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A New Epistemic Silk Road? The Chinese Knowledge Diaspora, and its Implications for the Europe of Knowledge

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The paper examines the implications of the extensive and increasingly significant Chinese knowledge diaspora for the Europe of Knowledge. Based on extensive fieldwork, the paper examines the size, significance and key issues surrounding the growth of the Chinese Knowledge Diaspora. A portrait is developed of a highly-skilled group (bi-lingual and bi-cultural) who have the capacity to contribute to teaching and research both in China and their host nations, and who are often willing and eager to act as a bridge between both sides. Reference is also made to China's numerous Overseas Talent Recruitment Schemes, which often target such individuals, and to the significance of this group to China's dramatic, and ongoing, scientific rise. Key issues are discussed, as well as some limitations and the prospects for the future. Based on available information, data on PRC students and academics in Europe are presented and an assessment made of both the potential, and of the relatively limited impact, compared with major English-language countries of migration, such as the US, Canada and Australia. The analysis concludes with an assessment of prospects for a new epistemic Silk Road, and some of the barriers to its development.

Ici repose un géant endormi; laissez le dormir, car quand il s'éveillera, il étonnera le monde.[1]

quand la chine s'éveillera, le monde tremblera.[2]

Introduction

Although neither of the above quotes can be attributed with certainty to Napoleon, they capture something of the contemporary worldwide response to China's rise. Unfortunately, however, most of this interest begins and ends with attention to

China's economic rise, citing for example its stellar gross domestic product (GDP) growth rate of close to 10% annually over the past 20 years or so, and the fact that it has now become the world's second largest economy (albeit only 121st in GDP per capita PPP terms).[3]

This singularly narrow focus on China's economic growth however, conceals as much as it reveals. First, it fails to point out that this growth, however striking, will only return China to the dominant economic position that it occupied several centuries ago. As late as the golden age of the Ming Dynasty (1368–1644) for example, just before the onset of what in the West is termed the Scientific Revolution, the Chinese economy was still the largest in the world, accounting for more than half of total world GDP.[4]

A second point that is often missed further underscores the importance of embracing a historical understanding, when thinking about China. China's Four Great Inventions, creatively displayed again at the opening ceremony of the Beijing Olympics, included gunpowder, printing (both woodblock and movable type), paper, and the compass. In addition, its technological and scientific prowess led to developments in mechanics, hydraulics, and mathematics that were applied to horology, metallurgy, agriculture, engineering, warfare and naval architecture, *inter alia*. China's 'Grand Canal', stretching 1200 miles from Beijing to Hangzhou, constructed some 1400 years ago, is still the longest canal in the world, far outstripping its more famous rivals, the Panama and Suez. Originally binding northern and southern China together, it remains in use today. In sum, as a recent review underlined,

> For much of human history, China led the world in science and technology. Western stereotypes of a backward and unchanging China obscured much more of that history than they illuminated. Indeed as the historian Joseph Needham showed in his extraordinary accounts, Chinese scientific civilisation was rich, and dynamic in many fields.[5]

The Rise and Rise of Chinese Science

The latter point regarding China's history of invention and innovation is of particular significance for the current analysis, which focuses on China's contemporary scientific and cultural rise (given the above sketch, perhaps renaissance might be a better term), and the implications for the Europe of Knowledge.[6] The brief sketch above clearly hints at a long history of scientific and technological prowess; it serves to remind us that China's current, dramatic scientific rise, is one more example of a much longer tradition of Chinese innovation and creativity.[7]

Indeed, China's contemporary scientific rise is also shaking the world, albeit more impressive in quantitative than in qualitative terms. According to a recent Statistical Data of China S&T Papers report of 2013, China is now second only to the USA in overall scientific output, and ranks fifth worldwide in citations.[8–10] China's share of world scientific publications rose dramatically over the decade ending in 2004, from 2% to 6.5%, while Chinese patent applications are doubling every two years, and now account for 3% of applications filed under the Patent Cooperation Treaty of the World Intellectual Property Organization.[11] Its share of Science and Engineering

Table 1. Share of total Science and Engineering articles, 2001–2011 (percent)

	2001	2011	% change
United States	30	26	−13.3
European Union	35	31	−11.4
China	3	11	266.7

Source: www.nsf.gov/statistics/seind14/index.cfm/chapter-5/c5h.htm#s5.

