: 13 April 2016 17:00:00

Opening date: 20 October 2015

Time Zone : (Brussels time)

# The work programme



European  
Commission

## SC1-PM-11-2016-2017: Clinical research

**Specific Challenge:** Translating basic knowledge often delayed by the difficulty of undertaking specific research needed for proving the reproducibility of their therapeutic effect in the therapeutic field of regenerative medicine, business and regulatory models. The challenge is to research and to determine the potential of

**Scope:** Proposals should target regenerative (in-patient) research and should focus on clinical work (e.g., first in man, late stage). Later stages are preferred; clinical work in the later stages of the clinical work proposed, phase I preferred.

The Commission considers that proposals of EUR 4 and 6 million would allow this. Nonetheless, this does not preclude sub-amounts.

### **Expected Impact:**

- Obtain results by means of in-patient therapies to safely reach the next level
- Stimulate growth and competitive European small and medium-sized enterprises

SC1-HCO-01-2016 (CSA)	2.00	13 Apr 2016
SC1-HCO-02-2016 (CSA)	2.00	
SC1-HCO-04-2016 (CSA)	2.00	
SC1-HCO-05-2016 (CSA)	2.00	
SC1-HCO-06-2016 (CSA)	2.00	
SC1-PM-01-2016 (RIA)	30.00	
SC1-PM-04-2016 (RIA)	30.00	
SC1-PM-05-2016 (COFUND-EJP)	50.00	
SC1-PM-06-2016 (RIA)	40.00	
SC1-PM-09-2016 (RIA)	60.00	
SC1-PM-11-2016-2017 (RIA)	30.00	30.00
SC1-PM-21-2016 (RIA)	40.00	

Opening: 29 Jul 2016

# Priority 'Personalised Medicine'



## Collaborative research

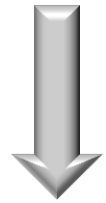
Enabling Personalised Medicine

Implementing Personalised Medicine



over 1 billion EUR

over 1.2 billion EUR in 2014/15



European Personalised Medicine Consortium







## ***Understanding health, well-being and diseases***

- SC1-PM-01-2016: Multi omics for personalised therapies addressing diseases of the immune system
- SC1-PM-02-2017: New concepts in patient stratification
- SC1-PM-03-2017: Diagnostic characterisation of rare diseases
- SC1-PM-04-2016: Networking and optimising the use of population and patient cohorts at EU level

## ***Treating and managing diseases***

- SC1-PM-08-2017: New therapies for rare diseases
- SC1-PM-09-2016: New therapies for chronic diseases
- SC1-PM-10-2017: Comparing the effectiveness of existing healthcare interventions in the adult population
- SC1-PM-11-2016-2017: Clinical research on regenerative medicine

## ***Preventing diseases***

- SC1-PM-07-2017: Promoting mental health and well-being in the young

## ***Methods and data***

- SC1-PM-20-2017: Development of new methods and measures for improved economic evaluation and efficiency measures in the health sector

## ***Health care provision and integrated care***

- SC1-PM-21-2016: Implementation research for scaling-up of evidence based innovations and good practice in Europe and low- and middle-income countries

## ***Coordination activities***

- SC1-HCO-02-2016: Standardisation of pre-analytical and analytical procedures for *in vitro* diagnostics in personalised medicine
- SC1-HCO-03-2017: Implementing the Strategic Research Agenda on Personalised Medicine
- SC1-HCO-05-2016: Coordinating personalised medicine research
- SC1-HCO-06-2016: Towards an ERA-NET for building sustainable and resilient health system models

# Priority 'Human biomonitoring'



## Strategic planning & coordination of national initiatives

- Creating a European joint programme for monitoring and scientific assessment of human exposures to chemicals and potential health impacts
- Coordinating HBM initiatives in Europe at national and EU level with special focus on a two way dialogue between policy and science in support of evidence based policy making
- Implementation through a Joint Programme Co-Fund



## Preventing diseases

SC1-PM-05-2016: The European Human Biomonitoring Initiative



# Priority 'Infectious diseases'



- *Collaborative research* – HIV/AIDS, Malaria and Tuberculosis; Neglected Infectious Diseases (NID); Emerging Epidemics; Antimicrobial drug resistance (AMR)
- *New financial instruments* - InnovFin Infectious Diseases – joint initiative between EC-EIB
- *Inducement prizes* – Horizon 2020 prize for better use of antibiotics
- *Global initiatives* - Global Research Collaboration for Infectious Disease Preparedness (GLOPID-R); Global Tuberculosis Vaccine Partnership (GTBVP)
- *Public-private partnerships* – IMI2
- *Public-public partnerships* – EDCTP2
- *Joint Programming Initiative on AMR* – JPIAMR – ERA-INFECT

