SC1 Health, demographic change and well-being

Brussel, 4 december 2017 Lieve Apers





Horizon 2020 – what comes now

- First triennial Work Programme: WP 2018-2020
- The largest budget/year in the history of the EU Framework Programmes ca. € 700 million/year
- Topics for 2020 in more detail will be published in mid-2018

Health, demographic change and well-being







Health Research in Horizon 2020







Health collaborative research

7 priorities for



Personalised medicine



Decoding the role of the environment for health and well-being



Improving global health



020 Innovative health and care industry



Innovative health, and care systems - Integration of care



Digital transformation in Health and Care



Trusted Big Data solutions and Cybersecurity for Health and Care







7 priorities implemented via SC1 WP 2018-2020 through 3 Calls for proposals

Call 'Better Health and care, economic growth and sustainable health systems'

5 main priorities & 32 topics

Call 'Digital transformation in Health and Care' 13 topics

Call 'Trusted digital solutions and Cybersecurity in Health and Care'

3 topics

Other Actions 2018–2019 7 items









Priority 1 – Personalised medicine

- Personalised health and care solutions
- Improved health outcomes
- Chronic, rare and communicable diseases, including children, the ageing population and high-risk groups
- Understanding of the economic impact and the potential of personalised medicine to transform health systems

IMPACT: Improved health outcomes for the citizens

POLICY DRIVERS + SUPPORT FOR:



Council conclusions on Personalised Medicine
International Consortium on Personalised Medicine
European Reference Networks









Personalised Medicine (I)

- <u>BHC-03-2018</u>: Exploiting research outcomes and application potential of the human microbiome for personalised prediction, prevention and treatment of disease
- BHC-04-2018: Rare Disease European Joint Programme Cofund
- <u>BHC-05-2018</u>: International flagship collaboration with Canada for human data storage, integration and sharing to enable personalised medicine approaches
- BHC-01-2019: Understanding causative mechanisms in co- and multimorbidities
- BHC-02-2019: Systems approaches for the discovery of combinatorial therapies for complex disorders





Personalised Medicine (II)

Coordination and support actions

- <u>HCO-02-2018:</u> Data integration and data-driven in-silico models for enabling personalised medicine - a European standardization framework
- <u>HCO-04-2018</u>: ERA-NET to support the Joint Programming in Neurodegenerative Diseases strategic plan (JPND)
- <u>HCO-01-2018-2019-2020:</u> Actions in support of the International Consortium for Personalised Medicine





Priority 2 – Innovative health and care industry

- Turning innovative knowledge and technologies into practical applications benefiting citizens, healthcare systems and businesses
- Innovative diagnostics and therapeutics, including advanced therapies
- Clear exploitation potential and socioeconomic benefits for patients and sustainable health systems
- Complementarity with the SME instrument, the Fast Track to Innovation and the Innovative Medicines Initiative (IMI).

IMPACT: To stimulate the healthcare industry

POLICY DRIVERS + SUPPORT FOR:

Upgrading the single market









Innovative health and care industry

- BHC-09-2018: Innovation platforms for advanced therapies of the future
- BHC-07-2019: Regenerative medicine: from new insights to new applications
- BHC-10-2019: Innovation Procurement: Next generation sequencing (NGS) for routine diagnosis

Coordination and support actions

 HCO-05-2018: Strengthening regulatory sciences and supporting regulatory scientific advice







Priority 3 – Infectious diseases and improving global health

- Infectious diseases and the health of vulnerable groups
- 'One Health' approach
- Antimicrobial resistance, emerging and re-emerging infectious diseases and poverty-related and neglected diseases
- Maternal and new born health, global collaboration on noncommunicable diseases and on brain research

IMPACT: To prevent, detect and treat of priority diseases worldwide

POLICY DRIVERS + SUPPORT FOR:



Global Research
Collaboration for
Infectious Disease
Preparedness



European One Health Action Plan against Antimicrobial Resistance



European &

Developing

Countries Clinical

Trials Partnership



Global Action Plan on antimicrobial resistance



Global Alliance for Chronic Diseases







Infectious diseases and improving global health (I)

- BHC-15-2018: New anti-infective agents for prevention and/or treatment of neglected infectious diseases (NID)
- BHC-16-2018: Global Alliance for Chronic Diseases (GACD) Scaling-up of evidence-based health interventions at population level for the prevention and management of hypertension and/or diabetes
- <u>BHC-18-2018:</u> Translational collaborative cancer research between Europe and the Community of Latin American and Caribbean States (CELAC)
- <u>BHC-21-2018</u>: Research on HIV, tuberculosis (TB) and/or hepatitis C (HCV) in patients with mono-, co-infections and/or comorbidities in the context of fostering collaboration with the Russian Federation





Infectious diseases and improving global health (II)

- BHC-13-2019: Mining big data for early detection of infectious disease threats driven by climate change and other factors
- BHC-14-2019: Stratified host-directed approaches to improve prevention, treatment and/or cure of infectious diseases
- BHC-19-2019: Implementation research for maternal and child health





Infectious diseases and improving global health (III)

Coordination and support actions

- HCO-06-2018: Establishment of an International Network of Social Sciences
 Research Centres to help address governance and other challenges in the
 preparedness for and the response to infectious threats
- HCO-08-2018: Creation of a European wide sustainable clinical research network for infectious diseases
- HCO-09-2018: Building international efforts on population and patient cohorts
- HCO-10-2018: Coordinating European brain research and developing global initiatives
- HCO-11-2018: Strategic collaboration in health research and innovation between EU and China





Priority 4 – Innovative health and care systems – Integration of care

- Personalised medicine, management of chronic diseases and health promotion
- Effective, accessible and sustainable health interventions and integrated care systems
- Development of Health technology assessment methods
- Development of sustainable and resilient health systems

IMPACT: better evidence for the development of more sustainable and resilient health systems, resulting in increased access to quality care for everyone and better health promotion.

POLICY DRIVERS + SUPPORT FOR:

Upgrading the single market



<u>Cross-border</u> healthcare Directive









Innovative health and care systems Integration of care

- BHC-23-2018: Novel patient-centred approaches for survivorship, palliation and/or end-of-life care
- <u>BHC-26-2018:</u> HTA research to support evidence-based healthcare
- BHC-22-2019: Mental health in the workplace
- BHC-25-2019: Demonstration pilots for implementation of personalised medicine in healthcare

Coordination and support actions

 HCO-12-2018: Innovation in healthcare – a CSA towards using precommercial procurement and public procurement of innovative solutions in healthcare systems







Priority 5 – Decoding the role of the environment, including climate change, for health and well-being

- Assessment of the impact of environment on health and well-being, and the related socio-economic impacts
- New testing and screening methods to identify endocrine disrupting chemicals
- The 'human exposome'
- European environment and health research agenda for the future

IMPACT: Improved risk assessment and mitigation measures

POLICY DRIVERS + SUPPORT FOR:









WHO
Environment
and Health
Process (since
1989)







Decoding the role of the environment, including climate change, for health and well-being

- BHC-27-2018: New testing and screening methods to identify endocrine disrupting chemicals
- BHC-28-2019: The Human Exposome Project: a toolbox for assessing and addressing the impact of environment on health

Coordination and support actions

• <u>HCO-13-2018:</u> Setting the priorities for a European environment, climate and health research agenda





Priority 6 – Digital transformation in Health and

Catheaccess to healthcare and sustainability of health and care systems

- To empower the participation of citizens and facilitate the transformation of health and care services to more digitised, person-centred and community-based care models
- eHealth and mHealth
- ICT for Active and Health Ageing

IMPACT: To maximise the potential of the digital economy in the health and care sectors

POLICY DRIVERS + SUPPORT FOR:



