



SENET-HUB
SINO-EUROPEAN HEALTH NETWORKING HUB

Consolidated action plan for research and innovation priorities in health



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Abbreviations and Acronyms

Abbreviation, Acronym	Description
CAS	Chinese Academy of Sciences
EC	European Commission
EU	European Union
FP	Framework Programme
H2020	Horizon 2020
ICD	Innovation Cooperation Dialogue
IPS	Institut Pasteur Shanghai
MoU	Memorandum of Understanding
PRC	People's Republic of China
R&D	Research & Development
R&D&I	Research & Development & Innovation
R&I	Research & Innovation
RPO	Research Performing Organisation
WP	Work Package



Executive summary

SENET, the Sino-European Health Networking Hub aims to increase European and Chinese collaborative efforts addressing common health research and innovation (R&I) challenges, and to create a sustainable health networking and knowledge hub, improving the dialogue between Chinese and EU R&I entities.

For this matter, SENET has rolled out a comprehensive data collection methodology and implemented a bottom-up stakeholder consultation method in order to collect feedback from R&I stakeholders, policymakers, as well as intermediaries in the R&I Sino-EU collaboration process. The aim was to develop three analysis reports – an *Initial Roadmap for enhancing EU-China Health research and innovation collaboration* aimed at presenting a pathway towards collaboration, pointing to barriers and opportunities, a report on *Strategic recommendations for health research and innovation collaborations*, as well as a *Consolidated action plan for research and innovation priorities in health* (this report - further: SENET Action Plan) in order to present policy recommendations and consolidate the gained knowledge about needed support measures in an actionable manner.

The SENET Action Plan aims at enhancing long-term health research and innovation collaboration between Europe and China. The aim is to increase bi-lateral and multi-lateral cooperation on health research strategic items between EU and China more in general and to increase participation of Chinese researchers in future EU health research programmes, and vice versa of European researchers in Chinese health research programmes.

While the *Strategic recommendations for health research and innovation collaborations* are directed to policy makers, the SENET Action Plan addresses all R&D&I actors. Actions for policy makers are in line with the strategic recommendations and address actors on EU and China level and individual EU Member States and possibly lower levels. Additional actions are recommended for research performing organisations (RPOs), individual researchers, and in particular intermediaries who facilitate collaborations.

The Action Plan is structured into four parts, each being developed into several concrete actions with specified expected outcomes:

1. Creating concrete collaboration opportunities

The first part combines actions aiming at enhancing health research and innovation collaboration between Europe and China, by creating concrete collaboration opportunities in line with the recommended research and innovation priorities, which include Healthy Ageing, Antimicrobial resistance, Emerging pathogens, Chronic diseases, Health Policy and Systems Research, One Health, Digital Health and Personalised Medicine.

2. Providing framework conditions

In nearly all stakeholder meetings and consultations interlocutors commented on the ongoing negotiations between the EC and the Chinese government about the joint roadmap in research setting the framework conditions for collaborative research. It is appreciated as a critical milestone setting the basis for transparent and successful collaborations. In this second part, the Action Plan suggests additional short and mid-term actions to facilitate ongoing and upcoming collaborations.

3. Supporting researchers' engagement

Many interlocutors were concerned about the current political international developments concerning China, and highlighted the necessity that European policy makers, especially the EC, clearly states that Sino-European research collaborations are wanted and supported from top level. The communication today seems to be unbalanced, strongly stressing the risk mitigations and missing out partly the opportunities. In this third part, the Action Plan suggests actions for policy makers and intermediaries



for engaging researcher into collaborations and for creating trust between the two parties. The action plan also recommends RPOs to engage their researchers into Sino-European collaborations.

4. Supporting and facilitating collaborations

It is to be highlighted that one of the main outcomes of the stakeholder consultations was, that from a European perspective, collaborations with China differ from collaborations with other regions such as the USA or South America and thus support measures should be China-specific and not country-neutral. Support measures for legal and administrative tasks, for overcoming cultural differences and linguistic challenges are some examples collected by SENET and presented in this Action Plan.

Generally speaking, it should be noted that reciprocity, proportionality, trust and awareness raising are the guiding principles of the SENET action plan to achieve a fruitful long-term collaboration between China and the EU in Health research.

SENET presented the action plan for the first time at The Sino-EU Health Collaboration Week¹ collecting further input from Health R&I&D stakeholders in China and Europe. It will be disseminated to relevant stakeholder groups in a next step, notably national European Member States funding agencies, the European Commission and relevant counterparts from China, as well as all participants in the bottom-up stakeholder consultation process.

¹ Sino-European Health Collaboration Week (b2match) – <https://sino-european-health-collaboration-week.b2match.io/>



1 About SENET

The Horizon 2020 (H2020) funded project SENET, the Sino-European Health Networking Hub, was launched on the first of January 2019 and is running until the end of 2021. SENET aims to facilitate favourable conditions to establish sustainable dialogue between health research and innovation (R&I) actors from the European Union and China.

The project has two main objectives:

1. to increase European and Chinese collaborative efforts addressing common health R&I challenges, and
2. to create a sustainable health networking and knowledge hub, improving the dialogue between Chinese and EU Research and Innovation (R&I) entities.

To reach the aforementioned objectives, SENET relies in its three pillars:

- i) assessing strategic health priorities shared between Europe and China and mapping the health R&I landscape in both areas.
- ii) engaging with various health R&I actors with the goal to develop strategic recommendations and design an initial roadmap and strategic action plan for enhancing collaboration between Europe and China.
- iii) SENET offering opportunities to forge cooperation and encourages collaborative R&I efforts through virtual ideation hackathons, call power partnering and the promotion of suitable Sino-European funding sources.



Figure 1. SENET's three pillars

Consequently, the main results of SENET project are: the roadmap, the recommendations and the action plan to facilitate Sino-European health collaboration, co-created with European and Chinese stakeholders.

2 Introduction

The European Union (EU) and the People's Republic of China (PRC) have a long-lasting history of cooperation in science and technology with the first formal establishment of a Science and Technology Cooperation Agreement² between the two political entities in 1998. The agreement was valid for an initial period of five years with the option for tacit renewal following a bilateral evaluation towards the end of each five-year period. In recent years, the EU's strategic approach towards China has undergone significant change starting in 2016 with the joint communication *Elements for a new EU strategy on China*³ and further refined in 2019 with the milestone joint communication *EU-China – A strategic outlook*⁴.

Excerpt of *EU-China – A strategic outlook*:

“[...] China is, simultaneously, in different policy areas, a cooperation partner with whom the EU has closely aligned objectives, a negotiating partner with whom the EU needs to find a balance of interests, an economic competitor in the pursuit of technological leadership, and a systemic rival promoting alternative models of governance. This requires a flexible and pragmatic whole-of-EU approach enabling a principled defence of interests and values. The tools and modalities of EU engagement with China should also be differentiated depending on the issues and policies at stake. The EU should use linkages across different policy areas and sectors in order to exert more leverage in pursuit of its objectives. [...]”

Europe is still in the middle of implementing and negotiating this strategic shift with the PRC and this entire process has not come to an end yet, broadcasting to all aspects of Sino-European bilateral relations and policy areas, including the cooperation on science and technology.

It is therefore noteworthy that there has not been a tacit renewal of the Science and Technology Cooperation Agreement in 2018. Only during the 4th innovation cooperation dialogue (ICD) in Brussels⁵ in April 2019, the EU and China have formally expressed the commitment to develop a joint roadmap:

“[...] *in order to enrich and balance their cooperation in research and innovation. The roadmap will cover both rules and mechanisms as well as specific science and technology fields for this collaboration. [...]*”.

On the other hand, in 2018, China reiterated the importance they attribute to Sino-European cooperation on science technology and innovation⁶.

After two years of initiation of this common roadmap, both partners agreed to continue with its development, but it is currently not clear when to expect substantial breakthroughs in the negotiations.

² Sino-European cooperation in science and technology – https://ec.europa.eu/info/research-and-innovation/strategy/strategy-2020-2024/europe-world/international-cooperation/china_en

³ Elements for a new EU strategy on China – https://eeas.europa.eu/archives/docs/china/docs/joint_communication_to_the_european_parliament_and_the_council_-_elements_for_a_new_eu_strategy_on_china.pdf

⁴ EU-China – A strategic outlook – <https://ec.europa.eu/info/sites/default/files/communication-eu-china-a-strategic-outlook.pdf>

⁵ 4th ICD in Brussels, 2019 – https://ec.europa.eu/info/news/eu-and-china-step-cooperation-research-and-innovation-2019-apr-09_en

⁶ China's policy paper on the EU, 2018 – http://www.xinhuanet.com/english/2018-12/18/c_137681829.htm

One of the most important consequences of this complex current situation is the absence of a Sino-European co-funding mechanism⁷ for Europe's 9th Framework Programme (FP) for research and technological development (FP), Horizon Europe, similar to what had already been established for the 8th FP, Horizon 2020.

