#### **EUROPEAN UNION**

# EUROPEAN RESEARCH AREA AND INNOVATION COMMITTEE

- ERAC - Secretariat

Brussels, 5 November 2021 (OR. en)

ERAC 1204/21

#### **NOTE**

From:	General Secretariat of the Council	
To:	Delegations	
Subject:	SFIC Recommendations on China based on the EU-KNOC initiative	

Delegations will find in annex the SFIC Recommendations on China based on the EU-KNOC initiative, as adopted via written procedure on 29 October 2021.

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#### SFIC Recommendations on China based on the EU-KNOC initiative

This opinion of the Strategic Forum for International S&T Cooperation (SFIC)<sup>1</sup> focuses on opportunities and risks of the cooperation with China and the way the European Union and Member States react to this challenge.

#### Rational

China has become one of the world's science and innovation powers over the last years. The recent developments and changes of the Chinese STI landscape, both academic and political, require the EU to invest in and upgrade its knowledge on contemporary China<sup>2</sup>.

The European Union (EU) needs more than ever a common information ground, an operational and active platform for discussions, and - as far as possible - coherent policy and support measures for all EU-Member States (MS). A coordinated and coherent EU approach has much stronger impact than individual EU-MS acting on their own behalf.

The Commission and EU-MS should also take a more pro-active and future-oriented approach in R&I. Emerging technologies often combine different research fields, break boundaries and silos between research areas and between research and other policy areas. China's success in emerging technologies is connected to rapid adaptability. The EU has to adapt to regime shifts and needs to become more flexible and pro-active, e.g. by restructuring existing R&I infrastructure. The Commission and EU-MS should invest in European top research capacity so as to ensure that these top institutions can remain at the forefront.

The EU should advance and be transparent and clear about its values and expectations in international cooperation, e.g. in regard to reciprocity and academic freedom. The Commission and EU-MS need to set out limits in cooperation more clearly, with regard to the Union's strategic interests, assets, autonomy, and/or security.

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<sup>&</sup>lt;sup>1</sup> SFIC is an advisory body to the Council, the Member States and the European Commission and plays a central role in shaping future EU policy-making in international R&I cooperation.

<sup>&</sup>lt;sup>2</sup> See for example the '14th Five-Year Plan' (2021-25) and the '2021-2035 National Medium- and Long-term Science and Technology Development Plan' 中华人民共和国国民经济和社会发展第十四个五年规划和2035年远景目标纲要 滚动新闻 中国政府网 (www.gov.cn)

These targets can be achieved by better utilization of the EU's strategic levers such as organizing and orchestrating global innovation networks, standard setting, setting of legal frameworks and establishing rules and regulations. Strengthening the human capital base within the European Union especially in crucial emerging technology fields and in strategic knowledge is critical. EU-MS must ensure more sustainable and creditable career paths to European researchers in the EU and build better bridges to European researchers in China. The EU should diversify the income of talents from all over the world.

SFIC has addressed the challenges posed to the EU by China on several occasions in the past<sup>3,4,5</sup>. Based also on EU-MS requests expressed within SFIC, the European Commission's Directorate General for Research & Innovation has launched the EU R&I Knowledge Network on China (EU-KNOC) in June 2020 as a 15-months Service Facility. SFIC welcomes the EU-KNOC initiative as an operational networking and important platform to assist EU-MS and COM regarding their actions towards China. Therefore, SFIC calls for and supports the implementation of the EU-KNOC recommendations at EU-MS and COM level and a continuation of the initiative<sup>6,7</sup>.

#### Recommendations and the need to act on EU and EU-MS level

At general level, SFIC recommends to EU-MS and COM to make international relations with China a priority, applying a cross-governmental approach that covers all relevant sectors and acknowledges the relevance and impact of the STI sector particularly.

Moreover, SFIC recommends to continue the EU-KNOC initiative as the work so far has created great added value through networking, information exchange and coordination and it deals with issues that the ministries of EU Member States have not dealt with before in that intensity and constellation nor have they had this kind of support (see Annex 1 for further details).

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<sup>&</sup>lt;sup>3</sup> ERAC-SFIC 1359/20: SFIC Opinion on a New European Research Area

<sup>&</sup>lt;sup>4</sup> ERAC-SFIC 1357/20: SFIC Task Force on Science Diplomacy working paper "Anchoring science" diplomacy in Horizon Europe developing specific subjects and activities"

<sup>&</sup>lt;sup>5</sup> ERAC-SFIC 1360/19: SFIC opinion on international research and innovation cooperation

<sup>&</sup>lt;sup>6</sup> This statement was endorsed by participants of the EU-KNOC Conference on September 23-24, 2021.

