



SENET-HUB
SINO-EUROPEAN HEALTH NETWORKING HUB

EU-China Health Policy Dialogue

Health research and innovation collaboration - Challenges and opportunities

09/12/2020



Introduction

THE SENET project

The SENET project intends to facilitate dialogue between Chinese and European research and innovation entities to increase participation in health collaborative projects. As part of this overall effort, SENET is organising a series of dialogues, meetings and other types of events that have the objective to bring together relevant stakeholders and to gather their input and feedback on pertinent aspects and questions related to strengthening collaboration in health research, development and innovation between the EU and China.

The China-EU Health cooperation dialogue aims to exchange good practices from the EU and Chinese health researchers. Moreover, policy recommendations will be developed for supporting future Sino-European research collaborations from understanding, preventing, and managing global health challenges such as pandemics, chronic disease prevention and control, and the obstacles and impetus to the international development.

The specific aims and objective of this meeting were the following ones:

- Present current and future research strategies and research framework programmes that may support EU-China health research cooperation
- Identify and explore research areas of potential common interest between China and the EU
- Present case studies from China and the EU.

Overview: Strategies and approaches for supporting support health research in China

The Covid-19 outbreak, declared by the World Health Organisation (WHO) a Public Health Emergency of International Concern (PHEIC) in January 2020, was still ongoing at the time of this meeting. Consequently, the focus and content of this meeting was heavily shaped by these circumstances. Speakers in this meeting came from different renowned organisations involved in health research, development and innovation and represented policy and decision makers as well as research organisations (for further details see agenda and list of participants attached to this document).

Prof. Yunping Wang from China National Health Development Research gave the speech on "Healthy China 2030" and China-EU Health Cooperation in the Context of International Solidarity Against COVID-19. According to data from IMF, it was predicted that a COVID-19 pandemic would cost the global economy USD 12 trillion and would reduce global GDP by 5.2%



in 2020 (World Bank). From GPMB report, it was pointed that the world needs to build stronger, more resilient health systems that are better prepared to respond to future outbreaks and can deliver quality frontline care and universal health coverage, leaving no one behind. During the outbreak SARS in 2003, Chinese health system has been greatly reformed and consequently launched the Chinese CDC. In 2009, the CPC Central Committee and the State Council released the report on “Deepening the Health Care System Reform”. It targets build the foundation of a basic healthcare system that covers both urban and rural residents and ensure that everyone has access to basic health services.

In 2016, the Chinese government initiated Healthy China 2030, which was seen as the most significant initiative that prioritises Health in China’s development agenda. Five priority areas were highlighted in Healthy China 2030. These include: (1) promoting healthy life, (2) optimising health services, (3) developing the healthcare industry, (4) building healthy environment, and (5) improving health protection. All of these areas are in line with the SDG Goal 3: Ensure healthy lives and promote well-being for all at all ages launched by WHO.

Prof. Wang stressed that the Chinese health system has undergone several challenges, including the health services delivery capacity, the insurance payment system and the lack of an effective channel to incorporate reporting from health facilities about unknown diseases and syndromes. In relation to COVID-19, China is planning to create a global reserve and transportation hub of public health emergency supplies in cooperation with the United Nation. China also learned from the EU with regards to the efficiency of monitoring of confirmed cases of COVID-19 by European CDC.

Prof. Wang finally highlighted two ways to further strengthen the cooperation between the EU and China. First, it is important to promote dialogue on the health development strategy between EU and China. Second, it is very essential to promote knowledge exchange and joint research in priority health areas for both sides.

From a European policy maker’s perspective, **Dr. Stéphane Hogan** from the European Commission (EC) updated the meeting participants about actions taken by the EC against COVID-19 and the future strategy under the new European Union (EU) Framework Programme, Horizon Europe (specifically focusing on the Cluster Health within Horizon Europe, see Fig. 1 below). On the very same day the PHEIC was declared, the EC started with the launch of emergency calls that had the objective to address critical research questions related to Covid-19 infections and to contribute to the accelerated development of drugs, vaccines and diagnostics against Covid-19 to save lives and avert a large-scale crisis. The total commitment of these EC actions in 2020 amounted to approximately 1bn EUR in grants for research and innovation, plus 400M EUR in other financing. In addition, the EC launched and supported relevant policy actions such as, for example, international cooperation and data sharing, combatting vaccine hesitancy and investing into preparedness against future outbreaks. The Covid-19 outbreak therefore significantly fed into and shaped the Horizon Europe programme.

