"To Think European": The ESA Approach to Space Cooperation with China (1976-1989)

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The relations between Europe and China are under the spotlight today, as part of the growing importance of Beijing in commercial trends. In fact, the trade of the People's Republic of China (PRC) with the Eurozone experienced a 68.2% increase in exports and a 117.5% increase in imports.[1] In addition, the Asian country has committed itself to scientific development with large investments. As for space sciences, China has been one of the foreign investors in the Galileo navigation system and the Dialogue on Space Cooperation with Europe has been launched in 2004.[2] The mutual work on space projects and the momentum in commercial exchanges might be related, but the former field shows one uniqueness at least: it presupposes a mutual understanding and rejects the opportunistic directness of trade. In particular, space cooperation concerns sensitive data, which are considered critical to the national interest.

This sort of collaboration was even more delicate in 1976, when a Chinese research centre established contacts with the European Space Agency (ESA). The Cold War was an influencing factor since the East-West exchanges seemed treacherous in terms of technological leakage.[3] This early context, thus, differed from the 2000s. Still, the latter accomplishments are often seen as an 'abrupt' improvement in the otherwise 'slack' Europe-China relations, as major investments are thought to mirror a proactive attitude of the contracting parties.[4] However, these assumptions mostly omit to consider the existence of pre-1989 dynamics. Other works refrain from analyzing the longer history that brought Europe and China closer in the technological field.[5] As a consequence, the recent Sino-European collaboration on space matters has been linked to the post-Cold-War world and, in particular, to multipolar dyna-

1. Estimate based on the *STAN Bilateral Trade Database by Industry and End-use*, OECD Statistics website (17.01.2018). Chinese exports to the Eurozone: 141,363,813 USD (2006); 237,850,036 USD (2016). Imports: 77,180,963 USD (2006); 167,905,837 USD (2016). For countries that joined the Eurozone recently, the years preceding their entrance were also considered.
2. Document 3.5, in: F. SNYDER (ed.), *The European Union and China, 1949–2008: Basic Documents and Commentary*, Hart Publishing, Oxford-Portland, 2009, p.415; Document 5.20, in: Ibid., pp. 850-852; Document 6.3, in: Ibid, pp.883-890.
3. A. VARSORI, *Storia internazionale dal 1919 a oggi*, Mulino, Bologna, 2015, pp.273-362; F. ROMERO, *Storia della Guerra Fredda. L'ultimo conflitto per l'Europa*, Einaudi, Torino, 2009, pp. 224-282.
4. V. NIQUET, *Space program*, in: D. PONG (ed.), *Encyclopedia of Modern China*, Gale Cengale Learning, Detroit, 2009, p.471; N. CASARINI, *Remaking Global Order. The Evolution of Europe-China Relations and its Implications for East Asia and the United States*, Oxford University Press, Oxford, 2009, pp.101-114.
5. V. LA REGINA, *Space as a Field and a Tool of International Relations*, in: T. HOERBER, P. STEPHENSON (eds), *European Space Policy: European Integration and the Final Frontier*, Routledge, London, 2005, pp.191-208.

mics.[6] Even when the starting point is recognized to be in the 1970s, these interactions are regarded like a pioneering effort that could only develop in the less-constrained panorama of the 1990s.[7] The fall of the Soviet Union was seemingly overlooked. Searching common aspects before and after 1989 might be reasonable, but the characteristics that are specific to the Cold War should be highlighted in any case.

For these reasons, this essay specifically addresses the issue of the Sino-European space cooperation during the Cold War, investigating its historical distinctiveness and its significance for later arrangements.[8] This essay focuses on the years between 1976 and 1989, as the ESA-China cooperation started in the second half of the 1970s, while the Tiananmen Incident caused a general standstill in the PRC foreign relations, which shortly anticipated the USSR demise. The cooperation between Europe and China undoubtedly worked in a completely different framework when it was resumed in the mid-1990s. This essay aims to bring in the European perspective as well as the Chinese one.[9] It examines documentary sources retrieved from the ESA records at the Historical Archives of the European Union (HAEU) and from Chinese collections of official papers.[10] In addition, documents from other archives are used to supplement the analysis.

The Sino-European relations on space technology developed on different levels, similarly to what happened for commerce: the community level and the bilateral levels. This essay focuses on the first level – on the perspective of ESA cooperating with China. It is an autonomous point of view if compared with each Member State's policy. ESA might be considered a thought-provoking case to understand the European interactions with China on a non-commercial level.