In line with SENET's overarching objectives of enhancing collaboration and setting up a sustainable networking hub involving the research, innovation and policy community, this report has been developed in order to support the Sino-European R&I collaboration by sharing recommendations for an evidence-based policy dialogue.

SENET chose two complementary approaches to extract and identify areas of mutual interest between Europe and China, see *Figure 2*.

- **Top-Down:** In-depth analysis of key research and innovation priorities for each geographic area based on top-level R&I policy and funding programmes. For Europe, SENET analysed the EC's FPs for research and technological development, Horizon 2020. In the case of China, the 13th Five-Year Health as well as the Healthy China 2030 Plan were chosen as reference, the results are described in detail in the *SENET Scoping paper – Review on health research and innovation priorities in Europe and China*.
- **Bottom-Up:** Identification of overlapping interests and areas for mutual collaboration via consultations with both R&I and policy stakeholder consultations. These consultations were implemented through collective events and video conference meetings, as well as qualitative one-to-one interviews with relevant selected stakeholders and an online survey.

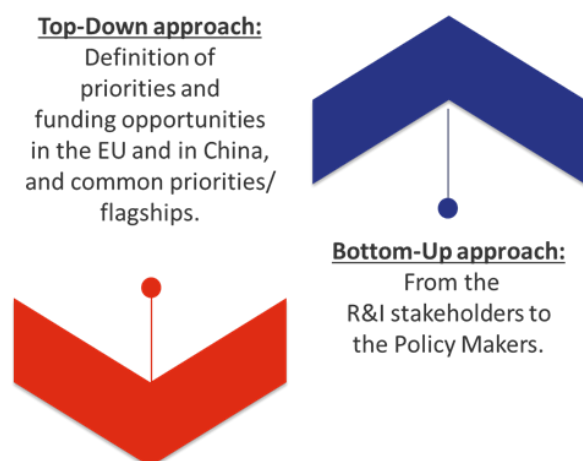


Figure 2. SENET's two approaches to identify common areas for Sino-European collaboration

On the basis of the approach described above, several analytical reports have been developed by SENET:

A *SENET: Initial Roadmap for enhancing EU-China Health research and innovation collaboration* aimed at presenting a pathway towards collaboration, pointing to barriers and opportunities.

This report was followed by *SENET: Strategic recommendations for health research and innovation collaborations*, where recommendations to policy makers at the level of the European Union and

⁷ Sino-European co-funding mechanism Horizon 2020 –

https://ec.europa.eu/research/participants/data/ref/h2020/other/hi/h2020_localsupp_china_en.pdf

Member States level as well as R&I funding agencies to support Sino-European R&I collaboration were developed in detail.

Based on those strategic recommendations, this action plan complements the gained knowledge and defines concrete support measures to facilitate health R&I collaborations between the EU and China, presenting them in a comprehensive and actionable manner. All three reports aim at supporting evidence-based policy decisions for an enhanced Sino-EU R&I collaboration in the field of Health.

We would like to stress, in the context of the current uncertainties regarding the formal collaboration on science and technology in combination with the harsh impact of the COVID-19 pandemic on international collaboration and cooperation as a whole, not to mention the restrictions on international travel, the pivotal role that SENET has played in maintaining a constructive and sustainable dialogue with Chinese stakeholders in the health sector and bridging the growing divide of Europe and China. The collaboration and dialogue facilitated by SENET's various activities must not be underestimated and can objectively be considered to be an achievement for this challenging coordination and support action.



3 Methodology

This report has been developed on the basis of a comprehensive methodology that included i) thorough literature review, ii) the organisation of meetings with R&D&I and policy experts from the EU and China in order to gather their opinions, experiences and suggestions, and iii) extensive stakeholder consultations.

Figure 3 shows the concrete steps undertaken in order to develop the three aforementioned analytical reports:

- *Initial roadmap for enhancing EU-China health research and innovation collaboration,*
- *Strategic recommendations for health research and innovation collaborations, and*
- *Consolidated action plan for research and innovation priorities in health.*



Figure 3. Methodology scheme

3.1 Literature review and analysis

In the early phase of the project, SENET has thoroughly reviewed scientific and grey literature available through desk research to support the development of its activities. Four reports were developed with the objective to better understand the landscape of Sino-European health collaborations in terms of the current state of play and the major stakeholders involved:

- *Scoping paper: Review on health research and innovation priorities in Europe and China.*
- *Map of major funding agencies and stakeholders in Europe and China.*
- *Guide for health researchers from Europe and China through the funding landscape.*
- *Strategy paper: Towards closer EU-China health research and innovation collaboration.*

These reports comprise SENET's in-depth analysis on the current literature and form the basis of the further developments including the organisation of stakeholder consultations and expert meetings. Through the mapping of the Sino-European landscape on health collaboration a first set of joint health priorities between Europe and China were identified. Those priorities set the basis for the initial roadmap report, identifying opportunities and challenges to a closer cooperation of the EU and China.

The gathered data on stakeholders facilitated the process to reach out to representatives of funding agencies inviting them to engage in our policy dialogue meetings.

3.2 Expert Meetings

In order to collect feedback on data gathered through desk research and receive feedback from relevant stakeholder groups, SENET applied a bottom-up experts' consultation approach.

For this matter, SENET organised five expert meetings, gathered into three categories:

- *R&I expert meetings*,
- *Policy stakeholder dialogues*, meetings with policy stakeholders and intermediaries⁸, and
- *Multi-stakeholder meetings*, comprising both R&I as well as policy experts.

Figure 4 visualises how an individual meeting was planned, set up, moderated, and eventually analysed as summarised in the individual meeting reports. The meeting reports can be accessed and read on [SENET's website](#).

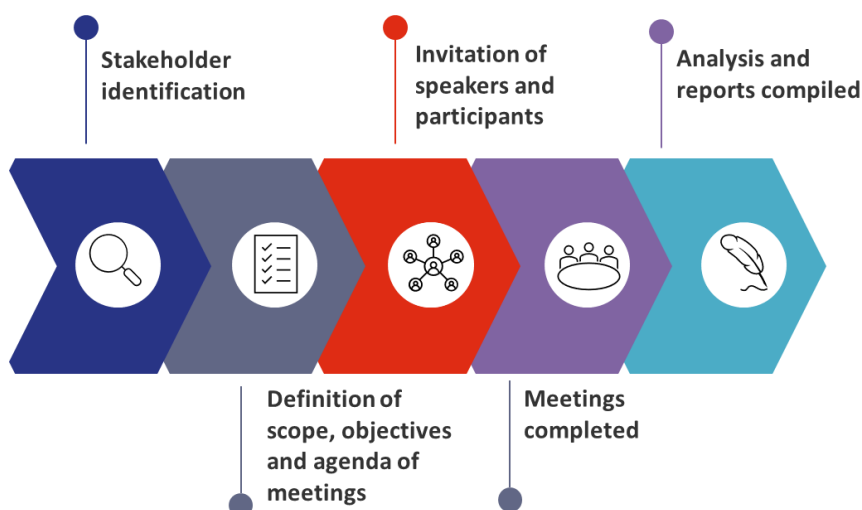


Figure 4. Set-up of expert meetings

3.2.1 Research & Innovation expert group meetings

Research & Innovation collaboration is obviously driven by the engagement of individual researchers and representatives from the innovation community (companies, but also support organisations such as tech transfer offices, incubators, accelerators...). Thus, the R&I expert community constituted one major target group for SENET's stakeholder consultation meetings, aiming at (1) informing the participants about findings, (2) collecting their feedback and personal experiences and at the same time (3) bringing together the communities from the EU and from China for networking purposes.

In line with the scope and objectives defined for each meeting, selected stakeholders were invited to participate. Some experts were selected to give presentations on specific subjects relevant for the respective meetings and in the context of SENET's activities. Following the presentations and subsequent discussions involving all participants and speakers, outcomes and findings of the meetings were summarised in meeting reports. The different meetings built on each other, with findings from previous meetings being presented and validated during later meetings. The findings directly influenced the agenda and content of later meetings.

The two Research and Innovation expert group meetings^{9,10} brought together 19 researchers from the academic and private sector working in areas of major societal and health challenges such as chronic diseases, infectious diseases and other areas of health-related research. The major goals of the meetings in June 2020 and May 2021 were to engage participants in discussions about specific opportunities in Sino-European health research and innovation collaborations. The experts were asked to identify and validate health research priorities of high importance relevant for their research fields

⁸ I.e. organisations with close ties to the R&I community and acting in the interplay with policymakers.

⁹ SENET 1st Research Innovation Expert Meeting (23 June 2020): https://www.senet-hub.eu/wp-content/uploads/2021/02/SENET_1st_Research_Innovation_Expert_Meeting.pdf

¹⁰ SENET 2nd Research Innovation Expert Meeting (18 May 2021); <https://www.senet-hub.eu/public-report/>

and beyond. Additionally, the meeting exploited the experience of those experts who were already involved in joint China-EU actions to identify bottlenecks and hurdles blocking or impeding collaborations as well as to determine the most persistent challenges where innovations are instantly needed regarding R&D&I.