Table 2. Changing R&D Intensity Ratios 2001–2011 (percent)

	2001	2011	% change
United States	37	30	−18.9
European Union	26	22	−15.3
East, South and SE Asia	25	34	36

Source: www.nsf.gov/statistics/seind14/index.cfm/chapter-4/c4h.htmNote: The two largest contributors to the 2011 Asia total of 34% were China (almost half, at 15%) and Japan (10%). R&D intensity is a measure of the ratio of R&D as a proportion of GDP. China's has risen from 1.0 to 1.8% over the period; still lower than either the US, or EU, but rising much more strongly.

articles grew from 1.6% of the world total in 1998 to 5.9% by 2008, while it now produces more articles on Nanotechnology than any other country. Citations of mainland authors in the Thomson Reuters Science Citation Index have almost quadrupled over the past decade, often at the cost of articles published in China's own domestic journals. The growth of China science and engineering articles over the first decade of the century is captured in Table 1. Effectively China's share more than tripled over the period, while that of the EU (and US) declined.

Another index of research productivity is captured in Table 2, which compares shares of total Research and Development.

While the growth of Chinese science has been striking, some caveats should also be entered at this point. Perhaps the first is that the growth is more impressive in quantitative than qualitative terms. The figures presented above are relative to population size. Additionally, as pointed out by a number of recent studies, the growth of output of Chinese science has not been entirely matched by qualitative measures, such as the number of highly-cited articles and scientists, and related measures of impact.[5,11–14] The most recent study of science and engineering research productivity shows that China's share of highly-cited articles was 37% less than expected.[15] A further limitation is at least as substantial: the impact of corruption. As analysis by both domestic and international scholars reveals, the pervasive influence of corruption, including in the dispersement and utilization of research funds,

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campus construction, appointments and promotions, and academic plagiarism, 'wastes resources, corrupts the spirit, and stymies innovation'.[16–20]

Special Role of the Chinese Diaspora

The external dimensions of Chinese science present a different picture, however. While less than 1% of articles by Chinese researchers in Thomson Reuters *Essential Science Indicators* in the first decade of this century initially appeared in China, the global contribution of mainland Chinese researchers is increasing rapidly, in part due to both the notable contribution of its substantial knowledge diaspora, who now people research institutes and universities around the world, and returnees, who are now staffing its universities in increasing numbers. It is estimated that of the around two million individuals who left China to study in the years since 1978, around 635,000 have returned, although rates of return have risen strongly in recent years, as options increase in China, and those in the West diminish, especially since the onset of the global financial crisis. Return rates are now estimated to be around 35%, while the China Scholarships Council for example, calculated that for 2009, more than 200,000 left to study abroad, while more than 100,000 returned.[21] Nonetheless, it remains the case, that despite strongly rising return rates, the highest-calibre Chinese talents abroad (the very ones that China is most keen to attract) are still less likely to return.[10,22–24]

For the majority of overseas Chinese intellectuals and scientists (*Hua Qiao*, as overseas Chinese are collectively termed) who are interested in strengthening their relations with the homeland, however, national plans such as the *12th-Five-Year Plan*, *Medium-and-long-term Human Resources Development Plan (2010–2020)*, the National Medium and Long-Term Program for Science and Technology Development (2006–2020), and the *Medium-and-long-term Education Reform and Development Plan (2010–2020)*, have created a platform for return and/or increasing engagement.[25,26] Several of these national plans relate to high-level overseas talent recruitment schemes, that now number around a dozen, and are administered by ministries and agencies such as the Organization Department Central Committee, the Communist Party of China, and the State Administration of Foreign Expert Affairs (SAFEA).[27] SAFEA recently developed a new programme entitled the Top Foreign Experts Project, while the Ministry of Education recently announced yet another scheme to improve Higher Education Institutions' Creativity, (also named the 2011 Plan), that commenced in 2012, and supplemented the 985 Project[28] from 2013.

Provinces too, have parallel schemes (such as *Bairen Jihua*, and *Qianren Jihua*), especially in China's wealthier, more developed eastern regions that can afford substantial start-up and venture capital incentives.[29–34] Equally, top-tier (985) universities in China are able to take advantage of such schemes that provide incentives such as higher salaries, grants for laboratories, and assistance with children's schooling) to recruit foreign talent. Although several of the foreign talent schemes are in principle open to talent from anywhere, in practice recruits are overwhelmingly overseas Chinese.[27,35]

In addition, China's efforts include the strategic decision to boost its domestic research and development (R&D) effort, notably by increasing spending by around 19% per annum in recent years, and also the establishment of more than 200 international journals published in English. This includes Emerald's China series, Brill's Frontiers of China journals series, Oxford's Chinese Journal series, and Taylor & Francis's China-based social science journals. While all tend to claim that articles are subjected to rigorous peer review, in practice contents are also scrutinized behind the scenes, which means that work devoted to Xinjiang, Tibet, Taiwan, or China's current territorial disputes in the East China Sea, and South China Sea, with many of its neighbours, for example, may well attract particular attention.