6. *Yearbook on Space Policy 2012/2013: Space in a Changing World*, Springer, Vienna, 2015, pp. 37-38; C. MATHIEU, *Assessing Russia's space cooperation with China and India – Opportunities and challenges for Europe*, in: *Acta Astronautica*, 66(2010), pp.355-361.
7. M. ALIBERTI, *When China Goes to the Moon…*, Springer, Cham, 2015, pp.253-304; R. HANDBERG, LI Zhen, *Chinese Space Policy: A Study in Domestic and International Politics*, Routledge, London, 2007, p.4.
8. I would like to thank the HAEU and Dr. Gherardo Bonini in particular. Special thanks to Director Dr. Dieter Schlenker, Dr. Davide Grossi and Dr. Jessica Clough. This paper is based on the results of a "Postgraduate Vibeke Sørensen Grant" at the HAEU, EUI, which were presented to the ESA History Project conference organized by ESA and the University of Padua, Italy (2017).
9. The quotations from documents in English are left unaltered, even when they differ from the American English standard. Chinese names are transcribed according to *pinyin*, while other transcriptions are used for best-known or untraceable names. The translations are made by the author.
10. The Chinese archives with post-1949 documentation are not accessible, but several edited collections of documents are available. See: C. KRAUS, *Researching the History of the People's Republic of China*, Wilson Center-Cold War International History Project(CWIHP), Washington, 2016.

From distrust to the contacts

Europe and China followed very different paths in developing space technology. Beijing pursued it since Mao Zedong stated its relevance, but the national program underwent several changes of course.[11] It was a matter of national security in the 1950s, as the country came out of a long semi-colonial rule, and it rested upon an autarchic idea of development. Nonetheless, the expertise for space development came from abroad. The father of Chinese space science, Qian Xuesen, had been trained at the California Institute of Technology, before moving to Beijing. Until the 1970s, the main feature of the Chinese space program was the attention to material achievements, such as satellites, which became the peak goal for the government. In fact, when the first satellite Dongfang Hong 1 (The East is Red 1) entered orbit in 1970, official records stated that it was planned to last for an entire century. This stance was apparently challenged by the Cultural Revolution. The so-called 'leftists' opposed other officials' temperance and urged the government to challenge the USSR and the US. They wanted the PRC to become one great Power in space. In a surge of fervour, the dedicated motto stated, "satellites fly up in the sky, red flags fall on the Earth".[12]

The European Space Agency was founded in 1975, but the member countries had experienced a long history of cooperation with ELDO and ESRO.[13] ESA inherited their ongoing plans, but it also put forward new first and second package deals. The creation of the Agency revolutionized the old decision-making process, having the executive organs in constant consultation with the scientific community. The directing managers took charge of a ground-breaking plan of activities that aimed towards science studies, telecommunications, meteorology and aeronautics.[14] The Agency's highest bodies acquired more independence and the ability to take the initiative was going to be central with China. Obviously, the Council of the Member States remained a critical moment to have the most important decisions validated.

In 1976, a few months after the creation of ESA, some scientists from the PRC made a move at an American conference.[15] They were appealed by the European improvements in telecommunications and maritime broadcasting. The Chinese delegation stressed the desire to talk with "an international organisation representing

11. B. HARVEY, *China in Space: The Great Leap Forward*, Springer, New York, 2013; *Zhongguo Hangtian Wenhua*, Huanan Ligong Daxue Chubanshe, Canton, 2001, pp.9-199.
12. *Makesi zhuyi shi zhinan haishi gongshi?*, in: *Dushu*, 90(1986), p.59.
13. *Celebrating Half a Century in Space. Recollections of the 2014 Anniversary Events*, ESA-Beauchesne, Paris, 2015; *Fifty Years of European Cooperation in Space. Building on its Past, ESA Shapes the Future*, ESA-Beauchesne, Paris, 2014; J. KRIGE, A. RUSSO, L. SEBESTA, *A History of the European Space Agency*, Vol.2, ESA, Paris, 2000, pp.1-35.
14. D. CAVIGLIA, *Politics in Space. US-European Negotiations for Intelsat Definitive Arrangements*, in: *Journal of European Integration History*, 1(2003), pp.61-85.
15. HAEU [Historical Archives of the European Union], ESA-6910, Memo by T. Howell, 25.05.1976. See also: T. HOWELL, *MAROTS – The mission*, in: *AIAA/CASI 6th Communications Satellite Systems Conference, Montreal, Canada, April 5-8, 1976*, AIAA, New York, 1976.