<sup>&</sup>lt;sup>7</sup> Global approach to Research and Innovation - Europe's strategy for international cooperation in a changing world - Council conclusions (adopted on 28 September 2021) 12301/21 RECH 425. THE COUNCIL OF THE EUROPEAN UNION "RECOGNISES the indispensable efforts and the activities of the R&I Knowledge Network on China (EU-KNoC) and the importance of continuing this work, safeguarding the principle of Union strategic autonomy" https://data.consilium.europa.eu/doc/document/ST-12301-2021-INIT/en/pdf

Further concrete activities in this respect could be the development of a call on coordinating European measures regarding China in STI in the work programme of the ERA Part of Horizon Europe Work Programme, where some of the below mentioned specific recommendations might be addressed as well as the development of a Mutual Learning Exercise on some of the topics mentioned below in order to prepare the ground in more detail.

#### Key recommendations based on the EU-KNOC work

Driven and developed by academics and officials jointly from EU-MS and COM, the EU-KNOC has developed a broad range of specific points for consideration and/or for action.

Based on this work, SFIC introduces the **following ten key recommendations**. These recommendations aim to tackle issues common to all Member States (and Associated Countries as appropriate in the Horizon Europe and ERA context) and the EU level. They are not listed in the order of importance as the level of relevance varies in different countries and environments.

For the concrete implementation these recommendations address both, the COM as well as the EU-MS (and different levels of responsibilities within the MS, such as ministries, STI-institutions and single researchers/ individuals): While for some recommendations the initiative lies more with COM, for other recommendations the initiative lies both with COM and the MS (national and institutional level). Each of the recommendations is supposed to stand on its own, taking into account the whole set of recommendations to avoid overlapping actions.

Finally, the recommendations shall contribute to a continued dialogue with and between all relevant stakeholders on how and with which measures to proceed in the future (see Annex 2 for further details):

1. Continuous monitoring of Chinese STI activities in the EU and China: setting up a European monitoring mechanism and installing an incident tracker to be aware of Chinese STI activities in the EU as well as of up-to-date Chinese STI-related rules and regulations and think context-related. (initiative with COM)

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- 2. Information sharing about China considering specific needs of EU-MS: building a permanent EU Info Centre for policy, academic, media and business based on existing networks and expertise available on China to unlock and disseminate information. Developing trainings, learning materials, policy briefs and translations of relevant Chinese legal or strategical documents on R&I cooperation with China for officials to raise awareness. (initiative with COM and MS)
- 3. Creation of a network of China related actors: establishing continuous European links between stakeholders from academia, public and private sector to work on China in a concerted way, building on networks/ connections initiated by EU-KNOC processes and on networks initiated by EU-MS intensifying outreach to other EU council working groups/COM DGs and MS ministries ensuring cohesion with broader EU policy on China. The EU Info Centre suggested under recommendation 2 should be involved into the creation of such a network. (initiative both with COM & individual MS)
- 4. Securing long term and independent expertise on contemporary China: developing a joint European research and education initiative for China competence, including knowledge on different Chinese policy areas beyond science, education & innovation policies such as law, environment and economics. In addition to the Info Centre (Recommendation 2) which focuses on sharing and distribution of information, this recommendation aims at enhancing China knowledge by education and research. This should also include appropriate funding for China related activities: in addition to contemporary China research and education, EU-MS should also support initiatives in education and STI cooperation with China on certain priority areas that bring mutual (societal) benefits (see point 6). (initiative both with COM & individual MS)
- 5. Strengthening transparency of bilateral and European cooperation activities with China: promoting the exchange of information about China contacts, agreements and MoUs between EU-MS and with the COM. Considering the establishment of an "Assisting Office" to support smaller EU-MS in the bilateral relations with China. (initiative both with COM & individual MS)