It is clear that China's high-skilled and sizable knowledge diaspora will continue to play a major role in China's scientific development, including its goal of becoming an innovation-based society. While this is not entirely new, as the famous example of Cai Yuan-pei (1863–1940) shows, who studied in Germany in 1907 and France from 1912, and contributed hugely to education reform after his return from Europe, including briefly serving as Minister of Education under Sun Yat-sen, and subsequently as the leader of Peking University from 1916–1926, the scale of this mobility, and the contribution of the diaspora, has expanded enormously.[36] Of the many who have already returned, Chinese statistics indicate that 81% of Fellows of the Chinese Academy of Sciences, 54% of engineering schools Research Fellows and 72% of researchers in charge of the large 863 state-financed research projects have studied abroad. Statistics of the Ministry of Education further show that 77% of the university rectors of MoE-administered universities are returnees, as are 94% of recipients of the prestigious Yangtze Scholars scheme.[37,38] In 2002, Zhou Ji, became the first Chinese minister of education with a foreign PhD, while Wan Gang, former minister of science and technology, gained his PhD from TU Clausthal, in Germany during the late 1980s, and Xu Kuangdi, former President of the Academy of Engineering had studied at Imperial College, London, and worked in Sweden.[38]

This presents a very different profile to earlier generations of Chinese migrants. Unlike the substantial numbers of Chinese settlers who moved to the USA, Canada, and Australia from around the middle of the 19th century, and who were generally poorly educated, the current cohort are much more so. Indeed, in Australia, more than 80% of Chinese settlers now fall into the highest skill grades, paralleling the American and Canadian.[39] Saxenian's research into mainland Chinese and Taiwanese settlers in Silicon Valley in the late 1990s, for example, showed that 86%, and 85%, respectively, held at least a masters degree.[40] This trend is underpinned by the increasingly selective immigration policies of all three nations, which have in recent decades targeted highly-skilled settlers.[39,41–42] Thus, of the perhaps 40 million Chinese abroad, a high proportion are now highly-skilled, often with corresponding qualifications including PhDs. In 2007, for example, of the 142,000 foreign students enrolled in PhD programmes in the US, 32,000 were Chinese.[35] National Science Foundation (NSF) data shows that in 2008, 4526 Chinese recipients received doctorates in the US, more than twice the number of any other overseas nation.[43] Simply put, there are now significant numbers of mainland Chinese scholars working in

Universities and research establishments in almost all of the most advanced national innovation systems.[14,41,42] The substantial influence of foreign scholars (substantial numbers of whom are Chinese) at leading US universities, in procuring patents, has also been widely noted.[44]

Noting the rising presence of its scholars abroad, their interest and pride in China's development, and widespread willingness to contribute,[45] the architecture of China's policies regarding migration has evolved in parallel, to take greater advantage of its large global talent pool. Policies now encourage both returnees and diaspora to contribute to R&D, and the motherland's scientific development. The earlier era of *huiguo fuwu* (return and serve the homeland) that penalised non-returnees (who were often regarded as traitors) and their families, was replaced by the far more flexible *weiguo fuwu* (serve the homeland) in 2001, which thus legitimised the contribution of Chinese researchers who elected to stay abroad while still contributing to the scientific development of the homeland.[27,32] Taking advantage of this new flexibility, leading universities have introduced non-resident fellowship schemes, sometimes termed *Yaling Moshi*,[46] although there is some evidence that the very brightest researchers are still largely not returning.[10,22,23,47]

The Dragon in Europe

Given the above, what are the trends and implications in Europe? How many Chinese students choose to study in Europe? How many Chinese intellectuals have put down roots in Europe, relative to other possible destinations, what is their experience, how far and in what ways are they contributing to the Europe of Knowledge, and to what extent is Europe taking advantage of this new talent pool?