Europe".[16] This statement was by no chances accidental. In fact, the period of the first ESA-China interaction was also the period of the diplomatic normalization between China and the European Economic Community (EEC). In May 1975, the Vice-President of the European Commission, Christopher Soames, travelled to Beijing and broke the hesitancy to establish relations with the People's Republic.[17] In the next two years, the negotiations produced a trade agreement at the community level. The leitmotif of these consultations was the détente and the Nine expected to work it out inside the framework of European Political Cooperation, away from the influence of the Soviet bloc.

The concurrence of the diplomatic normalization and the establishment of scientific contacts showed that ESA and EEC were linked, at least in the Chinese eyes. Certainly, the Agency and the community worked as separate entities and had independent decisional mechanisms, but most of the ESA founding members were also part of the community. These countries possibly brought forward similar stances in both contexts. Other Member States – Sweden and Switzerland – were instead outside the economic organization. Therefore, the sum of the interests expressed in the EEC and the sum of the interests expressed in ESA were unsymmetrical. They could not be dovetailed, even though they shared linkages. Despite these circumstances, the Chinese leaders saw the ESA space program as a factor of unity for Europe. Beijing was indeed the first socialist government to recognize the EEC, and Chinese diplomats eventually expressed the hope that Europe would turn into a strong political entity by building its own security facilities.[18]

Consequently, the Chinese attempt to work with Europe on space development was likely inspired by the significance that Beijing gave to the diplomatic normalization. Since the beginning, the PRC government made steps to build a trusting relationship and boost different sectors such as economics, culture and science. By addressing sensitive subjects like space technology, China expressed the desire to develop a political dialogue too. Certainly, the PRC foreign policy had been based on class-struggle views until that moment, and the situation changed only years after the death of Mao Zedong.[19] Non-USSR Europe looked 'bourgeois' to the communists' eyes, but their foreign agenda had previously allowed the possibility to develop relations with the US allies in order to exploit their alleged 'contradictions'.[20] As for Western Europe, Mao Zedong had stated that those countries were "unsatisfied" with the hegemony of Washington and they could become strategical partners.

16. Cited, memo by T. Howell, 25.05.1976.
17. M-J. CHENARD, *Seeking Détente and Driving Integration: The European Community's opening towards the People's Republic of China, 1975-1978*, in: *Journal of European Integration History*, 1(2012), pp.25-38.
18. French Foreign Ministry, 752INVA/2174, Conversation between Jacques Chirac and Deng Xiaoping, 12.05.1975 (digitized by CWIHP).
19. YANG Kuisong, *The theory and implementation of the People's Republic of China's revolutionary diplomacy*, in: *Journal of Modern Chinese History*, 3-2(2009), pp.127-145.
20. CHEN Jian, *Mao's China and the Cold War*, The University of North Carolina Press, London, 2001, pp.1-16.

Leaving aside these ideological twists, the PRC leaders needed foreign help to build an ambitious space program. Europe probably seemed the partner that might share high-level technology and impose few limitations. The reference to the political value of space cooperation was indeed sensed by ESA managers. The Director-General, Roy Gibson, was warm in answering to the Chinese, but he refrained from giving a thorough response.[21] The Head of the International Branch, Jean Arets, refused to send this matter to the Council and recommended a discreet behaviour.[22] The Chinese were to be told that "the technical possibilities of cooperation exist, but the political problems outside our jurisdiction also exist".[23]

Only the post-Maoist transition and the rise of a new leadership permitted to overcome the deadlock. The death of Mao Zedong in September 1976 definitively ended the Cultural Revolution, while a new generation of leaders overpowered the 'leftist' group in the Communist Party of China (CPC).[24] After being condemned in the past turbulences, Deng Xiaoping was rehabilitated in 1977 and rose to be the leader of the shift towards the mixed economy. The relevance of scientific research also changed. In a eulogistic article, the People's Daily celebrated the first ground station for digital satellite communications as "a victory".[25] The above-mentioned motto of the 'leftists' was denounced as counter-revolutionary and was replaced with a new slogan: "overthrow the Gang of Four, liberate the scientific research". The space industry moved from the idea of an "unaided" development to a more open disposition.

