

China's policies and practices with respect to higher education cooperation with the EU

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Abstract

This chapter reviews and analyses China's policies and practices with respect to higher education cooperation with the EU from the perspective of a paradigm change: from EU-China higher education 1.0 to EU-China higher education cooperation 2.0. When it comes to the second decade of the 21st century, the cooperation between the European Union (EU) and China in higher education has been evolving from the form 1.0, when the focus was on policy dialogues and practical collaboration in the higher education sector only, to the form 2.0, when the EU-China higher education cooperation becomes an integral and important part of a strategic partnership. Nevertheless, many stakeholders in EU-China higher education cooperation are not yet aware of this development. Primarily from China's perspective, the chapter provides an overview of policies and practices of EU-China higher education cooperation 1.0, and also discusses the transition to EU-China higher education cooperation 2.0. The study analyses secondary data, such as academic literature, governmental policy documents and strategic documents. The analysis indicates that the EU and China achieved fruitful outcomes in higher

education cooperation in the first phase, especially in the increase of joint education provision, the deepening and expansion of research collaboration, and the growth of individual mobility between both sides. The fruitful outcomes have also enhanced the compatibility of the EU's and China's expectations of cooperation with each other in higher education and has led them into a more comprehensive partnership development in phase two, fitting into the EU-China strategic partnership building framework. The chapter also highlights that the recently launched China's New Silk Road Policy has brought a new perspective into the current landscape of international higher education cooperation and may affect EU-China higher education cooperation in the future.

Keywords

EU, Europe, China, higher education policy, international cooperation

Introduction

Higher education cooperation between the People's Republic of China and many European countries has a long history, dating back to student exchanges in the 1950s. More profound cooperation between China and the European Union (EU) has taken place since the 1990s and especially the beginning of the millennium, owing to the rapid development of reciprocal relationships between China and the EU (Cai, 2019a). In 2003, China issued its first-ever policy paper on the EU and on the EU side the European Commission (EC) issued a communication on *A Maturing Partnership - Shared Interests and Challenges in EU-China Relations* (Zhou, 2017). Following this, the most significant change in the nature of China-EU cooperation is that both sides consider each other to be an important innovation partner, not merely trade partners (Cai, 2019a). The burgeoning interests of both China and the EU in science, technology and innovation (STI) co-operation have been expedited by the signing of the *EU-China Innovation Cooperation Dialogue* in 2012, which complements and ensures synergy with the *Agreement on Science and Technology Cooperation between the EU and China* in 1998.

Higher education cooperation is an integral part of the larger picture of EU-China strategic partnership building. The future of such cooperation is more than achieving prosperous student/teaching mobility, joint degree provision and research collaboration. As proposed by Cai (2019b), EU-China higher education cooperation is expected to move up a notch, reflected in a paradigm change from the form 1.0 to the form 2.0. Compared to the current EU-China higher education cooperation 1.0, consisting of policy dialogues and practical collaboration in the higher education sector only, it is expected that in EU-China higher education cooperation 2.0, the next phase, the higher education collaboration between both sides is seen as an integral part of building an EU-China strategic partnership. This change requires Chinese policies and practices concerning EU-China higher education cooperation to be analysed from the strategic partnership perspective of cooperation.

However, there is a gap in both research and practice with few interactions between higher education cooperation and cooperation in other sectors (Cai, 2019a; Cai, Ferrer, & Lastra, 2019). Although having an ambitious intention to fill the gap, the goal of this chapter is modest. It tries to achieve two objectives: 1) to provide an overview of policies and practices of EU-China higher education cooperation, primarily from the Chinese perspective and 2) to briefly discuss the development of this higher education cooperation in the context of building an EU-China strategic partnership. The two objectives are respectively related to the two forms of EU-China higher education cooperation, namely 1.0 and 2.0. The chapter will be concluded with some suggestions on how to strengthen higher education cooperation in the context of broader EU-China relations.

EU-China higher education cooperation 1.0

China's internationalisation of higher education

The internationalisation of higher education is an inevitable outcome of China's integration into the global economy as well as an essential measure to improve its higher education system. Major activities of internationalisation have been undertaken in the areas of student mobility, internationalisation of activities of teaching and research, and joint education provision (Yang, 2014), with remarkable achievement though mainly in a quantitative sense (Cai, 2014).

In spite of the dramatic expansion of China's higher education system, the surging demand from its younger generation for high quality higher education has not yet been met (Cai & Yan, 2015). To resolve the tension, a use of foreign educational resources is a possible solution (Shumilova & Cai, 2016). The number of students pursuing study abroad has increased dramatically in the last four decades. According to the latest published statistics, from 1978 to 2018 the population of Chinese students overseas reached 5.85 million, among whom 3.65 million have completed their study and returned to China (Ministry of Education in China, 2019c).