The findings of the meetings directly fed into all three analytical reports developed by SENET.

3.2.2 Policy stakeholder dialogues

SENET held two meetings of the *policy stakeholder dialogue* category in December 2020¹¹ and March 2021¹² with a total number of 50 participants. The first one was coordinated by the SENET partners in China and took place in a hybrid format, allowing the European participants to connect online via the ZOOM platform. The agenda included presentations from high level policy makers, mostly from China but also from the European Commission. The speakers presented detailed information on the policy background for fostering health research and international collaborations in the future. The second *policy stakeholder dialogue* was coordinated by the European SENET partners using an interactive format allowing co-creation of policy recommendations to reduce and eliminate existing gaps and barriers in research collaboration between the EU and the People's Republic of China. The discussion was triggered by a presentation about the initial insights gained in the SENET consortium and guided by predefined questions compiled by the organising committee. Participants of this meeting were mainly associated with intermediary organisations, such as R&I cluster organisations, that play an important role in supporting researchers in finding international collaboration partners, but also representatives of health networks and agencies. The feedback from the Policy stakeholder dialogues allowed SENET to draft recommendations on how to increase the participation of European and Chinese counterparts in the respective research programmes and describe ways to enhance research mobility mechanisms.

3.2.3 Multi-stakeholder meeting: Research Innovation and Policy Expert meeting

A major conclusion after two rounds of *R&I expert meetings* and of *policy dialogues* was the identified need to bring together the two stakeholder groups and co-design ideas for specific actions that will support Sino-European research collaborations in the future. Therefore, the third round of meetings was held as a multi-stakeholder meeting mainly targeted towards further developing *the SENET report Consolidated action plan for research and innovation priorities in health*.

The multi-stakeholder meeting in September 2021¹³ involved 33 participants with mixed profiles: researchers from the academic and private sector, policy makers, and intermediaries such as programme managers from cluster organisations, EEN representatives and agencies. The objective of the meeting was to collect the participants' view on identified opportunities, challenges, and policy recommendations translated into concrete actions that could be of value to all stakeholders in the R&I process. Therefore, the gathering of diverse perspectives from all involved stakeholders was important to achieve the objectives of this meeting. The format of the meeting followed an interactive approach guiding the discussion with pre-set questions facilitating the open discussion format and encouraging well balanced contributions from all participants.

¹¹ SENET 1st Policy Dialogue (9 Dec 2020); <https://www.senet-hub.eu/wp-content/uploads/2021/08/SENET-Meeting-Dec-2020-Report-Final-External.pdf>

¹² SENET 2nd Policy Dialogue (9 March 2021); <https://www.senet-hub.eu/wp-content/uploads/2021/08/SENET-Meeting-Dec-2020-Report-Final-External.pdf>

¹³ SENET 3rd Research Innovation and Policy Expert Meeting (14 September 2021); <https://www.senet-hub.eu/public-report/>

3.3 Surveys and stakeholder consultations

3.3.1 Initial online survey and expert interviews

A first online survey was developed to prepare SENET's *Strategy paper - Towards closer EU-China health research and innovation collaboration*. SENET chose to disseminate this survey mainly through its social media presence (Twitter, LinkedIn) and over its website. Eventually 30 complete answers were collected, with the survey reaching out to a large audience based on SENET's social media metrics. Only on Twitter, the online survey reached over 4000 views. Thanks to the large audience reached and relatively low number of answers, it can be concluded that the persons who finally filled in the survey did have concrete interest in Sino-EU health collaboration and the data collected thus has been considered as qualitative insights rather than quantitative metrics. In addition to the outreach via the online survey, the consortium chose to directly interview 20 experts with a proven track record collaboration with China. Both approaches led to a first identification of opportunities, challenges and thematic priorities for Sino-European health collaboration.

3.3.2 Final stakeholders' consultation

To complete the reports and to exchange with interested experts that had not been able to join SENET's meetings, an additional stakeholder consultation was launched through bilateral interviews with interested parties (17 in total) in summer/autumn 2021, complemented by an online survey based on the previous results of SENET in order to confirm, complete and validate the project findings. Both SENET's European and Chinese partners have been involved in conducting the interviews and in disseminating the survey. The qualitative insights gathered were used for all three analytical reports.

3.4 Communication of SENET's Recommendations and the Action Plan

To ensure that the recommendations and the action plan are well known by the European policy makers, SENET's consortium has developed a communication and dissemination strategy, with three major axes:

- **Presentation of the project's results during the Sino-EU Health Collaboration Week.** SENET, in partnership with other European projects and initiatives supporting Sino-European collaboration, has set-up a one five-day virtual event that took place from the 29th of November to the 3rd of December 2021, with 109 participants. During the event, webinars and matchmaking sessions were organised, addressing both policy makers and researchers interested in Sino-European health collaboration. During the opening session, the recommendation and the action plan of SENET were presented. This event benefitted from the network of seven different projects and initiatives, addressing thus a large audience and aiming at widening its impact.
- Once the strategic recommendations and the action plan are approved by the European Commission in the frame of the SENET project, **these two reports will be sent to all major European national funding agencies** identified in the course of the project. Furthermore, it will be sent to all participants in SENET activities and to the recipients of the SENET newsletter (aligned with the EU General Data Protection Regulation in place).
- Finally, all project's public reports, including the roadmap, the strategic recommendations and the action plan, **will be disseminated on SENET's social medias and website**, and will stay available during two years after the project end.



4 SENET Action Plan

This action plan has been developed on the basis of the information gathered above all through stakeholder consultations that were implemented through the methodology steps as outlined above. It is tightly linked to another SENET report, the Strategic recommendations for health research and innovation collaboration, in order to make them actionable.

4.1 Strategic recommendations for health research and innovation collaborations

This section briefly summarises strategic recommendations for health research and innovation collaborations, presented in a separate SENET report (*Strategic recommendations for health research and innovation collaboration*). The strategic recommendations report presents the state of play of Sino-European health collaboration schemes fostering research and innovation collaboration and includes:

(1) recommended scientific topics for future joint research, briefly explaining scientific importance of the thematic, European and Chinese support to this thematic and arguments why it should be a priority for Sino-European collaboration, and

(2) recommendations to foster EU-China health R&I collaboration, briefly explaining the related challenges and opportunities. It is organised around three major identified needs:

- (a) need for policy agreement on Sino-European collaboration at the highest level,
- (b) need for policy support to bottom-up initiatives, and
- (c) need for a policy consensus on the framework conditions.

4.1.1 Recommended scientific topics for future EU-China joint research

The bottom-up consultation process with the RDI stakeholder groups have confirmed the following scientific topics as being considered the most relevant to Sino-EU health collaboration:

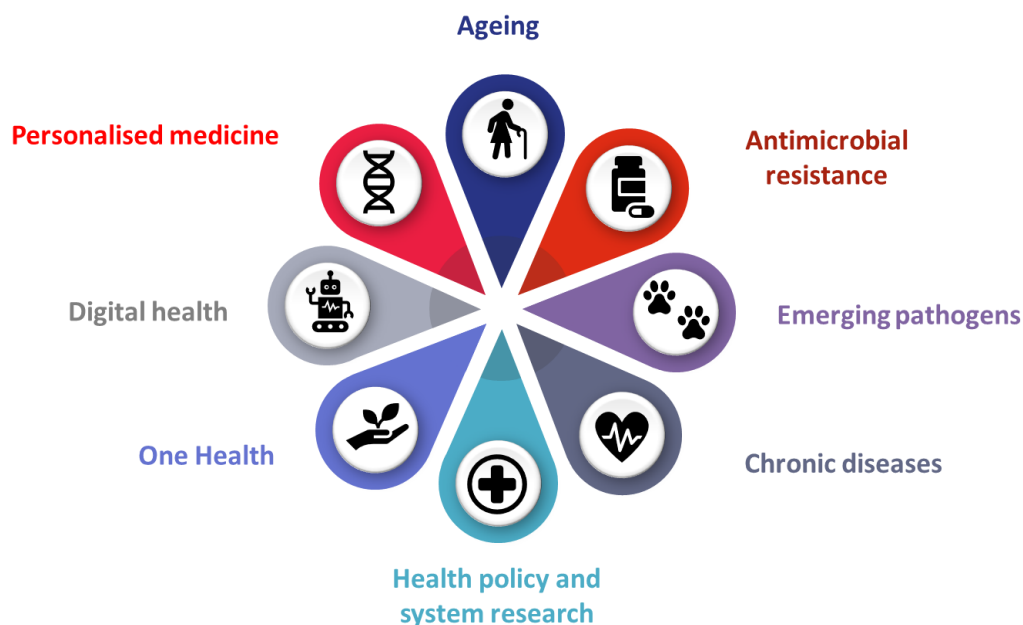


Figure 5. Recommended scientific topics for future EU-China joint research

The SENET Strategic recommendations for health research and innovation collaboration thus suggest exploiting opportunities for collaboration in these fields (research & innovation actor level) and to support such collaboration through concrete measures (level of policy makers, intermediaries and research performing organisations).