The opportunity to establish relations with Chinese space institutes was favoured by the international context. The People's Republic had entered the UN in 1970. It obtained the Chinese seat at the Assembly and the Security Council, thus paving the way to become an influential actor. Beijing eased the informal relations with the United States after President Richard Nixon's travel to China, but the actual US-PRC normalization remained under discussion throughout the 1970s. Deng Xiaoping gave a renovated image of the country in Europe. On the other hand, the EEC experienced a positive trend in that decade, notably creating the European Council and enlarging itself with the admission of Denmark, Ireland and the United Kingdom. The EC also

21. HAEU, ESA-6910, Gibson to Yeng Hung Mo, 14.04.1976; memo by J. Arets Attitude à l'égard de la Chine, 01.06.1976.
22. According to his memoirs, Gibson informally raised the issue to the British diplomats in Paris, who had confirmed the interest of Beijing in ESA. However, they advised him against bringing it to the ESA Council, as "that's not within your remit". See: *Roy Gibson Interviewed by Thomas Lean* (C1379/19), in: *National Life Stories. An Oral History of British Science*, The British Library, London, 2010, pp.122-124 (according to the other sources hereby surveyed, the referred year was 1976, not 1977).
23. Cited, memo by J. Arets, 01.06.1976.
24. L. BIANCO, *Recidivism: A Comparison of the Russian and Chinese Revolutions*, Chinese University Press, Hong Kong, 2018, pp.224-228; E.F. VOGEL, *Deng Xiaoping and The Transformation of China*, The Belknap Press of Harvard University Press, Cambridge, 2011, pp. 217-376; B. HARVEY, *China in Space…*, op.cit., p.46.
25. *Woguo jiancheng di yi ge shuzi zhi weixing tongxin dimianzhan*, in: *Renmin Ribao* [*People's Daily*], 08.11.1977.

pushed in the direction of cooperation with the Third World through the Lomé Convention. The community even set the agreement on a non-reciprocity basis with a system of prices stabilization. The main purpose was to create a protected economic area for European enterprises, which was actually based on former colonial ties. The European initiative and the Chinese one seemed thus to have a certain latitude. Washington and Moscow, instead, struggled with their own foreign policies, as the cases of Indochina and Afghanistan showed.

In the springtime of 1977, the ESA Member States were finally presented with the possibility of receiving a Chinese mission and they were kept informed of the visit.[26] China might have done the first move, but Europe soon followed up. The ESA-China dialogue was resumed from the previous year's response of the Director-General. The initial request came again from the PRC, namely the Chinese Institute of Electronics, whose main board member Lei Hong asked ESA to be invited for a two-days introduction to the Agency's activities. The acknowledgement to this request was sent again in Gibson's name, not in ESA's. However, the visit actually took place this time. This gave proof of the intention to go through with the idea of establishing ties.

The Chinese delegation wished to learn about programs concerning satellites. Yet, this interest was unrelated with the experience of Dongfang Hong I. In 1977, Beijing was appealed by new opportunities, such as broadcasting technology, which became one significant line of development for the PRC.[27] Gibson accepted all the delegation's requests. The final schedule (12 and 13 September 1977) included a visit to the European Space Research and Technology Centre (ESTEC) in Noordwijk, Netherlands.[28] Besides broadcasting, the topics of conversation included remote sensing and weather monitoring. Even the national programs of some ESA Member States were discussed. France and other countries had requested to manage the contacts on their own.[29] These dynamics were common, but they also showed the reliability of the European interest in the PRC space development.[30] ESA accepted these requests, but pre-arranged the discussion with the companies and asked to be informed of the re-

26. There are no references of discussions in the Council. See: HAEU, ESA-6911, Teng Kuo-chun to Gibson, 21.03.1977; Teng Kuo-chun to Gibson, 16.05.1977.
27. B. HARVEY, *China in Space…*, op.cit., pp.135-171.
28. HAEU, ESA-6911, Chinese mission to Europe, 31.05.1977; Final visit of the Delegation from the Chinese Electronics Society, 20.09.1977. ESA-6910, Gibson to Teng-Kuo-chun, 06.06.1977; Chinese mission to Europe, 30.06.1977; Delegation on Satellite Communications from Chinese Electronics Society, [12.09.1977]; Visit of the Chinese Electronics Society Delegation to ESTEC, 23.09.1977.
29. HAEU, ESA-6911, Quay d'Orsay to Van Reeth, 21.07.1977.
30. For example, a scientific mission from China visited ENI (Ente Nazionale Idrocarburi) in 1959. The visit was organized in the context of a long trip in Europe and involved other companies. See: AsENI [Archivio Storico dell'ENI], "Eni/Estero", "Assistente del Presidente per i rapporti con l'estero", UDC-69, NUA-1FA3, Visit schedule, 16.04.1959.

sults, especially in the Italian case.[31] In the end, Lei's general impression was positive. He explicitly foresaw "a favourable condition for the future cooperation in space activities between China and Europe".[32] In December, a courtesy visit of an organization linked to the Beijing University of Aeronautics and Astronautics expressed interest for the ambitious European project of the Ariane rockets.[33] The missile Changzheng 3 (Long March 3) started indeed to be designed in the 1970s.