China also attaches importance to attracting international students to study in China. In 2018 there were 492, 000 international students undertaking their studies in 1,004 universities in China (Ministry of Education in China, 2019a). These international students came from 196 different countries, and among them the top five sources were Korea, Thailand, Pakistan, India and America (Ministry of Education in China, 2019a). The booming numbers of international students in Chinese universities can be explained in two ways. Firstly, legislation has to a large extent transferred the power of recruiting international students to institutions (Shieh & Wang, 2007). Secondly, the growing interest among many countries in cooperating with China and entering the Chinese market has driven many of their students to study in Chinese universities.

While the main activity of internationalisation of higher education until the late 1990s was student mobility, since then the focus has changed to internationalise the profiles of teaching and research. This internationalisation has three dimensions: increasing English taught courses; a higher percentage of overseas trained teachers; and institutionalised structures specifically for research cooperation (Cai, 2014).

In terms of cooperation on degree education, the most important achievement is the development in Sino-foreign cooperation in establishing educational institutions. The term Sino-foreign Cooperation in Running Schools (SFCRS) is explicitly defined as: "the activities of the cooperation between foreign educational institutions and Chinese educational institutions in establishing educational institutions within the territory of China to provide education service mainly to Chinese citizens" (Article 2, Regulations on Chinese-Foreign Cooperation in Running Schools, Ministry of Education 2003). In practice, foreign institutions must partner with Chinese institutions in establishing joint educational provision in China. By 2019, all together 109 international joint institutes and 1,087 international joint academic programmes in China had been

established and approved by the Chinese government (Ministry of Education in China, 2019b).

China's ongoing policies of internationalisation of higher education

The activities of China's internationalisation of higher education are facilitated by steering policies and funding mechanisms mainly concerned with mobility, education and research collaboration. For instance, in terms of student mobility, the China Scholarship Council (CSC) was established in 1994, and since then it has been supporting Chinese students to study abroad with state funding. However, nowadays self-funded students have become the majority of Chinese overseas students. Since 2003, the CSC has set an "Excellent Self-funded Students' Prize" to award outstanding self-funded Chinese overseas students. Besides supporting Chinese students studying abroad, the CSC also provides scholarships for international students to undertake degree studies in China.

In another aspect of importing international education resources, *The 2003 Regulations on SFCRS* and follow-up regulations play a key role. The Regulations manifest the self-interest of the Chinese government to support cooperation between Chinese and international universities to provide education jointly inside China at institutional level (Qu & Feng, 2018). By allowing foreign universities to enter into the Chinese higher education system, the Chinese government recognised that joint ventures in higher education (joint institutions and joint programmes) were a potential way to introduce advanced educational resources from abroad and to provide opportunities for receiving internationally grounded education to its students who were not able to attend top tier universities locally or abroad (Onsman, 2013).

With respect to international research cooperation, the twelfth and thirteenth Five-Year Plans of the National Natural Science Foundation of China (NSFC) in 2011 and 2015 explicitly supported Chinese academics in international collaboration in scientific research (NSFC, 2011, 2015). The NSFC has acted as the core funding organisation in China to support scientific research (especially basic research), innovation, and the cultivation of talent since its establishment in 1986 (NSFC, 2019). For instance, the NSFC launched the *NSFC Regulation on International (Regional) Collaboration in Research* to support Chinese scholars in

conducting international joint research projects on the frontier of scientific development (NSFC, 2009). In 2014 the NSFC published another policy in order to attract international, especially young, academics to undertake research activities in mainland China (NSFC, 2014). By 2018, through the two policies, the NSFC had supported 432 joint research projects between China and international partners costing 834 million Ren Min Bi (RMB), and 140 international young researchers costing 45 million RMB (NSFC, 2018). Another funding and coordinating organisation in the area of social sciences, the National Social Science Fund of China (NSSFC) was also established in 1986 and a series of policies to support international collaboration in social science research have been launched.

The Guidelines of the *National Mid- and Long-Term Educational Reform and Development Planning* (2010-2020) (hereafter referred as Education 2020) is the most fundamental policy. Launched by the Chinese government in 2010, Education 2020 determined that an international strategy would be an important long-term policy for higher education development in China (W. Zhu & Zhang, 2017). It has supported the development of a comprehensive policy framework for the internationalisation of higher education in China through highlighting and encouraging the outward and inward international mobility of students and staff, joint institutions and joint programmes, and other international exchanges and cooperative activities (W. Zhu & Zhang, 2017). China's commitment to the internationalisation of higher education has been further affirmed by the *Modernisation of Chinese Education 2035* promulgated by the Central Committee of Chinese Communist Party and the State Council (Xinhua-Net, 2019). The new strategy (in Article 9) particularly states that China should enhance international collaboration in education comprehensively, promote the mutual recognition of academic degrees between China and other countries, encourage international communication and the sharing of experiences on the quality assessment of education (Xinhua-Net, 2019).

All these policies constitute a comprehensive internationalisation policy framework for Chinese higher education, which has allowed and motivated China to cooperate with other countries and regions in higher education development. Against such a background, practices in China-EU higher education cooperation take place.

Practices of China-EU higher education cooperation

EU-China higher education cooperation has resulted in fruitful outcomes in practice. These are mainly reflected in the increase of joint higher

education institutions and joint academic degree programmes, the expansion and deepening of research collaboration, and the growth of the exchange mobility of students and academics.