4.1.2 Recommendations to foster EU-China health R&I collaboration

Besides suggesting the scientific fields, a number of recommendations address more generic topics, related to the framework and policy support measures that could facilitate Sino-EU R&I collaboration. In summary, these recommendations are as follows:

A. Towards policy agreement on Sino-European health collaboration at the highest level
Recommendation 1: Researchers need a clear communication at the highest levels about collaboration with China
Recommendation 2: Joint programmes and coordinated calls would boost cooperation in selected topics (need of Flagships)
Recommendation 3: A reviewed co-funding mechanism would increase trust in the funding opportunities of Chinese partners
B. Towards policy support to bottom-up initiatives
Recommendation 4: Research organisations need more support measures to foster bottom-up collaboration
Recommendation 5: Creating and diffusing knowledge about contemporary China
Recommendation 6: Administrative support shall be developed and accessible to all EU and Chinese researchers willing to collaborate
C. Towards policy consensus on framework conditions
Recommendation 7: Highest policy levels are asked to setting win-win framework conditions and reaching policy consensus on IPR regulations
Recommendation 8: Policy makers are encouraged to improving framework conditions and reaching policy consensus on data regulations

More details on the recommendations can be found in the SENET report “Strategic recommendations for health research and innovation collaboration”.

4.2 Aim of the Action Plan and guiding principles

The SENET Action Plan aims at enhancing long-term health research and innovation collaboration between Europe and China. The aim is to increase bi-lateral and multi-lateral cooperation on health research strategic items between EU and China more in general and to higher participation of Chinese researchers in SC1 and future EU health research programmes, but also of European researchers in Chinese health research programmes.

While the “Strategic recommendations for health research and innovation collaborations” are directed to policy makers, the SENET Action Plan addresses all R&D&I actors. Actions for policy makers are in line with the strategic recommendations and address actors on EU and China level and individual EU Member States and possibly lower levels. Additional actions are recommended for research performing organisations (RPOs), individual researchers, and in particular intermediaries who facilitate collaborations.

Expected outcomes of all the actions are outlined and categorised by long- (L, >5 years), mid- (M, 3-5 years), and short-term (S, 1-2 years).

The Action Plan is structured into four parts:

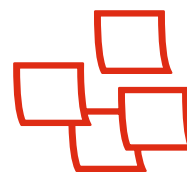
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The first part combines actions aiming at enhancing health research and innovation collaboration between Europe and China, by creating concrete collaboration opportunities in line with the recommended research and innovation priorities, which include Healthy Ageing, Antimicrobial resistance, Emerging pathogens, Chronic diseases, Health Policy and Systems Research, One Health, Digital Health and Personalised Medicine.

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In nearly all stakeholder meetings and consultations interlocutors commented on the ongoing negotiations between the EC and the Chinese government about the joint roadmap in research setting the framework conditions for collaborative research. It is appreciated as a critical milestone setting the basis for transparent and successful collaborations. In this second part, the Action Plan suggests additional short and mid-term actions to facilitate ongoing and upcoming collaborations.



3. Supporting researchers' engagement



Many interlocutors were concerned about the current political international developments concerning China, and highlighted the necessity that European policy makers, especially the EC, clearly states that Sino-European research collaborations are wanted and supported from top level. The communication today seems to be unbalanced, stressing strongly the risk mitigations and missing out partly the opportunities. In this third part, the Action Plan suggests actions for policy makers and intermediaries for engaging researcher into collaborations and for creating trust between the two parties. The action plan also recommends RPOs to engage their researchers into Sino-European collaborations.

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It is to be highlighted that one of the main outcomes of the stakeholder consultations was, that from a European perspective, collaborations with China differ from collaborations with other regions such as the USA or South America and thus support measures should be China-specific and not country-neutral. Support measures for legal and administrative tasks, for overcoming cultural differences and linguistic challenges are some examples collected by SENET and presented in this Action Plan.



4.3 Consolidated actions for Sino-European research and innovation priorities in health

1. Creating concrete collaboration opportunities



Action 1.1 Establish Health as a flagship topic

Declaring Health as a flagship topic for Sino-European research collaborations is needed for a targeted approach of creating concrete collaboration opportunities. The ongoing negotiations for the joint roadmap between the Chinese government and the European Commission (EC) should continue with negotiations for the new flagship topic on Health. It also became clear that a considerable number of stakeholders was not aware of any funding opportunities for health-related R&I between Europe and China. A survey was sent to academics, business associations/clusters, research organisations and SMEs to assess the current state of Sino-European collaboration in health research and elicit specific needs and requirements from the different stakeholders. This allowed for a clear identification of the challenges most stakeholders are confronted with and the information which is required to enhance collaboration efforts. The figure below shows that nearly a third of the stakeholders asked were not at all aware of funding opportunities for collaboration between Europe and China – another question showed that the most frequent answer to the question why no collaboration efforts between Europe and China had been undertaken was that people were missing funding and other incentives (36%).

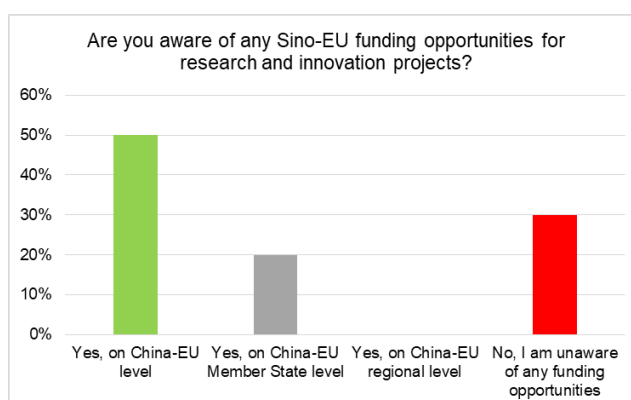


Figure 6. Share of stakeholders aware of Sino-European funding opportunities for R&I

Expected outcome: Health as flagship topic in Horizon Europe and relevant Chinese programmes (S).

Action 1.2 Validate recommended research priorities

Research priorities suggested by different stakeholders, including SENET, should be taken into account in order to align policy actions related to R&I collaboration with the needs of the R&I stakeholders. At best these could be discussed and validated at the next EU-China high-level policy dialogue meeting of European and Chinese officials. Dedicated working groups with relevant scientific experts could be set-up. The objective of such working groups would be to develop topic descriptions, with scopes and expected impacts that could be launched as calls in the Horizon Europe work programme / relevant Chinese programmes. The stakeholder consultations elicited a number of specific health research areas considered to be prioritised in the next 5 years; these include Public health, Global health, late-stage cancer treatment and major disease rehabilitation.

Expected outcome: Funding programme calls especially targeting collaboration with China/ the EU. (S)

Action 1.3 Establish new and revise existing bilateral funding schemes

A bilateral funding scheme is a tool for countries to support collaborative research in areas of joint interest between the different funders and policy makers involved. Those EU Member States who want to intensify health research collaborations with China are recommended to establish a Memorandum of Understanding (MoU) with China about a bilateral funding scheme (see example in the box¹⁴). The supported Health topics and beneficiaries are likely to depend on the country specific context, existing expertise, and strategic development plans. SENET recommends supporting one or several of the SENET health research priorities.

The German Research Foundation has developed a long-term and close collaboration with the National Natural Science Foundation of China through a MoU. Joint statements have been released regularly (notably at the beginning of the covid-19 pandemic) and joint collaborative calls, notably on Life Sciences have been released once a year.

The online survey developed by SENET included a question to assess the reasons for academics, researchers and businesses not to engage in Sino-European collaboration. The strongest reason indicated was that framework conditions are either not ideal or missing entirely, with respect to legal issue, common research practices and funding schemes. Stakeholder consultations from researchers corroborated this answer, with the vast majority of interviewees urging for a research-centric development of future funding programmes. At the same time, bilateral funding schemes should include a component related to overcoming language barriers (e.g., via an interpreter), as this was the most frequently cited challenge to practical Sino-European collaboration efforts, according to the stakeholder consultations and the survey.