The work to establish relations

The Lei mission outlined a scenario in which many obstacles were still on the way, but a strong possibility of mutual understanding existed. From that moment onward, the visits of Chinese experts became opportunities to explore scientific and non-scientific matters.[34] All these points had to be dealt with different organizations because China had more than one institute working on space matters. The reference points for ESA were the Chinese Academy of Sciences (CAS) and the Chinese Society of Astronautics (CSA).

The Academy was a top-level association in the PRC. It was the heir of the well-known Academia Sinica, which was created by the nationalist government before 1949.[35] While another visit to ESTEC was being arranged, a proposal to send a mission to China was forwarded to ESA, most probably from CAS itself. Arets considered this move as "a real demonstration of interest for the European capabilities in space matters".[36] Consequently, he suggested three conditions. First, a minimum consensus needed to be raised among the Member States. Second, the expenses had to be paid by Beijing for reciprocity reasons. Third, the delegation should include

31. That year, the Italian satellite Sirio was moved to a geosynchronous orbit to help Chinese testing. See: B. HARVEY, *China in Space*, op.cit., p.100; HAEU, ESA-6911, Visit of the Delegation of the Chinese Electronic Society to the Italian Space Industry, 21.10.1977.
32. HAEU, ESA-6911, Lei to Gibson, 06.11.1977.
33. HAUE, ESA-6910, Courtesy visit of 11 representatives of the Aeronautic and Astronautic Society, 06.12.1977.
34. For example, see the Italian case: L.M. CAPISANI, *Telling the New from the Old: Commercial and Political Discourses between Italy and China during the Cold War (1949-1962)*, in: F. GUARDIANI, G. ZHANG, S. BANCHERI (eds), *Italy and China: Centuries of Dialogue. Proceedings of the International and Interdisciplinary Conference held at the Department of Italian Studies, University of Toronto (April 7-9, 2016)*, Francesco Cesati Editore, Florence, 2017, pp. 253-272.
35. In some documents, the Chinese Academy of Sciences appears with the name Academia Sinica, possibly claiming its legacy. On 1949-1976 see: C.N. WEI, D.E. BROCK (eds), *Mr. Science and Chairman Mao's Cultural Revolution. Science and Technology in Modern China*, Lexington Books, 2013, pp.1-41.
36. HAEU, ESA-6910, Lettre de la Chinese Electronics Society, 07.07.1978.

scientists, administrative staff and political representatives. Gibson suggested that he led the delegation himself.[37]

The other interlocutor of ESA was the Chinese Society of Astronautics. It was founded in the late 1970s and enjoyed the participation of Qian Xuesen.[38] The society was connected to the Academy of Space Technology, given the fact that both organizations shared the same "head", Ren Xinmin.[39] He was a research doctor that worked with Qian and was specialized in rockets. The Europeans found it difficult to understand Chinese organigrams, while the Chinese found it difficult to understand the coexistence of ESA and other facilities across Europe. Consequently, CSA sent a delegation to visit ESTEC (November 1978). The delegates explained the organigram of Chinese space agencies, indicating the Academy of Space Technology as the organization "most similar to NASA and ESA". The mission leader Wu Peng, board member of CSA and Vice-President of the academy, emphasized the Chinese improvements on science matters and announced five new satellites.[40] He also proposed training courses for Chinese personnel at ESTEC. The situation was considered as another point in favour of an ESA mission to China.

This first mission was authorized in December 1978 and included delegates with different national origins in order to represent five of the eleven member-states. The mission (12-19 February 1979) was composed of Gibson, Raymond Fife from the International Affairs branch, key members of the Agency, experts of communication satellites, experts of remote sensing, experts of the Ariane projects, and administrative personnel.[41] Presentations on these subjects were planned in addition to earth observation.[42] The examined areas of cooperation increased and, above all, the idea of an agreement was discussed for the first time. The goal was cooperation on a purely scientific level with mutual visits, exchanges of staff, lecture courses, and sharing of information. All the parties chose to proceed by degree and reach a preliminary understanding with an exchange of letters.