# Priority 'Infectious diseases'



## ***Understanding health, well-being and diseases***

- SC1-PM-02-2017: New concepts in patient stratification
- SC1-PM-04-2016: Networking and optimising the use of population and patient cohorts at EU level

## ***Preventing diseases***

- SC1-PM-06-2016: Vaccine development for malaria and/or neglected infectious diseases

## ***Treating and managing diseases***

- SC1-PM-09-2016: New therapies for chronic diseases
- SC1-PM-10-2017: Comparing the effectiveness of existing healthcare interventions in the adult population

## ***Coordination activities***

- SC1-HCO-04-2016: Towards globalisation of the Joint Programming Initiative on Antimicrobial Resistance

# Priority 'Maternal and child health'



- Approximately 300,000 women died from preventable causes related to pregnancy and childbirth in 2013
- Maternal and perinatal conditions are the seventh contributors to the global burden of disease



## **Other Actions: Horizon Prize on reducing maternal and newborn morbidity and mortality – the Birth Day Prize**

- The prize calls for a novel solution to improve the outcome of facility-based deliveries (of a clinical, technological or managerial nature, or a combination of these)
- Developed by European Commission and Bill & Melinda Gates Foundation
- Prize launch at the high-level conference "Together for the next generation,, on 8 December

# Priorities 'e-health' & 'Healthy ageing'



**Promoting healthy ageing**



**Health ICT**



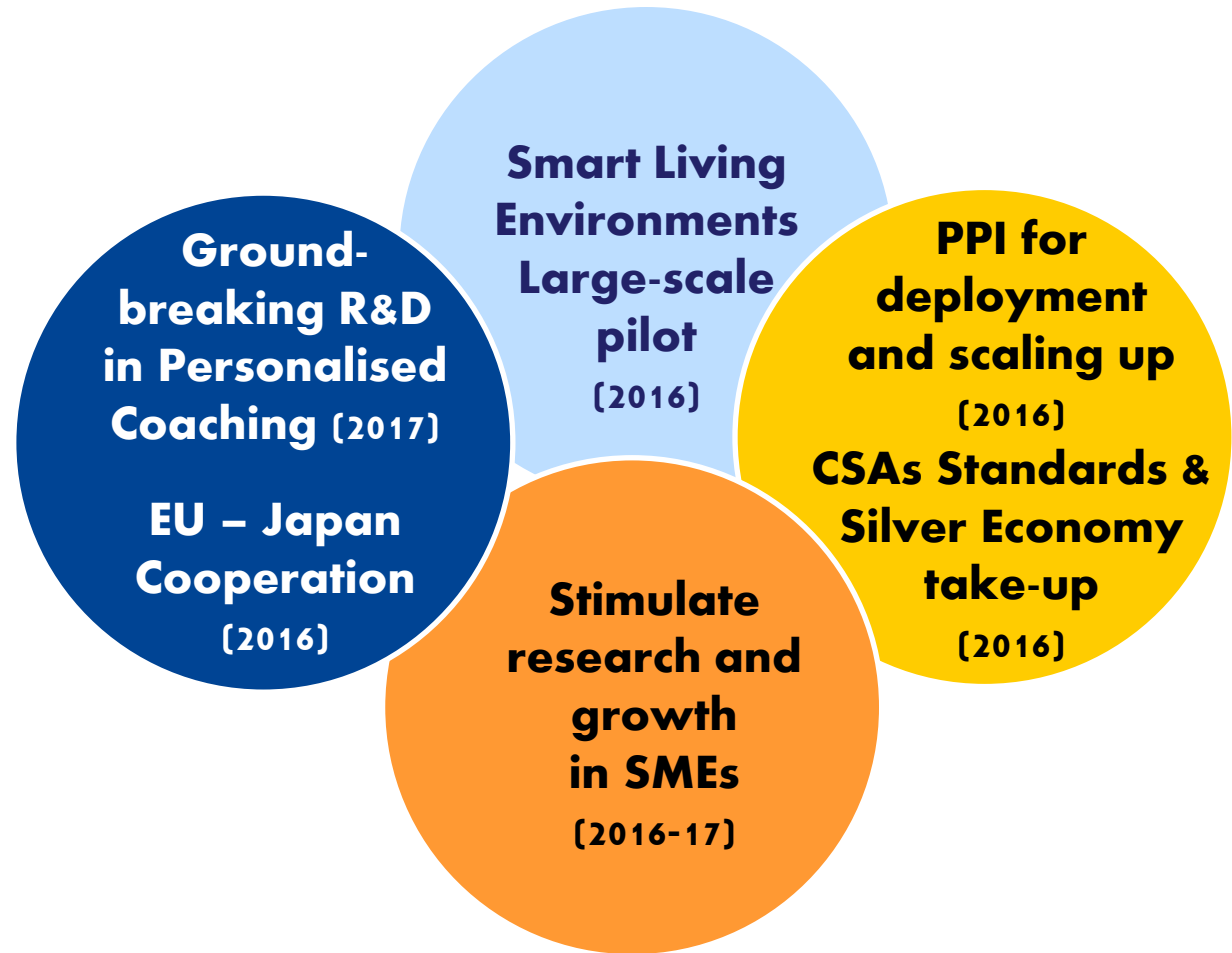
A large number of research and innovation topics, and coordination topics in the SC1 Work Programme 2016 - 2017