S Hogan further elaborated on details of the new framework programme, highlighting that it will generate critical mass and is expected to achieve a major impact to this crisis and to global health R&D&I at large. Not only will it support research and innovation actions, including also the access to pertinent research infrastructures, but will also offer ample opportunities for



researcher mobility and training and, importantly, boost the competitiveness of the EU at global level.

Within the Specific Programme implementing Horizon Europe, three pillars have been defined (Fig. 1) that will all contribute to achieving the objectives defined. In Cluster 1 Health in particular, a budget of approximate 7bn EUR will be provided during the seven-year duration of the programme that will be invested in six specific destinations that have been defined for health. The areas to be covered include, for example, tackling of diseases and disease burden, healthcare and healthcare systems, support to an innovative, sustainable and globally competitive health industry, and the unlocking of the full potential of new tools and technologies. To support the achievement of the expected impacts that have been defined for these destinations, additional mechanisms such as different kinds of partnerships (public-public, public-private, global) and missions have been established and defined. Regarding missions, in the field of health a mission on cancer has been selected that via different interventions will contribute to the understanding, prevention, diagnostic, treatments and other aspects related to cancer. Underpinning the entire framework programme, cross-cutting issues such as gender, ethics, open science and international cooperation will be tackled.

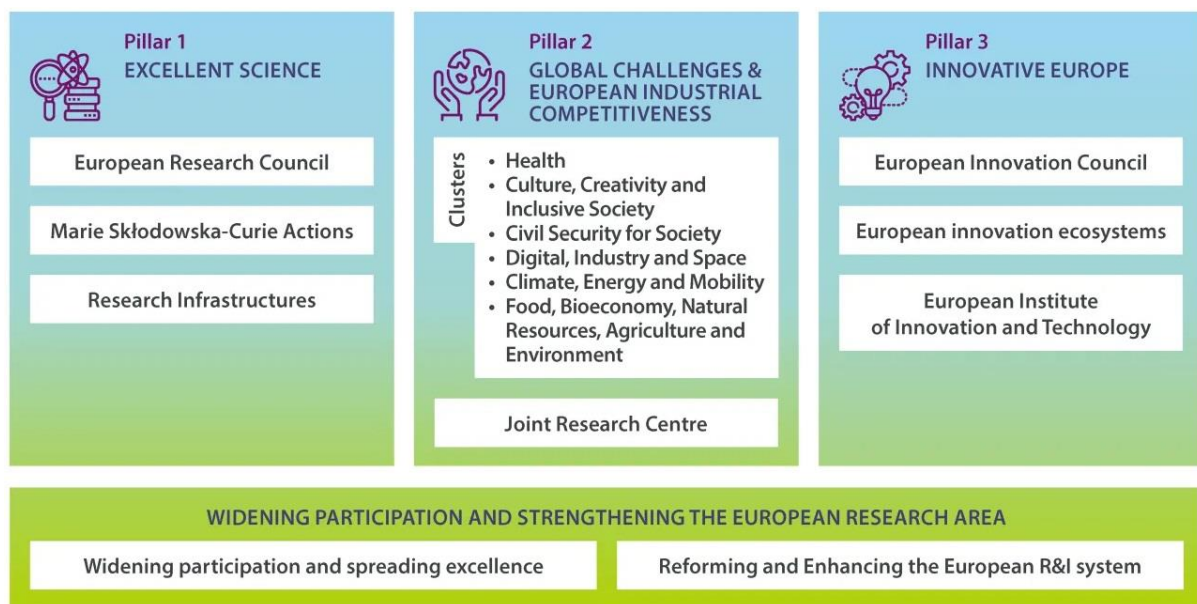


Figure 1: Structure of Horizon Europe ¹

Thematic session 1- Prevention and control of chronic diseases

Chronic diseases are the leading cause of mortality and morbidity now in the majority of countries worldwide (with the exception of many countries in Africa and few others elsewhere), and consequently they have a significant socio-economic impact in the affected

¹ See: https://ec.europa.eu/info/horizon-europe_en

countries. This session therefore dealt with different aspects related to the prevention and control of chronic diseases.