Connected Digital Single Market



European Cloud Initiative



European Free Flow of Data initiative



Silver Economy initiative







Digital transformation in Health and Care (I)

- <u>DTH-03-2018:</u> Adaptive smart working and living environments supporting active and healthy ageing
- <u>DTH-07-2018:</u> Exploiting the full potential of in-silico medicine research for personalised diagnostics and therapies in cloud-based environments
- <u>DTH-08-2018</u>: Prototyping a European interoperable Electronic Health Record (EHR) exchange
- DTH-01-2019: Big data and Artificial Intelligence for monitoring health status and quality of life after the cancer treatment
- DTH-05-2019: Large scale implementation of digital innovation for health and care in an ageing society
- DTH-09-2019: Scaling up the univocal Identification of Medicinal Products
- DTH-10-2019-2020: Digital health and care services
- DTH-11-2019: Large Scale pilots of personalised & outcome based integrated care





Digital transformation in Health and Care (II)

Coordination and support actions

- <u>HCC-01-2018:</u> Supporting investment in smart living environments for ageing well through certification
- HCC-03-2018: Support to further development of international cooperation in digital transformation of health and care
- HCC-04-2018: Digital health and care services support for strategy and (early) adoption
- HCC-05-2018: Support to a Digital Health and Care Innovation initiative in the context of Digital Single Market strategy
- HCC-02-2019: Support for the large scale uptake of open service platforms in the Active and Healthy Ageing domain





Priority 7 - Trusted digital solutions and Cybersecurity in Health and Care

- Multidisciplinary technologies and solutions in health and care with a focus on cybersecurity
- Secure and user-driven ICT-based solutions in early risk detection and interventions
- Aggregation of a variety of new and existing data sources

FOCUS AREAS: Digitising and transforming European industry and services Boosting the effectiveness of the Security Union

POLICY DRIVERS + SUPPORT FOR:



Connected Digital Single Market



Big Data in healthcare



European Data Protection Regulation







Trusted digital solutions and Cybersecurity in Health and Care

- <u>SU-TDS-02-2018</u>: Toolkit for assessing and reducing cyber risks in hospitals and care centres to protect privacy/data/infrastructures
- <u>SU-TDS-03-2018:</u> Raising awareness and developing training schemes on cybersecurity in hospitals
- DT-TDS-01-2019: Smart and healthy living at home





Other actions for 2018-2019

- Subscription fee: Human Frontier Science Programme Organisation
- Studies, activities of the Scientific Panel for Health, conferences, events and outreach activities
- External expertise
- Grant to the Global Alliance for Chronic Diseases
- Expert group for the impact assessment of the planned Commission communication on infectious diseases
- Subscription fee: World RePORT international health research database
- Mobilisation of research funds in case of Public Health Emergencies





Lump Sum Pilot (SC1-BHC-15-2018)

Simplification:

no financial reporting no time sheets no financial audit

Payment exclusively based on completion of activity

Pilot scheme to evaluate results – view to FP9





Lump Sum Pilot: 2-stage Submission

1st-stage:

Open date: 07 November 2017

Deadline: 06 February 2018

2nd-stage:

Open date: May 2018

Deadline: September 2018

Excellence Impact

+

Quality and Efficiency of implementation Evaluation of resources/costs

estimates

Detailed Budget Table

Estimated costs per WP

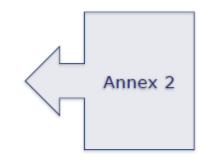




Lump Sum Pilot

Sum of the share of the lump sum allocated to Work Packages fully completed in the reporting period

	WP1	WP2	WP3	WP4	WP5
Beneficiary A	250.000			50.000	300.000
Beneficiary B		250.000	350.000	50.000	
Beneficiary C	100.000	100.000		50.000	
Beneficiary D		120.000		50.000	
Total	350.000	470.000	350.000	200.000	300.000



