The societal challenge 'Health, demographic change and well-being' Work programme 2016-2017

Information Day
Belfast
28 October 2015

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Scientific Advice Mechanism

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Content:

- UK in FP

- Horizon 2020 in brief

- Societal challenge 1 work programme 2016/17
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Brexit and science: let’s not make the same mistake as the Swiss

Guest post: Why walking away from the EU will leave UK science in difficult negotiation territory

Mike Galsworthy

In late January 2014, the contract between Switzerland and the EU sat on desks, ready to sign. Switzerland was due to become an associated country on the EU’s new seven-year, €80 billion science programme, called “Horizon 2020”. Although not an EU country, Switzerland would contribute appropriate levels of money, thereby allowing its university scientists and small innovative businesses to compete for the pooled research and innovation funds in exactly the same way scientists in EU member states do.
Preaching to the converted?

- UK a strong performer
- In FP7, UK received 15.4% of total funding available, €7bn
- In H2020, 14.9%
- 41% of all FP7 co-operative research projects include a UK partner
- 4 UK entities in top 10 for most funds received
- UK largest beneficiary of ERC (22%) and MSC
- HM Govt estimates that in R&I, UK gets more out than puts in - £1.40 for every £1.
FP7 Health Cooperation Programme (2007-2013)

United Kingdom key figures
- EC Contribution: 1,050,436,393
- Total Costs: 1,410,209,395
- Number of projects: 809
- Number of participations: 1,946
- Number of organisations: 408
- Average amount by participations: 539,792
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<td>LU-UK</td>
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<td>CN-UK</td>
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</table>
TOP 20 REGIONS in FP7 Health Cooperation

Rank UK11 - Inner London in the Health Programme: 2 on 248

<table>
<thead>
<tr>
<th>Region Description</th>
<th>Value</th>
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<tbody>
<tr>
<td>FR10 - Île de France</td>
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<td>DE21 - Oberbayern</td>
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<td>NL31 - Utrecht</td>
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<td>DE12 - Karlsruhe</td>
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<td>UKJ1 - Berkshire, Buckinghamshire and Oxfordshire</td>
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<td>SE12 - Östra Mellansverige</td>
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<td>UKM2 - Eastern Scotland</td>
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<td>ES30 - Comunidad de Madrid</td>
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<tr>
<td>UKH1 - East Anglia</td>
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<td>FI16 - Etela-Suomi</td>
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<td>AT13 - Wien</td>
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<td>NL22 - Gelderland</td>
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</tbody>
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It's not *quite* that simple…

start here:
Research and innovation – a growing priority for the EU ...

... but Horizon 2020 must deliver

- You should perform EXCELLENT research and innovation
- Your project must have an IMPACT
- Show ADDED VALUE, be multidisciplinary and well-implemented

Reflected in the evaluation criteria

European Commission
There are many ways to measure impact

Evidence based policy making
Medicines for children
Health Technology Assessment
and many others...

Taking the lead in new areas of growth
Personalised medicine

Responding to emergencies

Knowledge creation and exploitation

Ebola drug trials lurch ahead
Changing epidemiology and hints of success alter studies of experimental treatments

INFECTION DISEASES
Ebola drug trials lurch ahead
Changing epidemiology and hints of success alter studies of experimental treatments

Project
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INNOVATION
PATENT
Impact
citation
bibliography
Jobs

SME
SMALL & MEDIUM ENTERPRISES
Where is health research in Horizon 2020?

EVERYWHERE
Health Research in H2020

- **Collaborative projects**
- **SME instrument**
- **Future and Emerging Technologies**
- **Marie Skłodowska Curie**
- **Industrial leadership €17bn***
- **Research Infrastructures**
- **Eureka Eurostars-2**
- **LEIT Biotech**
- **Financial instruments**
- **SC1 Health €7.3bn (of €31bn*)**
- **IMI-2**
- **EDCTP-2**
- **AAL-2**

* Figure to be updated following EFSI investments in 2015
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
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.

