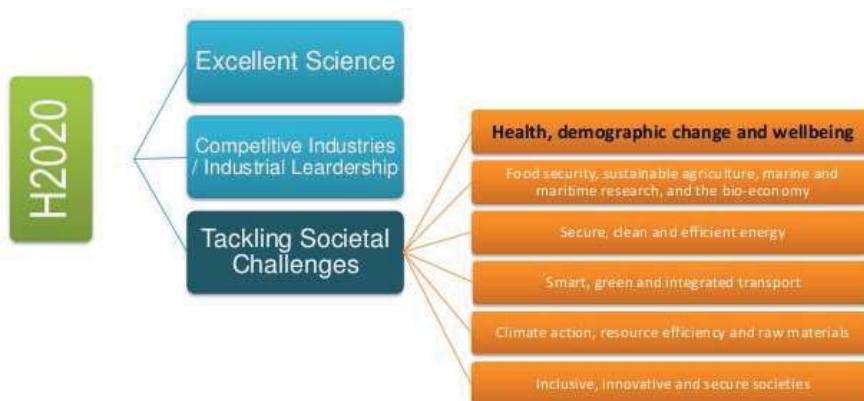


HORIZON 2020

Societal Challenge 1(SC1) **"Health, demographic change and well-being"**

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Excellence Science

- **European Research Council**
 - Frontier research by the best individual teams
- **Marie Curie actions**
 - Opportunities for training and career development
- **Future and Emerging Technologies**
 - Collaborative research to open new fields of innovation
- **Research Infrastructure (including e-infrastructure)**
 - Ensuring access to world-class facilities

Industrial leadership

- **Leadership in enabling and industrial technologies**
 - ICT, nanotechnologies, materials, biotechnology, manufacturing, space
- **Access to risk finance**
 - Leveraging private finance and venture capital for research and innovation
- **Innovation in SMEs**
 - Fostering all forms of innovation in all types of SMEs

Societal Challenges

- Health, demographic change and wellbeing
- Food security, sustainable agriculture, marine and maritime research & the bioeconomy
- Secure, clean and efficient energy
- Smart, green and integrated transport
- Climate action, resource efficiency and raw materials
- Inclusive, innovative and secure societies

European Institute of Innovation and Technology (EIT)

Combining research, innovation & training in Knowledge and Innovation Communities

Joint Research Center (JRC)

Providing a robust, evidence base for EU policies



H2020 what is it?

- Horizon 2020 budget: €7.2 billion
- ✓ Brings together FP7 (Framework programme 7)
- ✓ Health and ICT
- ✓ Health and CIP



- ✓ Builds on IMI, EDCTP, AAL



- ✓ Also builds on FP7 activities: programmatic approach, SME



PPP –Innovative Medicines Initiative



**FIRST WORK PROGRAMME OF
SOCIETAL CHALLENGE 1**

HEALTH, DEMOGRAPHIC CHANGE AND WELLBEING

2014 – 2015

Better health for all



TECHNOLOGICKE
CENTRUM AV ČR

WHY?

- Demographic change
- Chronic disease
- Sustainability of health and care systems – costs of inaction!
- Drug development pipeline
- Infectious disease
- In terms of global development, resurgence, AMR, pandemic threat
- Big data

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HOW?

- Seven areas of research projects
–36 project topics

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Topics for that call fall into 7 areas of interest:



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AREAS

1. Understanding health, ageing and disease
 2. Effective health promotion, disease prevention, preparedness and screening
 3. Improving diagnosis
 4. Innovative treatments and technologies
 5. Advancing active and healthy ageing
 6. Integrated, sustainable, citizen-centred care
 7. Improving health information, data exploitation and providing an evidence base for health policies and regulation
- Co-ordination activities – 10 topics
 - Other activities

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1/Understanding health, ageing and disease

- **PHC 1 - 2014) Understanding health, ageing and disease: determinants, risk factors and pathways**
- **PHC 2 – 2015: Understanding diseases: systems medicine**
- **PHC 3 - 2015: Understanding common mechanisms of diseases and their relevance in co-morbidities**

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2/Effective health promotion, disease prevention, preparedness and screening

- **PHC 4 – 2015: Health promotion and disease prevention: improved inter-sector co-operation for environment and health based interventions**
- **PHC 5 – 2014: Health promotion and disease prevention: translating 'omics' into stratified approaches (genomics, epi-genomics, meta-genomics, proteomics)**
- **PHC 6 – 2014: Evaluating existing screening and prevention programmes**