In terms of joint institutions and programmes in 2019 there were 28 EU¹¹-China joint higher education institutions and 171 EU-China joint academic programmes (including bachelor's, master's and doctoral degree programmes) based inside China (Ministry of Education in China, 2019ab). Inside the EU, the development of joint institutions and programmes between EU partner institutions and Chinese institutions has also been under exploration. For instance, in 2012, the first Erasmus Mundus Masters' Joint Degree (EMJD) Programme that has a Chinese university as partner institution in the programme consortium, a Masters Course in Research and Innovation in Higher Education (MARIHE), was implemented with financial support from the EC. It is a pioneering approach to explore the possibilities of Erasmus Mundus joint programmes with Chinese partners (Cai, 2013). Chinese universities have also been seeking opportunities to open offshore campuses or joint institutions in Europe in recent years, although their geographic focus has been largely placed in the UK (d'Hooghe, Montulet, de Wolff, & Pieke, 2018).

The deepening and expanding EU-China research collaboration is another achievement (Cai, 2019a). The Ministry of Sciences and Technology in China (MOST) has been actively promoting international research collaboration between the EU and China. For instance, in 2019, MOST launched a call for research proposals under the EU-China Co-funding Mechanisms for Research and Innovation (CFM) to support nine broad priority areas including food, agriculture, and biotechnology, for which MOST would invest about one billion RMB (about 13 million euros) (Delegation of the European-Union to China, 2019). Another example has been the development of an effective networking platform to connect researchers, higher education institutions and research institutes from China and the EU, providing useful information in terms of research funding, careers, collaboration opportunities and organising relevant events (EURAXESS, 2019b). Joint laboratories and joint research institutes have been established with EU-China cooperation, for instance in 2010, the EU-China Clean Energy Centre was launched, jointly financed by the Chinese government and the EU (EURAXESS, 2019a).

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Although the increasing numbers of exchange students and academics between EU countries and China are applauded, there is a lack of sufficient statistics on the mobility. Where available, statistics from a joint study by the EC and the Ministry of Education in China in 2011 indicates that in 2010, the total number of Chinese students in the EU was between 118,700 and 120,000, a figure which increased about 6 times from 2000 (GHK-Consulting & Renming-University, 2011). In terms of students' mobility from EU to China, in 2009 the number of EU students in China was over 22,600, which had nearly doubled from 2004 (GHK-Consulting & Renming-University, 2011). The same source indicates that from 2008 to 2009, at least 6,697 academics from China worked in EU countries, and in 2008 about 156 EU academics travelled to China on exchange schemes. It is noticeable that there exists an imbalance of exchange numbers between the two sides. It should also be mentioned that China has been among the top five non-EU partner countries sending students to participate in the Erasmus+ programme (European-Commission, 2019). The mobility of students and academics between EU and China have brought many benefits to European universities, for instance, a supply of much-needed doctoral candidates, tuition fees from fee-paying students, and access to cutting-edge research in Chinese universities (d'Hooghe et al., 2018).

Opportunities and challenges in EU-China higher education cooperation

The growing compatibility of the EU's and China's expectations in terms of collaboration in higher education has become a reliable foundation for more cooperation between both sides in the future (Cai, 2013, 2019a; Zheng & Cai, 2018). The review of the EU's and China's internationalisation strategies and practices in recent decades suggests that EU-China higher education cooperation has been developing in line with the needs/interests of the two sides (summarised in Table 1).

Table 1 Compatibility of the EU's and China's Expectations for the Internationalisation of Higher Education

EU	China
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Recruiting more Chinese students to study in European universities	Encouraging more Chinese students to study abroad, particularly in advanced systems, such as Europe
Exporting educational programmes and services to China	Meeting growing demands for higher education by importing high quality education resources from advanced higher education systems
Enhancing education and research cooperation with Chinese universities	Increasing international reputation and competitiveness through cooperation with (prestigious) foreign universities
Sending more European students to study in Chinese higher education	Attracting more international students to study in China

Source: Cai (2019a, p. 171)

In spite of the fit between both the EU's and China's expectations of international cooperation between both sides at the policy level, the challenges lie in how the interests which match both sides can be realised (Cai, 2019a). Among many challenges, here we highlight three that urgently need our attention: The first is a lack of mutual trust between EU and China. Despite the recognition of the fruitful outcomes in EU-China higher education cooperation and its promising future benefits, recent research on this still expresses a concern from European researchers on collaboration with China in higher education (d'Hooghe et al., 2018; Kirby & Van der Wende, 2018). In the practice of joint degree provision between EU and China, a lack of mutual trust and understanding has often become a barrier. (Cai, 2013; Zheng, Cai, & Ma, 2017). This may take a long time and more cooperative initiatives to overcome in the future.

Second, there is a lack of transparent, accessible information sharing between both sides. The language barrier may be one issue which hinders accessibility to information, e.g. information for research funding from China for European researchers and vice versa (d'Hooghe et al., 2018). Fortunately both the EU and China have been aware of this and now make information more available on the relevant websites by using English as a lingua franca.