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- 6. Identifying common possible thematic priority areas for cooperation: priority in STI-cooperation with China should be given to tackling joint global challenges. The identification of common possible thematic priority areas for cooperation should be coordinated between COM and EU-MS and would be based on the EU-China Joint Roadmap for the future of STI cooperation and MS priorities. Include scientists and the industrial sector in an assessment of risks and opportunities in cooperating with China in certain research fields. (initiative with COM and MS)
- 7. Toolbox for supporting STI cooperation with China: developing a code of conduct, text fragments, checklists, procedures etc. for bilateral calls/research cooperation in a toolbox, specifically including and referring to European values and addressing challenging Chinese positions and laws and specific risks including unwanted technology transfer and security policy related risks, to be used by EU-MS stakeholders. This could include the development of a data-driven Online Review Process for Cooperation Opportunities and Risks with Chinese Partners. (initiative both with COM & individual MS)
- 8. Ensuring the free access of European researchers to China: taking actions to maintain or improve China's openness to EU scholars. A regular status survey on China's STI accessibility (possibility of European scholars to cooperate and enter the Chinese STI system) at EU level and the use of the results thereof at bilateral meetings should become standard practice. Moreover, a more balanced EU academic mobility to China should be promoted under the framework conditions agreed and better bridges to European researchers in China should be built. (initiative both with COM and individual MS)
- 9. Counterbalance China's ambitions as a global STI power: reflecting on the role of China in regions/ countries of strategic interest for international cooperation. Also considering the adaptation of certain EU or MS programmes and actions to provide alternatives to Chinese activities securing European influence and interests. In case of trilateral initiatives, the motive for cooperation on all sides should be transparent and should focus on solving common issues in the targeted regions e.g. in Africa. (initiative both with COM and individual MS)

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10. Focus on Managing R&I Value-Chain Interdependencies with China: as in the globalized and specialized world of knowledge and innovation dependencies cannot be avoided, the focus has to be on managing those dependencies. This includes the definition of sectors that are of concern and in which dependency could potentially harm economy and security, the assessment of currently existing dependencies, the analysis of China's ambitions in R&I, the transfer of relevant information to the affected stakeholders and the forming of ties with other like-minded countries and regions. (initiative both with COM and individual MS).

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#### Annex I: Overview EU-KNOC activities 2020/2021

#### **Background of EU-KNOC**

EU-KNOC has put in place two entities: A Core China Group (CCG) and an expertise-based Knowledge Network on China.

The CCG is a closed group, gathering representatives of the EU member states' Ministries of Science, Technology and Innovation and other relevant ministries or stakeholders that deal with the relations with China, to discuss how to jointly address the challenges and opportunities of cooperating with China in research and innovation at EU level. The chair of SFIC is invited to the meetings on behalf of SFIC and a number of SFIC Members are representing their respective countries in the CCG and/or have been actively involved in the meetings. The CCG meets every two to three months to discuss a specific aspect of the relations with China and to set the priorities for the following meetings.

As evidence providing input for the CCG meetings, recommendation papers are drafted by various China experts on topics chosen by the CCG members. These documents were previously discussed and revised by groups of selected China experts during scientific meetings, whereby the group of experts has varied for the different topics.

In addition to the closed CCG meetings and specific expert meetings so called ad-hoc meetings are organised offering additional opportunities for exchange, e.g. of best practice examples, for CCG members and other EU-MS stakeholders.

In summer 2020, interviews have been conducted with 22 EU-MS to discuss the overall goal of the EU-KNOC initiative as well as relevant China specific topics in detail. An interview analysis including numerous best practice examples was shared with all EU-MS and a mapping of European expertise on institutional level was performed to assess the diverse China expertise in the EU as an input to set up a Knowledge Network on China. Various workshops and meetings took place, see below.

As a first tangible outcome of the discussions in the group, the European Commission has proposed and EU-MS agreed to integrate a dedicated Research and Innovation Action "Upgrading Independent Knowledge on Contemporary China in Europe" in Cluster 2 'Culture, Creativity and Inclusive Society' of Horizon Europe already for the 2021/2022 Work Programme.

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On national level the interview process kicked-off internal discussions on China-related issues with different stakeholders within many EU-MS. The recommendation papers and studies have been used within countries in preparation of ministerial meetings, for dialogues with the scientific community and in drafting national (both state-agnostic and China specific) R&I strategies as well as guidelines/ code of conducts for HEIs on international cooperation. The EU-KNOC initiative stimulated national discussions on the needs to review agreements, on future joint calls with China, and the focus of cooperation programmes. EU-KNOC has fostered exchange and synergies on China related matters between the R&I related ministries and other ministries, such as the ministries of foreign affairs, economics and state security. It has also fed into trainings for national funding agencies on risk management in international collaboration. One EU-MS installed a working group similar to EU-KNOC.