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- **PHC 7 – 2014: Improving the control of infectious epidemics and foodborne outbreaks through rapid identification of pathogens (see also SC2)**
 - **Specific challenge:** Human and animal health worldwide is increasingly threatened by potential epidemics caused by existing, new and emerging infectious diseases (including from antimicrobial resistant pathogens)
 - TESSY = The European surveillance system
 - RASFF = Rapid Alert System for Food and Feed
 - EWRS = Early Warning and Response System
 - EFSA = European Food Safety Authority
 - ECDC = European Centre for Disease Prevention and Control
 - **Expected impact:**
 - information system and global standards for rapid pathogen identification.
 - **“Global Research Collaboration for Infectious Disease Preparedness”** and its objective to establish a research response within 48 hours of an outbreak.
-
- COM(2012)497 **15 – 20 mil €**

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- **PHC 8 – 2014: Vaccine development for poverty-related and neglected infectious diseases: Tuberculosis**
 - for discovery and early development of new vaccine candidates for tuberculosis
 - close links with the European and Developing Countries Clinical Trials Partnership (EDCTP)
- 
- **PHC 9 – 2015: Vaccine development for poverty-related and neglected infectious diseases – HIV/AIDS**
 - for discovery and early development of new vaccine candidates for HIV/AIDS

• **15 – 20 mil €**

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3/Improving diagnosis

- **PHC 10 – 2014: Development of new diagnostic tools and technologies: *in vitro* devices, assays and platforms**
- **PHC 11 – 2015: Development of new diagnostic tools and technologies: *in vivo* medical imaging technologies**
- **PHC 12 – 2014 and 2015: Clinical validation of biomarkers**

4/Innovative treatments and technologies

- **PHC 13 – 2014: New therapies for chronic non-communicable diseases**
- **PHC 14 – 2015: New therapies for rare diseases**
- **PHC 15 – 2014/15: Clinical research on regenerative medicine**
- **PHC 16 – 2015: Tools and technologies for advanced therapies**
- **PHC 17 – 2014: Comparing the effectiveness of existing healthcare interventions in the elderly**
- **PHC 18 – 2015: Establishing effectiveness of health care interventions in the paediatric population**



5/Advancing Active and Healthy Ageing - ICT

- PHC 19 – 2014: Advancing active and healthy ageing with ICT: Service robotics within assisted living environments
- PHC 20 – 2014: Advancing active and healthy ageing with ICT: ICT solutions for independent living with cognitive impairment
- PHC 21 – 2015: Advancing active and healthy ageing with ICT: Early risk detection and intervention
- PHC 22 – 2015: Promoting mental wellbeing: in the ageing population

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6/Integrated, sustainable, citizencentred care

- PHC 23 – 2014: Developing and comparing new models for safe and efficient, prevention oriented, health and care systems
- PHC 24 – 2015: Piloting personalised medicine in health and care systems
- PHC 25 – 2015: Advanced ICT systems and services for Integrated Care
- PHC 26 – 2014: Self-management of health and disease: citizen engagement and mHealth
- PHC 27 – 2015: Self-management of health and disease and patient empowerment supported by ICT
- PHC 28 – 2015: Self-management of health and disease and decision support systems based on predictive computer modelling used by the patient him or herself
- PHC 29 – 2015: Public procurement of innovative eHealth services
- PHC 30 – 2015: eHealth Sectoral Inducement Prize

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7/Improving health information, data exploitation and providing an evidence base for health policies and regulation

- PHC 31 – 2015: Digital representation of health data to improve disease diagnosis and treatment
- PHC 32 – 2014: Foresight for health policy development and regulation
- PHC 33 – 2014: Advancing bioinformatics to meet biomedical and clinical needs
- PHC 34 – 2015: New approaches to improve predictive human safety testing
- PHC 35 – 2014: eHealth interoperability
- PHC36 – 2015: Inducement prize – topic TBD

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Co-ordination activities

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- **HCO7 – 2014: ERA-NET: Joint Programming - Establishing synergies between the Joint Programming on Neurodegenerative Diseases Research and Horizon 2020 (JPND)**

- **Scope**

- Implement transnational call, with EU co-funding, with a view to scale-up the implementation of the JPND Research Strategy
- Align national research plans and strategies, address interoperability of databases, harmonise methods and develop key indicators for outcome measures

- **Expected Impact**

- Reinforce alignment of national/regional plans and initiatives in this field as well as commitment to the implementation of the JPND SRA
- Leverage transnational research with EU-added value in this field

- **ERA-NET**

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- **HCO8 – 2014: ERA-NET: Aligning national/regional translational cancer research programmes and activities**
- **HCO9 – 2014: ERA-NET: Collaboration and alignment of national programmes and activities in the area of brain-related diseases and disorders of the nervous system**
- **HCO10 – 2014: ERA-NET: Systems medicine to address clinical needs**
- **HCO 11 – 2014: ERA NET: Rare Disease research implementing IRDiRC objectives**

- **HCO12 – 2015: ERA-NET: Generating programmes and activities on antibiotic resistance by the Joint Programming on Antimicrobial Resistance**

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Děkuji za pozornost

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