A recent collaborative study on EU–China student and academic staff mobility, jointly conducted by the European Commission and the Ministry of Education, PRC enables some answers to be given to the questions above.[48] While data were incomplete, and data gathering across the EU inconsistent,[49] together with other studies, the analysis presents the best available snapshot of the extent and experience of the Dragon in Europe.

The following data also need to be set in the wider context of thickening EU–China relations, via for example the establishment of an Education and Culture policy dialogue in October 2007, the initial EU–China High Level Cultural Forum, held in Brussels in October 2010, on the margins of the 13th EU–China Summit, and related discussions at the Asia–Europe Meeting (ASEM), which is the major forum for Asia–Europe policy discussions, and at which, in recent years, higher education has become a focus. Of specific relevance is ASEMUNDUS designed to promote further joint programmes and mobility.[50] The EU–China Year of Youth in 2011 also aimed to promote intercultural dialogue and understanding between the youth of Europe and China, while other forms of EU–China educational collaboration include the establishment of the China Europe International Business School (CEIBS) in Shanghai in 1994, the China–Europe School of Law (CESL), established in Beijing in 2008, the Europe China Clean Energy Centre EC2), launched in 2010, and the

International Institute for Clean and Renewable Energy (ICARE), at Huazhong University of Science and Technology, Wuhan. Some 10 bi-lateral Chinese government scholarship programmes also now exist with EU member states such as the UK, Germany and France.[51]

The survey shows that some 120,000 Chinese students were enrolled in HEIs in the EU in 2010, a number similar to the number enrolled in the US for that year (127,600), and approximately 60,000 in Australia. Of the EU total, more than half (67,325) were enrolled in the UK.[52] The EU total represented a rise of almost 600% over the decade 2000–2010. For countries, such as France, where 20,800 Chinese students were reported as enrolled in 2012, China was the second largest source of international students (after Morocco).[53] Of international students enrolled in its prestigious *Grandes Ecoles* (9% of total enrolment), some 11% were Chinese.[54] For Germany and the UK, Chinese students represent the largest source of international enrolments.[55]

The large majority of Chinese students were studying at undergraduate level, with less than 10% enrolled in doctorates overall.[56] The *Erasmus Mundus* programme has also provided an important platform supporting Europe–China mobility – in the years 2004–2010, over 2800 students from China took part in joint Masters' programmes and PhDs, making it the largest participating country. As part of Action 2 – Erasmus Mundus Partnerships, 684 Chinese students studied in Europe in 2008 and 2009. Scholarship programmes supporting inward mobility by Chinese students to the EU have grown, as have bi-lateral and multi-lateral agreements on institutional cooperation. France, Finland, Germany, Netherlands and the UK have each opened branches of their national education agencies in China in recent years, with some such as DAAD and Campus France acting as single entry points, and overseeing registration and admission. At the same time, however, the tightening of migration regulations in the UK and Switzerland, and the transition to a fee-based tuition regime in Sweden has reduced flows to the first and last mentioned, and is likely to do in Switzerland.[48,57–60]

While data were incomplete, the survey recorded 6697 academic staff from China working in EU universities, principally in the UK and Germany.[61] Once again, the Erasmus Mundus scheme was significant, with 320 Chinese scholars participating in the programme, while the Science and Technology Fellowship also supports EU China collaboration.[48] China sent a total of 120 academic staff to Europe for the years 2009 and 2009, under the Action 2 – Erasmus Mundus Partnerships, which awards preference to staff from less developed regions of China, such as Guangzhi Zhuang Autonomous Region, Hunan, Shanxi, and Jilin, and covers subjects such as Law, Social Sciences, Natural Sciences, Geography, Medical Sciences, and Geology.[62] As has not been uncommon in Chinese cohorts of international staff, the cohort was strongly gender biased, with the very large majority of recruits being male.[63] Table 3 reveals the numbers of incoming PRC scholars to Europe, by country, over the years 2004 to 2009, inclusive.