37. Gibson had a certain experience with Asia and China. He served in the British colonial service (1948-1958) and was deployed in Malaysia, where a strong Chinese community lived. He learnt Hokkien and Cantonese. See: *Roy Gibson Interviewed by Thomas Lean*, op.cit., pp.52-80; here, p. 59.
38. *Zhongguo Kexue Jishu Xiehui nianjian* [CAST Yearbook], Zhongguo Kexue Jishu Chubanshe, Zhongguo kexue jishu chubanshe, Beijing, 2005, pp.289-291.
39. *Waishi wang lai*, in: *Renmin Ribao*, 06.08.1978, p.3. CSA was supposedly founded in 1979, but it seemed already active in 1978 according to HAUE sources and the People's Daily, if there were not cases of homonymy. The President apparently was Ren Xinmin, not Qian Xuesen, but the two had worked together.
40. HAEU, ESA-6911, Visit by the Delegation of Space Technology of the CSA, 01.12.1978.
41. Roy Gibson (Director-General), René Collette (Communication Satellites), Peter Creola (Ariane Programme), Raymond Fife (International Affairs), Preben Gudmandsen (Remote Sensing Programme), Heinz Haberle (DFVLR Board of Directors), Marius Le Fevre (Administrative and Finance), Edmund Mallett Chairman (Joint Communications), Raymond Orye (Ariane Launcher Programme), Donald Ting (Directorate of Scientific Programme) and Massimo Trella (Technical Director).
42. Visits: Electronics Society, Society of Astronautics, Peking Meteorological Centre, Peking Institute of Control Engineering, Academy of Sciences and its Shanghai Institute of Applied Physics.

All the European delegates were requested by ESA to write down their impressions. The reports became the starting point of the discussion on establishing official relations with the PRC space organizations. According to some reports, the Chinese side had already shown its willingness. In May 1979, the ESA Council preliminarily gave a positive response to further discuss the issue.[43] The decision was unanimous on the sole condition that the collaboration was going to be official. ESA became the authorized organization to discuss with China. Reciprocally, Beijing had to avoid the proliferation of contacts and should designate a reference organization too. The State Science and Technology Commission was chosen because it was under the PRC State Council. On both parts, there was a seeming desire to build long-lasting relations.

Once more, the improvement of the relations went together with the improvement of the general relations between EEC and China. The first Sino-European trade agreement was signed in 1978 and several specific treaties followed in 1979-1980.[44] Commerce was the first main issue discussed after the normalization and it was considered as the first milestone of the relations. Historically, trade had a primary relevance for Europe and China.[45] Since the end of the Korean War, which marked the first far-reaching crisis of the Cold War, many Western countries and the People's Republic had started friendly interactions that consisted of regular economic exchanges. In this context, "technological cooperation" essentially meant technological assistance. For example, the Italian company ENI pursued the project of supporting Chinese industrialization in 1958-1963 and successfully delivered an entire rubber plant to China.[46] Fifteen years later, commerce was still a driving force for ESA and China.

The difference with the past was that trade was not going to be the ultimate goal of the cooperation. Gibson precisely addressed this issue when he submitted a report to the ESA Council. The Director-General, since the beginning, argued that the possibilities of a profitable commerce were going to be limited.[47]

> "The main reason for Europe to cooperate with China is possibly its political value […] namely, the advantage to Member States collectively of establishing good cooperative links with this important region of the world. […] If a need or a problem arises, [the Chinese] think American. It is time that a concerted attempt be made to have a number of Chinese scientists and technicians who, under the same circumstances, think European".[48]

This strong statement reassessed the value of cooperation as an instrument to build a trusting relation between political entities. The gain was to have a new partner that

43. HAEU, ESA-6910, Gibson to Wu Talan, 18.05.1979.
44. Document 2.1, in: F. SNYDER (ed.), *The European Union and China…*, op.cit., pp.58-62.
45. M. YAHUDA, *The Sino-European Encounter: Historical Influences on Contemporary Relations*, in: D. SHAMBAUGH, E. SANDSSCHNEIDER, HONG Zhou (eds), *China-Europe Relations: Perceptions, Policies and Prospects*, Routledge, London, 2008, pp.13-32.
46. L.M. CAPISANI, *Telling the New from the Old*, op.cit., pp.265-268.
47. HAEU, ESA-6910, CAB/INT/1.41/RF/FS/5438, 11.04.1979; *Relations With Non-member States: China*, in: *ESA Annual Report*, 1979, p.149.
48. HAEU, ESA-6910, Note on the ESA Visit to China and Future Cooperation, pp.1 and 3.

was independent from both the superpowers. Gibson seemed to make a fine distinction between the collaboration on space matters at the general level and the many collaborations on space matters at bilateral levels. In fact, the primary concern for ESA was scientific. The commercial applications might have followed, but they remained in the background for ESA and they would be eventually handled by agreements between Beijing and the European states.

