Horyzont 2020

Lp	Nr	Topic	Link & Short Description	Budget	Stages	Opening date	Deadline
1	SC1-BHC-01-2019	Understanding causative mechanism in co- and multimorbidities	Proposals should identify and validate causative mechanisms (eg, molecular, genetic, correlative, drug-drug interaction), combining mental and physical disorders through the integration of basic, pre-clinical and / or clinical research. Applicants should prove the relevance of co-morbid development. Where pertinent, development of biomarkers and other technologies for the diagnosis and monitoring of comorbid conditions in patients is encouraged. A purposeful exploitation of existing data, biobanks, registries and cohorts is expected, but excludes the generation of new data. Sex and gender aspects, age, socio-economic, lifestyle and behavioral factors and any non-health related individual attributes should be taken into consideration. SME participation is strongly encouraged.	4-6 mln EUR	two-stages	26.07.2018	02.10.2018 16.04.2019
2	SC1-BHC-02-2019	Systems approaches for the discovery of combinatorial therapies for complex disorders	Research should aim to understand at systems level the pathophysiology of a disorder in groups of patients responding well or poorly to particular therapies and further develop combinatorial therapies tailored to the needs of individuals or stratified patient groups. Projects should focus on already available and/or authorised therapies and have access to standardized biobank samples derived from retrospective or currently running clinical studies. These patient samples should be re-analysed with modern high-throughput technologies. The existing and newly produced data should be integrated using systems approaches, which could combine sub-cellular/cellular and/or organ level in-silico models and network analysis as appropriate, and used to build more sophisticated computational frameworks to predict patient responses to combinatorial therapies. These predictions should be validated in pre-clinical and clinical studies taking into account sex and gender differences. Funding of late stage clinical trials is not within the scope of this topic. Applicants should include a thorough data management plan for transnational data sharing to enable the computational analysis and it is strongly recommended to adhere to the state-of-the-art international standards and to the general concepts of the FAIR principles. The topic invites proposals in complex disorders of high prevalence and of a high economic burden (rare diseases are excluded). SME participation is strongly encouraged.	4-6 mln EUR	two-stages	26.07.2018	02.10.2018 16.04.2019
3	SC1-BHC-03-2018	Exploiting research outcomes and application potential of the human microbiome for personalised prediction, prevention and treatment of disease	The aim is to achieve understanding of balanced states of health and on that basis to deliver personalised approaches and clinical tools for predicting and preventing diseases. Proposals should integrate and use high quality microbiome, metabolome and other -omics data produced by large scale international initiatives. They should combine and expand these data with approaches including disease-oriented functional analysis, endogenous and exogenous factors, innovative imaging, functional, structural and lifestyle, ageing, dietary data, environmental data, mental disorders and/or any other comorbidity. Proposals should build on data from existing microbiome projects and, as appropriate, on data from other international initiatives. Focussed production of new data should make subject coverage more comprehensive with the aim of delivering more valuable clinical tools. Proposals should address relevant ethical implications, take into account sex and gender differences, the effect of country-specific issues and should include a section on research data management. The proposed work should be connected to the future European Open Science Cloud to enable sharing and re-use of resources as well as interoperability with other types of data and tools across disciplines. Proposals should contribute to standardisation of sample collection and storage, methods (Standard Operating Procedures) and study designs. SMEs participation is encouraged. Proposals addressing rare diseases are not in scope of this action.	10-15 mln EUR	single - stage	07.11.2017	18.04.2018
4	SC1-BHC-05-2018	International flagship collaboration with Canada for human data storage, integration and sharing to enable personalised medicine approaches	To build a collaboration of stakeholders in Europe and Canada in the domain of repositories storing and sharing human –omics data that will create a framework for long-term cooperation. In order to do so, this programme aims to enhance and standardise data deposition, curation and exchange procedures thus ensuring better data reuse and increased benefit to the scientific communities worldwide. The selected projects should build on the data quality metrics, standards and access policies developed by major international initiatives (e.g., IHEC, ICGC, IHMC, MME). Considering the existing data policies, projects should develop approaches that integrate data from disparate sources and include one or more of the following elements: Data models that guarantee the interoperability of human health research data from different repositories and integrate different types of –omics data and, where relevant, clinical research and lifestyle data. The data models should take into account sex/gender differences where relevant. The projects should build on existing research infrastructures such as –omics repositories, biobanks and registries. Reference architecture for data and process interoperability. Technologies and methodologies for data harvesting, data access, data transfers, and archiving complex datasets. Bioinformatics toolbox to support the analysis and management of data on diseases from a personalised medicine standpoint. International ethical and legal governance model for a research data management and storage infrastructure and an associated data management plan compliant with the required level of data security and privacy that is aligned with the recent recommendations of the OECD Council on Health Data Governance.	4-6 mln EUR	single - stage	07.11.2017	18.04.2018

5	SC1-HCO-01-2018-2019-2020	Actions in support of the International Consortium for Personalized Medicine	Each action should focus on one of the following fields: International aspect: The action should focus on building links with third countries by analysing the potential and advantages of collaboration in personalised medicine (PM) with those countries, studying areas of interest for Europe in PM collaboration and promoting international standards in the field. For the 2018 call the project should focus on CELAC as a group of countries. Regional aspect: The action should establish and support networking between regions and interregional cooperation in different European countries, in particular linking remote or sparsely populated regions with regions harbouring critical mass of medical and PM expertise while taking into account broader socio-economic and cultural aspects. Healthcare- and pharma-economic models for personalised medicine, interlinking European public health approaches with medical practice and financing. The action should carry out studies in support of research in and development of new health- and pharma economic models for PM, including prevention, to capture value and to develop relevant health financing models.	1,5-2 mln EUR	single - stage	07.11.2017	18.04.2018
6	SC1-HCO-01-2018-2019-2020	Actions in support of the International Consortium for Personalized Medicine	Each action should focus on one of the following fields: International aspect: The action should focus on building links with third countries by analysing the potential and advantages of collaboration in personalised medicine (PM) with those countries, studying areas of interest for Europe in PM collaboration and promoting international standards in the field. For the 2019 call the project should focus on China. Standardisation for clinical study design. Establishment of innovative clinical trial design methodology for PM, including guidelines for research and reflection papers.	1,5-2 mln EUR	single - stage	26.07.2018	16.04.2019