Given non-responses from several EU member states, and differing methodologies, Table 4 presents the data gathered on PRC academics based in a handful of EU

Table 3. Numbers of incoming PRC scholars in Europe, 2004–2009, by country

Country of Destination	2004	2005	2006	2007	2008	2009	Total
Austria	0	0	0	1	3	0	4
Belgium	0	0	5	10	2	3	20
Czech Republic	0	1	2	0	0	0	3
Denmark	1		1	1	2	4	9
Estonia	0		2			1	3
Finland	0	0	4	4	9	8	25
France	0	5	12	14	15	6	52
Germany	2	6	10	6	11	16	51
Greece	0	0	2	0	0		2
Hungary	0	0	0	0	2	0	2
Ireland	0	0	1	0	0	0	1
Italy	0	6	17	10	13	7	53
Luxembourg	0	0		0	2		2
Netherlands	0	5	4	5	3	3	20
Poland	0	1	0	0	3	0	4
Portugal	1	2	2	4	0	0	9
Spain	0	0	4	0	6	10	20
Sweden	0	1	9	1	4	13	28
United Kingdom	0	2	6	3	5	3	19
Total	4	29	79	59	80	73	324

Source: Adapted from EU and MOE 2011, pp. 61–62.
For a list of bi-lateral scholarship schemes with specific EU member states, see Ref. p. 67.

states, only two of which are among the most substantial, must thus be seen as only partial in scope.

In addition, however, most EU member states, including Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, Greece, Germany, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovenia, Slovakia, Spain, Sweden and the UK, have concluded bi-lateral agreements with China over the past decade or so, that specify forms of educational and cultural cooperation, variously including scholarships, exchange of scholars, and mutual recognition of degrees.[64] Some specifically target top or elite talent, such as Germany's DAAD programme, and its TestDAF and TestAS procedures, the French objective of recruiting future decision makers, and the Danish policy of targeting top Chinese talent to respond to its labour market needs.[64–66] The Dutch Orange Tulip scheme offers 30 top Chinese scholars tuition waiver, or company fellowship, while the UK–China Scholarships for Excellence provides funding for up to 30 PhD or Post-doc posts.[54] Most such schemes target fields such as Science, Engineering and Business. National organisations of Chinese Alumni have also been instituted in the UK, the Netherlands, and France, although not in Germany (which does, however, have 1200 members in its *Verband Chinesischer Akademiker aus Deutschland und Österreich*).[67]

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Table 4. Mainland Chinese Academic Staff at Various European Countries 2004–2009.

Country		2005	2006	2007	2008
Finland		34	32	36	48
Germany	Scientific staff of Chinese nationality	1,027	1,174	1,298	1,636
	Chinese scientists exchange programme	1,535	1,678	1,779	2,199
Country	2004/05	2005/06	2006/07	2007/08	2008/09
Portugal	10	12	11	12	9
Sweden	18	18	18	26	35
UK					2,770

Source: EU Commission 2011, p. 48.
Notes: 1. Germany and the UK data relate to Chinese nationals, irrespective of how long they had resided in the UK or (been scientific staff in) Germany.
2. For Portugal, the gender ratio was approximately 50:50, but in the UK males comprised 64.3%. MoE reported that most Chinese academics were male, aged between 30 and 40, commonly from HEIs in Beijing and Shanghai, and generally in fields such as Engineering.

At the Institutional level, a range of agreements and partnerships exist, with Germany being most active, followed by France and the UK.[68]

Again, however, increased restrictions on eligibility of high-skilled Chinese and others) to remain in Europe after their graduation limits the capacity of the Chinese knowledge diaspora to contribute to European science and innovation, as also their capacity to build effective bridges between China and their EU country of residence.[57–60,69]

At the national level, for example, of the total of 9513 individuals who were able to transfer their status from student to employee in France in 2011, only 1020 were Chinese, of a reported 20,800 Chinese students enrolled. Such students are allowed 6 months after graduation to find employment. By contrast, the UK confers a one-year Working Visa entitlement, on international students holding at least a masters degree. Corruption has been an intermittent problem (and not only in France), resulting in, *inter alia*, issuing of spurious qualifications by Agents to enable entry into French HEIs, and the dismissal of the Rector of Toulon University for trafficking of degrees.[70,71] Analyses of specific HEIs are somewhat more encouraging, with the University of Lille, for example, reporting that, 2.5 years after gaining their PhD, 93% of graduates were employed, nearly three-quarters in teaching or research posts. Of such graduates in 2006–208, however, six in ten were employed outside of France. Other national examples include Ireland, where Enterprise Ireland, *inter alia*, perceives Chinese returnees as 'affinity diaspora', with potential to act as enduring conduits between the two countries.

Conclusion – a Silk Road of Episteme?