Prof. Xiaoning Hao from China National Health Development Research Center presented the topic on Prevention and control of chronic diseases in China and the development of Sino-European cooperation. She mentioned that chronic diseases have become an important public problem that threatens human health. In 2018, the prevalence of chronic diseases among Chinese residents was 342.9%, of which 334.9% and 352.1% in urban and rural areas, respectively. The top three chronic diseases are hypertension, diabetes, and cerebrovascular disease.

The relevant initiatives in response to chronic disease are concluded in six areas: (1) Integrating nutrition improvement and chronic disease prevention into all public policies; (2) Build up top-down approach on prevention and treatment, combining Chinese and Western medicine with equal emphasis on the prevention and treatment system and working mechanism of chronic diseases; (3) Promote integrated prevention and treatment strategies for chronic diseases; (4) Improving the planning and science of chronic disease control decisions; (5) Promoting basic public health service projects; and (6) Implementation of family doctor contract service.

In China, three levels prevention of chronic diseases are applied to facilitate the health protection, to delay the disease progression and to adopt measures to improve the patient's symptoms and prevent complications after the disease.

Prof. Hao stressed that Chinese medicine in the management of chronic diseases is fundamental prevention of the onset, development and transmission of chronic diseases. In terms of challenges of chronic disease prevention and control and suggestions for China-EU cooperation, she highlighted that several difficulties of prevention and control of chronic diseases remain, concerning the variety of chronic diseases and the complexity of their causes and chronic diseases associated with lifestyle.

In addition, there is a shortage of professionals in basic level health care and insufficient ability in building capabilities of chronic diseases. Finally, concerning the EU and China cooperation on chronic disease, China should learn from the experience and best practices in chronic disease control management from Europe, enhancing innovation in medical treatment by improving R&D in pharmaceutical research, and introducing new technologies such as big data and the Internet of Things to improve the efficiency of chronic disease management. Lastly, China and Europe shall conduct policy dialogue in the field of the prevention and control of chronic diseases.

Prof. Stefania Boccia informed the meeting participants about the EC-funded IC2PerMed project (International Consortium for Personalised Medicine) that she coordinates. She stressed that -despite the negative impact and consequences of the Covid-19 outbreak- the pandemic also presents a tremendous opportunity to mobilise support to health and to changing relevant policy agendas in health, health care and health R&D. For example, she mentioned that even within the EU there is significant spread in life expectancy at birth between different EU member states, between males and females, and between individuals with different socio-economic status. Within the EU, when looking at disease burden as

measured by disability-adjusted life years (DALY), cancer and cardiovascular diseases are the leading causes for disability and premature mortality. Forty to eighty percent of the DALYs in the EU are due to preventable factors such as tobacco and alcohol consumption, nutrition behaviour and lack of physical exercise. All in all, more than 70% of the mortality in the EU is due to chronic diseases. S Boccia also stressed that the afore mentioned risk factors add to the so-called unhealthy live length. For example, in the EU, currently 64.2 years in males and 63.7 years in females correspond to healthy life years at birth, whereas the remaining years of life to achieve the average life expectation -78.2 years in male and 83.7 years in females, respectively- are spent in poor or ill-health.

The EU health systems therefore are confronted with tremendous challenges and need to change to face issues such as the aging population, care delivery and unsustainable high care costs. To tackle such issues, research, innovation and using evidence to inform health care, health services and systems are crucial issues. In this sense, an EU Steering Group has included in their recommendations a further increase of investments in disease prevention and early disease interventions, reorganising health care delivery, and to foster empowered and responsible citizens.

Coming back to the inequalities existing at EU level, S Boccia stated that there are big differences in the expenditure on disease prevention between EU member states and that prevention suffered major budget cuts during the current Covid-19 crisis. Taking the EU cancer mission within Horizon Europe as an example, she highlighted the importance of innovation for tackling health-related challenges, which -in the case of the cancer mission- is expected to make substantial contributions to better and more equitable prevention, diagnosis, treatment and care of cancer patients.