7	SC1-HCO-02-2018	Data integration and data-driven in-silico models for enabling personalised medicine - a European standardization framework	The proposal should establish a forum for in-silico methodologies applied in translational and clinical research, where different transnational initiatives should meet and debate on their standardisation strategies. The project should evaluate the data integration and data-driven in-silico models strategies and identify best practices for integrating and modelling heterogeneous human disease data transnationally. The project should focus on those heterogeneous types of human data which are best structured (addressing relevant ethical implications and sex and gender differences) and thus pose fewer technical challenges for transnational sharing of data. Such data could be in principle biological and clinical data and the models should comprise of several computational models e.g. systems biology, physiological modelling, network analysis etc.	1,5-2 mln EUR	single - stage	07.11.2017	18.04.2018
8	SC1-BHC-07-2019	Regenerative medicine: from new insights to new applications	Regenerative medicine replaces or regenerates human cells, tissue or organs, to restore or establish normal function. Projects should focus on innovative translational research to develop regenerative processes towards the ultimate clinical goal of addressing unmet clinical needs of large patient groups. Proposals should be based on new approaches such as genome editing or gene therapy, transdifferentiation or in vivo reprogramming, cell therapy and transplantation, 3D bioprinting, organoids or use of combined products (non-exhaustive list for illustrative purposes only). In all cases, proposals should explain in what way their approach is regenerative. Research on improved methods of tissue and organ transplantation is included on the condition that there is a clear regenerative step in the process. The project may focus on any step(s) on the innovation chain, from early testing and characterization of regenerative mechanisms to preclinical research, proof of concept or clinical trial. Sex and gender differences should be investigated, where relevant. Projects should include a section on the proposed therapy's exploitation potential, regulatory and commercialisation strategy and how it would be made available and delivered to patients.	6-8 mln EUR	single - stage	26.07.2018	16.04.2019
9	SC1-BHC-09-2018	Innovation platforms for advanced therapies of the future	Building on European strengths and using the definition set out in Regulation (EC) 1394/2007, projects should create knowledge, testing and exploitation platforms around innovative concepts for advanced therapy development. Platforms should comprise the components and expertise necessary to create a solid foundation on which to build possible new therapeutic approaches and/or aim to overcome particular development bottlenecks. Possible components could include studying the basic biology of the potential therapy and investigating its mode of action, proof of concept (in vitro, in animal models – where necessary - or first-in–man studies); safety, efficacy, characterisation, refinement and manufacturing of the product could be considered. Projects should also propose a business model for exploiting results and carry out appropriate outreach and public information activities. Examples of issues that have been identified as holding back the field include gene delivery to cells, reducing off-target effects in gene therapy, immunogenicity of potential new therapies, cell homing and tracking, lack of adequate pre-clinical models, or responding to regulatory concerns, such as potency assays, product characterization, or bank-to-bank variability (non-exhaustive list for illustrative purposes only). Sex and gender differences should be investigated, where relevant. Potential ethical issues should be addressed.	12-15 mln EUR	single - stage	07.11.2017	18.04.2018

10	SC1-BHC-10-2019	Innovation Procurement: Next generation sequencing (NGS) for routine diagnosis	The objective is to implement NGS in routine diagnostics for personalised medicine and scale up demand-driven innovation for healthcare systems. This includes organisational, economical, technical and clinical aspects. It should lead to NGS tests, clinically validated procedures (including sex analysis), quality assurance schemes, tools and methods for data collection, management, analysis and interpretation, with a view to assist clinical decision-making and foster medical research and innovation. Transferability and cloud based NGS data analyses should be considered, as appropriate. Input from initiatives like the EJP Cofund on rare diseases and ERNs should be considered when relevant. Ethical issues should be addressed. For grants awarded under this topic for Pre-Commercial procurement it is expected that results could contribute to European or international standards. Therefore, the respective option of Article 28.2 of the Model Grant Agreement will be applied. Proposals of this topic should follow the specific requirements for pre-commercial procurement PCP supported by Horizon 2020 grants as set out in General Annex E of the WP.	9-11 mln EUR	single - stage	26.07.2018	16.04.2019
11	SC1-HCO-05-2018	Strengthening regulatory sciences and supporting regulatory scientific advice	Proposals should; (i) establish, regularly update and disseminate a comprehensive inventory of existing support activities for regulatory Scientific Advice and Protocol Assistance in Europe such as the Innovation Task Force (ITF) briefing meetings; (ii) analyse the effectiveness of existing support activities and develop a common strategy for training programmes to strengthen regulatory sciences and improve support for successful outcomes from regulatory Scientific Advice and Protocol Assistance based on identified best practices; (iii) support and/or advice for the delivery of corresponding pilot training programmes in an efficient and collaborative manner, and (iv) assess the need for and possibly propose additional mechanisms sustainably supporting academic groups in regulatory Scientific Advice and Protocol Assistance procedures. A crucial objective is to complement, coordinate and/or harmonise efforts among Member States and at European level in order to support the main target group: academic clinical scientists. The aim is to reach these researchers very early in the planning process for relevant grant applications. A further aim is to strengthen regulatory knowledge in general by reaching clinical scientists during professional training and qualifications.	1,5-2 mln EUR	single - stage	07.11.2017	18.04.2018
12	SC1-BHC-13-2019	Mining big data for early detection of infectious disease threats driven by climate change and other factors	It is expected that proposals develop: the technology to allow the pooling, access, analysis and sharing of relevant data, including next generation sequencing; the innovative bio-informatics and modelling methodologies that enable risk modelling and mapping; and the analytical tools for early warning, risk assessment and monitoring of (re-)emerging infectious disease threats. Proposals should be able to demonstrate the feasibility of such extended data mining for the purposes outlined above, as well as its European level added value. The ready-to-use analytical tools and services that are developed should be based on an assessment of the needs of potential end-users in the Member States and on European level, should as far as possible build on and be compatible with existing European initiatives, and should remain available for public use at the end of the project at a reasonable cost. Proposals should be transdisciplinary and ensure an integrated One Health approach by linking data from a wide range of relevant sources depending on the infectious disease threat. These may include human (e.g. community, hospital or laboratory health services) and animal health surveillance, health registries, microbial and viral genomic data (including next generation sequencing), pathogen resistance data, mapping of vectors, climate and environmental data as well as societal data that are correlates of disease; possible sex and/or gender differences should be taken into account. Solutions for gaps in existing data (addressing both a lack in quality and quantity) should be proposed.	12-15 mln EUR	single - stage	26.07.2018	16.04.2019