What might be termed the epistemic Silk Road connecting Europe and China is by no means new; indeed, it is many centuries old.[72–74] Chinese scientific and technological

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innovations such as silk, the compass, paper, and printing spread to the West, while the waterwheel, an invention of Roman Syria, spread rapidly throughout Eurasia, including China. Key individuals, too, carried ideas from one region to the other, notably figures such as Li, Mado (Matteo Ricci) (1552–1610), who spent 27 years in China, was welcomed into Chinese academies, and eventually became Court Mathematician, and Marco Polo (1254–1324), who spent years at the fabled court of Kublai Khan, and, *inter alia*, mastered four local languages.[75,76]

Nor was this the only example of intellectual concourse connecting China to other parts of the world. Buddhist scripts were brought to China, particularly Xian, from India, by travelling monks in the late Han dynasty (202BCE to AD220). At about the same time, Buddhism spread to Central Asia, including current Afghanistan, which had already witnessed at least a millennium of Chinese cultural influence.[77–79] And, as indicated above, Chinese students had been sent abroad to learn and study in the late Qing dynasty,[36] while key figures in China's educational reforms of the early 20th century included such luminaries as Cai, Yuan Pei, who had studied in both France and Germany.

The current era, however is unprecedented in Chinese history. It is not so much the fact that the Chinese diaspora is now some 40 million worldwide (a larger population than that of many EU member states), but rather the increasingly high-skilled character of this talent pool, together with its widespread willingness to engage with China to boost scientific development, that provides such a catalyst for cooperation.[33,45] When combined with the more flexible mobility policies by the Chinese government, including the proliferation of overseas talent schemes, and its striking investment in higher education, notably including a rise of almost 20% per annum in R&D, and substantial investment in top-tier institutions, the prospects for extending collaboration and mobility are promising indeed.

It is notable however, that of the 14 recommendations in the recent commissioned study of EU–China Student and Academic Staff Mobility, only one dealt with the provision of 'support to better integrate in the host country/institution'.[80] Successful integration into the host environment is critical to feelings of well-being, and putting down roots, that are commonly expressed by members of the Chinese knowledge diaspora in major countries of migration, such as Australia, Canada, and the US, each of which is reaping the benefits of accommodating this growing talent pool.[22,23,45] While not a prerequisite, successful integration into the host culture is commonly an important preliminary to the forms of bridge-building activities reported by the Chinese knowledge diaspora. It is therefore of considerable concern that, at the same time, (as seen above) several EU member states are imposing more restrictive immigration provisions, which effectively inhibit post-study residential prospects for the Chinese knowledge diaspora (among others). Are such policies appropriate, given the EU's status as China's largest trading partner, with expressed plans, and lofty ambitions at both national and EU level, to extend and deepen educational and cultural relations?

2014 marks key developments in European science: the 60th anniversary of CERN, and the 30th anniversary of Europe's first Framework Programme, which provided key funding for research and development. Currently, Europe is in the midst

of constructing a Europe of Knowledge, including the related European Research Area Initiative, and the European Higher Education Area. These developments occur against a background of the unprecedented development of trans-national knowledge networks (the largest of which is Chinese), and a steep rise in papers co-authored by researchers from different countries.[14] The most recent survey of articles in science and engineering shows that the proportion of internationally co-authored articles grew from 16% to 25% of the total, over the period 1997–2012.[15] Organisations such as the Global Research Council, which includes senior representatives from Europe and China's research agencies, offer further options to increase this level of scientific collaboration.[81]

Given that there exist between 1.5 million and 5 million Chinese in Europe,[82,83] including, as seen above, thousands of highly qualified Chinese researchers, many of whom can act as bridge-builders between the two research communities, and given considerable goodwill on both sides, will a new Silk Road of knowledge result? In a context of intense global competition for talent, the EU's size, wealth, level of scientific and cultural development, and critical mass constitute significant advantages. At the same time, they must compete with major English-speaking nations, several of whom have long seen themselves as countries of migration, and which have developed carefully crafted targeted migration schemes, that focus on high-skilled migrants.[84] In addition, several countries in Asia, including rising stars such as Singapore, are now competing vigorously for research talent. Given the potential of a new Silk Road of Knowledge, however, Europe should spare no effort to exploit this potential on its doorstep, with considerable benefits possible for both sides.

References and Notes

1. 'Here lies a sleeping giant [in other versions, a lion]; let him sleep, for when he awakes, he will amaze the world.' President Xi, Jinping alluded to the expression on his visit to France, in April 2014, when he compared China to an awakened lion, but one who was 'peaceful, pleasant and civilized' (South China Morning Post (2014) "Xi Jinping says world has nothing to fear from awakening of 'peaceful lion' ", March 29th).
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