London, Rome and Paris – to give an example of three influential ESA members – showed subtle differences in their positions towards China. The UK was favourable to cooperate with developing countries, such as Japan. A similar stance towards the PRC was shared by Italy and France, but the premises diverged. The point in question was again the relationship between the community level and the bilateral levels. The UK believed that the cooperation in Europe had to correspond to a common foreign policy and two-sides treaties should result in a coordinated effort.[49] There should be a unified strategy to ensure the best results. In Italy, the institutional interest for China originated from cross-party interactions that included members of the majority.[50] The cooperation with China was believed to benefit the Italian economy and even the Soviet Union tried to counter this persuasion by warning Rome that this policy may lead to dangerous technology leakages.[51] France had normalized relations with the PRC in 1964, long before other Western European countries. In the late 1970s, the Sino-French cooperation developed in the transportation sector and opened prospects, granting specific loans and a credit line to facilitate the imports of China.[52] Rome and Paris seemingly had more hesitations in supporting the common cooperation with China because it threatened to undermine the progress that each country had made.

The ESA officials remained the main supporters of this collaboration. Gibson found room to manoeuvre by setting up a comparison with the US policy towards technological exportation to the PRC. It is interesting that the Director-General stressed the political value of the cooperation with China, but refrained from making connections with the détente. Instead, he foreshadowed a competition with NASA to win the Chinese scientists' respect. Indeed, the US government received internal requests to increase the high-technology exports to China, but this possibility was circumscribed by the adverse position of Moscow that wanted to prevent Beijing from

49. Guidance tel. 159 AMU 3/507/1, 15.10.1973, in: *Documents on British Policy Overseas*, Vol.3(4), Routledge, London, 2006, [CD-ROM]. UK History and Public Policy Program, RG 59, Entry UD-UP 131, INR/DDR, Bureau of Intelligence and Research, Reports Coordination and Review Staff, Research Memoranda 1961-1963, box 132, RFE-44-RM, research memo Japan's Reaction to a Chinese Communist Nuclear Detonation, 01.10.1962 (digitized by CWIHP).
50. Visita di Vittorino Colombo, 23.05.1978, in: MAE [ITALIAN MINISTRY OF FOREIGN AFFAIRS], *Testi e documenti sulla politica estera dell'Italia*, Ufficio studi, Rome, 1979, pp.164-165.
51. See the discussion on a 1978 letter from Breznev to Andreotti: *Gromiko a Roma in un momento difficile dei rapporti tra l'Italia e l'Unione Sovietica*, in: *Roma*, 23.01.1979.
52. *Economic infrastructures: railways*, in: *China News Analysis*, n.1120(1978). See also: M. ALBERS, *Britain, France, West Germany and the People's Republic of China, 1969-1982*, Palgrave-MacMillan, London, 2016, pp.175-182.

"building up its anti-Soviet military capabilities".[53] In 1979, the US-China diplomatic normalization and the Soviet invasion of Afghanistan, which was condemned by Beijing, seemed to change the situation, vanishing the strategical advantage of European countries and stirring Beijing towards Washington.

Europe still had the advantage to introduce itself as the result of a large integration initiative. Beijing was attracted by the 'civil essence' of ESA. The Agency barely acted as a competitor in the space race. Instead, it looked like the expression of the economic and institutional dynamism of Europe. Innovations, such as satellite television, certainly impressed the Chinese politicians, but science concerned them not only for its possible use in consolidating the Communist Party's power. Since the late Maoist era, Zhou Enlai had stressed the relevance of the civil use of science, for example monitoring weather changes and stabilizing the agriculture.[54] In Deng Xiaoping's China, space development was given the same consideration. For example, Deng asked the US Ambassador to see examples of their most advanced technology during his Washington visit.[55] There was also concern for the fear of wasting resources. In fact, Deng is also reported to have declared that "we are not taking part in the space race. There is no need for us to go to the moon".[56]

All these dynamics helped Gibson's efforts to promote the cooperation with China and facilitated the mentioned exchange of letters, which satisfactorily ended in December.[57] This correspondence was the basis for an agreement that was ratified and entered into force since 11 July 1980. All the draft points were confirmed: a "mutual familiarization" was prospected to be carried out, no exchange of funds was considered, and the text provided for separate arrangements of the European agency with other Chinese organizations. Only four years had passed since ESA's negative response caused by the "political problems outside our jurisdiction". In 1980, the state of the ESA-China affairs turned upside down.

