

Social Sciences & Humanities in Horizon Europe

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Presented by UK National Contact Point for Horizon Europe: Culture, Creativity and Inclusive Society (Cluster 2)

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Other UK National Contact Points



HORIZON EUROPE



European Commission vision and priorities

European Commission's priorities for 2019-2024

- A European Green Deal
- A Europe fit for the digital age
- An economy that works for people
- A stronger Europe in the world
- Promoting our European way of life
- A new push for European democracy

SUSTAINABLE DEVELOPMENT GOALS:

- Good Health and Well –being
- Gender Equality
- Decent Work and Economic Growth
- Reduced Inequalities
- Sustainable Cities and Communities
- ...

















Horizon Europe and the Social Sciences and Humanities (SSH)

- Support research and innovation activities in the field of social sciences and humanities
 - Including advancing scientific knowledge in this domain
 - Increase the economic and societal impact of the programme
- SSH should be fully integrated across all clusters in Pillar 2
 - As well as within in Pillar 1 and 3; Missions; European Partnerships
 - Dedicated flagged calls
- SSH experts should be included in expert committees and evaluation panels
- The level of mainstreaming of SSH should be monitored across the Programme
 - 5th monitoring report on SSH flagged projects





Importance of SSH in the R&I landscape

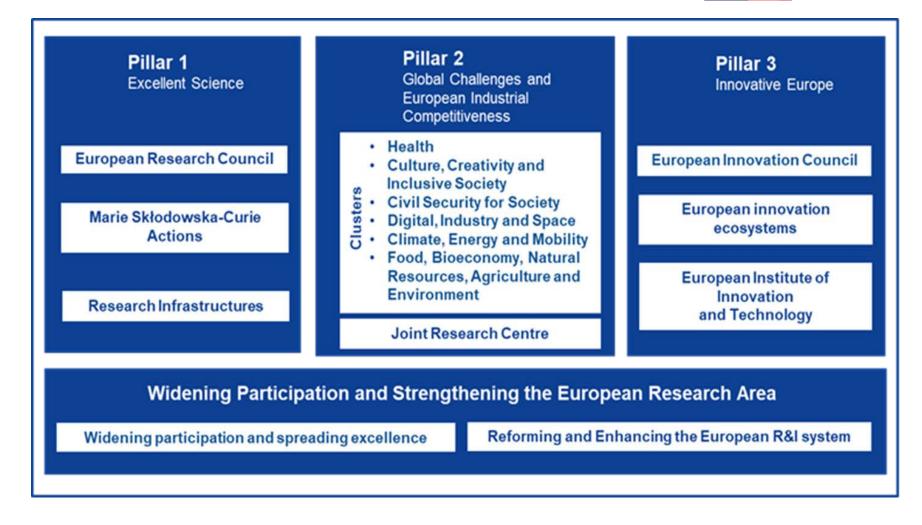
- Interdisciplinarity and inclusion of SSH is a prerequisite for addressing a number of societal challenges
- Key to understanding the relationships between human behaviour and major global challenges, but also to the effectiveness of the solutions we propose to address them
- Supports meaningful societal impact and is a key element in fostering the necessary behavioural change
- Opens up new policy questions and identifies new societal needs
- Develops and promulgates new social 'technologies' and defines a more holistic approach to technology governance
- Proactively critiques current technologies and structures
- Contributes substantially to strengthening society's ability to embrace and drive change
- To better understand the socio-economic outcomes of research policy itself and to enhance its societal impact in the future
- The larger the project and the greater the technical breakthroughs and social impacts envisioned, the greater the need for a SSH contribution

Overall structure



Pillar I: Excellent Science

Support the creation and diffusion of scientific excellence, high-quality knowledge, methodologies and skills, technologies and solutions to global social, environmental and economic challenges



Policy related links

- International cooperation emphasised in topics requiring to look beyond EU
- Gender aspects must be addressed where relevant
- Integrates the principle of responsible research and innovation, including ethics, and encourages interdisciplinarity