Countries have started to invite China-experts from other member states to their national fora. Various EU-MS have initiated to analyse schemes for possible adaptation (e.g. French system of Chinese language education as best practice). Moreover, EU-MS have started to share information on a more frequent basis about their individual collaboration with China (e.g. about bilateral funding schemes with China or about Chinese delegations visiting several countries or inviting COM representative to bilateral STC-meetings).

Dedicated Recommendation Papers have been developed, discussed and revised on the basis of the discussions with EU-MS.

#### **CCG** meetings:

- 2<sup>nd</sup> July 2020: 1st CCG Meeting: Kick-off Meeting of the EU-KNOC initiative
- 12<sup>th</sup> November 2020: 2nd CCG Meeting on Areas of cooperation and non-cooperation and Knowledge upgrade on contemporary China
- 16<sup>th</sup> February 2021: 3rd CCG Meeting on Reciprocity in R&I Cooperation with China
- 19th May 2021: 4th CCG Meeting on China's STI activities in the global world (focusing on Africa/BRI, USA)
- 28<sup>th</sup> June 2021: 5th CCG Meeting on R&I Value Chain Dependency on China
- 23<sup>rd</sup> and 24<sup>th</sup> of September 2021: EU-KNOC Conference 2021

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#### **Expert meetings:**

- 10<sup>th</sup> September 2020: 1<sup>st</sup> Expert Meeting on EU Knowledge Upgrade on contemporary China
- 15<sup>th</sup> September 2020: 2<sup>nd</sup> Expert Meeting on Areas of Cooperation and Non-cooperation
- 15<sup>th</sup> January 2021: 3<sup>rd</sup> Expert Meeting on Reciprocity in R&I Cooperation with China
- 14<sup>th</sup> April 2021: 4<sup>th</sup> Meeting on China's global impact in the STI sector (incl. EU-Africa-China triangle and BRI)
- 27<sup>th</sup> May 2021: 5<sup>th</sup> Meeting on R&I Value Chain Dependencies on China

### **Ad-hoc meetings:**

- 17<sup>th</sup> December 2020: 1<sup>st</sup> ad-hoc meeting on exchange of best practices on risk assessment of research areas in the cooperation with China (e.g. criteria, checklists, guidelines)
- 18<sup>th</sup> January 2021: 2<sup>nd</sup> ad-hoc meeting on exchange of best practices on knowledge upgrade on contemporary China
- 5<sup>th</sup> March 2021: 3<sup>rd</sup> ad-hoc meeting Presentation by the Science Counsellors in Beijing on areas of cooperation
- 24<sup>th</sup> March 2021: 4<sup>th</sup> ad-hoc meeting on experiences on bilateral research funding with China
- 19<sup>th</sup> April 2021: 5<sup>th</sup> ad-hoc meeting on status of European researchers in China and different channels of European research presence in China organized with EURAXESS China
- 2<sup>nd</sup> June 2021: 6<sup>th</sup> ad-hoc meeting on European research networks on China
- 17<sup>th</sup> June 2021: 7<sup>th</sup> ad-hoc meeting on European institutional research and innovation in China (follow-up to the 5th ad-hoc meeting)
- 7<sup>th</sup> July 2021: 8<sup>th</sup> ad-hoc meeting on China's Scientific Ambitions (Policy Brief by the Joint Research Centre)

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# **Recommendation Papers provided to the CCG8:**

- Recommendation Paper #1 on "Upgrading China Knowledge in Europe" (03-Feb-2021)
- Recommendation Paper #2 on "Considerations about areas of cooperation and non-cooperation" (03-Feb-2021)
- Recommendation Paper #3 on "Improving Framework Conditions for EU-China Cooperation in Science, Technology and Innovation" (13-Apr-2021)
- Recommendation Paper #4 on "China's global impact in the STI sector (incl. Africa/BRI, USA)". (12-Jul-2021)
- Recommendation Paper #5 on "Scientific cooperation between Europe and China: opportunities and challenges for the future" was submitted as input to the 5th CCG meeting. (29-Jul-2021)

# Studies performed under EU-KNOC<sup>9</sup>:

- Study on "Annotated Collection of Guidelines and Meta-Checklist supporting the safe and successful international science and technology cooperation" (29-Mar-2021)<sup>10</sup>
  - o Part 1: Annotated collection of guidelines for the international S&T cooperation
  - o Part 2: Meta-Guidelines and -Checklist supporting the safe and successful international S&T cooperation
- Study on "Annotated Collection of data and evidence providing entities: Which data can be found where?" (17-Sep-2021). China is the largest country that does not belong to the OECD. This means that the OECD figures are not reliable to a certain extent. There is currently no overview of the quality and timeliness of data on China's research and innovation system, where it is available, under what conditions and at what price.