# Priority 'ICT solutions for active & healthy ageing'



- Exploring new opportunities
- Catalyse Silver Economy
- IoT for Smart Living Environments (with ICT-LEIT)
- Scale up Innovative Care Services
- Complementing previous calls



# Priority 'ICT for health'



- More strategic patient-centred approach and health promotion
- Creating a body of evidence for IT technologies, support for SME's growth, IT skills for healthcare workforce
- New approaches in managing health, from well-being to personalisation
- Data and sharing data challenges
- Decrease of time to market, better adaptation to innovation and support to policy
- Contribution to WHO activities and US cooperation

The entire chain of innovation is needed, from research to support actions and specific instruments.

**Self-management of health and mobile health**

**Digital Health literacy**

**Evidence on IT technologies, Opportunities for SME's, Optimal use of healthcare workforce**

**Well-being**

**Prevention, Personalisation, SSH**

**Data security and privacy**

**Interoperability and standards**

**In-silico clinical trials**

**Big data**

# Priorities 'e-health' & 'Healthy ageing'



## *Active ageing and self-management of health*

- SC1-PM-12–2016: PCP - eHealth innovation in empowering the patient
- SC1-PM-13–2016: PPI for deployment and scaling up of ICT solutions for active and healthy ageing
- SC1-PM-14–2016: EU-Japan cooperation on Novel ICT Robotics based solutions for active and healthy ageing at home or in care facilities

## *Methods and data*

- SC1-PM-16–2017: In-silico trials for developing and assessing biomedical products
- SC1-PM-17–2017: Personalised computer models and in-silico systems for well-being
- SC1-PM-18–2016: Big Data supporting Public Health policies
- SC1-PM-19–2017: PPI for uptake of standards for the exchange of digitalised healthcare records
- SC1-PM-20-2017: Development of new methods and measures for improved economic evaluation and efficiency measures in the health sector

# Priorities 'e-health' & 'Healthy ageing'



## *Coordination activities*

- SC1-HCO-09–2016: EU m-Health hub including evidence for the integration of mHealth in the healthcare systems
- SC1-HCO-10–2016: Support for Europe's leading Health ICT SMEs
- SC1-HCO-11–2016: Coordinated action to support the recognition of Silver Economy opportunities arising from demographic change
- SC1-HCO-12–2016: Digital health literacy
- SC1-HCO-13-2016: Healthcare Workforce IT skills
- SC1-HCO-14–2016: EU-US interoperability roadmap
- SC1-HCO-15-2016: EU eHealth Interoperability conformity assessment
- SC1-HCO-16-2016: Standardisation needs in the field of ICT for Active and Healthy Ageing

# Other coordination activities



SC1-HCO-01-2016: Valorisation of FP7 Health and H2020 SC1 research results



SC1-HCO-07–2017: Global Alliance for Chronic Diseases (GACD)



SC1-HCO-08–2017: Actions to bridge the divide in European health research and innovation



**16 February 2016 (DG CNECT)**

**12/13 April 2016 (DG RTD)**

# SME instrument



## Phase 1

### Concept & Feasibility Assessment

- Feasibility of concept
- Risk assessment
- IP regime
- Partner search
- Design study

**Lump sum:  
~ 50.000 €  
~ 6 months**

## Phase 2

### Innovation R&D activities

- Development, prototype, testing
- Miniaturisation/design
- Clinical trials
- Etc.