	WP1	WP2	WP3	WP4	WP5
Beneficiary A	Completed			Initiated	Initiated
Beneficiary B		Completed	Completed	Not initiated	•
Beneficiary C	Completed	Not initiated		Not initiated	
Beneficiary D		Completed		Completed	









Lump Sum Pilot

	WP1	WP2	WP3	WP4	WP5		
Beneficiary A	250.000			50.000	300.000	4	
Beneficiary B		250.000	350.000	50.000			Annex 2
Beneficiary C	100.000	100.000		50.000			
Beneficiary D		120.000		50.000		,	
Total	350.000	470.000	350.000	200.000	300.000		
		×		×			
vment -	350 000 4	- 0 -	350 000	n + n	- 700 O	00 €	



Limited to 90 % of the total grant









Lump Sum Pilot ex post controls

You **need** You **don't need**

- Technical documents
- Publications, prototypes, deliverables
- Who did what?
- ...any document proving that the work was done as detailed in Annex 1

- Time-sheets
- Pay-slips or contracts
- Depreciation policy
- Travel invoices
-actual costs

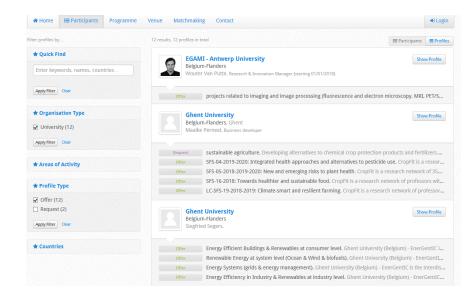




Partner search

E.E.N. – B2Match





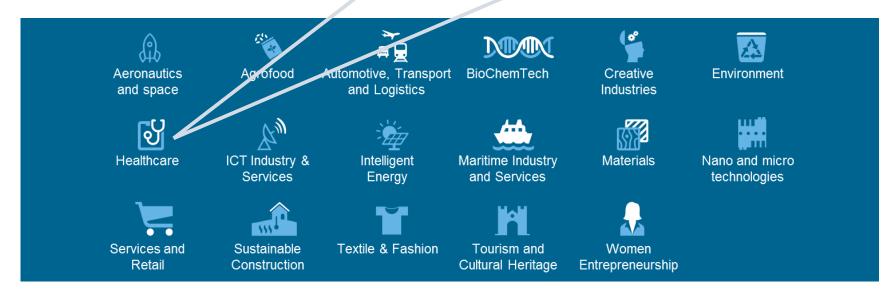




Partner search

E.E.N. – 17 Sector Groups





<u>een.ec.europa.eu/about/sector-groups/healthcare</u> www.enterpriseeuropevlaanderen.be







Participant Portal Partner search new features

Release in stages

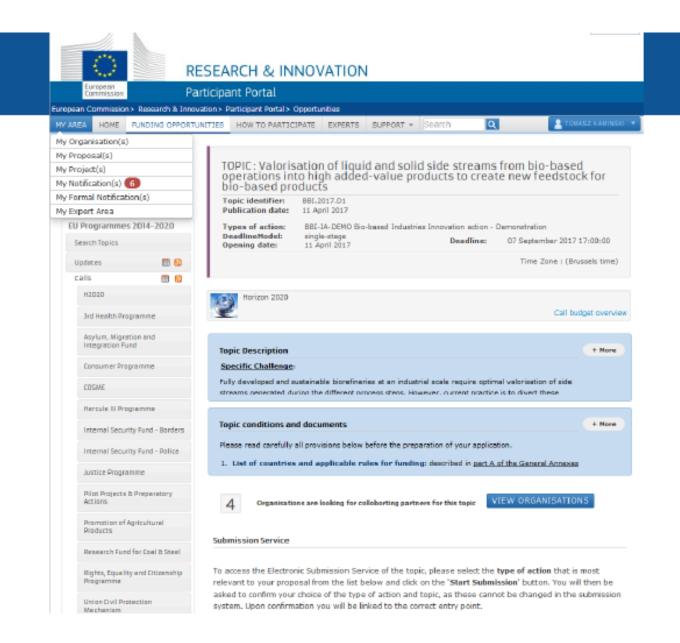
Stage 1: organisation can launch a request for partners related to a call topic including details about the expertise sought or offered (December 2017)