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<sup>&</sup>lt;sup>8</sup> These papers were provided by experts to the internal discussions of the CCG and are not publicly available

<sup>&</sup>lt;sup>9</sup> It is planned that some of the studies will be made available publicly depending on the sensitivity of information provided

<sup>&</sup>lt;sup>10</sup> Online accessible: <u>GuidelinesAnalysis-2021.pdf</u> (kooperation-international.de)

That will be provided.

- Concept and first exploratory steps towards an areas of cooperation/non-cooperation assessment of "Defining research area specific risks and benefits of EU-China STI cooperation" (17-Sep-2021): CCG discussed in a meeting in November 2020 the option of assigning research areas to four categories of cooperation with China from no-cooperation to wanted cooperation. An assessment from European scientists on the benefits and risk of cooperation in their field of expertise and interest is envisaged.
- Study on "Opportunities and challenges for EU-China STI collaboration emanating from the 14th Five-Year Plan (2021-25)" (17-Sep-2021): Within the framework of the study an analysis is carried out of the STI-relevant aspects of the 14th Five-Year Plan and any special plans under the Five-Year Plan. Relevant for Europe is the plan to 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.
- Study on "China's specific regulatory framework on data and how it impacts EU-CN R&I collaboration" (17-Sep-2021): The study will record the current R&D-relevant laws (such as the Data Security Act, Export Control Act, Cyber Security Act, Measures for the Management of Scientific Data, Personal Information Security Specification, Personal Information Protection Law) and evaluates them with regard to relevance as well as implications for actors from the European science and innovation sector.
- Feasibility Study on "Ensuring safe and beneficial Cooperation of European Research
  Organisations with Chinese Partners Development of an Online Review Process:
  Cooperation Opportunities and Risks with Chinese Partners" (16-Sep-2021). The aim of the
  feasibility study is to examine whether an online automated screening process can help
  European research institutions to find (1) the best cooperation partner in China for specific
  issues and (2) to secure cooperation as far as possible by screening/avoiding risks.

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- Study on "Tangible benefits for Europe from EU-China Cooperation": Study should collect
  evidence to better understand what the EU is gaining from its cooperation with China in the
  S&T sector, in concrete terms.
- Study on "European access to Chinese research and technology landscape": Based on work by EURAXESS China from 2013 and 2016 this study should update the current situation of European research structures working in China as well as giving structured information about access for European institutions and individuals to Chinese institutes, research funding and large-scale research infrastructures

#### Annex II: Concrete activities and steps for the EU and MS level

The following potential actions to be implemented by the EC and/ or the Member States are based on the recommendation papers developed by the EU-KNOC project. These thematic papers have been developed by different sets of experts and - depending on the topic addressed - differ in their wording and degree of concreteness. The papers have supported the internal CCG discussion process and have advance the common understanding of the issues at stake but are not publicly available. However, the points addressed below are derived from these papers and the related discussions and should serve as an inspiration and starting point for developing tangible activities.

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	EU level action	EU-MS level action	
	Observe and reconsider Chinese actions	and restrictions with relevance for the	
	international STI cooperation continuously. This might refer to issues in China as		
	well as Chinese action within the EU and in the global scene e.g.:		
	o Provide a mapping & analysis of the situation at MS and EU level based on		
	common guidelines and involving a quality check (could be supported by the JRC)		
	o Be aware of nuances used to express rules and regulations within the Chinese		
hina	context.		
	o Try to connect legal and regulatory approaches close to scientific development,		
)e ar	as developments in research are often faster than regulation.		
Continuous monitoring of Chinese STI activities in Europe and China	o Be aware of "Chinese policy continuum" and think context-related: If Europe		
	applies restrictions in the R&I sector, China might answer with restrictions in other		
rities .	areas.		
activ	o Understand motivation of Chinese partners to cooperate in specific areas with		
STI	Europe.		
ese	o Consider Chinese national discussions about standards for cooperation and		
Chii	research to better understand inner Chinese debate.		
Jo a	o Observe financial transparency as a basic obligation for cooperation.		
	Incident tracker: Develop a format for	Share information on existing	
lonit	an incident tracker (to set up a	national/regional screening procedures	
m sn	European format of the so called ASPI		
onui  -	tracker) to observe Chinese activities	Provide input for a EU-level incident	
Jourt	and scientist, and create an objective,	tracker	
	European and independent basis for		
	discussion.		
18	Transfer EU-KNOC knowledge	MS should give active input and	
Information sharing	exchange into a permanent European	participate in EU-KNOC generated pan-	
	Info centre on China. It could be	European meetings to improve STI-	
mati	established as a physical or virtual	cooperation with China.	
nfor	entity or build on existing entities to		
2. I	analyse, unlock and disseminate		
	information about China, and to		