Underlining the importance of international collaboration, she informed the audience about the recent joining of Chinese partners of the IC2PerMed project, confirming the notion that health challenges are universal and are best tackled at global level.

Thematic session 2 : Cooperation and development of China-EU health industry

As an example from China concerning the country's effort to strengthen its health industry, **Dr. Shanhong Mao** from the Beijing Municipal Government gave an overview about their effort to support post-pandemic innovation in healthcare.

S Mao pointed out that the Covid-19 pandemic should be seen not only as a disruption but also an opportunity. Continuous innovation is to be considered a key for survival and prosperity. He highlighted the strength of China in science and technology, as shown, for example, by the strong increase in R&D funding, the increasing number of publications from Chinese authors in science and technology, the number of patents applied for and approved, and the enormous pool of talented R&D personnel in China. Thanks to all this, China has gained a stronger position in the global map of innovation. Still, he mentioned that there is a valley of death within the innovation process that is characterised by gaps existing, for

example, regarding funding, human resources, key technologies, market opportunities, sales channels, regulations, the business environment, and in strategic planning. It is important to bridge this gap.

As an example of how these challenges can be tackled and addressed, S Mao presented the case of the Beijing Economic-Technological Development Area (BDA), an industry park in the south of Beijing, with more than 30.000 registered enterprises in this area. Healthcare business is the fastest growing area in BDA. To help companies grow and become more innovative, the healthcare system needs support at different levels: at product innovation, at enterprise and at global level. At production innovation level, the following areas are supported at BDA: source of innovative ideas, public resource for innovation, policies and regulations, funding for innovative ideas, talent for innovation, market for innovative ideas. At enterprise level, priority areas in BDA include, for example, digital healthcare, products and R&D, personalised medicine, personal care and medical education. Finally, at global level, aspects to be considered and taking into consideration include government, traditional healthcare, healthcare services, private, state and foreign enterprises, emerging healthcare, and the overall health and healthcare market. The cooperation model in the context of globalisation has to build on mutual trust, and a win-win situation should be strived for.

Using an example from Europe, **Joaquim Cunha** from the Health Cluster Portugal presented the case of Portugal as an example for Europe as the right place to invest and build partnerships in health, health care and health R&D. Despite being one of the smaller European countries, the health sector in Portugal is characterised by a vibrant and innovative R&D ecosystem, a high-level education system, and a high-quality healthcare system. Moreover, the overall health field is rapidly evolving. In fact, for Portugal it is envisioned that the health field could become one of the most dynamic and competitive economic sectors in the country. Areas in which particularly strong growth is expected in the future include, for example, technology-enabled healthcare, open innovation, active aging, and a value-based healthcare. Several cross-sector opportunities with corresponding strategic agendas and key initiatives are currently being moved forward.

Conclusions and recommendations

Unanimously, the health sector and health R&D is considered as a key area for the future both in Europe and in China. In both regions, strong support and measures are being taken to make this sector thrive. Given the fact that worldwide every individual has the right to a standard of living adequate for the health and well-being and given the importance of good health, global collaboration is key in health and health R&D.

To this end, to further strengthen global collaboration, the following recommendations can be drawn from this meeting:

- Promote knowledge exchange and joint research in priority health areas between the EU and China
- For tackling global health crisis, global collaboration health R&D schemes and mechanisms are key



- More approaches to develop innovative prophylactic measures will be more and more important for reducing the strains on public health systems
- In addition to more investment in prevention, strengthening of early diagnostics and early intervention measures is key
- For bridging the valley of death in the innovation process, appropriate support measures have to be provided by funders, policy and decision makers, including for example corresponding funding and funding schemes, adjusting applicable regulations and other regulatory frameworks if necessary and others
- Pharmaceutical product development should have the aim to develop affordable, innovative and sustainable health products and technologies
- Enhance innovation in medical treatment by improving R&D in pharmaceutical research
- Researcher mobility and career development should also be included under the umbrella of such global collaborations
- Strengthen engagement and involvement of policy makers with the aim to create an innovative framework for global health R&D
- Promote policy dialogue on the health development strategy between the EU and China
- Address issues such as vaccine hesitancy that represent a threat for example in the current pandemic crisis where vaccination represents a key public health measure

As a next step, SENET will organise a second EU-China health policy dialogue with the objective to facilitate an exchange of experiences in establishing strategic Sino-European collaborations in health research and innovation and identifying specific research priorities that would benefit from such collaboration.