13	SC1-BHC-14-2019	Stratified host-directed approaches to improve prevention, treatment and/or cure of infectious diseases	Proposals should test emerging concepts in drug and/or vaccine development in order to address the problem of antimicrobial drug resistance and to optimize therapeutic, curative or preventive measures against infectious diseases of major concern for Europe. Proposals should capitalize on knowledge of the role of host factors, immune-modulators or of host-pathogen interactions influencing disease outcome that can be utilized to strengthen the response to treatment or prevention measures. This should lead to new enhanced therapies, cures and/or preventive measures. Differences in factors such as age, gender and genetic variation among the human population should be taken into consideration. The proposals should focus on late pre-clinical and/or clinical research, supporting proof of concept and selecting relevant biomarkers for clinical validation. They should take advantage of existing or newly established cohorts to help identify factors for predicting the course of the disease and its response to the intervention in stratified patients. The downstream constraints for the uptake of the intervention by national health systems should be taken into account. The suitability, acceptability and adaptability of the interventions to be developed should be addressed and assessed for different population groups and will thus require expertise from the social sciences and the humanities.	6-10 mln EUR	two-stages	26.07.2018	02.10.2018 16.04.2019

14	SC1-BHC-15-2018	New anti-infective agents for prevention and/or treatment of neglected infectious diseases (NID)	The topic bridges the gap between preclinical and early clinical development of drugs and/or vaccines against neglected bacterial and parasitic diseases. Therefore, the proposed actions should focus on late preclinical (e.g. validation in animal models, toxicology, Good Manufacturing Practices (GMP) production, preparation of Investigational Medicinal Product Dossier) and early clinical (up to phase 1) development of already existing lead drug and vaccine candidates. Multidisciplinary platforms bringing together academic and industry research teams, from European and disease-endemic countries, with the capacity to exploit existing experience and propose innovative solutions addressing several relevant pathogens are particularly encouraged. Sex and gender differences should be taken into account where relevant.	5-10 mln EUR	two-stages	07.11.2017	06.02.2018 04.09.2018
15	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	Proposals must focus on the scale-up of interventions at population level for hypertension and/or diabetes prevention and/or management in LMIC, and/or in vulnerable populations in HIC. Proposals addressing comorbidities with either hypertension or diabetes, including between them, are encouraged. Proposals must align with commitments or planned commitments at a regional or country level to implement evidence-based interventions (including evidence of cost-effectiveness and affordability) across health or other sectors. Policymakers, intervention payers (excluding research funding agencies), researchers (including local researchers), implementers and beneficiaries should be involved at all stages of the intervention development and implementation design to identify the challenges to intervention delivery in real settings. Such partners will be integral to the success and sustainability of the programme and it is essential that they are engaged early, and participate actively in the design of the research proposal. Researchers should collaborate closely with the authorities responsible for the programme's delivery. Those authorities must pay for and provide the interventions, possibly through loans contracted from development banks or other financial providers. Proposals will carry out the research associated with the scale-up of the intervention. Proposals must build on evidence-based interventions (including evidence of cost-effectiveness and affordability) for the respective population groups under defined contextual circumstances and should seek to replicate and scale-up interventions. The selected interventions to be scaled-up should have been proven to be equitable, safe, effective, and efficient as well as making local health systems and health services more responsive and person-centred.	2-4 mln EUR	single - stage	07.11.2017	18.04.2018
16	SC1-BHC-18-2018	Translational collaborative cancer research between Europe and the Community of Latin American and Caribbean States (CELAC)	Proposals must focus on translational and multidisciplinary research to identify specific patient groups in view of improving one or more of the following aspects: screening, early detection, diagnosis, and/or prognosis. Proposals must build on the diverse genetic backgrounds, risk factors, cancer incidence, geographical environment, and/or different healthcare models (including social care and volunteers) in European and CELAC countries. Proposals may integrate molecular, behavioural, nutritional, clinical, social and environmental epidemiology data from cohorts; registries; biobanks; repositories; research infrastructures; Considerations of effectiveness and potential clinical benefit should be integrated in the proposals where relevant. Specific population age groups, sex and gender aspects, socio-economic, ethical, ethnic, cultural, lifestyle and behavioural factors and any other non-health related individual attributes should be taken into consideration where relevant. Due to the specific challenge of this topic, in addition to the minimum number of participants set out in the General Annexes, proposals shall include at least two participants from two different CELAC countries.	2-4 mln EUR	single - stage	07.11.2017	18.04.2018
17	SC1-BHC-19-2019	Implementation research for maternal and child health	Proposals should focus on implementation research for improving maternal and child health with a focus on the first '1000 days' from pregnancy until two years of age.This research can take place in either high income countries or low and middle income countries, or in a combination thereof. The implementation research in the first 1000 days may cover: new or improved health service delivery interventions that strengthen maternal and child health; and/or the scaling up and/or adapting of existing evidence-based interventions to new contexts. Neither pre-clinical research nor clinical trials in the context of product development are within the scope of this call. The research should take into account the specificities of different contexts and situations. The research should be integrated from different perspectives, e.g. recognising the interdependent relationship between mother and child; addressing prevention, health promotion and treatment; allowing for the specific needs of vulnerable groups (e.g. preterm infants, adolescents, migrants); addressing different concurrent pathologies; avoiding the creation of parallel or vertical programmes, etc;. Research may cover physical and/or mental health, as well as communicable and non-communicable diseases. The integration of social sciences including gender analysis and the use of mixed methods research is strongly encouraged. In addition, particular attention should be given to equity issues.	2-4 mln EUR	two-stages	26.07.2018	02.10.2018 16.04.2019