The third challenge comes from the difficulties in reconciling the structural differences and incompatibility of higher education systems of EU countries and China. This may discourage further cooperation between European and Chinese universities. For instance, differences in legislative oversight, institutional regulations, communication channels and schemes would cause difficulties in the provision of joint academic degrees between European and Chinese universities and in recognising the learning outcomes of students from both sides (Cai, 2013). Also there are also challenges in reconciling the differences among EU member states' higher education systems when cooperating with Chinese partners (Zheng et al., 2017).

EU-China higher education cooperation 2.0

China's internationalisation of higher education from the perspective of building EU-China strategic partnerships

The increasingly strengthened higher education cooperation between China and Europe is associated with the rapid development of reciprocal relationships between China and the EU. The EU and China are looking for a comprehensive strategic partnership between both sides (European Commission, 2013) to improve cooperation in education, culture, youth, and research. This is reflected in three pillars: the strategic dialogue initiated in 2005; the economic and trade dialogue commenced in 2008; and the EU-China High-level-People-to-People Dialogue (HDDP) launched in 2012. The most significant change in the nature of China-EU cooperation is that both sides consider each other to be important innovation partners (China, 2017) and not merely trade partners as previously perceived. Indeed, China is becoming a global player in STI.

The strategic partnership entails a higher education dimension (Pinna, 2009), supporting both research and education collaboration between the EU and China. The cooperation has been greatly facilitated by the *EU-China Higher Education Platform for Cooperation and Exchange* (HEPCE), jointly set up in 2012 by the EC and the State Council of People's Republic of China within the framework of High Level People-to-people Dialogue (HPPD). The Platform has a clear aim of promoting sectoral policy dialogues, identifying common interest and strengthening mutual exchanges of best practices between EU and China (European Commission and State Council of China, 2012).

With respect to research, in May 2005, China and the EU signed a joint declaration in the EU-China Science and Technology Forum, in which it stated that it was high time for them to take cooperation forward based on mutual benefits to and reciprocal access and participation between both sides (Ministry of Science and Technology in China, 2005). Guided by the joint declaration, both sides have undertaken to support effective interaction between European and Chinese academia, facilitating research mobility, and improving and coordinating academic expertise more effectively. The EC has reinforced higher levels of collaboration between Europe and China, for example, via various programmes, such as the Innovative Training Network (ITN) Project under the Marie Skłodowska Curie Actions (MSCA), the COFUND Project and the Erasmus Mundus Scholarship Programme (C. Zhu, Cai, & François, 2017). Meanwhile, China opened its national research funding schemes, e.g. the 973 Programme and the 863 Programme, to European applications and encouraged joint research among European and Chinese researchers (Cai, 2019a).

Meanwhile, the EU and China have been exploring co-funding mechanisms to support joint research of mutual interest. In 2009, the Science and Technology Partnership Scheme between the Chinese MOST and the EC was established to support the launching of joint strategic projects by planning coordinated calls on topics of mutual interest between EU and China (EURAXESS, 2019a). In 2015, an EU-China initiative for co-funding for research and innovation was launched and opened its call for proposals to a wide range of disciplines (EURAXESS, 2019a). For instance, the EU-China flagship initiative, co-funded by Horizon 2020 of the EC and the NSFC, is planned to support joint projects on specific subjects of mutual interest, such as new biotechnologies for environment remediation in the 2018 call, and microorganism communities for plastics biodegradation and custom-made biological scaffolds for specific tissue regeneration and repair in the 2019 call (Business Finland, 2018). Co-funding for this initiative is jointly envisaged from Horizon 2020 with 35 million euros and from NSFC with 105 million RMB (approximately 13.4 million euros) (Business Finland, 2018). In 2015, NSFC and the European Research Council also signed an agreement on fostering cooperation between top level young researchers between China and Europe (EURAXESS, 2019a). While not essential, most of the research collaboration is based in universities.

Educational collaboration between the EU and China has been elevated to a new level since it has become an important part of the HPPD. The EC committed to welcome 5,000 Chinese students and academics to the EU

and 2,000 EU students and academics to China during 2012–2016 under the EU mobility programmes. As a response, China's government scholarship has opened an EU window to attract and support 200 European annually students to study in Chinese universities (European Commission and State Council of China, 2012). For outbound mobility from China to the EU, the CSC has been actively supporting Chinese university students to study abroad all over the world including EU countries, for both short-term exchanges and degree studies. Several long standing EU-China collaborative education programmes have been reinforced in the EU-China cooperation frameworks. For instance, the China-Europe International Business School (CEIBS), established in 1994 as a joint venture between EU and China, which by 2015 had successfully provided management training for over 80,000 executives (European Union External Action Service, 2015).