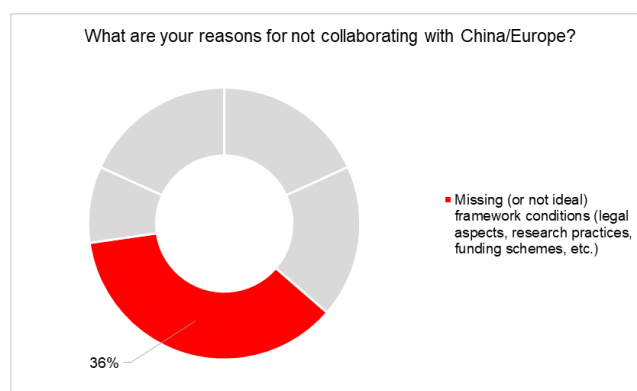


Figure 7. Survey – Main reason for not collaboration with China/Europe

SENET suggests that national funding bodies and the Chinese counterpart establish or update bilateral schemes with the objective to fund long-term collaborations between individual research labs or institutions. The schemes could call for projects in four different phases of collaborations: (1) Building consortiums, (2) Project planning, (3) Project implementation, and (4) Sustaining scientific exchange. Proposals and projects' outcomes would be evaluated based on phase-specific evaluation criteria. The reason for the four phases is that trust building is fundamental in relations with China and this takes time. This is a topic that was highlighted by nearly all European stakeholders who shared experiences

¹⁴ German Research Foundation close collaboration with the National Natural Science Foundation of China - https://www.dfg.de/download/pdf/dfg_im_profil/reden_stellungnahmen/2020/200228_joint_statement_dfg_n_sfc.pdf
https://www.dfg.de/download/pdf/foerderung/internationales/partner/china/201201_sino_german_research_projects_full_call_text.pdf

about Sino-European research collaborations. The figure below shows how the majority of stakeholders who took the survey ranked project idea and people more often as the most important criterion – with funding opportunities following suit in second place.

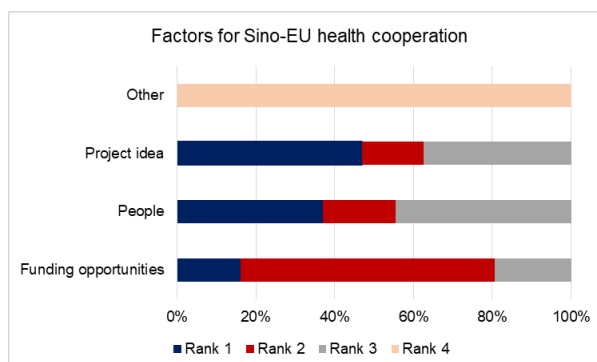


Figure 8. Survey – Factors for Sino-EU health collaboration

Furthermore, SENET recommends including academic and industrial research, as well as technology development in the funding programmes to build up a collaborative network for the entire R&I&D process. It is expected that a good network throughout the R&I&D process will create synergies between the technology readiness levels (TRLs) and facilitate technology transfer and development in general.

Some countries set the priority on a specific TRL level, and decide to fund only projects that include industrial partners (e.g. Centre for the Development of Industrial Technology - CDTI E.P.E. Spain)¹⁵.

Bilateral funding schemes can also be an opportunity to support bottom-up research topics for international collaborations and level out for the strategic research topics funded by the EC. The collection of research topics in the submitted proposals is a valuable source of information informing national policy maker but also for lobbying on European level.

Expected outcome: New bilateral funding schemes with more Member States (M). Expectations towards projects and evaluation criteria adapted to collaboration phase, which will lead to higher success rate, and increased sustainability of collaborations. (L)

Action 1.4 Allow for bottom-up research priorities and support

It is essential for governments and policy makers to understand specific needs of researchers from China and EU Member States for collaborations in the Health field. SENET wants to encourage researchers and RPOs to inform local and/or national authorities and policy makers about their needs related to Sino-European collaborations. Research and Innovation clusters, national contact points, policy and university alliances and similar agencies or initiatives can function as intermediaries to reach national policy makers. This need was corroborated by the stakeholder consultations, with the vast majority of academic interviewees urging for greater focus on research-centric funding programmes for bilateral collaboration.

Expected outcome: Take into consideration bottom-up research topics in the design of bilateral funding schemes. (L)

¹⁵ Programa Bilateral Hispano-Chino de Cooperación Tecnológica – <https://www.cdti.es/index.asp?MP=4&MS=0&MN=1&textobuscado=chineka&tipo=1&TR=A&IDR=38&tipoO=Contenido&id=101>

Action 1.5 Establish mobility programmes

Mobility programmes are known to provide researchers with new knowledge and skills and at the same time to foster research cooperation across borders, sectors and disciplines. However, European researchers hesitate to decide to go to China.

SENET recommends national policy makers but also the EC to establish mobility programmes that offer temporary visiting programmes for junior and senior researchers in Europe to “test the waters” in China. Obviously, the same kind of programmes would be valuable on the Chinese side, too.

The survey answers corroborated the necessity of revamping existing mobility programmes, with a considerable amount of answers (44%) ranking current programmes with 1 and 2 on a scale from 1 (worst) to 5 (best).

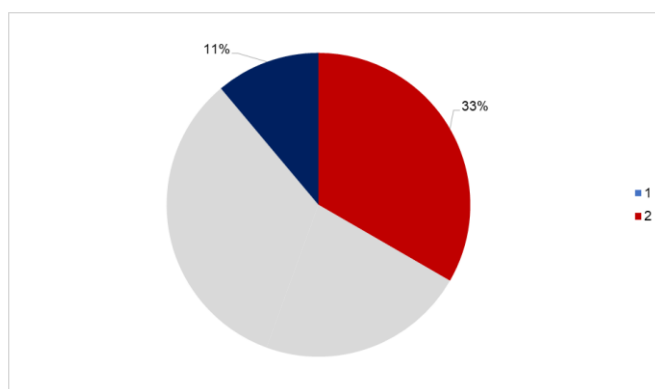


Figure 9. Survey – Ranking of mobility programmes: scale 1 and 2

According to the consulted stakeholders, the stay in China needs to be accompanied by support infrastructures such as mentorship or coaching programmes related to a scientific career in China, facilitated peer community in the city of stay, exposure to the local R&I&D landscape including hospitals, fostering innovation by network building between start-ups SMEs and academic partners. Language programmes should also be part of a mobility programme.

The engagement of researchers in such a programme will be higher if the return to Europe will be supported, if wished. It will be important to consider regulations such as dual affiliation with a Chinese and a European organization during the stay in China/in Europe and assigning a return budget that can be spend on the new hosting institution when returning.

Expected outcome: Increased mobility of researchers between China and Europe. (L)

Action 1.6: Facilitate the establishment of joint research labs and institutions

Several European RPOs have a research presence in China. Examples presented in the SENET expert meetings are (1) PYLOTUM, a research presence of the Technical University Munich, located at the Peking University, which is funded by the German Ministry for Education and Research (BMBF)¹⁶; and (2) The Institut Pasteur Shanghai (IPS), Chinese Academy of Sciences (CAS), which is an international institute jointly established by CAS, the Institut Pasteur and the Shanghai Municipal Government¹⁷.

The feedback on the work of those labs, as well as their support to individual researchers and on the level of joint collaboration projects, have been positive.

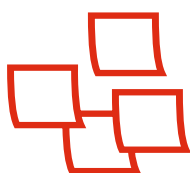
¹⁶ PYLOTUM – <https://www.pylotum.med.tum.de/en>

¹⁷ Institut Pasteur Shanghai (IPS), Chinese Academy of Sciences (CAS) – <http://english.shanghaipasteur.cas.cn/>

SENET recommends European research institutions who want to foster collaborations with China to establish such joint research labs or institutions by engaging also the potential funder and supporting policy makers. A similar approach could also be valuable for Chinese institutes to establish in Europe.

Expected outcome: Joint institutions and laboratories will support mobility of researchers and facilitate collaborations between China and Europe. (L)

2. Providing framework conditions



Action 2.1: Setting short-term negotiation goals for the joint EU-China roadmap

Representatives from the EC and China are currently negotiating framework conditions for the future collaborations in Horizon Europe and it has been officially announced that they will not define any new coordinated calls until an agreement on the framework conditions has been reached.

SENET urges the involved policy maker to set short-term goals with indicated timelines that can be seen as milestones in the overall negotiations process: it can be considered that this would facilitate ongoing collaborations and support researchers' engagement into new collaborations, especially on topics of joint interest. Stakeholders consulted have indeed repeatedly mentioned that the overall unclear situation – meaning the still ongoing negotiations on the framework conditions – are seen as an obstacle to start collaborations. If shorter-term steps were (officially) set and reached, such uncertainty would be diminished. Obviously, it can only be seen as positive for all sides that the overall framework conditions are aimed at being set for a win-win collaboration.

During the Sino-European Health Collaboration Week (Day 3: “It’s all about data, isn’t it?”) some participants suggested the creation of digital tools to facilitate secured data exchanges and therefore allow health data exchange on the short-term between China and the EU.

Besides, interlocutors repeatedly highlighted that restrictions and insecurities related to data sharing are the main bottleneck for successful collaborations in Health research. Also, negotiations for IP rights and restrictions for investment were often mentioned as significant bottlenecks.

