



China in Europe Research Network (CHERN) - CA 18215

The Chinese Five-Year Plan as a Guideline - Analysis and Derivation of Options for Action for European Countries and the EU in the Area of Research and Technology

(CHERN WG4)

Basics

Host Organization: German Aerospace Research Center – Project Management Agency, Germany

Host Organization's representative: Dr. Gerold Heinrichs and Jana Bühlhoff

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The tentative length of the STSM: 4-8 weeks

Call's description and objectives

The Chinese Five-Year Plan sets out China's vision for social and economic development until 2025 (and further). The goals are then interpreted and concretised at provincial/municipal level as well for individual policy areas and sectors. Since China is an important player in the global science system, the Chinese plans for science, technology and innovation (STI) have impact on Europe as well.

The current 14th Five-Year Plan reflects the struggle for global leadership in STI. Scientific and technological independence is to become a driver of national development. Expenditure on research and development is to increase by more than seven percent annually. Seven key areas are highlighted for targeted funding: Next generation artificial intelligence, quantum information, brain research, semiconductors, genetic research and biotechnology, clinical medicine and health, and space, deep sea and polar exploration. More laboratories are to be set up for research into quantum information and artificial intelligence, the construction of electric vehicles and the new mobile phone standard 5G are also to be advanced.

Relevant for Europe is the plan to also support foreign-funded companies in establishing centres for research and development in the country and the announcement to establish international science and technology-related organisations. The present five-year plan is rather general and broad, but already allows few concrete conclusions on future STI-policy. More detailed plans will follow. Therefore, within the framework of the STMS, an integrating and in-depth contextual analysis is to be carried out:

- of the STI-relevant aspects of the 14th Five-Year Plan,
- any special plans under the Five-Year Plan (e.g. "Sci-tech innovation guidelines for the 14th Five-Year Plan period" as well as for certain STI-relevant sectors), if published by the summer 2021,
- the 10-year action plan for basic research, if published by summer 2021,
- the new 15-year roadmap for science and technology development, if published by summer 2021,
- relevant regional plans for science and technology e.g. Guangdong Province's 14th Five-Year Plan (2021-2025) [Since the Central Government has announced to support the building of international science and technology innovation centers in Beijing, Shanghai, and the Guangdong-Hong Kong-Macao Greater Bay Area a focus will be on these three areas],
- and measures to intensify the ties between research and industry e.g. tax cuts for investments in basic science, rules allowing researchers to take sabbaticals of up to six years to join industry or create their own start-ups (2019) etc.

The task of the STMS Applicant would be to evaluate these and possibly other relevant STI-plans from the Chinese side, which will be published by the summer 2021, and to compare them with the European plans using some examples. The focus should be on STI priority areas, the technical aspects/framework conditions (budgets, regulation, structures, etc.) and regional aspects.

The result of the work should be the transfer of the analysis into possible European action. The analysis is to be carried out primarily by the STSM fellow. The transfer into possible European action will be carried out in cooperation with the staff of the DLR project management agency and other European project management agencies and ministries responsible for strategic planning in the EU Member States and the EU COM.

In principle, all areas of science, technology and innovation in the five-year plan will be analysed. In addition, the area of "climate" is to be highlighted. In the area of climate, cooperation between the EU and China, despite all the differences, is imperative and will not be questioned. It is of great importance to dovetail European planning with Chinese planning in this area. The Five-Year Plan is rather vague on this point. This makes a more comprehensive evaluation of other documents all the more important. Here, too, the analysis is aimed at the area of research and technology.

Objectives: The STSM is aimed at a collaborative effort between the host and the visiting researcher for:

- Developing a methodological framework for the project and clear, in given time doable goal;
- Identifying possible data sources; DLR-PT has access to various data sources;
- Identifying European and Chinese experts for semi-structured interviews;
- If project results allow, funding opportunities to dive deeper into the topic are identified and DLR-PT support is offered to apply for funding.

Call's specific requirements

In addition to COST rules (see section "Who is eligible to be an STSM Applicant" in the [STSM BASIC FACTS](#)), the candidate should have:

- Familiarity with Chinese strategic planning, available data and relevant sources;
- Language skills: fluent in Chinese and English;
- Knowledge and understanding of the Chinese and European science and innovation systems;
- Experience in evidence-based analysis.

Results

- Draft document to be published in a European context/project
- Presentation at a European conference (EU Knowledge Network on China) in September 2021
- Presentation at a workshop in Germany targeting Ministries and stakeholders of German STI Landscape
- Concept note/draft for a joint project
- Requirements by COST Organization or CHERN Action (for details see section »How does it work?« in the [STSM BASIC FACTS](#)).

Practical details

All applicants must carefully read the [STSM instructions](#) on the CHERN website before applying.

Pandemic restrictions might require that initial meetings and activities will be done remotely. As restrictions lift, we hope that a visit to host institution at DLR premises in Bonn and eventually Berlin during summer/early autumn months of 2021 might be possible. The exact dates and timing shall be determined together with the selected applicant.

Deadlines

Deadline for applications to be submitted: **June 5, 2021**

Notification of application outcome: June 20 2021

Period of STSM: **4-9 weeks** (the length and exact timing will be determined together with the host institution)

Submitting the reports: **within 30 days from the end date**

Accepting/ rejecting the reports: **within 2 weeks** after submission of the report

Execution of the payment of the grant: **within 4 weeks** after submission of the report.

More information

For more information please contact STSM Coordinator Martina Bofulin (martina.bofulin@zrc-sazu.si).