The studies on China-EU relations have stressed that the key to developing EU-China strategic partnerships lies in how to find effective ways to align the EU's and China's interests and expectations in different areas of cooperation, but the research has not so far provided satisfactory evidence on this (e.g., Men & Linck, 2017; Telò, Chun, & Xiaotong, 2018; Zhou, 2017). As a possible solution, Cai (2019a) suggested leveraging EU-China university cooperation, which has a relatively high level of mutual understanding (Liu, 2017; Navracics, 2017), with a special cultural mission (Yang, 2017) to enhance trust in EU-China cooperation in other sectors, such as industry and government.

In recent years, the changing nature of EU-China cooperation has particular implications for EU-China higher education cooperation. The most significant change is that both sides consider each other to be important innovation partners (European Union Chamber of Commerce in China, 2017), and not merely trade partners as previously perceived. Indeed, China is becoming a global player in science, technology and innovation. Thus universities, which hold the most importance place in generating knowledge, developing technology and cultivating future scientists, will have a more significant role in EU-China relations. This particularly holds true when recent geopolitical events in the world, such as Brexit and the move away from globalisation by the US, have created more uncertainty for higher education development in Europe. The EU is recognising the importance of strengthening relations and collaboration with Asia, particularly China (Kirby & Van der Wende, 2018). Such recognition is of importance to China not only in terms of higher education development and of a large educational market for fee-paying students, but also as a partner working jointly towards a more

cooperative and rule-based global order and a collaborator in global leadership (Kirby & Van der Wende, 2018).

Towards the future of EU-China higher education cooperation

In the future EU-China higher education cooperation is expected to be further integrated into the larger framework of EU-China strategic partnership building. For instance, Cai et al. (2019) call for attention to be given to the synergy building between higher education and other sectors in EU-China cooperation. They argue that the roles of transnational university cooperation are more than producing and transferring knowledge across national borders, along with cultivating “global talent” (Shumilova & Cai, 2016). There are two additional roles of such cooperation: fostering institutional change (concerning norms and values): and developing reliable networks between various actors in transnational contexts (Cai, 2018). Performing these two functions are likely to be new but important features in the future. For instance, given that EU-China higher education cooperation is challenged by a recent perception of China as both a collaborator and competitor on the EU side (European Commission, 2019), higher education cooperation between both sides may play a significant role in developing sustainable China-EU relations

From the perspective of EU-China higher education cooperation phase two, one must take into account the broad policies/strategies concerning EU-China cooperation. Besides the three pillars of this cooperation and their related policy dialogues, China’s New Silk Road Policy, also called “One Belt One Road” (OBOR) Policy, is influencing higher education cooperation at present and will do so in the near future.

The “Silk Road” originally refers to land-based trading which connected East and Central Asian markets to those of the Middle East and Mediterranean (Kirby & Van der Wende, 2018). The New Silk Road Policy was launched by China in 2013 as a key instrument for reconsidering China’s international relations, international economic policy and the enhancement of its soft power, so as to expand its global influence (Kirby & Van der Wende, 2018). The policy also indicates China’s keenness to show its commitment to gain a more hegemonic role in the international community through the globalisation of its economy and the internationalisation of its culture and values (Perez Garcia, 2016). Despite the geographic focus of the policy being largely on Central Asia (Kirby &

Van der Wende, 2018), of the 65 countries along the Belt and Road, 25 are European countries (Tijssen, 2018), which suggests Europe is also considered as an important partner in China's OBOR policy. While Brexit and the retreat from global cooperation by the U.S. have overshadowed the prospects of globalisation in the West, cooperation with China may bring Europe a more sustainable and inclusive version of globalisation, thus making it more attractive for the EU (Kirby & Van der Wende, 2018).

When it comes to higher education, the OBOR has introduced a new network for EU-China cooperation. Higher education cooperation has been included as an important dimension of OBOR Policy since 2015 (Kirby & Van der Wende, 2018). Guided by this policy, the University Alliance of the New Silk Road (UASR) was established in 2015, followed by the establishment of several sub-alliance groups in the area of management, law, mechanical and chemical engineering, aerospace etc. (UASR, 2019). Currently, there have been 148 universities involved in UASR. Eighty-two come from Asia (56%), 56 from Europe (38%), six from Oceania (4%), two from America (2%) and two from Africa (2%). Thus, European universities are the second largest component in the network. UASR has fostered synergies in the globalisation of higher education, which is considered by European stakeholders to be a positive influence for the development of the European Higher Education Area (EHEA) and the European Research Area (ERA) (Kirby & Van der Wende, 2018). The UASR aims to build up a China-led collaborative platform in higher education (Kirby & Van der Wende, 2018) and advance international exchanges and partnerships among universities along the New Silk Road (UASR, 2019), which would be different from the previous landscape where the UK and the U.S. led higher education development.

Thus, the UASR has brought new perspectives to consider in relation to EU-China higher education cooperation. For instance, the role of the China-European joint ventures in higher education may not only be a mechanism to introduce educational resources into Chinese system, but also a mechanism to export China's advanced educational experience to other countries along the Belt and Road (Sharma, 2018). Thus, combined with the scholarship in support of international mobility of students from OBOR countries to China, the imbalance of inward and outward mobility between Europe and China may well change.