**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

**EDCTP 2: ~€1.37 Billion**
**EC: €683 mio + MS €683 mio**
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The SC1 Work Programme 2016-17 in brief

Call 'Personalised Medicine'

including 'coordination activities'

SME Instrument: 2 Topics
Other Actions: 12 items (incl. InnovFin ID & "Birth Day Prize")
Focus Area Digital Security: 1 Topic
Focus Area Internet of Things: 1 Topic

€ 935 million
Main research priorities for 2016-2017

- Personalised medicine
- Promoting healthy ageing
- Human biomonitoring
- Health ICT
- Infectious Diseases
- InnovFin
- Maternal and child health
Personalised Medicine is defined as a medical model using characterization of individuals’ phenotypes and genotypes (e.g. molecular profiling, medical imaging, lifestyle data) for tailoring the right therapeutic strategy for the right person at the right time, and/or to determine the predisposition to disease and/or to deliver timely and targeted prevention.

(Horizon 2020 Societal Challenge 1 Advisory Group Report)
Developing personalised medicines at EU level

Strategic planning & coordination of national initiatives

Implementation in SC1 Work Programme 2016-2017

A large number of research and innovation topics and coordination topics in the SC1 Work Programme 16-17

+ PerMed

Shaping Europe’s Vision for Personalised Medicine
Strategic Research and Innovation Agenda (SRIA)

+ IMI

Innovative Medicines Initiative

European Commission
Personalised medicine in SC1 Work Programme 2016-2017 (I)

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
Personalised medicine in SC1 Work Programme 2016-2017 (II)

**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
Personalised medicine in SC1 Work Programme 2016-2017 (III)

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
European human biomonitoring initiative

- 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

Implementation in SC1
Work Programme 2016-2017

Preventing diseases
SC1-PM-05-2016: The European Human Biomonitoring Initiative
Infectious diseases

Implementation in
SC1 Work Programme
2016-2017

- **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
Infectious diseases in SC1 WP 16-17 (I)

**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
Other Actions: InnovFin Infectious Diseases (InnovFin ID) Pilot

A New Financial Instrument for Infectious Diseases R&D:
• Jointly developed by the European Commission and European Investment Bank
• Launched on 15 June 2015 in Riga during 'The First Innovative Enterprise Week'
• Established under InnovFin - EU Finance for Innovators
• Provides loans between EUR 7.5m and EUR 75m to innovative players active in developing vaccines, drugs, medical and diagnostic devices, and research infrastructures for combatting infectious diseases

http://www.eib.org/innovfin
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
• More details and prize launch at the high-level conference "Together for the next generation" on 8 December in Brussels
Promoting healthy ageing

Health ICT

A large number of research and innovation topics, and coordination topics in the SC1 Work Programme 2016 - 2017
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
Horizon 2020: more opportunities for SMEs

- **Integrated approach** – around 20% of the total budget for societal challenges and LEITs to go to SMEs
- **Simplification** of particular benefit to SMEs (e.g. single entry point)
- A **new SME instrument** will be used across all societal challenges as well as for the LEITs
- A dedicated activity for research-intensive SMEs in *'Innovation in SMEs'*
- *'Access to risk finance'* with a dedicated SME scheme (debt and equity facility)
SME instrument 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
Calendar for Horizon 2020 Work Programme 2016-2017 (indicative)

- 18 September 2015: SC1 Info Day – Brussels
- 13 October 2015: adoption of WP 2016-2017 by the Commission
- 14 October 2015: publication of WP 2016-2017
Proposal submission and evaluation

- 2016: single-stage only
- 2017: mostly single-stage and 4 topics for two-stage
- Criteria & scoring: in the General Annex to the Work Programme
- Proposal evaluation process involving at least 3 external experts per proposal – in Commission Guidelines
Thank you!
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