18	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	Proposals should address one or more of the following subtopics: TB: To investigate biomarkers or new diagnostic tests for early screening of TB risk groups for TB infection and identification of antimicrobial drug resistance. HIV: To investigate the susceptibility to HIV and/or disease progression rate after infection, including various HIV subtypes and/or transmission clusters, and/or the development of adverse effects during antiretroviral therapy and concomitant diseases (comorbidities and/or co-infections, including with tuberculosis). HCV: To evaluate the genetic determinants of the virus and the host, and comorbid conditions that can be involved in disease progression and create the basis for the development of future HCV treatment strategies. In performing the research agenda to address one (or more) of the listed subtopics, the applicants might make use of already established European cohort networks or establish new collaborations thus widening their geographical scope and include HIV, HCV and/or TB mono or co-infected individuals and perform retrospective or prospective studies. Proposed actions should take into consideration vulnerable groups and target populations, which may include, but not limited to: ageing subjects, injecting drug users and other social risk groups. Sex and gender differences should be taken into account where relevant.	2-3 mln EUR	single - stage	07.11.2017	18.04.2018
19	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	The scope of this Coordination and Support Action (CSA) is to: I. Initiate, in an organised and coordinated manner, the International Network of Social Sciences Research Expertise, addressing governance challenges, engage with stakeholders on behalf of network members, and work with research funding agencies to grow the network to an effective, internationally representative scale. The proposed network would have the following main objectives: Strengthen research capacity and catalyse social sciences researchers to generate and apply new knowledge about effective governance arrangements for infectious disease preparedness, combating antimicrobial resistance, and prevention and response efforts. This would include addressing the ethical, legal and social aspects (ELSA) as well as among others the issue of accessibility; Foster cross-region and global research collaborations to better connect researchers currently working in isolation and to support bigger, more robust social science research on the governance aspects of infectious threat prevention and response; Facilitate ongoing engagement between researchers and global policymakers to inform national and global decision-making on appropriate governance arrangements for effective prevention and response measures; Inform and enable better preparedness and response efforts through the application of knowledge, sharing of lessons learned, and creation of improved governance arrangements. But also be a source of advice in case of a public health emergency, to inform priority setting and response from a social science perspective. In this respect flexibility will be expected from the consortium.	2-3 mln EUR	single - stage	07.11.2017	18.04.2018
20	SC1-HCO-08-2018	Creation of a European wide sustainable clinical research network for infectious diseases	Proposals should build on successful European collaborative initiatives such as PREPARE and COMBACTE and further advance clinical research in the field of infectious disease by supporting the establishment of a European wide multidisciplinary clinical research network. Such a network should be capable of performing all clinical trial aspects encompassing study design, execution and reporting (sex and gender differences analysis to be included where relevant). It should develop and allow for innovative research approaches and enable flexibility in responding to unpredictable events and signals. The network should provide clear and direct access for stakeholders including academic organizations, SMEs and larger industry to perform clinical studies. The proposal should develop a business plan to ensure the sustainability of the network. The network should actively disseminate information and contribute to awareness rising. Furthermore, it should also create synergies with global initiatives, enabling quick and smooth interactions and collaboration across the world.	2-3 mln EUR	single - stage	07.11.2017	18.04.2018
21	SC1-HCO-09-2018	Building international efforts on population and patient cohorts	Building on existing cohorts and in close alliance with relevant research infrastructures, proposals should establish a strategy for the development of the next generation of integrated cohorts, including: Map the cohort landscape in Europe and large international initiatives. The mapping should include, for instance meta-data on purpose, coverage and measurements and any other relevant information. Identify best strategies for cohorts' integration, taking into account relevant ethical issues. Promote the harmonisation of past and future data collection and provide recommendations on standards to improve future sample and data collection. Foster the inclusion of data emerging from new technologies (e.g. ICT, social platforms), new type of data (e.g. lifestyle, geographical, genetic, eHealth records) and exposure, including to new and emerging products (e.g. novel tobacco products, e-cigarettes, waterpipes). Promote best practises to optimise access to existing and future cohorts. Contribute to define an international strategic agenda for better coordination of cohorts globally.	1-2 mln EUR	single - stage	07.11.2017	18.04.2018

22	SC1-HCO-10-2018	Coordinating European brain research and developing global initiatives	Proposals should: Identify areas of neurosciences where the need for enhanced coordination of research communities into active clusters is particularly acute; Accelerate exchange between researchers in different European research initiatives to promote cooperation and to minimise fragmentation and duplication; Support the emergence of these clusters, facilitate links with research infrastructures and other major initiatives, in coordination with European Commission services, with the aim of sharing data and enhancing the exploitation of results, fostering new collaborations and identifying future research objectives; Identify and develop tools and support activities implemented by EU funded initiatives and infra-structures suitable to develop Open Science policy in the neurosciences by sharing and better utilisation of clinical data via IT platforms and also considering any relevant regulatory requirements and policies; Explore possibilities for broader scale cooperation at global level by fostering dialogue with researchers outside Europe in coordination with research funders around the world, in order to foster the global brain research agenda. The relevant stakeholders must be involved, in particular thematically focussed research communities, learned societies, large research initiatives, infrastructures as well as relevant funding bodies and regulatory authorities, in order to ensure effective implementation and impact of this coordination action	1-2 mln EUR	single - stage	07.11.2017	18.04.2018
23	SC1-HCO-11-2018	Strategic collaboration in health research and innovation between EU and China	The objective of this action is to support networking between European and Chinese policy makers, programme owners and funders, with the following goals: To develop a sustainable platform between EU and China that will facilitate a constant dialogue on addressing common health R&I challenges. To identify health challenges, whose solution may benefit from closer bi-lateral and/or multi-lateral cooperation between EU and China, to facilitate and develop collaborative research initiatives between EU and Chinese stakeholders.	0,8-1 mln EUR	single - stage	07.11.2017	18.04.2018
24	SC1-BHC-22-2019	Mental health in the workplace	Proposals should develop and implement intervention(s) that an employer/organization can take to promote good mental health and prevent mental illness in the workplace. These interventions can be newly developed or improvements on existing ones. They should address challenges in mental health in the workplace in the EU. The interventions should be assessed in terms of direct and indirect individual and collective health outcomes and cost-effectiveness, implementation facilitators and barriers. Proposals should build on existing knowledge but may well go beyond. Co-morbidities in mental and/or physical health should be addressed. Research should be multidisciplinary, including social sciences and the humanities. The stigma attached to mental ill health is important to consider as well as other social and cultural factors which may be relevant to improving the working environment. Mixed-methods research is encouraged. Proposals should involve key partners such as employers and employees in the private and public sector, policy makers, insurers, social partners and civil society in developing initiatives. Proposals should address relevant gender issues (e.g. gender equality at the workplace). Ethics and data protection aspects should be addressed where they are relevant.	2-4 mln EUR	two-stages	26.07.2018	02.10.2018 16.04.2019