Strengthening the European Research Area



Destination 3: Reforming and enhancing the EU research and innovation system

- Macro-economic modelling for R&I
- Societal trust in science, research and innovation
- Citizen science
 - capacity-building and brokering network, support & recognition to citizen science in the European Research Area
- Developing a STE(A)M roadmap for Science Education in Horizon Europe
- Gender equality
 - Centre of excellence, policy coordination, inclusive Gender Equality Plans...
- Research ethics
 - The challenges of research ethics & integrity in response to crisis; Reliability & trust in quality of research ethics expertise in the context of new/emerging technologies; The empirical & behavioural approach to research ethics & integrity
- Uptake and use of R&I results for EU resilience and future preparedness
- A European competence centre for science communication



Pillar 1 Excellent Science

European Research Council

Marie Skłodowska-Curie Actions

Research Infrastructures

Pillar 2

Global Challenges and European Industrial Competitiveness

- Health
- Culture, Creativity and Inclusive Society
- · Civil Security for Society
- · Digital, Industry and Space
- Climate, Energy and Mobility
- Food, Bioeconomy, Natural Resources, Agriculture and Environment

Joint Research Centre

Pillar 3

Innovative Europe

European Innovation Council

European innovation ecosystems

European Institute of Innovation and Technology

Widening Participation and Strengthening the European Research Area

Widening participation and spreading excellence

Reforming and Enhancing the European R&I system





Cluster	Areas of Intervention	
Health	 Health throughout the life course Non-communicable and rare diseases Tools, technologies and digital solutions for health and care, including personalised medicine 	 Environmental and social health determinants Infectious diseases, including poverty-related and neglected disease Health care systems
Culture, creativity and inclusive society	Democracy and GovernanceSocial and economic transformations	Culture, cultural heritage and creativity
Civil security for society	Disaster-resilient societiesProtection and Security	Cybersecurity
Digital, Industry and space	 Manufacturing technologies Advanced materials Next generation internet Circular industries Space, including Earth Observation Emerging enabling technologies 	 Key digital technologies, including quantum technologies Artificial Intelligence and robotics Advanced computing and Big Data Low-carbon and clean industry
Climate, Energy and Mobility	 Climate science and solutions Energy systems and grids Communities and cities Industrial competitiveness in transport Smart mobility 	 Energy supply Buildings and industrial facilities in energy transition Clean, safe and accessible transport and mobility Energy storage
Food, bioeconomy, natural resources, agriculture and environment	Environmental observationAgriculture, forestry and rural areasCircular systemsFood systems	 Biodiversity and natural resources Seas, oceans and inland waters Bio-based innovation systems in the EU Bioeconomy

SSH opportunities in Cluster 1: Health



Staying healthy in a changing society

- Mental health: models of cognition and social behaviour to understand/improve management of mental health conditions; arts, if relevant; stigma & novel social dynamics; socioeconomic & cultural contexts
- <u>Digital empowerment & health</u>
 <u>literacy</u> of citizens; impact on
 wellbeing, productivity & the
 economy; social/economic
 determinants of <u>inequities</u>
- Personalised prevention:
 holistic approach (taking into account behavioural/life style factors)
- Obesity: socio-economic/ lifestyle factors & consumer behavior, association to obesity prevention; inequality aspects

Living and working in a health-promoting environment

- Exposure to electromagnetic fields: communication methods/tools for engaging
 citizens in preventive actions, concerns & trust; socio-economic/cultural aspects
- Health impacts of climate change: <u>societal implications</u> on health systems (occupational health & development of adaptation measures); education & uptake
- Socio-economic costs/benefits of health impacts related to environmental stressors

Tackling diseases and reducing disease burden

- Care of cancer patients: <u>health equity of proposed interventions</u>, incl. equitable access (gender, socio-economic factors in health; ethical/cultural considerations)
- Al solutions for treatment and care: gender aspects, socio-economic/lifestyle/behavioural factors & other social determinants of health (inc. early development)
- Non-communicable diseases risk reduction in adolescence and youth: sociobehavioural interventions; equitable implementation/impact
- Global Research Collaboration for Infectious Disease Preparedness: social sciences for research response to public health emergencies

Access to innovative, sustainable and high-quality health care

- Equitable health care systems: health economics, sociology, anthropology
- Health care innovation procurement network: market analysis; acceptance with users; health economics
- <u>Pricing/payment models for health innovations</u>: economic/political science, sociology