Expected outcome: A short-term agreement on conditions for data sharing, IP issues, and investment that will support ongoing health research collaboration. An expected timeline for communicating the agreed framework conditions would additionally facilitate the planning of future collaborations and initiatives. (S)

Action 2.2: Revise co-funding mechanism

The existing co-funding mechanism between the EC and MOST¹⁸ enables collaborative projects while maintaining autonomy of both funding agencies. SENET recommends the policy makers to revise the mechanism and optimise it for the following aspects:

Request a “one proposal” submission that will be evaluated and with only one central funding decision affecting both, the European and Chinese entities. The proposals could be submitted to both funding agencies in English and/or Chinese, but the content should be the same.

¹⁸ EU-China co-funding mechanism for research and innovation – <https://clustercollaboration.eu/news/eu-and-china-launch-new-co-funding-mechanism-research-and-innovation>

Ensure that successful proposals will be funded on both sides with an agreed calendar between the European and the Chinese funding. Eliminate the option that the project will be funded on one side only or that there are major delays between one and the other, as stakeholder consulted have pointed to major bottlenecks or even project failures created through such administrative misalignment.

Ensure low administrative burden for the collaboration partners in such projects. Actions led by Chinese partners could be funded and evaluated by the Chinese agency, and actions led by a European partner could be funded and evaluated by the EC.

Include eligibility for cost items related to intercultural exchange and encourage those activities (trainings, guided tours, etc.).

Switzerland has decided to not take part in the Horizon Europe Framework Programme. Instead, it proposes an “automatic” co-funding mechanism for Swiss organisations that would like to collaborate with European organisations. It targets some specific types of calls (for instance, CSA are not funded on the Swiss side, only RIA and IA can be funded) and Swiss organisations partners in consortium will be directly funded once the proposal is successful on the European side. Thus, the participation of Swiss organisations in Horizon Europe proposals does not have a negative impact on the submitted proposals, as the funding is secured with no further delay.

Expected outcome: Funding of collaborative projects that are aligned in objectives, actions and timeline, and minimized administrative burden. (S)

Action 2.3: Strengthening the EU’s position vis-a-vis China by engaging EU Member States in close cooperation

As indicated above, the EC is currently negotiating with China about a joint research roadmap¹⁹. At the same time, some of the individual EU Member States have signed MoUs with China for research collaborations.

The survey has shown that awareness of Sino-EU funding opportunities for research and innovation projects is highest (50%) on a China-EU level, while not being aware of any funding opportunities ranks second highest (30%). This shows the clear room for improvement in terms of the visibility of funding opportunities on China-EU Member State level.

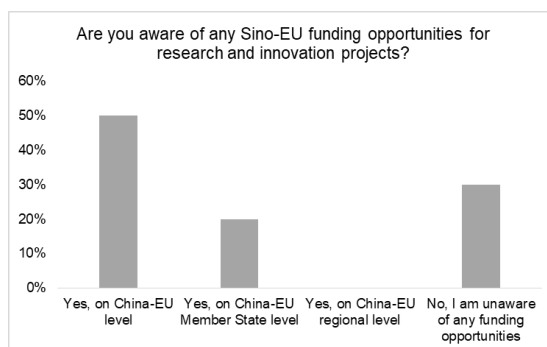


Figure 10. Survey – Awareness of Sino-EU funding opportunities

At the same time, nearly a third of the survey responses indicated that a clearer statements from (national) policy makers that collaboration with China is wanted would encourage an engagement in Sino-EU collaborations. Given that over two thirds of responses were related to funding and incentives,

¹⁹ Time of writing : December 2021



this political reason stands out as being the main non-financial factor of encouragement to establish connections between Europe and China.

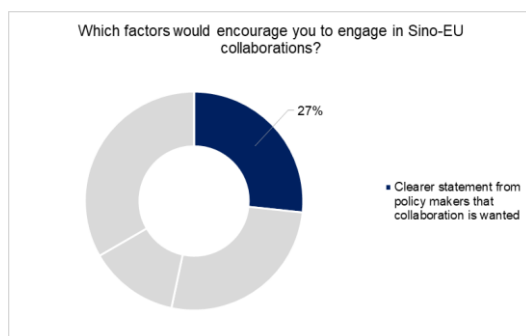


Figure 11. Survey – Awareness of Sino-EU funding opportunities

SENET encourages representatives from the Member States to proceed with a knowledge and good practices exchange about strategies in individual Member States and create a coherence amongst European countries.

Expected outcome: The EUs position in the roadmap negotiations and beyond will be strengthened by a transparent exchange among Member States. (L)

It could be discussed how the Eastern European platform with China “17 + 1” under the umbrella of the Belt and Road Initiative is affecting the rest of Europe, and how European countries could take more common decisions to position the EU towards China.

Furthermore, some bilateral collaborations have also been set-up at the regional level. This could be exchanged on in the framework of dedicated programmes such as Interreg.

Action 2.4: Providing guidelines to RPOs about strategic engagements into Sino-European health research collaborations (policy makers)

SENET recommends national policy makers and/or relevant intermediary organisations to provide RPOs with guidelines that describe necessary measures for establishing collaborations between China and their country based on the principles of mutual benefit.

Since Health is a global challenge and one of the United Nations’ 17 Sustainable Development Goals, the current reservations to collaborate with China needs to be counteracted by green-listing health related research topics such as the SENET health research priorities. Governments might want to restrict their recommendation for collaborations between China and their country in health research to specific TRLs.

Examples of such guidelines are (1) the “Checklist for collaboration with Chinese universities and other research institutions”, published by the Dutch think tank The Hague Centre for Security Studies, and (2) Guiding questions on university cooperation with the People’s Republic of China.’, published by the German Rectors Conference (HRK), an association of 268 German universities.

They describe strategies to avoid risks and highlight the importance about transparency related to existing and planned collaborations. Those guidelines can serve national policy maker as template for adapting them to their country specific and most important to health research context.

Expected outcome: RPOs will be empowered, and researchers feel more comfortable and prepared for collaborations. (S)

Action 2.5: Support RPOs in adapting guidelines to institutional and local context

Intermediaries such as R&I&D clusters, or higher-level organisations that coordinate clusters in a region can play a fundamental role in guiding RPOs in adapting national guidelines to the regional and even institutional context, sharing their best practices and networks. Especially smaller institutions often lack the necessary capacity and knowledge related to China to take action, or they lack the sense of urgency to do so.

Intermediaries could support RPOs by facilitating peer support and exchange and encourage participation of institutions and government organisations. Such peer networks could build the bridge between HE&R sector and government organizations for feedback loops for further needed support.

Expected outcome: more collaboration between European organisations already collaborating or willing to collaborate with China. (S)

Action 2.6: Adaptation of guidelines to institutional context and implementation of guidelines

RPOs are finally responsible to take action to facilitate Sino-European research collaborations in their own organisation. SENET recommends RPOs to adapt the publishing guidelines (see action 2.4 and 2.5) to their institutional context and develop an approach according to their scientific strategy. If RPOs want to achieve results, it will be essential for them to encourage and maybe even enforce compliance and transparency in collaboration with China.

Taking into account another survey result, where the majority (60%) of policy makers and intermediaries indicated to be very dependent on higher policy levels, the need for greater action towards institutional collaboration with China for research and innovation purposes is reinforced.

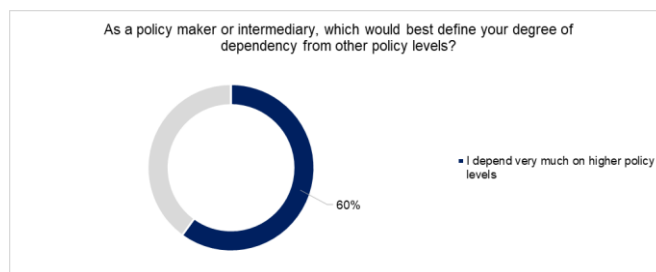


Figure 12. Survey – Degree of dependency from other policy levels

Providing incentives to institutional staff who engage into Sino-European research collaborations could lead to more transparency and even engage additional researchers into new collaborations. Incentives on the level of an academic institution could be e.g., a reduction in teaching responsibilities to compensate for more intense preparation and complex negotiations for collaboration agreements.

Expected outcome: Creating a more secured and encouraging environment at the institutional level to collaborate with Chinese organisations. (S)

3. Supporting the engagement of researchers



Action 3.1.: Communicate transparently that EC and China support mutual collaboration in Health research.

SENET recommends the EC and the Government of China to communicate very transparently that Sino-European collaboration in health research is wanted and receives support from policy level. The benefits of collaborative health research should be explained and emphasized both regarding the research itself but also concerning the overall socio-economic impact expected. It will be important to disseminate knowledge about contemporary China and the EU and commenting its objectives for improving their health system and specifically their vision for international research collaborations in health. Regarding China, such knowledge is created by initiatives such as the Leiden Asia Centre²⁰ (see info box). This communication campaign will balance the recommendations to mitigate risks in collaborating with China and highlight the opportunities and benefits of Sino-European collaborations in health research. At the same time, it will inform R&I&D stakeholders and empower them in their own strategic decisions.

