

## SC1 – HEALTH, DEMOGRAPHIC CHANGE AND WELLBEING



The 2018-2020 Work Programme (WP) of the Societal Challenge 1 (SC1) tackles four main healthcare challenges Europe is facing:

- The raising and potentially unsustainable **health and care costs**;
- The influence on health of **external environmental factors** including climate change;
- The **risk to lose our ability to protect the populations against the threats of infectious diseases**;
- **Health inequalities and access to health and care.**

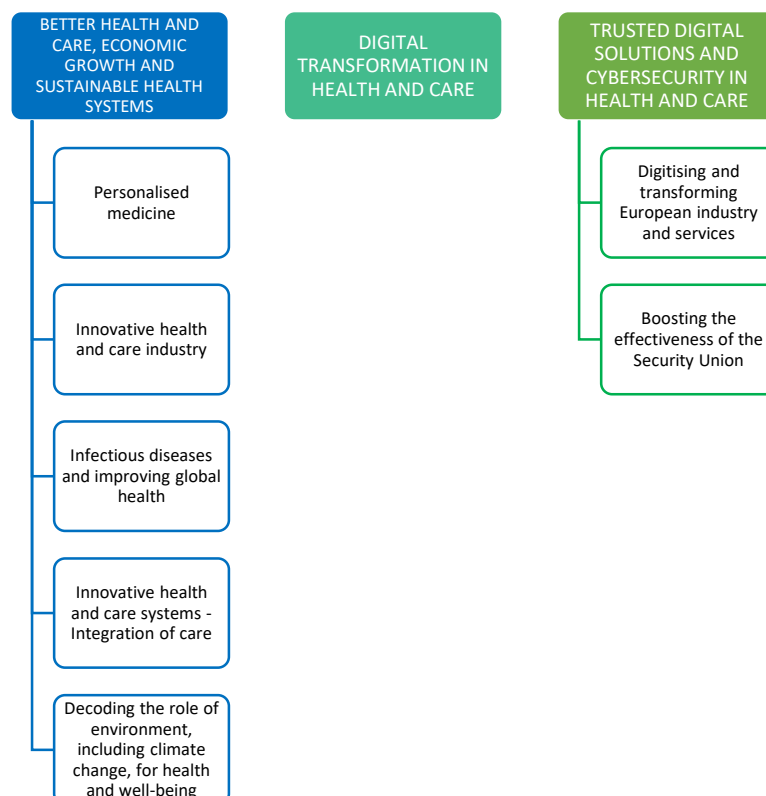
The SC1 aims to deliver solutions for a better health for all by:

- Effective integration of **personalised medicine approaches** into healthcare services and systems;
- **Fighting infectious diseases** and the growing threat of **antimicrobial resistance**;
- Addressing the needs of the **most vulnerable groups** and the global increase of **chronic diseases**;
- Decoding the **role of environment on health** and developing mitigating measures;
- Exploring the **digital potential** for health innovation and healthcare;
- Stimulating innovation in the European healthcare domain and industry by exploring the **application of advanced technologies**, improve the health of the workforce and promote regulatory science.



The overall budget dedicated to SC1 is about **€2 billion**.

### 3 CALLS



## BETTER HEALTH AND CARE, ECONOMIC GROWTH AND SUSTAINABLE HEALTH SYSTEMS

This call will aim at reconciling **better health** and **healthy ageing** with the need to develop sustainable health and care systems and growth opportunities for the health and care related industries. The scope of the call may range from **prevention, diagnosis, stratified approaches, predictive toxicology, the development of novel and repurposed therapeutic approaches**, including medical technologies and advanced therapies, cohorts and registries-based research, to integration of care and systemic digital solutions for health and ageing well. It aims to translate new knowledge into innovative applications and accelerate large-scale uptake and deployment in different health and care settings, making health and care systems and services more accessible, responsive and efficient in Europe and beyond. The inclusion of private companies and other innovators in the projects is encouraged.