SSH opportunities in Cluster 3: Civil Security for Society



Protection against Crime and Terrorism

- **Disinformation and fake news:** cultural and societal aspects; fundamental rights
- <u>Domestic and sexual violence</u>: socio-psychological knowledge; awareness of citizens; skills, training, use of tools
- Attacks to public spaces: impact on quality & openness
- <u>Trafficking of cultural goods</u>: combining social research with technological development and applications
- Societal dimensions of <u>environmental crime &</u> firearms/drugs/human trafficking
- Child sexual abuse/exploitation: psychologists, psychiatrics, forensic psychologists, criminologists, sociologists
- Online identity theft: societal aspects/impacts; perception of freedom, justice and security
- Organisational cultures and human interactions in the forensic context
- Online <u>radicalisation</u> through gaming culture
- <u>Surveillance</u> of public spaces, behaviour of citizens, effects on local communities
- Corruption: social and economic impacts

Increased cybersecurity

Business continuity in critical sectors: organisational perspective

Disaster-resilient society for Europe

- Risk exposure/public awareness of multi-hazards:
 <u>human-hazard interactions</u>; risk awareness
 /actions (influenced/shaped by cultures /traditions
- Disaster risk reduction for extreme climate events:
 <u>multi-risk governance frameworks and multi-risk thinking</u> (social and behavioural sciences)
- Assessment of disaster risks: results from the perspectives of the users (co-design/development /dissemination/evaluation)
- <u>Citizen preparedness</u> in disaster/crisis-related emergency
- Citizens' behavioural and psychological reactions in disaster/crisis
- Disaster risk pricing assessment
- Societal impact assessment/creation for security research technologies
- Social innovations as enablers of security

SSH opportunities in Cluster 4: Digital, Industry and Space



Climate neutral, circular and digitised production

- Al/robotics for smart manufacturing: human-centric approaches
- Rapid reconfigurable production: skills requirements/training adapted to needs
- Smart production
 lines: user friendliness of
 hard/software;
 demonstrate benefits
 for workers

Resilient industry

 Renovation in social and affordable housing districts

Digital and emerging technologies for competitiveness

- Al, data and Robotics at work: **trustworthiness and acceptability** by workers
- Robotics cognition: robot acceptance with <u>human-centric</u>, <u>advanced behavioural</u> <u>models</u>
- <u>European Network of Excellence Centres in robotics:</u> human factors, non-discrimination
- Quantum Technologies Flagship initiative: social implications & ethics, privacy/security
- Robotics capabilities in key sectors: human robot interaction design, behavioural intelligibility of robot interaction and action; trustworthiness/acceptability at design stage
- Training and Education on Quantum Technologies

Human-centred and ethical development of technologies

- Gender, race and other biases in Al
- Al to fight <u>disinformation</u>: the development of tools require involvement of social network sciences and social sciences
- Trustworthy open search and discovery
- Uptake of digital technologies through art-driven experimentations
- Workforce skills for industry 5.0: **social and economic impacts** on labour markets and business models; redefining work activities and automatable tasks utilising tools of SSH
- Al for human empowerment
- **eXtended Reality Technologies**: societal applications; uptake; ethics

SSH opportunities in Cluster 5: Climate, Energy and Mobility



Towards climate neutrality

- Circular economy & climate change mitigation: citizen behaviour/engagement
- Socially inclusive climate neutrality & social and economic changes
- <u>Economic decision-making</u>
 <u>methods</u> on climate/environmental policies
- Socio-economic risks of climate change
- Social science for land-use strategies

Cross-sectoral solutions for the climate transition

- Just transition & climate-neutral/ sustainable economies and societies: inequality & climate change impacts, policies and transition pathways; policy options & measures with environmental benefits + justice
- SSH research communities in climate, energy & mobility

Sustainable, secure and competitive energy supply

- <u>Educational aspects</u> for renewable energy and renewable fuel technologies
- Market uptake of renewable energy systems: renewable energy sector policy and market dynamics; societal acceptance of renewable energy facilities & installations
- Wind energy in the social environment: impacts of wind installations on communities;
 <u>energy citizenship</u> of wind energy and farms; social awareness, engagement and acceptability of wind energy; participatory processes in wind farm development
- **Energy consumers and communities**: support citizens in the energy transition
- Renewable energy incorporation in agriculture and forestry
- Sustainability, quality & social inclusion in built environment & cultural heritage