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		translate research results for policy,	
		academic, media and business sectors.	
		The centre should develop a	
		multilingual platform of knowledge-	
		sharing which makes scientific	
		findings about China easier accessible.	
		The Centre could produce translation	
		or policy briefs of relevant strategic	
		Chinese policy documents that could	
		be distributed to the European research	
		community and to policymakers.	
		SFIC could help to coordinate EU-	
		MS's activities like innovation	
		dialogues and include Science	
		Counsellors more systematically.	
		Continuous and in-depth long-term	Establish and/or support existing national
10 <u>1</u>		use of the EU-KNOC established	networks and China related stake-holders
reat		network of China experts on EU-level	like International Offices of Universities
<del>     </del>		which provides information not only	to connect with other European and, as
Network creation		for policy makers but the European	relevant, regional networks. Network the
3.		society as a whole.	networks.
(,			
		A joint European initiative for China	Develop a European education initiative
and independent	<u>1a</u>	competence, including knowledge on	for China competence in secondary
eper	Chii	different Chinese policy areas beyond	education, which should include not just
1 ind	nporary China	science, education & innovation	language instruction, but also China
		policies such as law, environment and	knowledge and inter-cultural skills at
tern	onte	economics.	school level.
Securing long term	expertise on conten		
ring	tise		China in tertiary education:
  ecm	xper		Increase attractiveness of China as a
4.   SI	Ol		study subject in EU-MS, offer access and
L			courses at universities. Develop a

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		European compendium of China studies,
		and identify gaps in the curriculum of
		China studies centres across Europe.
		Budget line for research on modern
		language and cultural education on
		China: "How to teach Chinese and
		contemporary China in Europe?"
		Enhance China studies at Eastern and
		South-eastern European universities.
	Promote the exchange of information	Invite neighbouring countries or EC
	on visits and the operational effect to	representatives to participate in bilateral
	harmonise European key positions.	STI-talks and/or inform each other about
	Offer a "Briefing office" to support	agendas and main topics.
	smaller EU-MS in the bilateral talks	
ency	with China.	SFIC might become a role of exchange
Spar		platform to support and coordinate.
tran		
ling		Reflect on a way to harmonize the
gthe		treatment of Confucius Institutes at the
reng		
<u>  [t</u>		level of EU-MS and conduct an in-depth
5. Strengthening transparency		level of EU-MS and conduct an in-depth study on risks in collaboration with the
5. Stre		
	COM should coordinate with EU-MS	study on risks in collaboration with the
	COM should coordinate with EU-MS to identify commonly accepted	study on risks in collaboration with the institutes.
		study on risks in collaboration with the institutes.  EU-MS have a conflict of interests, as
	to identify commonly accepted	study on risks in collaboration with the institutes.  EU-MS have a conflict of interests, as they recognise the scientific value of
5.	to identify commonly accepted thematic (priority/safe) areas (positive	study on risks in collaboration with the institutes.  EU-MS have a conflict of interests, as they recognise the scientific value of research cooperation with Chinese
5.	to identify commonly accepted thematic (priority/safe) areas (positive choice list) to cooperate with China.	study on risks in collaboration with the institutes.  EU-MS have a conflict of interests, as they recognise the scientific value of research cooperation with Chinese counterparts and on the other hand, are
5.	to identify commonly accepted thematic (priority/safe) areas (positive choice list) to cooperate with China. In a first step, a consensus on the	study on risks in collaboration with the institutes.  EU-MS have a conflict of interests, as they recognise the scientific value of research cooperation with Chinese counterparts and on the other hand, are aware of the lack of academic freedom in
5.	to identify commonly accepted thematic (priority/safe) areas (positive choice list) to cooperate with China. In a first step, a consensus on the principle of endorsing a list at Council	study on risks in collaboration with the institutes.  EU-MS have a conflict of interests, as they recognise the scientific value of research cooperation with Chinese counterparts and on the other hand, are aware of the lack of academic freedom in China which should be a precondition of
5.	to identify commonly accepted thematic (priority/safe) areas (positive choice list) to cooperate with China. In a first step, a consensus on the principle of endorsing a list at Council level needs to be reached. A final	study on risks in collaboration with the institutes.  EU-MS have a conflict of interests, as they recognise the scientific value of research cooperation with Chinese counterparts and on the other hand, are aware of the lack of academic freedom in China which should be a precondition of international R&I cooperation.
ν.	to identify commonly accepted thematic (priority/safe) areas (positive choice list) to cooperate with China. In a first step, a consensus on the principle of endorsing a list at Council level needs to be reached. A final decision should include clear	study on risks in collaboration with the institutes.  EU-MS have a conflict of interests, as they recognise the scientific value of research cooperation with Chinese counterparts and on the other hand, are aware of the lack of academic freedom in China which should be a precondition of international R&I cooperation.  Cooperation with Chinese counterparts