Meeting agenda

EU-China Health Policy Dialogue
**HEALTH RESEARCH & INNOVATION COLLABORATION/
CHALLENGES & OPPORTUNITIES**
2. December 2020 8h30 – 11h CET

Objective

The SENET project intends to facilitate dialogue between Chinese and European research and innovation entities to increase participation in health collaborative projects. China-EU Health Cooperation Dialogue aims to exchange good practices from the EU and Chinese health researchers and develop policy recommendations for supporting future Sino-European research collaborations from understanding, preventing, and managing global health challenges such as pandemics, chronic disease prevention and control, and the obstacles and impetus to the international development and promotion of traditional Chinese medicine.



Agenda

Date:

December 2nd, 2020

Location:

On-site: Beijing Science Center, Meeting Room 405

Online: Zoom

Time	Contents
Opening Ceremony Host: Hao Xiaoning, Senior Research Fellow, Development Center for Medical Science and Technology, National Health Commission of P.R.C	
8:30 – 8:50 (BJ Time:15:30-15:50)	Opening remarks <ul style="list-style-type: none"> • ZHANG Yuhui, DDG of China National Health Development Research Center • GU Yanfeng, DDG of China Centre for International Science And Technology Exchange • TIAN Wen, vice chairman of Beijing Science and Technology Association • Professor YANG Yuexin, vice chairman of Beijing Science and Technology Association, President of Chinese Nutrition Society, Academician of IUNS • João Falardo, Economic and Commercial Counsellor, AICEP - Trade & Investment Agency • Hicham Abghay, Steinbeis 2i GmbH, coordinator of the SENET Project
Keynote Speech Host : Tang Minke, Professor, Beijing University of Chinese Medicine	
8:50 – 9:20 (15:50-16:20)	<ul style="list-style-type: none"> • Promoting China-EU Health Collaboration under Health China 2030 and the 14th-five-year Health Development Strategy of China Yunping WANG, Researcher, China National Health Development Research • European Commission actions against COVID-19 and future strategy under Horizon Europe (Cluster Health) Stéphane Hogan, Head of “Stakeholder Engagement & Communication” Sector, People and Prosperity Directorates, DG Research & Innovation, European Commission
Thematic session 1- Prevention and control of chronic diseases Host : LIU Xiao Yun, Deputy Director, China Health Development Research Center, Peking University	
9:20 – 9:50 (16:20-16:50)	<ul style="list-style-type: none"> • The situation of prevention and control of chronic diseases and the development of big health industry in China Xiaoning HAO, Researcher, China National Health Development • Prevention and control of chronic diseases in Europe Prof. Stefania Boccia, Università Cattolica del Sacro Cuore, Coordinator of the IC2PerMed project, Italy.
Thematic session 2 : Cooperation and development of China -EU health industry Host : Richard Deng, Head of International STI projects, Chinese Health Experts Committee of Beijing Haizhi Program, the representative of ENRICH in China	
9.50 – 10:20 (16:50-17:20)	<ul style="list-style-type: none"> • Post Pandemic Healthcare Innovation Dr. Shanhong MAO, Representative of National overseas talent offshore innovation and entrepreneurship base and senior expert of Beijing Municipal Government



	<ul style="list-style-type: none"> Portugal: the right place to invest and build partnerships in Health Joaquim Cunha, Executive Director, Health Cluster Portugal
10.20 – 10:40 (17:20-17:40)	Q&A
10.40-11:00 (17:40-18:00)	<p>Closing remarks</p> <ul style="list-style-type: none"> Project leader of Chinese partners for the research on cooperation mode and key technologies for the prevention and treatment of chronic disease through Traditional Chinese Medicine between China and Europe under the National Key Research and Development Plan Yingzi WANG, Professor, Beijing University of Chinese Medicine SENET European project leader, STEINBEIS 2I GMBH, S2i Hicham Abghay, Steinbeis 2i GmbH, coordinator of the SENET Project