Conclusions

Higher education cooperation between EU and China consists of both opportunities and challenges. The opportunities are more reflected in the policy/interest match between both sides, whereas the challenges are concerned with realising the fit in practice. The difficulties in realising policy match are mainly due to: lack of mutual understanding; incentives to follow up policy drives; and resources provided for their implementation. In order to resolve these problems, it is essential to consider EU-China higher education cooperation from the perspective of a more inclusive and broader partnership, rather than concentrating on concrete practices and policy dialogues as previously. In this regard, we propose the following suggestions.

First, we suggest taking a critical view of the problem of a lack of mutual understanding in EU-China higher education cooperation. Certainly, the mutual understandings between both sides should be enhanced to produce reciprocal cooperation in higher education. However, this is a too general and abstract claim. If we really want to improve the situation, we must be aware of two facts. One is that for those who have been deeply engaged in concrete activities of the collaboration, they are already quite aware of all the possible benefits and tensions involved in this. What is needed is the development of a more effective information sharing mechanism to help impart their experiences and insights with other actors, such as policy-makers, university managers, academics and students from both the EU and from China. The second fact is that mutual understanding in the domain of higher education cooperation is generally more advanced than that in other areas, such as politics and business (d'Hooghe et al., 2018). Thus, EU-China higher education can be utilised to support the building of trust between both sides in other sectors.

Second, both policy-makers and practitioners in EU-China higher education cooperation should be more active in communication and collaboration with actors in other domains of EU-China cooperation. There is a great opportunity to use the university cooperation to support industry cooperation, because higher education cooperation has reached an unprecedented level, demonstrated by not only the large scale of student/staff exchange but also increasingly deeper research collaboration and joint education programmes. For instance, the university cooperation can support industrial cooperation by creating reliable networks (Cai et al., 2019). However, such potential has not been realised by the industrial actors as well as the policy-makers who set broader frameworks for EU-China cooperation. Once the relevant

stakeholders are convinced about the significant role of university cooperation in the overall picture of EU-China cooperation, universities are more likely to receive additional resources to support their international activities. Meanwhile, actors engaged the higher education cooperation would be more motivated when they recognised the larger impact of their commitment.

Third, the two suggestions mentioned above require the expansion of research on EU-China higher education cooperation. Studies this cooperation should consider the issue from a broader perspective. For instance, one important line of research could be about responses to the need for synergy between different areas of EU-China cooperation. Moreover, the research could be used for supplementing the information flow between practitioners and policymakers. Compared to the overall positive messages implied by existing studies on this cooperation, there are few efforts to investigate negative experiences and even failures in EU-China higher education cooperation. To advance the cooperation in practice, it is crucial to first discover the most difficult cases and then find solutions. This is especially helpful for policy-makers in fully understanding the realities and enables them to design better policy frameworks.

Fourth, both sides could also learn from each other in relation to the experiences in higher education reforms. For instance, the lessons of over 400 university mergers taking place in China during the 1990s and 2000s may be helpful for European higher education where mergers are emerging (Cai & Yang, 2016). The relatively long-time practices of transforming universities for the better servicing of regional development and innovation in Europe would be very useful for the Chinese when they have just embarked on similar reforms (Cai, Yang, Lyytinen, & Hölttä, 2015).

Finally, it has to be remembered that as the EU consists of member states with different social structures, histories and economic conditions, there is no simple approach for China to cooperate with the EU. The same kind of reminder holds true for the EU and EU member states. Although China is a single country, it also is diverse. There are regions with different economic development levels, industrial advantages and cultures. There are over 2000 Chinese universities of different types located in various regions (Cai & Yan, 2017). Thus, policy-makers and universities in EU member states need to adjust their strategies when collaborating with different universities in China.

References

- Business Finland. (2018). EU-China Flagship Initiative on Biotechnologies for Environment and Human Health. Retrieved from <https://www.businessfinland.fi/globalassets/finnish-customers/horizon-2020/esitysaineistot/faq-eu-china-flagship-ce-biotec-04-2018.pdf>
- Cai, Y. (2013). Erasmus Mundus joint programme and EU's Strategy on higher education collaboration with China: Lessons from the MARIHE Programme. *Journal of European Higher Education Area*, 2, 95-112.
- Cai, Y. (2014). Institutionalization of Internationalization of Higher Education in China. *Frontiers of Education in China*, 9(2), 175-181. doi:doi:10.3868/s110-003-014-0015-x
- Cai, Y. (2018). Towards a socially responsible entrepreneurial university: conceptual and analytical framework building *SPIRAL*, 2018(1), 1-4.
- Cai, Y. (2019a). China-Europe Higher Education Cooperation: Opportunities and Challenges. *Frontiers of Education in China*, 14(2), 167-179. doi:https://doi.org/10.1007/s11516-019-0009-5
- Cai, Y. (2019b, 27 September). *Opportunities and Challenges in EU-China higher education cooperation: from 1.0 to 2.0*. Paper presented at the Network Meeting on EU-China High Education Cooperation and University Academic Leadership, Helsinki.
- Cai, Y., Ferrer, B. R., & Lastra, J. L. M. (2019). Building University-Industry Co-Innovation Networks in Transnational Innovation Ecosystems: Towards a Transdisciplinary Approach of Integrating Social Sciences and Artificial Intelligence. *Sustainability*, 11(17), 1-23. doi:10.3390/su11174633
- Cai, Y., & Yan, F. (2015). Supply and Demand in Chinese Higher Education. In S. Schwartzman, P. Pillay, & R. Pinheiro (Eds.), *Higher Education in the BRICS countries: Investigating the pact between higher education and society* (pp. 149-169). Dordrecht: Springer.