**EU funding:  
1 to 5 million EUR  
12 to 36 months**

## Phase 3

### Commercialization


- Facilitate access to private finance
- Support via networking, training, knowledge sharing, dissemination

**No direct funding**

## Market



# SME instrument in SC1 WP 2016-2017

A graphic with a blue background featuring a globe and abstract light patterns. The text "Implementation in SC1 Work Programme 2016-2017" is written in white.

## Implementation in SC1 Work Programme 2016-2017



- SMEInst-05-2016-2017 – Supporting innovative SMEs in the healthcare biotechnology sector
- SMEInst-06-2016-2017 – Accelerating market introduction of ICT solutions for Health, Well-Being and Ageing Well



# SME instrument Phase 1 2014-2015



## 2014

### 1<sup>st</sup> cut-off - 18 June

- 208 proposals submitted
- 24 projects funded
- Success rate: **11.5%**

### 2<sup>nd</sup> cut-off - 24 September

- 152 proposals submitted
- 21 projects funded
- Success rate: **13.8%**

### 3<sup>rd</sup> cut-off - 17 December

- 195 proposals submitted
- 32 projects funded
- Success rate: **16.4%**

## 2015

### 1<sup>st</sup> cut-off - 18 March

- 104 proposals submitted
- 24 projects funded
- Success rate: **23.1%**

### 2<sup>nd</sup> cut-off - 17 June

- 178 proposals submitted
- 22 projects funded
- Success rate: **12.3%**

### 3<sup>rd</sup> cut-off - 17 September

- 154 proposals submitted
- 18 projects funded
- Success rate: **11.2%**

# SME instrument

## Phase 2 2014-2015



### 2014

1<sup>st</sup> cut-off – 9 October

81 proposals submitted

10 projects funded

Success rate: **12.3%**

2<sup>nd</sup> cut-off - 17 December

91 proposals submitted

9 projects funded

Success rate: **10.1%**

### 2015

1<sup>st</sup> cut-off – 18 March

- 91 proposals submitted
- 4 projects funded
- Success rate: **4.3%**

2<sup>nd</sup> cut-off – 17 June

- 129 proposals submitted
- 3 projects funded
- Success rate: **2.3%**

3<sup>rd</sup> cut-off – 17 September

- 108 proposals submitted
- 3 projects funded
- Success rate: **2.8%**

# Public-private partnership



innovative  
medicines  
initiative

## THE INNOVATIVE MEDICINES INITIATIVE

The Innovative Medicines Initiative (IMI) is Europe's largest public-private initiative aiming to speed up the development of better and safer medicines for patients.

IMI supports collaborative research projects and builds networks of industrial and academic experts in order to boost pharmaceutical innovation in Europe.

IMI is a joint undertaking between the European Union and the pharmaceutical industry association EFPIA.



**IMI 2: ~€3.2 billion**  
**EC: €1.6b+ EFPIA €1.4b +**  
**other (€0.2b)**

## IMI2:

- Covers the entire medical research and innovation value chain
- Strategic Research Agenda is based on the WHO Priority Medicine Report renewed in July 2013
- Involves pharmaceutical industries as well as others (diagnostics, imaging, animal health, ICT **etc.**)
- Supports World class research and innovation leading to breakthrough vaccines, medicines and treatments

# Public-public partnership



*European & Developing Countries Clinical Trials Partnership*

EDCTP supports clinical trials and related research activities on PRDs, as well as capacity development for clinical trials and related research in sub-Saharan Africa.

**EDCTP 2:  
~€1.37 Billion  
EC: €683 mio + MS  
€683 mio**



## **EDCTP2:**

- launched in December 2014
- almost €700 million EU co-funding, matching the same Member States contribution
- broader scope: including HIV, TB, malaria, neglected infectious diseases, all clinical phases, diagnostics and delivery optimisation
- longer duration: 10 years

# Public-public partnership



## AAL PROGRAMME

The AAL Programme is the funding activity that aims to create better condition of life for the older adults and to strengthen the industrial opportunities in Europe through the use of information and communication technology (ICT).