### Personalised medicine

**AIM:** delivering personalised health and care solutions to benefit citizens.

**AREAS OF APPLICATION:** chronic, rare and communicable diseases.

**TARGETS:** any type of population, including children, the ageing population and high-risk groups.

**EXPECTED KEY IMPACT:** improved health outcomes for the citizens.

	Action	Topic	Opening date	Deadline(s)
	RIA	Understanding causative mechanisms in co- and multimorbidities	26/07/2018	02/10/2018 16/04/2019
	RIA	Systems approaches for the discovery of combinatorial therapies for complex disorders	26/07/2018	02/10/2018 16/04/2019
 SC2	RIA	Exploiting research outcomes and application potential of the human microbiome for personalised prediction, prevention and treatment of disease	07/11/2017	18/04/2018
	COFUND-EIP	Rare Disease European Joint Programme Cofund	07/11/2017	18/04/2018
	RIA	International flagship collaboration with Canada for human data storage, integration and sharing to enable personalised medicine approaches	07/11/2017	18/04/2018
	CSA	Actions in support of the International Consortium for Personalised Medicine	07/11/2017 26/07/2018	18/04/2018 16/04/2019
	CSA	Data integration and data-driven in-silico models for enabling personalised medicine - a European standardization framework	07/11/2017	18/04/2018
	ERA-NET COFUND	ERA-NET to support the Joint Programming in Neurodegenerative Diseases strategic plan (JPND)	07/11/2017	18/04/2018



### Innovative health and care industry

**AIM:** turning innovative knowledge and technologies into practical applications.

**AREAS OF APPLICATION:** innovative diagnostics and therapeutics.

**TARGETS:** citizens, healthcare systems and businesses.

**EXPECTED KEY IMPACT:** to stimulate the healthcare industry.

	Action	Topic	Opening date	Deadline(s)
 FTI 	RIA	Regenerative medicine: from new insights to new applications	26/07/2018	16/04/2019
	RIA	Innovation platforms for advanced therapies of the future	07/11/2017	18/04/2018
	PCP	Innovation Procurement: Next generation sequencing (NGS) for routine diagnosis	26/07/2018	16/04/2019
	CSA	Strengthening regulatory sciences and supporting regulatory scientific advice	07/11/2017	18/04/2018

RIA: Research and Innovation Action

IA: Innovation Action

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## Infectious diseases and improving global health

**AIM:** improvement of risk assessment and surveillance tools and the development of innovative medical countermeasures.

**AREAS OF APPLICATION:** antimicrobial resistance, emerging and re-emerging infectious diseases and poverty-related and neglected diseases.

**TARGETS:** citizens, healthcare systems and businesses.

**EXPECTED KEY IMPACT:** to prevent, detect and treat priority diseases worldwide.

	Action	Topic	Opening date	Deadline(s)
	RIA	Mining big data for early detection of infectious disease threats driven by climate change and other factors	26/07/2018	16/04/2019
	RIA	Stratified host-directed approaches to improve prevention, treatment and/or cure of infectious diseases	26/07/2018	02/10/2018 16/04/2019
	RIA	New anti-infective agents for prevention and/or treatment of neglected infectious diseases (NID)	07/11/2017	06/02/2018 04/09/2018
	RIA	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	07/11/2017	18/04/2018
	RIA	Translational collaborative cancer research between Europe and the Community of Latin American and Caribbean States (CELAC)	07/11/2017	18/04/2018
	RIA	Implementation research for maternal and child health	26/07/2018	02/10/2018
	RIA	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	07/11/2017	18/04/2018
	CSA	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	07/11/2017	18/04/2018
	CSA	Creation of a European wide sustainable clinical research network for infectious diseases	07/11/2017	18/04/2018
	CSA	Building international efforts on population and patient cohorts	07/11/2017	18/04/2018
	CSA	Coordinating European brain research and developing global initiatives	07/11/2017	18/04/2018
	CSA	Strategic collaboration in health research and innovation between EU and China	07/11/2017	18/04/2018

## Innovative health and care systems – Integration of care

**AIM:** developing effective, accessible and sustainable health interventions and integrated care systems.

**AREAS OF APPLICATION:** personalised medicine, management of chronic diseases and health promotion.

**TARGETS:** citizens.

**EXPECTED KEY IMPACT:** better evidence for the development of more sustainable and resilient health systems, including through better and more coordinated health technology assessment, resulting in increased access to quality care for everyone and better health systems.

Action	Topic	Opening date	Deadline(s)
RIA	Mental health in the workplace	26/07/2018	02/10/2018 16/04/2019
RIA	Novel patient-centred approaches for survivorship, palliation and/or end-of-life care	07/11/2017	18/04/2018
IA	Demonstration pilots for implementation of personalised medicine in healthcare	26/07/2018	02/10/2018 16/04/2019
RIA	HTA research to support evidence-based healthcare	07/11/2017	18/04/2018
CSA	Innovation in healthcare - a CSA towards using pre-commercial procurement and public procurement of innovative solutions in healthcare systems	07/11/2017	18/04/2018

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

**AIM:** assess the impact of environment (including climate change) on health and well-being, and the related socio-economic impacts.