- Cai, Y., & Yan, F. (2017). Higher Education and University. In W. J. Morgan, Q. Gu, & F. Li (Eds.), *Handbook of Chinese Education* (pp. 169-193). Cheltenham, UK: Edward Elgar.
- Cai, Y., Yang, P., Lyytinen, A., & Hölttä, S. (2015). Seeking solutions through the mirror of Finnish experience: policy recommendations for regional university transformation in China. *Journal of Higher Education Policy and Management*, 37(4), 447-458. doi:10.1080/1360080X.2015.1056597
- Cai, Y., & Yang, X. (2016). Mergers in Chinese higher education: lessons for studies in a global context. *European Journal of Higher Education*, 6(1), 71-85. doi:10.1080/21568235.2015.1099458
- European Union Chamber of Commerce in China (2017). *European Business in China - Business Confidence Survey*. Retrieved from
- d'Hooghe, I., Montulet, A., de Wolff, M., & Pieke, F. N. (2018). *Assessing Europe-China Collaboration in Higher Education and Research*. Retrieved from Leiden: https://www.merics.org/sites/default/files/2019-02/LeidenAsiaCentre%20Report%20-%20Assessing%20Europe-China%20Collaboration%20in%20Higher%20Education%20and%20Research_2018.pdf
- EURAXESS. (2019a). Collaboration opportunities *EURAXESS Researchers in Motion*. Retrieved from <https://www.euraxess.hr/de/node/82917>
- EURAXESS. (2019b). EURAXESS China. Retrieved from <https://euraxess.ec.europa.eu/worldwide/china>
- European Commission and State Council of China. (2012, 18/04). Follow-up Actions of The First Round of the EU-China High Level People-to-people Dialogue (HPPD). Retrieved from https://ec.europa.eu/assets/eac/education/international-cooperation/documents/china/follow_en.pdf
- European Commission. (2019). *Erasmus + Higher Education Impact Study*. Retrieved from Luxembourg:
- European-Union-External-Action-Service. (2015). *Factsheet/memo: The EU-China Comprehensive Strategic Partnership*. Retrieved from Brussels:

- European Commission. (2013). *EU-China 2020 Strategic Agenda for Cooperation*.
- European Commission. (2019). *EU-China – A strategic outlook*.
- GHK-Consulting, & Renming-University. (2011). *EU-China student and academic staff mobility: present situation and future developments*. Retrieved from ec.europa.eu/assets/eac/education/international-cooperation/.../china/mobility_en.pdf
- Kirby, W., & Van der Wende, M. (2018). The New Silk Road: implications for higher education in China and the West? *Cambridge Journal of Regions, Economy and Society*, 12(1), 127-144. doi:10.1093/cjres/rsy034
- Liu, Y. (2017). *Speech at fourth Meeting of China-EU High-Level People-to-People Dialogue held in Shanghai on 14 November 2017*.
- Men, J., & Linck, A. (2017). *China and EU: Reform and Governance*: Taylor & Francis.
- Ministry of Education in China. (2019a, 12/04). International students in China 2018 *News*. Retrieved from http://www.moe.gov.cn/jyb_xwfb/gzdt_gzdt/s5987/201904/t20190412_377692.html
- Ministry of Education in China. (2019b). List of programs and institutions of Chinese-Foreign cooperation in running schools Retrieved from <http://www.crs.jsj.edu.cn/index/sort/1006>
- Ministry of Education in China. (2019c, 27/03). Statistics of China overseas students 2018. *News*. Retrieved from http://www.moe.gov.cn/jyb_xwfb/gzdt_gzdt/s5987/201903/t20190327_375704.html
- Ministry of Education. (2003). Regulations of the People's Republic of China on Chinese-Foreign Cooperation in Running Schools.
- Ministry of Science and Technology in China. (2005, 16/05). EU-China Joint Declaration on Developing a Knowledge-based Strategic Partnership Between EU and China: Leading EU-China cooperation in Science and Technology into New Era. Retrieved from http://www.most.gov.cn/xinwzx/xwzx/xwfb/200505/t20050516_21606.htm