25	SC1-BHC-23-2018	Novel patient-centred approaches for survivorship, palliation and/or end-of-life care	Proposals should demonstrate, the effectiveness and cost-effectiveness of new, improved or specifically adapted pharmacological and/or non-pharmacological interventions to either relieve symptoms (e.g. pain) and suffering caused by life-threatening non-communicable diseases (including disabilities), or serious late and long-term side effects of disease treatments in patients and survivors, or symptoms that occur at the end of life. Randomised clinical trials or observational studies of new or improved patient and/or family centred interventions, targeting children and/or adults, should be considered for this topic. Proposals should give a sound feasibility assessment justified by available publications or preliminary results. Proposals should prove the feasibility of integrating the proposed interventions in current pain management, palliative and/or end-of-life and/or survivorship care regimes and healthcare systems across Europe while taking into account the complex human aspects which are necessarily managed by such regimes and systems. The proposals should address sex, gender, age and socio-economic factors in health and any other factors (e.g. ethical, familial, cultural considerations, including personal beliefs and religious perspectives, etc.) that could affect health equity.	3-4 mln EUR	single - stage	07.11.2017	18.04.2018

26	SC1-BHC-25-2019	Demonstration pilots for implementation of personalised medicine in healthcare	The pilot projects should demonstrate the benefit for individuals as well as the implementability and economic viability of personalised medicine approaches in real life healthcare settings. The pilots should be tailored to the needs of citizens, making use of a wide variety of data and proposing prediction, prevention or treatment solutions, focussing on diseases with high burden to society (taking due account of sex/gender differences) and including multi-morbidity conditions if relevant. The use of big data approaches and high performance computing is encouraged. Applicants should ensure coordination with national, regional or local authorities engaging in healthcare environments and should aim at linking different institutions (hospitals, other healthcare facilities, public health authorities, payers etc.). The pilot projects should engage partners in regions or cities having adopted or that are in advanced planning for introducing PM approaches. Patient representatives as well as partners from countries that are in the process of upgrading their healthcare systems should be involved, ensuring a wide European dimension. Applicants should address the health economic, ethical, legal and societal aspects of the proposed action. Taking into account the advances already achieved for PM approaches in cancer and rare diseases, projects with primary focus on these diseases are excluded from the scope of this topic.	18-20 mln EUR	two-stages	26.07.2018	02.10.2018 16.04.2019
27	SC1-BHC-26-2018	HTA research to support evidence-based healthcare	Proposals should develop new or improved methodological approaches and frameworks, and foster methodological consensus-building, to address all of the following areas: Specific types or groups of health technologies: Help adapt existing HTA frameworks to reflect the specificities of particular types of health technologies97 for which HTA is currently less established but gaining importance. Particular consideration should be given to the increasing role of combinations of technologies, co-dependent technologies (e.g. companion diagnostics) and personalised medicine in healthcare. Selected therapeutic areas: The focus should be on therapeutic/disease areas where new products frequently face challenges in HTA, but a high unmet medical need persists. Methodological work and consensus-building should be aimed at key issues for relative effectiveness assessment, such as patient-relevant health outcomes, appropriate outcome measures, clinically relevant patient subgroups, and the current evidence-based standard of care. With regard to patient-relevant health outcomes, patient preferences and patient-reported outcome measures (PROMs) should be taken into account. Particular consideration should be given to strengthening synergies between HTA and clinical guideline development, with a view to more consistent reporting on the clinical/therapeutic value of health technologies. Use of real-world data: Methodological work should address current concerns and uncertainties around the quality and suitability of real-world data (e.g. from diseases-specific registries and routine healthcare databases) for relative effectiveness assessment in HTA. It should also contribute to broader efforts for improving the collection, comparability and analysis of real-world data across Europe. Implementation: In all of the above areas, part of the efforts should be directed at implementation of methodological work, using e.g. case studies or pilots. Involvement of HTA bodies in all of the above areas should ensure that the needs of HTA practitioners are addressed and uptake in HTA practice is facilitated.	5-10 mln EUR	single - stage	07.11.2017	18.04.2018
28	SC1-HCO-12-2018	Innovation in healthcare - a CSA towards using pre-commercial procurement and public procurement of innovative solutions in healthcare systems	The objective of this coordination and support action (CSA) is to create a Europe-wide consortium of healthcare providers and public procurers in the health and social care sector that define together unmet procurement needs to implement innovative solutions in healthcare. The consortium should prepare future procurement topics to conduct: A PCP/PPI to implement rapid diagnostic tools for infectious diseases in clinical practise (at least 1 topic). To assure the compatibility and interoperability between infectious disease diagnostics and avoid technological standardisation issues, public health sector procurers that participate in this CSA should also develop specifications that are suitable for Europe-wide deployment of the innovative diagnostics. One or more PCP/PPIs to drive the shift towards health systems reform. Clinicians, patients, public procurers in healthcare systems, health and social care facility managers, and health insurers/payers should work jointly to identify the gaps and needs that will lead to the development of new innovative solutions for patient-centred integrated healthcare.	1,5-2 mln EUR	single - stage	07.11.2017	18.04.2018

29	SC1-BHC-27-2018	New testing and screening methods to identify endocrine disrupting chemicals	New and improved approaches are needed to increase the quality, the efficiency and the effectiveness of existing methods to meet demanding and evolving regulatory requirements worldwide. In consultation with relevant regulatory bodies, research should improve and harmonise screening and testing protocols/strategies and hazard/risk assessments by developing better and faster tools, test methods or models, including in vitro and in vivo tests, high-throughput and in silico methods (e.g. QSAR), potentially combined with research on adverse outcomes pathways. For in vitro tests, appropriate coupling of their results to human health effects should be ensured. Information is also needed as regards how epidemiological and field monitoring data, which are also to be considered as data sources in a regulatory context, can be used to gain information about possible associations between levels of exposure to specific chemicals and ED-related effects. Focus should be on the most urgent regulatory needs, e.g., methods addressing the thyroid axis, developmental neurotoxicity, metabolic disorders, female reproduction and non-genotoxic carcinogenicity. Proposals should involve, in addition to academic researchers, regulatory agencies and other actors as appropriate. Proposers should consider sex and gender analysis when relevant. International cooperation is essential. Proposals are required to describe how they will contribute to ongoing international ED related activities (e.g. OECD work, EU level databases), including decision schemes under development. To speed up regulatory uptake of tests, validation is an essential step to be included in the proposals.	4-6 mln EUR	single - stage	07.11.2017	18.04.2018