**AREAS OF APPLICATION:** endocrine disrupting chemicals, human exposome, health research agenda.

**TARGETS:** citizens.

**EXPECTED KEY IMPACT:** improved risk assessment and mitigation measures.

Action	Topic	Opening date	Deadline(s)
RIA	New testing and screening methods to identify endocrine disrupting chemicals	07/11/2017	18/04/2018
RIA	The Human Exposome Project: a toolbox for assessing and addressing the impact of environment on health	26/07/2018	16/04/2019
CSA	Setting the priorities for a European environment, climate and health research agenda	07/11/2017	18/04/2018

## DIGITAL TRANSFORMATION IN HEALTH AND CARE

This call aims at supporting the **management of health and wellbeing** while empowering the participation of citizens and facilitating the transformation of health and care services to **more digitised, person-centred and community-based care models**, thereby enabling better access to healthcare and the sustainability of health and care systems. It will contribute to maximising the potential of the **digital economy** in the health and care sectors aiming at sustainable development to the benefit of society, environment and citizens.

	Action	Topic	Opening date	Deadline(s)
ICT	RIA	Big data and Artificial Intelligence for monitoring health status and quality of life after the cancer treatment	16/10/2018	24/04/2019
	RIA	Adaptive smart working and living environments supporting active and healthy ageing	07/11/2017	24/04/2018
	PPI	Large scale implementation of digital innovation for health and care in an ageing society	16/10/2018	24/04/2019
	RIA	Exploiting the full potential of in-silico medicine research for personalised diagnostics and therapies in cloud-based environments	07/11/2017	24/04/2018
	RIA	Prototyping a European interoperable Electronic Health Record (EHR) exchange	07/11/2017	24/04/2018
	IA	Scaling up the univocal Identification of Medicinal Products	16/10/2018	24/04/2019
	PCP	Digital health and care services	26/07/2018	14/11/2018
	IA	Large Scale pilots of personalised & outcome based integrated care	16/10/2018	24/04/2019
	CSA	Supporting investment in smart living environments for ageing well through certification	07/11/2017	24/04/2018
	CSA	Support for the large scale uptake of open service platforms in the Active and Healthy Ageing domain	16/10/2018	24/04/2019
	CSA	Support to further development of international cooperation in digital transformation of health and care	07/11/2017	24/04/2018
	CSA	Digital health and care services – support for strategy and (early) adoption	07/11/2017	24/04/2018
	CSA	Support to a Digital Health and Care Innovation initiative in the context of Digital Single Market strategy	07/11/2017	24/04/2018

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## TRUSTED DIGITAL SOLUTIONS AND CYBERSECURITY IN HEALTH AND CARE

This call aims at **multidisciplinary technologies and solutions in health and care** with a focus on **cybersecurity** to assure data privacy, security and protection of health and care infrastructures. It will contribute to the Focus Areas on “Digitising and transforming European industry and services” and “Boosting the effectiveness of the Security Union”.

### Digitising and transforming European industry and services

The Digitising European Industry initiative includes the launch of a set of initiatives supporting the building of the **digital industrial platforms of the future**. Proposals need to address all of the following activities: platform building, large-scale piloting, ecosystem building, and standardisation. Furthermore, they should contain an outline business case and industrial exploitation strategy.

	Action	Topic	Opening date	Deadline(s)
ICT	IA	Smart and healthy living at home	26/07/2018	14/11/2018

### Boosting the effectiveness of the Security Union

	Action	Topic	Opening date	Deadline(s)
ICT	RIA	Toolkit for assessing and reducing cyber risks in hospitals and care centres to protect privacy/data/infrastructures	07/11/2017	24/04/2018
	CSA	Raising awareness and developing training schemes on cybersecurity in hospitals	07/11/2017	24/04/2018

## Health research in Horizon 2020



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## HEALTH – FOCUS ON LEIT AND IMI2

### LEIT NMBP CALL TRANSFORMING EUROPEAN INDUSTRY

This call is not included in the WP Health, demographic change and wellbeing. The call is part of the [WP Nanotechnologies, Advanced Materials, Biotechnology and Advanced Manufacturing and Processing](#). Health is target of the following sub-calls: “Biotechnology” and “Medical Technology Innovations”. Topics under the sub-call Medical Technology Innovations are not listed here below because the opening dates will be published in 2019-2020.