**AAL2:**  
**~€400 million**  
**EC: 175 mio + MS**



# Multi-lateral health research initiatives



[www.irdirc.org/](http://www.irdirc.org/)



<http://ihec-epigenomes.org/>



International  
Cancer Genome  
Consortium

<https://icgc.org/>



Global Genomic  
Medicine Collaborative

[http://www.iom.edu/Activities/Research/GenomicBasedResearch/Innovation-Collaboratives/Global\\_Genomic\\_Medicine\\_Collaborative.aspx](http://www.iom.edu/Activities/Research/GenomicBasedResearch/Innovation-Collaboratives/Global_Genomic_Medicine_Collaborative.aspx)



**InTBIR**  
International Initiative for  
Traumatic Brain Injury Research

<http://intbir.nih.gov/>



[www.gacd.org/](http://www.gacd.org/)



Global Research  
Collaboration for Infectious  
Disease Preparedness

<http://www.glopid-r.org/>



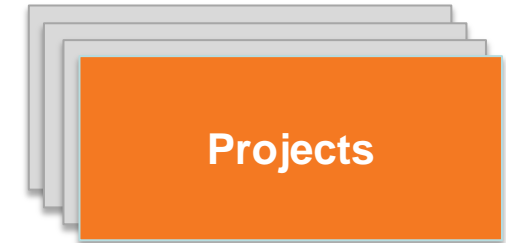
European  
Commission



# Financial instruments



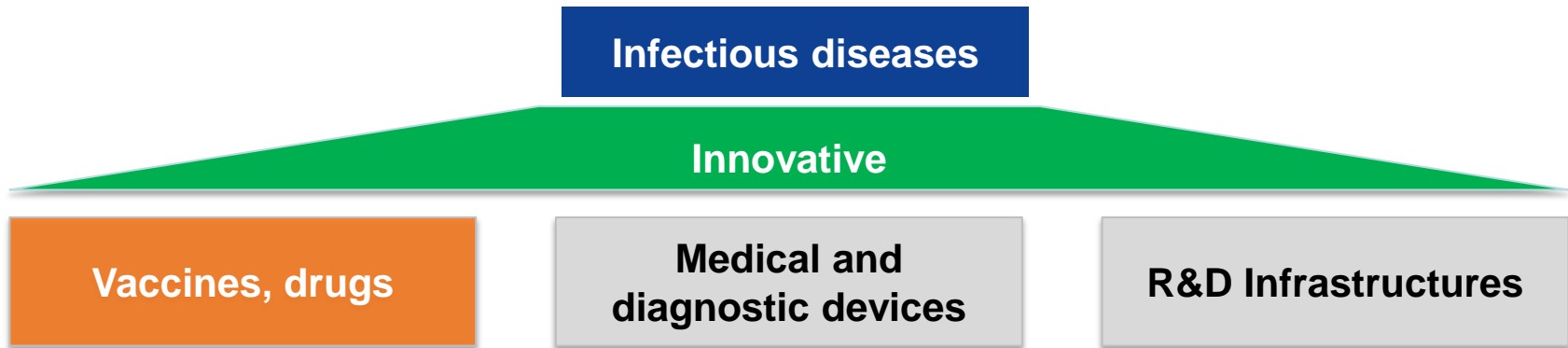
**Direct Lending  
Up to € 75 million**



- Broad range of products - standard debt instruments (i.e. senior, subordinated, and mezzanine) to risk sharing instruments (RSL) with forgiveness options
- EIB can only finance 50% of project costs
- Comprehensive due diligence (legal, financial, technical, etc.)
- EIB standard documentation under English or Luxembourgish law



## Which projects can be supported?



- Projects which have passed pre-clinical stage and for which clinical validation is needed for further development
- Loan amount: min EUR 7.5 million, max EUR 75 million
- Loan maturity: up to 7 years
- Currency: EUR and local currency
- Pricing : commensurate to the risk incurred

# Health research in Horizon 2020



European

**Collaborative health research (SC1)**

**Public-private partnership**

**Frontier research**

**Support to innovation**

**Modelling & predictive (neuro)sciences**

**Research Education Innovation**

**Public-public partnerships**

**Health research infrastructures**

**Loans for de-risking R&I**

**Deployment of innovative solutions**



# HORIZON 2020

**Thank you  
for your attention**

**Find out more:**

[www.ec.europa.eu/research/horizon2020](http://www.ec.europa.eu/research/horizon2020)

<http://ec.europa.eu/research/participants/portal/desktop/en/home.html>