30	SC1-BHC-28-2019	The Human Exposome Project: a toolbox for assessing and addressing the impact of environment on health	Applicants should take advantage of the last decade's rapid technological advances which have opened up new opportunities to collect, combine and analyse large data sets offering new possibilities to understand the contribution of environmental factors to the global health burden of common chronic diseases. Proposals should use innovative approaches to the systematic and agnostic identification of the most important environmental risk factors for the development of major NCDs across the life course (including in utero), leading to preventive interventions at the individual, group or population level and contribute to sustainable healthcare. Well-designed retrospective epidemiological studies may be included and proposals may envisage the creation of a prospective Europe-wide exposomics cohort and biobank, integrating behavioural, socio-economic factors and clinical records. The following components should be considered: agnostic evaluation of the role of multiple and unknown exposures; assessment of individual exposure to multiple stressors; sensors that combine external exposure and health data measurements; integration of external exposome data with cross-omics responses and (epi)genetic data; systematic evaluation and simulations of the health impacts; socio-economic modelling and econometric analysis including ethical and sex/gender aspects where relevant; better data mining tools, including advanced statistical analysis of complex data and high-performance/high throughput computing and storage; a long-term host and a single shared data infrastructure, taking into account existing structures and ensuring open access to data generated.	8-12 mln EUR	single - stage	26.07.2018	16.04.2019
31	SC1-HCO-13-2018	Setting the priorities for a European environment, climate and health research agenda	The aim is to establish a research/policy coordination group consisting of relevant science and policy actors in environment and health from H2020-funded activities and national/EU regulatory bodies as well as relevant international actors. The objective is to identify proactively key policy areas requiring scientific support for environment, climate change and health related issues in the next decade and develop a European medium-term research and innovation strategy and agenda covering key research and policy aspects – from causality research and new technologies and approaches to evaluation of socio-economic impacts of environment and health problems and preventive actions, also in occupational settings. In addition to this strategy, a set of guidelines, agreed by the stakeholder community, reflecting the current state-of-art for health impact and risk assessment of environmental factors applicable across key sectors, should be developed. The action is invited to structure its work in an inclusive way, ensuring the engagement of all stakeholders including from European countries with less developed environment and health research and policy. The proposal should contain a clear work plan for 3 years, but be open for modifications required to meet the needs of the relevant policy processes (e.g. development of the next EU research framework programme, WHO environment and health process).	2-3 mln EUR	single - stage	07.11.2017	18.04.2018
32	SC1-DTH-01-2019	Big data and Artificial Intelligence for monitoring health status and quality of life after the cancer treatment	Proposals should focus and deliver on how to better acquire, manage, share, model, process and exploit big data using, if appropriate, high performance computing to effectively monitor health status of individual patients, provide overall actionable insights at the point of care and improve quality of life after the cancer treatment. Relevant solutions include for example systems for determining and monitoring (taking also in account gender differences) the combined effects of cancer treatment, environment, lifestyle and genetics on the quality of life, enabling early identification of effects that can cause development of new medical conditions and/or impair the quality of life. Proposals preferably address relevant health economic issues, use patient reported outcome and experience measures (PROMs and PREMs) and take into account the relevant social aspects of health status and quality of life after cancer treatment. Integrated solutions should include suitable approaches towards security and privacy issues. Information can be collected from traditional sources of health data (cohorts, comprehensive electronic health records or clinical registries, incl. genetic data, validated biomarkers for remission), from new sources of health data (mobile health apps and wearables) and from sources that are usually created for other purposes such as environmental data.	3-5 mln EUR	single - stage	16.10.2018	24.04.2019

33	SC1-DTH-03-2018	Adaptive smart working and living environments supporting active and healthy ageing	Proposals should develop and validate digitally enabled adaptive services and solutions leading to smart work environments for older adults, supporting them to remain actively involved in professional life, helping them to sustain and renew their work and personal life related skills and support independent active and healthy lifestyles while taking into account reduced capabilities due to age-related health risks and conditions. Proposals should be based on trans-disciplinary research, involving behavioural, sociological, psychological, medical and other relevant disciplines, including gender and cultural aspects. Proposals should convincingly describe the planned progress beyond state of the art in development and integration of unobtrusive, adaptive solutions for age-friendly living and working environments, addressing the needs of employees in specific and various sectors and workplaces. Proposals should build on active user engagement (e.g. employee participation at the workplace) in order to ensure the understanding of user needs, safeguarding ethics, privacy, security and regulatory aspects (e.g. labor law). Attention theft and impeding physical activity by ICT should be avoided.	3-4 mln EUR	single - stage	07.11.2017	24.04.2018
34	SC1-DTH-05-2019	Large scale implementation of digital innovation for health and care in an ageing society	This topic will contribute to the Digital Single Market Strategy priorities on digital transformation of health and care (notably to the priority on user-centred integrated care), to the Scaling-Up Strategy[4] of the European Innovation Partnership on Active and Healthy Ageing (EIP on AHA) and will support the EIP on AHA Reference Sites contribution to the Digital Single Market Strategy, notably the priority focusing on user-centred integrated care. The actions supported will target large-scale deployment of digital health and care solutions across different regions in Europe. In line with the priority actions of the EIP on AHA Scaling-up Strategy, the scope of this PPI is to specify, purchase and deploy ICT based solutions (made up of services and ICT products to enable the provision of services) for active and healthy ageing through a common supply and demand side dialogue, which can deliver sustainable, new or improved health and care services promoting patient feedback in which public procurement approaches for innovative solutions lead to improved outcomes.	2-5 mln EUR	single - stage	16.11.2018	24.04.2019