#### Biotechnology

The biotechnology topics will support European industry through the continued development of cutting-edge biotechnologies for the global challenge of environmental protection and breakthrough solutions to transform industrial processes using environmentally friendly and sustainable methods outcompeting conventional activities.

Action	Topic	Opening date	Deadline(s)
CSA	<a href="#">Standardisation in Synthetic Biology</a>	31/10/2017	22/02/2018
RIA	<a href="#">Boosting the efficiency of photosynthesis</a>	16/10/2018	22/01/2019 03/09/2019
RIA	<a href="#">New biotechnologies for environmental remediation</a>	31/10/2017	25/04/2018
RIA	<a href="#">Microorganism communities for plastics bio-degradation</a>	16/10/2018	24/04/2019

#### IMI2 – CALL 8



This call is not included in the WP Health, demographic change and wellbeing. The call is published on the Participant Portal (under the SC1) and on the [IMI website](#). All documents relating to the call can be found via the Participant Portal and the [IMI2 Call documents page](#), in particular the [IMI Manual for evaluation](#), submission and grant award.

Action	Topic	Opening date	Deadline(s)
RIA	<a href="#">Ebola and other filoviral haemorrhagic fevers (Ebola+) programme: future outbreaks</a>	18/12/2015	15/03/2018

#### IMI2 – CALL 13



This call is not included in the WP Health, demographic change and wellbeing. The call is published on the Participant Portal (under the SC1) and on the [IMI website](#). All documents relating to the call can be found via the Participant Portal and the [IMI2 Call documents page](#), in particular the [IMI Manual for evaluation](#), submission and grant award.

Action	Topic	Opening date	Deadline(s)
RIA	<a href="#">Assessment of the uniqueness of diabetic cardiomyopathy relative to other forms of heart failure using unbiased pheno-mapping approaches</a>	30/11/2017	28/02/2018 06/09/2018
	<a href="#">Genome-Environment Interactions in Inflammatory Skin Disease</a>		
	<a href="#">The value of diagnostics to combat antimicrobial resistance by optimising antibiotic use</a>		

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Action	Topic	Opening date	Deadline(s)
RIA	Mitochondrial Dysfunction in Neurodegeneration	30/11/2017	28/02/2018 06/09/2018
	Support and coordination action for the projects of the Neurodegeneration area of the Innovative Medicines Initiative		
	A sustainable European induced pluripotent stem cell platform		
	Linking digital assessment of mobility to clinical endpoints to support regulatory acceptance and clinical practice		
	Human Tumour Microenvironment Immunoprofiling		
	ConcePTION – Continuum of Evidence from Pregnancy Exposures, Reproductive Toxicology and Breastfeeding to Improve Outcomes Now		
	Improving the preclinical prediction of adverse effects of pharmaceuticals on the nervous system		
	Translational Safety Biomarker Pipeline (TransBioLine): Enabling development and implementation of novel safety biomarkers in clinical trials and diagnosis of disease		
	Pilot programme on a Clinical Compound Bank for Repurposing: Cardiovascular diseases and diabetes		
	Pilot programme on a Clinical Compound Bank for Repurposing: Respiratory diseases		
	Pilot programme on a Clinical Compound Bank for Repurposing: Neurodegenerative diseases		
	Pilot programme on a Clinical Compound Bank for Repurposing: Rare/orphan diseases		

## The policy context



<https://sustainabledevelopment.un.org/post2015/transformingourworld>



COP21  
<http://www.cop21paris.org/>



Ostrava Declaration on Environment and Health  
<http://www.euro.who.int/en/media-centre/events/events/2017/06/sixth-ministerial-conference-on-environment-and-health>



Digital single market  
<https://ec.europa.eu/digital-single-market/>



European One Health Action Plan against Antimicrobial Resistance  
[https://ec.europa.eu/health/amr/antimicrobial-resistance\\_en](https://ec.europa.eu/health/amr/antimicrobial-resistance_en)



Directive on the application of patients' rights in cross-border healthcare  
<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32011L0024&from=EN>



Upgrading the Single Market: more opportunities for people and business  
<https://ec.europa.eu/docsroom/documents/14007/attachments/1/translations/en/renditions/native>



Council conclusions on personalised medicine for patients and on pharmaceuticals  
<http://data.consilium.europa.eu/doc/document/ST-15054-2015-INIT/en/pdf>  
<http://www.consilium.europa.eu/en/press/press-releases/2016/06/17/epsco-conclusions-balance-pharmaceutical-system/>

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