Expected outcome: Counteract reservations of European researcher to include Chinese partner in international health research consortia and achieve the inclusion of European researchers in Chinese research programmes in health. (S)



The aim of the LeidenAsiaCentre is to generate academic knowledge on modern East Asia, including China. The centre identifies topics within social-economic and political developments within Asia that are of relevance for The Netherlands and more broadly speaking, Europe at large.

Action 3.2: Single-entry points for Sino-European collaborations

Both EC and the Government of China should facilitate collaborations by providing information and enabling access to relevant programmes via the establishments of single-entry points in each region. For example, the EC has a webpage published about their international partnerships including China.²¹

SENET recommends to the EC extending this website or creating a new one with more detailed information. Providing practical information on funding opportunities under EC framework programme and maybe even linking to national programmes in member states and China, informing about R&D&I landscape and clusters for specific scientific topics in China and Europe, listing matchmaking initiatives and intermediaries facilitating match making and collaborations. Similar actions should be taken by the Government of China to facilitate the access of European researchers. The survey shows how the motivations for existing or future collaborations between Europe and China can vary, ranging from research specifically targeting European or Chinese to internationalisation efforts, access to infrastructure and know-how. It is advisable to find a mechanism to “funnel” the organisations and researchers interested in Sino-European collaboration, depending on the specificity of their requirements. This could be done with virtually on dedicated websites, for instance.

²⁰ Leiden Asia Centre – <https://leidenasiacentre.nl/>

²¹ EC’s website on the EU-China partnership – https://ec.europa.eu/international-partnerships/where-we-work/china_en

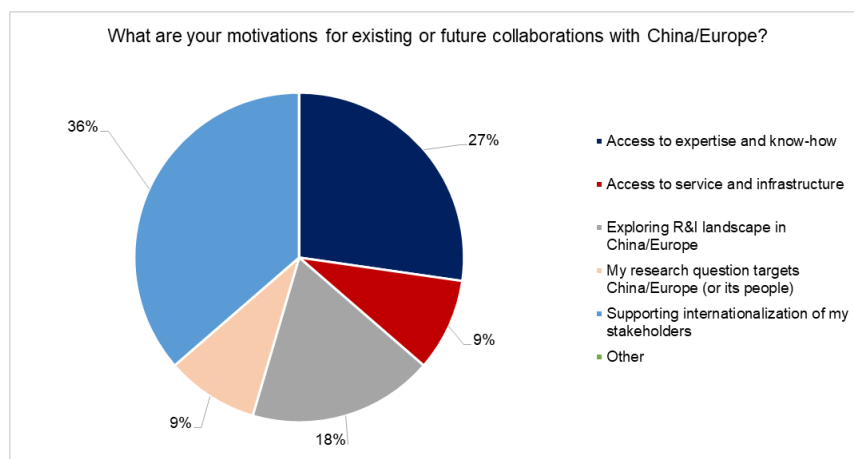


Figure 13. Survey – Motivations for existing and future collaboration with China/Europe

These websites themselves could implement a virtual space, allowing people to arrange virtual one to one meetings and explore potential collaboration opportunities.

They could also be an opportunity to clarify and highlight the role of national and even regional Embassies as sustainable contact points, for match making, but also for mentoring researchers who move from EU to China and vice versa. This will be especially important and useful for those researchers who are not affiliated with big universities or research organizations that might have a representation or institute in the other region.

Expected outcome: European and Chinese researchers who are interested to engage into Sino-European research collaborations will find all relevant information for funding opportunities and have an opportunity to find potential collaboration partner. (S)

Action 3.3.: Researcher-to-researcher exchange for more empathy and solidarity

China and Europe have a different approach to research and education which is one reason of reservations to collaborate.

SENET recommends policy makers to facilitate an exchange between researchers not only about scientific topics, but also about Responsible Research and Innovation (RRI) aspects, such as public engagement, open access, gender, ethics, and science education. The format of such an exchange must be chosen with care to allow a balanced contribution from Chinese and European researcher.

This exchange could be triggered and supported by the EC and MOST and be implemented by intermediaries. On the European side, a pilot could be started for example with Marie Skłodowska-Curie Action (MSCAs) fellows from China and Europe that could eventually be supported by the MSCA alumni association²².

Expected outcome: Researchers get to know and better understand the mind-set of researcher from the other region and

Although not directly funding researcher exchange, EURAXESS China links researchers in China with Europe. Free information and events on research funding, research careers and collaboration opportunities are provided. EURAXESS China has been serving researchers interested in a research career in Europe since 2009.

²² Marie Skłodowska-Curie Action alumni association – <https://www.mariecuriealumni.eu/>

learn to appreciate different ways of thinking and approaching research. Finally, it will create more trust. (S)

Action 3.4.: Exploit municipality networks for establishing networking opportunities

SENET suggests that also on the local level interactions between the EU and China could be facilitated in the health research area. For example, local authorities may use city-twinning relations for triggering and supporting research collaborations in this field. The example of Strasbourg – Boston city twinning shows that network events, student exchange, and cultural exchange can engage national researcher into an enhanced interaction with China²³. Such schemes already existing with other regions could serve as an inspiration or blueprint for setting up similar schemes between European and Chinese municipalities.

Expected outcome: Increased exposure between local researchers from the EU and China, in the context of and facilitated by an existing infrastructure. (M)

4. Supporting and facilitating collaborations



Action 4.1. Participation in international infrastructures and research alliances

Multinational cooperation in alliances facilitates individual collaborations among members. Alliances can offer grants to fund bottom-up impulses of member institutions and act as catalyser for joint projects. One example is the

International Agency for Research on Cancer (IARC), a specialized cancer agency of the World Health Organization which also includes China as member²⁴. SENET recommends policy maker the both the EU and China should both be engaged in and support their active participation in such research alliances.

A way to become engaged in such alliances could be by hosting conferences on the specific research topic in China and the EU and engaging researchers in the scientific exchange. One example from Chinese side is the Beijing University of Chinese Medicine. It promotes the overseas development of traditional Chinese medicine by holding forums on traditional Chinese medicine and international cooperation bases of the Ministry of Science and Technology, such as the World Forum on the Impact of Traditional Chinese Medicine in 2021 and building a global health platform with overseas 'Chinese medicine centers'. The World Federation of Traditional Chinese Medicine holds annual TCM conferences to promote cooperation and exchanges. From the EU side where researchers from China could be involved is the

The Global Research Collaboration for Infectious Disease Preparedness (GloPID-R) was established in 2013 in response to a request for coordination by the Heads of International Research Organisations. GloPID-R now provides a widely recognised platform for infectious disease research funders to work together to better tackle severe epidemics such as Ebola or Zika, as well as global pandemics such as COVID-19. The GloPID-R is a European Commission driven international network that is open to participants from other countries, so it could be an opportunity for Chinese participation as well.

²³ Strasbourg – Boston city twinning - <https://int.strasbourg.eu/strasbourg-twin-city>

²⁴ International Agency for Research on Cancer (IARC) – https://www.iarc.who.int/cards_page/research-iarc-international-research-collaborations/

Global Research Collaboration for Infectious Disease Preparedness (GloPID-R), see box for further details.

Additionally, SENET recommends European and Chinese policy maker to support the development of research infrastructure in health research that support collaborations beyond borders and legal frameworks. The issue about limited freedom to exchange data between China and EU could be approached by a federated data management system that allows interoperable services and data accessibility across international borders. An example is the European Genome-phenome Archive that is developing a federated Human Data Community that could be expanded on international level and potentially include China²⁵. Another example is Solve-RD a European diagnostic infrastructure for rare diseases link²⁶. Including Chinese data would be scientifically interesting as it would diversify the data input and thus test the tools for potential biases, and it would also serve the application in China.

Expected outcome: Active participation of both EU and China in international research alliances and infrastructures will facilitate strong collaborations from network and technical aspects. (L)

Action 4.2: Sign MoUs between Chinese and European RPOs

MoUs can be an excellent tool to support follow-up of Sino-European collaborations that have been previously funded by national or EC funding programmes. This type of agreement between two or more parties is not legally binding but signals the willingness of the involved parties to move forward with further collaborations. Especially in China, individual researchers have limited freedom to decide with which international researcher they want to collaborate and a request for collaboration will need to be approved by several administrative instances. Therefore, SENET recommends RPOs to sign MoUs with collaborating organisations, even if the current collaborations are based on grant agreements associated to a funder, in a way of facilitating future cooperation between those organisations.

In the frame of the 2nd Health Innovation Summit organised by Capital Medical University (30th May, 2019, Beijing, China), SENET signed a MoU with Beijing Medical Valley, a professional platform that supports cooperation on biomedicine, medical device and healthcare management innovation activities. The two parties agreed to engage in collaboration activities to support healthcare R&I cooperation between China and Europe by organising joint events and identifying interesting mutual projects.