35	SC1-DTH-07-2018	Exploiting the full potential of in-silico medicine research for personalised diagnostics and therapies in cloud-based environments	Proposals are expected to develop and validate software tools and devices for diagnostic or treatment based on computational modelling and simulation applied in biology and physiology. The solutions should enable decision making in complex situations and contribute to a more precise and personalised management of diseases in order to reduce the burden of non-communicable diseases, such as cancer. Computer-based decision making can apply to the choice of drugs, devices or other biomedical products, procedures, interventions, in vitro and in vivo diagnostics methods and tools, or combined diagnostics and treatments. In order to ensure access to large multi-disciplinary high quality data sets and diminish the shortage of relevant data, the teams are expected to use shared infrastructures and e-infrastructures, building on existing capacity and expertise and linking where possible with the European initiatives that manage databases relevant for personal health, such as BBMRI, ELIXIR or EATRIS, as well as with Centres of Excellences for computing applications in the area of biomedicine and bio-molecular research as appropriate. They should demonstrate access to the sufficient and relevant clinical data needed for advanced validations. The work should build on – and contribute to reusable data and computer models. Teams are encouraged to use EOSC services as appropriate and possible.	10-15 mln EUR	single - stage	07.11.2017	24.04.2018
36	SC1-DTH-08-2018	Prototyping a European interoperable Electronic Health Record (EHR) exchange	The focus is on developing and testing an extensible, secure and interoperable platform in compliance with the General Data Protection Regulation and the Network and Information Systems directive. The work should include the development of a European prototype implementation with embedded security and large scale testing and validation in a set of use cases with demonstrated relevance for citizens' health and with involvement of citizens, hospitals, medical doctors, pharmacies and health professionals across Europe. Health authorities should be involved in the relevant parts of the proposed work. This action is expected to prototype a (i) citizen-centered implementation of a platform that can be integrated in a federated platform structure, easy-to-use and secure, constantly accessible and portable within any other Member States of the EU and (ii) a data-driven platform to help the scientific community to benefit from user generated data (health, care, and health-related) going beyond the currently established level of implementation. Social Sciences and Humanities should thereby be considered appropriately.	6-10 mln EUR	single - stage	07.11.2017	24.04.2018
37	SC1-DTH-09-2019	Scaling up the univocal Identification of Medicinal Products	This innovation action is expected to support two goals: (i) the cross-border mobility of European patients by offering safer eDispensations across borders, (ii) the implementation of the IDMP standards in Member States drug databases (including a possible linkage to the EU SPOR - Substance, Product, Organisation and Referential master data database) allowing the identification of locally available medicinal products which are equivalent to the one identified in a foreign prescription. This requires creating an EU ePrescription/eDispensing approach to use the future EU SPOR database. A common approach and operating model needs to be developed, including common processes for validation of contents, error mitigation, linkage of the EU SPOR database with the ePrescription/eDispensing systems, updates and mappings to other systems for at least 5 Member States' organisations. Harmonisation guidelines of prescribing and dispensation practices in a cross-border setting could be a further focus.	5-8 mln EUR	single - stage	16.10.2018	24.04.2019

38	SC1-DTH-10-2019-2020	Digital health and care services	Support the health and care service provider to procure the development, testing and implementation of digital services and communication concepts that can facilitate the transition to integrated care models across health and social services and country-specific cross-institutional set-ups, including decentralised procurement environments and collaboration across institutions. Key challenges that could be addressed are patient empowerment, self-management, patient safety, patient involvement, chronic disease management, diagnosing, home-care logistics, hospital logistics, skills and independent living. These challenges could be addressed by applicable ICT domains e.g., telemedicine, mHealth, IoT, shared open source IT-based platforms, etc. as will be defined in the market consultation process. This should result in early adoption and demonstration of the potential for scaling-up the services and positive impact with evidence of appropriate incentives of various actors	5-6 mln EUR	single - stage	26.07.2018	14.11.2018
39	SC1-DTH-11-2019	Large Scale pilots of personalised & outcome based integrated care	The scope of this topic is to foster the large-scale pilots for deployment of trusted and personalised digital solutions dealing with Integrated Care, with a view to supporting and extending healthy and independent living for older individuals who are facing permanently or temporarily reduced functionality and capabilities. This in turn is expected to contribute to a patient-centred and truly individualized strategy in order to develop trusted, robust and financially sustainable services potentially useable in any Member States and the Digital Single Market, and applicable to a very wide range of patient pathways. These approaches aim to enable people to remain independent as long as possible and prevent hospitalisation.	4-6 mln EUR	single - stage	16.10.2018	24.04.2019
40	SC1-HCC-01-2018	Supporting investment in smart living environments for ageing well through certification	The action will consolidate knowledge from related projects and initiatives to identify the most appropriate scheme for harmonisation, certification, approval labelling or other forms or reliable identification of adequate smart living environments for ageing well, including indicators and good practices. In a coordinated effort with relevant R&I projects, national initiatives and other stakeholders (among them national schemes, procurers, civil society representatives, certification and regulation & standardisation bodies, building and ICT industry), the scheme should be developed and agreed for adoption.	0≤1 mln EUR	single - stage	07.11.2017	24.04.2018
41	SC1-HCC-02-2019	Support for the large scale uptake of open service platforms in the Active and Healthy Ageing domain	Proposals should deliver an inventory of the state of the art and analyse the use of open service platforms in the Active and Healthy Ageing domain, covering both open platforms -such as universAAL and FIWARE- and partly-open/proprietary platforms developed by industry. In addition, proposals should address interactions between platforms. Proposals should elaborate a methodology that monitors open platform development, adoption and spread across Europe, with relevant KPI's, factors that support or hinder the uptake of open platforms in Europe, including the associated evolution of the ecosystems and stakeholder networks. Proposals are then expected to put this methodology into practice and study the use of open platforms by, amongst other possible actions, collecting and processing data from running and recently ended projects –including EU funded projects- and initiatives that use the referred platforms, with special focus on those building upon UniversAAL and FIWARE. They should also address the evolution in the further development and maintenance of the platforms as well as the use and sustainability of relevant open platforms. Proposals should elaborate evaluation guidelines aimed at collecting evidence on socio economic costs and benefits of the use of open platforms as means for service delivery to serve as a reference for promoting further use of this approach.	0≤1,5 mln EUR	single - stage	16.10.2018	24.04.2019