- Navracsics, T. (2017). *Speech at fourth Meeting of China-EU High-Level People-to-People Dialogue held in Shanghai on 14 November 2017.*
- NSFC. (2009, 03/12/2018). NSFC Regulation on International (Regional) Collaboration in Research with International Regions and Organizations. *Bureau of International Cooperation*. Retrieved from <http://bic.nsf.gov.cn/Show.aspx?AI=1019>
- NSFC. (2011). 12th Five Year Plan of National Natural Science Foundation of China (NSFC). Retrieved from http://www.nsf.gov.cn/nsfc/cen/bzgh_125/ml.html
- NSFC. (2014, 03/12/2018). NNFS International Early-Career Researcher Funding Regulation. Retrieved from <http://bic.nsf.gov.cn/Show.aspx?AI=1023>
- NSFC. (2015). 13th Five Year Plan of National Natural Science Foundation of China (NSFC). Retrieved from <http://www.nsf.gov.cn/publish/portal0/xxgk/043/info72249.htm>
- NSFC. (2018). Achievement. Retrieved from <http://bic.nsf.gov.cn/Show.aspx?CI=24>
- NSFC. (2019). Brief Introduction. Retrieved from <http://www.nsf.gov.cn/publish/portal0/jgsz/01/>
- Onsman, A. (2013). International students at Chinese joint venture universities: Factors influencing decisions to enrol. *Australian Universities' Review*, 55(2), 15.
- Perez Garcia, M. (2016). The Global Dimensions of “One Belt, One Road” Strategy in China-Latin America International Relations: Toward a Sustainable Economic Growth Model. In M. Perez Garcia & S. Cui (Eds.), *China and Latin America in Transition: Policy Dynamics, Economic Commitments, and Social Impacts* (pp. 131-156): Palgrave Macmillan.
- Pinna, C. (2009). EU–China relations in higher education. *Asia Europe Journal*, 7(3), 505. doi:10.1007/s10308-009-0238-y
- Qu, X., & Feng, Y. (2018). The developmental path of internationalization of higher education in China. [我国高等教育国际化发展路径研究]. *Study & Exploration*, 5(274), 32-37

- Sharma, Y. (2018, 23/03/2018). One Belt One Road towards a China-led HE area? *University World News*. Retrieved from <https://www.universityworldnews.com/post.php?story=20180323045239515>
- Shieh, C.J., & Wang, I.-M. (2007). Development of Export of China's Higher Education. *Connexions Module: m14289*. Retrieved from <http://cnx.org/content/m14289/latest/>
- Shumilova, Y., & Cai, Y. (2016). Three Approaches to Competing for Global Talent: Role of Higher Education. In B. Krishna & F. Charlotte (Eds.), *Global Perspectives and Local Challenges Surrounding International Student Mobility* (pp. 114-135). Hershey, PA, USA: IGI Global.
- Telò, M., Chun, D., & Xiaotong, Z. (2018). *Deepening the EU-China Partnership: Bridging Institutional and Ideational Differences in an Unstable World*: Taylor & Francis.
- Tijssen, R. (2018). *China's research links with Belt & Road countries: mapping the 'academic traffic' space*. Paper presented at The New Silk Road: Implications for higher education and research cooperation between China and Europe, Oxford.
- UASR. (2019, 27/12/2018). University Alliance of the Silk Road. Retrieved from http://uasr.xjtu.edu.cn/S_R.htm
- Xinhua-Net. (2019, 23/02). Central Committee of Communist Party, State Council of China launched "Modernization of Education in China 2035". Retrieved from http://www.moe.gov.cn/jyb_xwfb/s6052/moe_838/201902/t20190223_370857.html
- Yang, R. (2014). China's Strategy for the Internationalization of Higher Education: An Overview. *Frontiers of Education in China*, 9(2), 151-162.
doi:<http://dx.doi.org/10.3868/s110-003-014-0014-x>
- Yang, R. (2017). The cultural mission of China's elite universities: examples from Peking and Tsinghua. *Studies in Higher Education*, 42(10), 1825-1838.
doi:10.1080/03075079.2017.1376873
- Zheng, G., & Cai, Y. (2018). Collaboration between Europe and China in doctoral education: historical development and future challenges. In A. V. Oleksiyenko,

Q. Zha, I. Chirikov, & J. Li (Eds.), *International Status Anxiety and Higher Education: Soviet Legacy in China and Russia* (1st ed., Vol. 35, pp. 335-361). Hong Kong: Springer & Comparative Education Research Centre (CERC).

Zheng, G., Cai, Y., & Ma, S. (2017). Towards an analytical framework for understanding the development of a quality assurance system in an international joint programme. *European Journal of Higher Education*, 7(3), 243-260. doi:10.1080/21568235.2017.1290877

Zhou, H. (2017). *China-EU Relations: Reassessing the China-EU Comprehensive Strategic Partnership*: Springer & Social Sciences Academic Press.

Zhu, C., Cai, Y., & François, K. (2017). Perceptions of European and Chinese stakeholders on doctoral education in China and Europe. *European Journal of Higher Education*, 7(3), 227-242. doi:10.1080/21568235.2017.1290866

Zhu, W., & Zhang, H. (2017). The review of internationalization policy in China's higher education [我国高等教育国际化政策变迁述评]. *Journal of Higher Education Management*, 11(2), 116-124.