Expected outcome: MoUs will increase sustainable collaborations between Chinese and European RPOs. (M)



As an example, Beijing University of Chinese Medicine signed in 2016 a MoU with the Paris Public Hospital Group (France) to motivate and enhance the research cooperations between both organisations.

Action 4.3: Support of European researchers hosted in Chinese RPO

SENET recommends that European and Chinese embassies play a bigger role in supporting their corresponding researchers during their stay in the other region. They could facilitate peer exchange and provide room space for scientific and networking events. As indicated by many relevant

²⁵ European Genome-phenome Archive – <https://academic.oup.com/nar/advance-article/doi/10.1093/nar/gkab1059/6430505>

²⁶ Solve-RD – <https://solve-rd.eu/>

stakeholders interviewed during SENET's lifetime, overcoming the language barriers for those researchers who do not speak Chinese or English, respectively, will be one of the biggest challenges. For that reason, the embassies could provide very valuable support for accessing research funds, as proposals need to be submitted in English or Chinese language, respectively. Additionally, the embassies could organize seminars or other type of events to provide support on how to better understand the European and Chinese culture, respectively, (e.g. Do's and Don'ts) and practical information concerning business language. This kind of information can be very useful for European researcher in China (See Action 4.5) and vice versa. Cohesion and a stronger collaboration between European embassies in China could be developed to use synergies and maximize support for European researcher in China.

Expected outcome: European and Chinese researchers will be more connected to their research peers in the other region and receive support for specific challenges they can face during their research experiences there. (S)

Action 4.4: Provide practical guidance for project implementation

SENET recommends national policy makers and funders to provide practical guides, toolkits, active support, and opportunities to share and learn from past experiences and good/bad practices of peers. They could consult current and former beneficiaries from national bilateral funding programmes to develop such recommendations and material. This valuable information should be well disseminated and easy to find in dedicated sections on the corresponding official websites and online tools of the national funding organizations. The European Commission, for example, in 2016 published a brochure "Horizon Europe: A practical guide for China²⁷". This practical guide explains the contents of Horizon Europe helping Chinese researchers to better understand the different options offered by Europe to be involved in its various funding instruments. A similar initiative but focused on practical information gathered from previous EU-China research cooperation could have a significant impact on the successful implementation of future bilateral projects between China and the EU.

Expected outcome: Development of mitigation measures for potential bottlenecks or risks in the implementation of funded bilateral research projects. (S)

Action 4.5: Provide intercultural training and services

SENET recommends national funding organisations and intermediaries from China and the EU to support beneficiaries in negotiating of MoUs, making sure that all interests are clearly communicated and understood from all involved parties. They could also facilitate the translation of the MoU into Chinese (or proofreading the Chinese text) and provide guidance and templates for this purpose. Additional, due to the language barrier, linguistic support during the implementation of the project would be very beneficial for the European researchers. Funding agencies should consider providing trainings (or at least support financially) about



One example from EIT Health is the Go2China Bootcamp training for companies²⁸. A similar programme could be developed for researcher (from academia and industry) without a direct business-orientation.

²⁷ Horizon Europe: A practical guide for China - https://ec.europa.eu/info/publications/horizon-europe-practical-guide-china_en

²⁸ EIT Health's Go2China Bootcamp training - <http://www.gotochina.eu/>

European/Chinese culture, on complex regulations in health in China and EU that will affect the collaborative project. This need is sustained by the survey results, which concluded that nearly one fifth of the respondents consider cultural differences to be a challenge and a potential risk for the success of Sino-European collaboration efforts, which stands out being a non-financial factor.

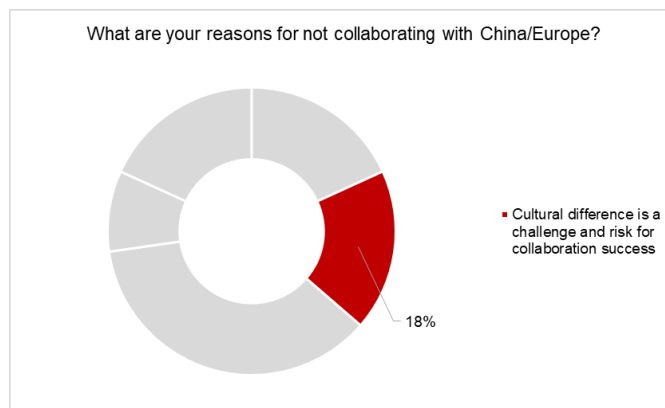

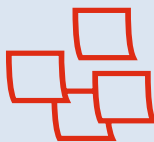




Figure 14. Survey – Cultural differences among reasons for not collaborating

Expected outcome: Project beneficiaries will be better informed about specific requirements and context in Sino-European health research collaborations. They will be better prepared for the successful implementation of collaborative projects between the EU and China. (S)

4.4 Summary table

Table.1 Action Plan in table format assigning stakeholder responsibilities and clarifying target audience and when the outcome is expected (S = 1-2 years, M = 3-5 years, L = later than 5 years).

	Action description	Actor	Target	Outcome
1. Creating concrete collaboration opportunities				
				
1.1	Establish Health as a flagship topic	EC, Chinese Policy Maker	Researcher, RPO	S
1.2	Validate recommended research priorities	EC, Chinese Policy Maker	Researcher, RPO	S
1.3	Establish new and revise existing bilateral funding schemes	Member states, Chinese Policy Maker	Researcher, RPO	L
1.4	Allow for bottom-up research priorities and support	Researcher, RPO	Policy Maker	L
1.5	Establish mobility programmes	EC, Member states, Chinese Policy Maker	Researcher	L
1.6	Facilitate the establishment of joint research labs and institutions	EU and Chinese Policy Maker	Researcher, RPO, Funder, Policy Maker	L
2. Providing framework conditions				
				
2.1	Setting short-term negotiation goals for the joint EU-China roadmap	EC, Chinese Policy Maker	Researcher, RPO	S
2.2	Revise co-funding mechanism	EC and Chinese funder	Researcher, RPO	S
2.3	Strengthening the EU's position vis-a-vis China by engaging EU Member States in close cooperation	EU Policy Maker	EU member states	L
2.4	Providing guidelines to RPOs about strategic engagements into Sino-European health research collaborations	EU Policy Maker	Researcher, RPOs	S

2.5	Support RPOs in adapting guidelines to institutional and local context	Intermediaries	RPOs	S
2.6	Adaptation of guidelines to institutional context and implementation of guidelines	RPOs	Researcher	S
3. Engaging researcher				
3.1	Communicate transparently that EC and China support mutual collaboration in Health research	EU Policy Maker	Researcher, RPO, and Intermediaries	S
3.2	Single-entry point for Sino-European collaborations	EC and Intermediaries	Researcher, RPO	S
3.3	Researcher-to-researcher exchange for more empathy and solidarity	Policy Maker	Researcher, RPO	S
3.4	Exploit municipality networks for establishing networking opportunities	Municipality Policy Maker	Researcher, RPO, and Intermediaries	M
4. Supporting and facilitating collaborations				
4.1	Participation in international infrastructures and research alliances	Intermediaries	International research alliances	L
4.2	Sign MoUs between Chinese and European RPOs	RPOs	Researcher	M
4.3	Support of European researcher hosted in Chinese RPO	Intermediaries	Researcher	S
4.4	Provide practical guidance for project implementation	Intermediaries	Researcher, RPO	S
4.5	Provide intercultural training and services	Intermediaries	Researcher, RPO	S

5 Conclusions and outlook

This SENET Action Plan builds on the SENET *Initial Roadmap for enhancing EU-China Health research and innovation collaboration* and the SENET *Strategic recommendations for health research and innovation collaborations*. The Action Plan aims at presenting ideas of how to translate the recommendations into concrete implementation actions, as well as associated expected outcomes and on which time scale such actions could have impact (short-, mid- and long-term). Most of the suggested actions are addressed to policy makers but several could also be implemented by intermediaries in the R&I landscape (such as cluster organisations, networks, agencies...) and Research Performing Organisations and R&I stakeholders individually.

Whilst SENET has aimed at presenting the actions in a way that suggests means of operations, it should be noted that the addressed stakeholders of course need to adapt them to the context they are operating in – both with regards to the regional/national ecosystems they are addressing, as well as the possibly evolving European and international context that may evolve over time. Due to this, SENET has not developed indicators of measurement, as they need to be specific to the given implementation frame. Also, SENET's mission ends with the development of the recommendations and this associated action plan and the decision on their take up is obviously left to relevant organisations.

Generally speaking, it can however be said that a clear agreement on framework conditions for international (Sino-EU) R&I collaboration, defined collaboration mechanisms and clear communication about expectations on a policy level would certainly be an important and impactful step bringing real and tangible benefit to R&I stakeholders who wish to implement Sino-EU collaboration activities. More cohesion in all initiatives launched to support and facilitate collaboration would equally be of high value.