Stage 2: individual can launch a request for partners related to a call topic including details about the expertise sought or offered (July 2018)

Stage 3: automatic matching of requests for partners with profiles (December 2018)

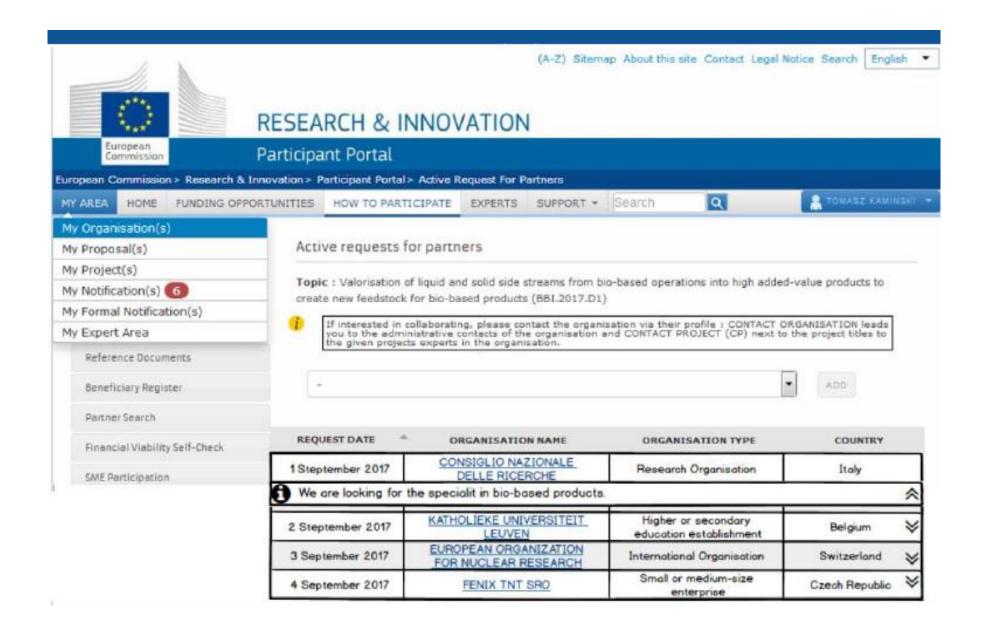
















International cooperation in Health

Main features of SC1 WP 2018-2020

- General opening: all topics open to international cooperation!
- Topics targeting specific countries or regions, e.g.: CELAC, Russian Federation, Canada
- Specific strategic initiatives to address challenges at European or global level







International cooperation in Health

General opening

- All SC1 topics are open to international cooperation: Always remind!
- EC contribution: 28 MS, 16 AC and 124 Third countries (General Annexes A.) + USA
- For some other TC: co-funding mechanism (CFM)
- Australia, Brazil, Canada, China, Hong Kong & Macau, India,
 Japan, Republic of Korea, Mexico, Russia, Taiwan





International cooperation in Health

Topics with mandatory participation of third Countries

- Lower overall participation of TC in WPs 2014-2016 if compared to FP7
- Need to get higher and more visible participation of TC in the last WP
- Stimulate cooperation on targeted areas that represent a burden for EU and TC (e.g. cancer for CELAC)
- Give a politically visible 'sign' of cooperation (science diplomacy)







International cooperation in

Healthada: SC1-BHC-05-2018

 International flagship collaboration with Canada for human data storage, integration and sharing to enable personalised medicine approaches

- Topic elaborated with the Canadian Institutes of Health Research
- At least one Canadian participant (to be co-funded by CIHR)
- RIA of € 4-6 million