Safe, Resilient Transport and Smart Mobility

- Electric Bus Rapid Transit System: socio-cultural aspects (acceptability/socioeconomic benefits)
- Connected, Cooperative and Automated Mobility systems/services: <u>socio-economic</u> <u>impacts</u>; <u>inclusiveness</u>; <u>uptake</u>; <u>societal/citizen/user needs/aspects</u>
- **Delivery methods and business/operating models** to optimise road transport
- Controlling infection on large passenger ships
- Human factors in aviation: Human Digital Interface design, integration of AI into human crews/teams; <u>trust in AI</u> by human operators and flying public
- Highly automated vehicles: user-centric Human-Machine-Interface design
- Human behavioural model to assess CCAM solutions vs human driven vehicles
- Explainable and trustworthy AI concepts, techniques and models for CCAM
- Predictive safety assessment framework/safe urban environment for vulnerable road users

SSH opportunities in Cluster 6: Food, Bioeconomy, Natural Resources, Agriculture and Environment



Biodiversity and ecosystem services

- The economics of nature-based solutions
- Socio-economic driving forces & epidemic risk
- Indirect drivers of biodiversity loss; biodiversityrelevant <u>transformative changes in society and</u> business
- Biodiversity in policy making, science and governance
- Natural capital accounting
- Consumption, trade, behaviour & biodiversity
- Socio-economic factors & biodiversity action

Food systems

- Sustainable production: <u>behavioural approach;</u> policy/business shifts; farmers' decision-making & socio-economic factors); consumers' behaviour
- <u>Social externalities</u> of food for incentivising sustainable choices; <u>policy/business strategies</u>
- Change in <u>consumption behaviour</u> to nutritious and sustainable food (acceptance, adherence; socioeconomic, behavioural, cultural factors)
- Socio-economics of pesticide use in agriculture
- Food loss and waste prevention
- Malnutrition: knowledge/advice for empowerment

Rural, coastal and urban communities

- Rural diversity & social transitions (**socio-economic** factors)
- **Empowerment** of users of the sea
- Boosting women-led innovation in farming and rural areas
- <u>Labour conditions</u> and health and safety at work <u>in farming</u>
- Marine ecosystem services & socio-economic models
- Social innovation in food sharing & urban food resilience
- Socio-politics of nature-based solutions
- Empowering rural communities/smart villages for societal change
- Nature-based therapy for health and well-being

Governance, environmental observations & digital solutions

- Training and skills development in bio-based systems; social attitudes
- Bioeconomy education for young people
- Mobilise society to transform food systems for co-benefits
- Governance of marine policies
- Consumer-focused labelling for bio-based products
- Governance, economic/financial sustainability of water systems
- <u>Urban citizen observation</u> + authoritative measurement
- Empower citizens to exercise "data rights" in food and nutrition
- **Co-creation** in multi-actor projects
- Impacts of <u>digital technologies in agriculture</u>

Missions & Partnerships



Missions

- a portfolio of actions across disciplines intended to achieve a bold and inspirational and measurable
 goal within a set timeframe, with impact for society and policy making as well as relevance for a significant
 part of the European population and wide range of European citizens
- first funding for preparatory activities to help shape future Missions: feasibility studies, information campaigns and identifying needs
- budget of up to €5 million for each mission
- European Bauhaus Commission initiative to shape a cultural and architectural movement around the European Green Deal

Cancer

An open call for five demonstrators, autumn 2021

Healthy oceans, seas, coastal and inland waters

change, including societal transformation

Adaptation to climate

Climateneutral and smart cities

Soil health and food

Partnerships

- The new EIT KIC "Cultural and Creative Sectors and Industries (CCSI)" will
 - Reduce fragmentation and catalyse regional development
 - Power new ventures, technologies, and digitalisation
 - Train the next generation of innovators in the CCSIs
 - Publication of call text Oct/Nov 2021
 - Closure of call for proposals March 2022



Thank you!

Questions?