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Sector-based approach: A sectorfocused, non-state-specific classification of areas of specific risks might be created by sector experts/expert groups. General risk assessment could be further elaborated with evidence on specific subsectors and with specific focus on specific collaboration countries like China.

Funding: Enhance financial support through e.g. Horizon Europe and Erasmus+ and strive for equal cofunding from China in Horizon Europe (matching funds). Strategic investments in priority areas, which have to be identified jointly, that are equally accessible for all EU-MS.

counterparts. Guidance to stakeholders should be offered by EU-MS governments.

Check in how far commonly accepted guidelines (based on objective, transparent and expert-based criteria including European values) can help to assist and guide cooperation and set framework conditions to be implemented by EU-MS. Meta-Guidelines could function as a blue print for top-down implementation on national/institutional-level.

Issues related to competitiveness and technological sovereignty also play a role in MS considerations: here actor-based restrictions – classifying Chinese universities and companies may be necessary through establishing and maintaining a list of "partners of concern" using existing information sources like the ASPI-tracker, US and UK information as well as information in Europe, e.g. by security offices.

Funding: Enhance funding for contemporary China research and education in EU-MS.

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		Enhance financial support for
		cooperation with China and strive for
		equal co-funding (matching funds).
		Coordinate text fragments of bilateral
		funding calls with China on EU-level and
		discuss how far references to hard
		regulations (e.g. data protection) but also
		soft formulations (e.g. freedom of
		scientific research) could be included.
	Integrate guidelines, cooperation	Contribute to the development of the
	criteria, checklists or procedure for	toolbox and promote its use at national
	cooperation and other mentioned	and regional-level HES and RTI
	measures in an easily accessible and	organizations
	usable toolbox for EU-MS.	
		Protection and restriction: Work on
	Development of a code of	regulation, restriction and information
	conduct/text fragments/joint	should be carried out in parallel on MS
	declaration between the EU and China	level and results should be disseminated
	regarding values EU-MS can refer to	as quickly as possible to stakeholders. If
	in joint declarations with China.	e.g. evidence for risks in specific
		subsectors are found, information should
١.	Protection and restriction: Protective	be provided to stakeholders; Options for
ation	measures for STI cooperation e.g.	regulations may be discussed by the
rting STI cooperation	screening of international partner	COM but will be implemented by EU-
	organizations, a list of red flag actors	MS.
ST	and IP protection should be set up as	
iti	part of an integral European safety	
)   oddin	and security policy in STI. A	
or sı	screening mechanism e.g. via an	
	Online Review Process on the	
[00]	Cooperation Opportunities and Risks	
7. Toolbox for suppor	with Chinese Partners could be	
	installed and the results of the	