42	SC1-HCC-03-2018	Support to further development of international cooperation in digital transformation of health and care	The action should develop and deliver a roadmap for international cooperation which outlines key relevant research and innovation areas in digital solutions and services for active and healthy ageing. The selection of topics and potential funding schemes should be based on a clear methodology which also takes into account the European added value and identifies relevant existing and emerging initiatives which can form the basis for such a cooperation. The action should also ensure that relevant stakeholders are engaged during the process through regional and international workshops and a set of communication and dissemination actions.	0≤2 mln EUR	single - stage	07.11.2017	24.04.2018
43	SC1-HCC-04-2018	Digital health and care services – support for strategy and (early) adoption	Create favourable framework conditions for cross-border Communities of Practise (CoP) and create a network that will assist the health & care research and innovation ecosystems in taking investment decisions on future procurement of research and innovation and, eventually, on (large scale) deployment of eHealth systems and new care delivery models. The network should support existing ecosystems, create capacities, promote, co-ordinate, collaborate with other innovation accelerators and investors, and focus on adoption and scale of health innovation European wide. To facilitate sufficient knowledge brokerage all appropriate actors in the innovation chain and systems should be engaged The consortium should represent a well-designed network of procurers and demand side actors e.g., European regions, national care authorities, NGOs, patient and consumer organisations that have proven experience in the field and the capacity to engage and consult objectively all relevant actors. The consortium should also connect to investors, National Promotional Banks and Economic Development Agencies.	0≤3 mln EUR	single - stage	07.11.2017	24.04.2018

44	SC1-HCC-05-2018	Support to a Digital Health and Care Innovation initiative in the context of Digital Single Market strategy	The action should address the activities indicated below, in close coordination with European Commission services, while considering the coordination activities and programs mentioned above, relevant projects and actions supported by the EU, and other relevant initiatives. 1) Delivery on the third DTHC priority of the DSM (focusing on user-centred integrated care), which should represent approximately 75% of the total effort of the action. This will concentrate on supporting and extrapolating the lessons from practical experiences across Europe that are particularly impactful, successful and replicable. The focus will be on large scale deployment of digital solutions for chronic diseases and integrated care (that absorb the majority of healthcare budgets and where there is a big scope for improvement) and patient-centred care, considering a limited set of implementation scenarios which seem particularly impactful. The experiences to be considered may cover public and non-public initiatives, including from the reference sites and other participants of the EIP on AHA, as well as relevant European projects (finished or not) on integrated care. Three tasks will be undertaken: 2) Collaboration platforms on key aspects of the three DTHC priorities of the DSM, which should represent approximately 20% of the total effort of the action. This requires to identify relevant stakeholders and initiatives across Europe and engage them to collaborate, jointly analyse key challenges and solutions, elaborate common strategic agendas and commitments for action in three areas: 3) Vision of EU coordination and support on DTHC beyond 2020, which should represent approximately 5% of the total effort of the action. Considering inputs gathered through the implementation of the two other work packages and additional feedback from relevant stakeholders, advise on future EU support on DTHC goals, including possible financial support under the next Multi-annual Financial Framework (e.g. support for research and innovation, cohesion, strategic investment), as well as legislative, policy, or other types of intervention.	0≤4 mln EUR	single - stage	07.11.2017	24.04.2018
45	DT-TDS-01-2019	Smart and healthy living at home	A mix of advanced ICT ranging from biophotonics to robotics, from artificial intelligence to big data and from IoT to smart wearables can address these challenges. A platform for smart living at home should integrate these technologies in an intelligent manner. The pilots should build on open platforms, standardised ontologies, APIs and results from IoT-based smart living environments, service robotics and smart wearable & portable systems and clearly go beyond current state of the art in terms of scale, the capabilities for personalisation, adaptation, and user acceptance. Pilots in the selected areas should clearly cover the supply and demand sides. For further expanding with other users, developers of additional applications, replication of the pilot through new sites, and complementary assessment of the acceptability of the use cases where appropriate, the actions in this topic may involve financial support to third parties as outlined in the chapeau 'Platforms and Pilots'. A clear methodology and impact indicators for socio-economic impact assessment from using the platform should be included, where possible using the MAFEIP framework. The number of users involved and duration of pilot services should be sufficient to ensure significance in impact analysis, with a minimum of 4 pilot sites in 4 countries. The proposed pilots should also demonstrate feasibility of integration with other relevant application domains such as energy, transport, or smart cities, including interoperability, along with data security and integrity, and models for data sharing and valorisation are to be developed in order to create incentives for data aggregation across different platforms and application areas. Regulatory aspects and legal aspects of data ownership should be addressed. Relevant ethics and gender issues should be taken into account.	15-20 mln EUR	single - stage	26.07.2018	14.11.2018
46	SU-TDS-02-2018	Toolkit for assessing and reducing cyber risks in hospitals and care centres to protect privacy/data/infrastructures	Development and implementation of innovative methods, tools, guidelines or best practices addressing the need for cybersecurity in hospitals including remote care and homecare settings e.g. for assessing risks and vulnerabilities of hospitals w.r.t cyberattacks; innovative cybersecurity measures; identification/authentication systems within hospitals taking into account cross-border requirements and usability; addressing cybersecurity in the whole lifecycle of a medical device including hardware with embedded software, such as e.g. pacemakers, …); solutions addressing the need for cybersecurity certification of products/devices and services in the health and care domain; standards for security-by-design covering the whole lifecycle of eHealth applications; cybersecurity in remote healthcare provisions including homecare settings and in IT infrastructures supporting integrated care; secure information sharing between healthcare organisations (including cross border); security for cloud solutions supporting healthcare services; cybersecurity for Internet of Things (IoT) components supporting healthcare organisations in Europe.	3-5 mln EUR	single - stage	07.11.2017	24.04.2018
47	SU-TDS-03-2018	Raising awareness and developing training schemes on cybersecurity in hospitals	Awareness raising of staff working in healthcare settings on security and data privacy is important to reduce cybersecurity vulnerabilities and exposure. Training of IT staff working in healthcare settings is of high priority in order to enforce the knowledge on information security processes and data protection procedures. This may include proactive managerial and technological strategies to reduce vulnerabilities e.g. best practices to minimize the potential for becoming a victim of phishing and ransomware or strategies to respond to attacks,…. Appropriate training on the permitted use of patient health data/ information according to the requirements of relevant data protection law(s) is also a priority.	0≤1 mln EUR	single - stage	07.11.2017	24.04.2018