CELAC and China: SC1-HCO-01-2018-2019-2020

- Actions in support of the International Consortium for Personalised Medicine
- Topic aimed at building links with third countries on collaboration in personalised medicine
- At least one CELAC in 2018 and at least one Chinese participant in 2019 (EU funding or country cofunding according to general rules)
- CSA of € 1,5-2 million







International cooperation in

Here is a demic countries: SC1-BHC-

- New anti-infective agents for prevention and/or treatment of neglected infectious diseases (NID)
- The nature of the topic implies the participation of disease endemic countries
- At least one disease endemic country
- EU funding or country co-funding according to general rules
- RIA of € 5-10 million
- NB: lump sum funding pilot scheme!

CELAC: SC1-BHC-18-2018

- Translational collaborative cancer research between Europe and the Community of Latin American and Caribbean States (CELAC)
- Discussion with CELAC representatives: some of the topics discussed within EU-LAC Health (FP7 CSA) used as input
- At least 2 different CELAC countries
- EU funding or country co-funding according to general rules
- RIA of € 2-4 million







International cooperation in

Heairtearation: SC1-BHC-21-2018

- Research on HIV, tuberculosis
 (TB) and/or hepatitis C (HCV) in
 patients with mono-, co infections and/or comorbidities
 in the context of fostering
 collaboration with the Russian
 Federation
- Co-developed with the Ministry of Education and Science of the Russian Federation
- At least on participant from Russian Federation (to be cofunded by Russia)
- RIA of € 2-3 million

International participation, in particular US, Canada, Japan, South Korea, China: SC1-HCC-03

- Support to further development of international cooperation in digital transformation of health and care
- At least one third country (i.e. non-MS, non-AC) participant, in particular US, Canada, Japan, South Korea, China
- EU-funding or country co-funding according to general rules
- CSA of up to € 2 million





International cooperation in Health

Topics with potential participation of third countries

- SC1-BHC-16-2018: Global Alliance for Chronic Diseases (GACD) Scaling-up of evidence-based health interventions at population level for the prevention and management of hypertension and/or diabetes
- SC1-HCO-11-2018: Strategic collaboration in health research and innovation between EU and China
- SC1- HCO-06-2018: Establishment of an International Network of Social Sciences Research Centres to help address governance and other challenges in the preparedness for and the response to infectious threats
- SC1-HCO-09-2018: Building international efforts on population and patient cohorts
- SC1-HCO-10-2018: Coordinating European brain research and developing global initiatives





International cooperation in Health - Multi-lateral health research activities















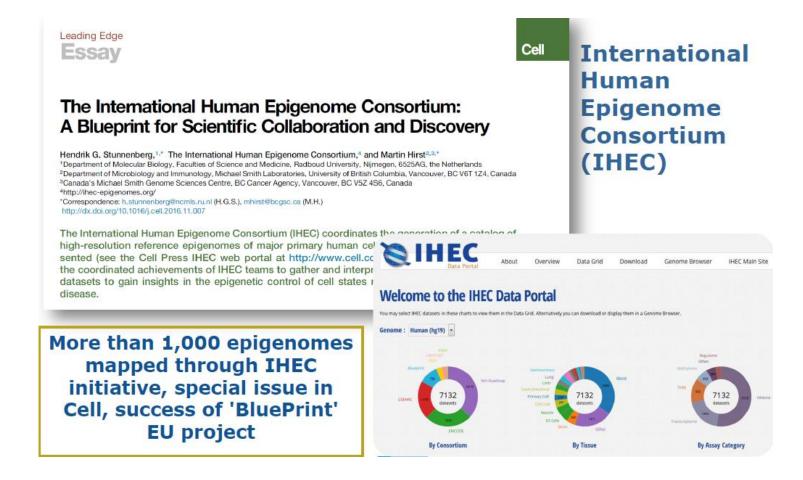
Global Research Collaboration for Infectious Disease Preparedness







International cooperation in Health - Multi-lateral health research activities







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