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		screening process should be widely	
		disseminated among relevant	
		stakeholders.	
		Topic for bilateral talks: Both at the	Universities should encourage students to
		level of the EU Commission and at the	attend summer schools in China; many
		country level, maintaining China's	programs and scholarships for summer
		openness to European scholars must	schools are offered by Chinese
		be an essential point of discussion.	universities.
		Science counsellors report: It is re-	
		commended that the science	
		counsellors at the European	
		Delegation in Beijing, together with	
hina		the colleagues at the European	
t C		embassies make this a separate	
Ensure access to China		reporting point. A regular status	
e ac		survey at European level and the use	
nsu		of the results thereof at bilateral	
<del>⊗</del>		meetings could become standard	
~		practice.	
		Create strong European narratives e.g.	Expand STI cooperation on common
'α	II	in the collaboration with African	global challenges with less developed
)ina	bal S	countries around common challenges	countries. Traditional development aid
S	lolg 1	and how to solve them as well as	could be replaced by cooperation budgets
alanc	as a	addressing global challenges.	for the individual countries. EU-MS to
Counterbalance Ch	ambitions as a glob	Monitor China's R&I ambitions and	take action to come to a coordinated STI
mo	mbit	activities in third countries, notably in	cooperation, e.g. on digital services and
9.0	ଷା	African countries.	digital governance issues, industry,
]			energy.

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Provide alternatives to Chinese activities e.g. in Africa to secure European influence and interests and adapt existing programmes/initiatives to become broader, more flexible and innovation-oriented (e.g. in higher education or like the Africa Initiative in Horizon Europe as counterpart to BRI)

Push for transparency in inter-national cooperation e.g. between China and Africa (and provide this transparency yourself)

Follow a more geopolitical strategic, holistic, more business oriented "one commission" approach by linking STI activities with economic interests. Explore trilateral cooperation with China and, e.g. African countries as an avenue to deepen engagement on STI, to promote cross-learning and build mutual trust among partners, e.g. by examining the potential of trilateral programs in vocation training or through a joint scholarship for Post-Docs. These scholarships might target specific global challenges and connect excellent researchers from all three regions.

Note: The recommendations regarding China as an international actor have been exemplified in the EU-KNOC Paper related to the triangle relation of Examine, whether the existing scholarships schemes for students and experts from African countries (at the EU and EU-MS level) are adequate with regard to given structures in Africa, given education development in African countries, given scholarship opportunities from other countries like China.

ERAC 1204/21 FB/ae 20 ECOMP.3.B EN the EU / China and Africa (see Recommendation Paper #4 on "China's global impact in the STI sector (incl. Africa/BRI, USA)".

Therefore the recommended activities partly focus on actions necessary in the bilateral relations between the EU and Africa to strengthen Europe's position, but could partly be applied to other world regions as appropriate and relevant.

Offer an alternative to Chinas start-up opportunities in Africa, possibly through private-public-partnership, start-up programs for Africa. Venture capital opportunities should be increased and the private sector and countries like Japan who are experienced in Venture capital should be included in the discussion. Specific rules (taxes, patent rules, export control, etc.) for African start-ups should be examined.

The European Union and EU-MS should seek to a certain extent to coordinate and cooperate their activities in Africa with partners from East Asian democracies such as Japan or with India. That would lead to a less Eurocentric approach and might open new opportunities.

# Managing R&I value chain dependencies 9

Definition of critical areas in the context of dependencies, especially where strategic autonomy shall be achieved.

Assessment of existing dependencies, e.g. by establishing supply chain task forces and/or publishing a strategic roadmap on a yearly basis. Provision of more information for European researchers and policy makers. Enabling an informed and proactive cooperation with Chinese partners by raising awareness on R&I dependency risks and opportunities through guidelines and /or training programmes for European scholars and policy makers. Analysis of China's political ambitions and R&I system by mapping and reviewing China's STI funding, specific deliverables defined in research calls, STI related national programmes, subsidies and tax exemptions, as well as STI strategies and policies.

Strengthening cooperation between research and industrial partners (within Europe and with Chinese partners) with the goal of ensuring mutual win-win cooperation.

Developing a more specific phrasing / model for 2+2 research calls to ensure that the European industrial partner is not in possession of a Chinese owner. Experiences from the EU Framework Programme and the related discussions on Article 22.5 could be useful in this context.

In addition of promoting 2+2 cooperation, EU-MS might consider funding cooperation between European start-ups and Chinese universities.

Develop an in-depth understanding of the EU position in strategically important areas of technology based on studies such as the 2019 JRC study 'China: Challenges and Prospects form an Industrial and Innovation Powerhouse' and its upcoming update (2021), and on a mapping of similar studies being conducted in various EU-MS.

Diversify R&I dependencies by strengthening ties with other countries / regions and especially allies with similar values. EU-MS might consider developing strategies on cooperation with Japan and South Korea.

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