This achievement was also facilitated by the challenges to the European balance. The personalities and the politicians promoting the EEC showed the intention to take the initiative with the ESA-China affair. They emphasized the opportunities that might come out of a common strategy. In addition, they aimed to give a strong signal, not only to the US and China, but also to the new generation of European leaders that emerged in that period. Some of them, like Margaret Thatcher, criticized the European Community. Similarly, dealing with the Chinese seemed to be part of a more ambi-

53. DEPT. OF STATE, *Foreign Relations of the United States*, Vol.1977-1980-13, Washington, 2013, Memo, 14.10.1977, pp.256-257.
54. ZHOU Enlai, *Jiaqiang qixiang gongzuo*, 30.07.1972, in: *Zhou Enlai xuanji* (xia), Renmin Chubanshe, Beijing, 1980, pp.472-473.
55. D. OBERDORFER, *Teng and Khrushchev*, in: *The Washington Post*, 05.02.1979.
56. B. HARVEY, *China in Space*..., op.cit., p.46.
57. HAEU, ESA-6912, CAB/INT/1.41/RF/DP/16214, 19.12.1979; ESA-5122, Certified copy of the agreement, 15.09.1980.

tious plan to strengthen ESA, so that the Agency's activities would not be circumscribed by national programs and its existence would not be disputed.[58]

Exploring areas of cooperation

Once the terms were established, ESA and the concerned organizations of the PRC indulged in a prolific and steady cooperation. The European agency established contacts with new Chinese institutes, such as the Space Science and Technology Centre (SSTC).[59] It was a section of the Chinese Academy of Science that was involved in the national plan for space development.[60] The Centre was interested in sharing satellite data.[61] In this regard, Chinese scientists had already started using multispectral scanners, but they wished to build sensors on their own. It was time for a long-term plan in China, setting up a new series of receiving stations. SSTC asked ESA to use each other's stations, indicating Earth observation as the main goal.[62] In addition, Beijing planned an experimental remote-sensing satellite and, consequently, ESA established contacts with the China Academy of Space Technology (CAST), which reported to the ministry on platforms and payloads.

Secondly, the Chinese centre was interested in a system similar to Earthnet, which ESA established for US data in connection with European reception facilities. Thirdly, the Central Bureau of Seismology, which was under the PRC State Council and worked with the SSTC Institute of Space Physics, shared its interest in earthquake prediction. At the time, many scientists were optimistic about such an approach.[63] The field was one of the most funded in Mao's and Deng's China. An MIT report of the time attested "250 seismic stations, 5,000 observation points, and 10,000 trained workers for earthquake observation".[64] Researchers gathered massive amounts of historical records to elaborate a chronological map of earthquakes in the country.

58. Roy Gibson specified in the same terms his ambitions as Director-General during a brief conversation with the author (11.09.2019).
59. HAEU, ESA-6915, Visit to ESA by the Space Science and Technology Delegation of the CAS, [20.12.1979]; ESA-6913, Information to the CAS on Earthquake Prediction, 28.12.1979; CAB/INT/RF/DP/16877, 03.01.1980; ESA-6912, Relations with the PRC, [1980].
60. It survived until today, changing names and ultimately becoming the National Space Science Centre.
61. *Science Progress in China*, Science Press, Beijing, 2013, pp.415-421.
62. This is a field of cooperation that has survived until today. See: B. GILL, M. MURPHY, *China-Europe Relations. Implications and Policy Responses for the United States*, CSIS, Washington, 2008, p.25.
63. It is instead rejected today. See: HUANG Fuqiong, LI Mei, MA Yuchuan, HAN Yanyan, TIAN Lei, YAN Wei, LI Xiaofan, *Studies on earthquake precursors in China: A review for recent 50 years*, in: *Geodesy and Geodynamics*, 8(2017), pp.1-12; R.J. GELLER, D.D. JACKSON, Y.Y. KAGAN, F. MULARGIA, *Earthquakes Cannot Be Predicted*, in: *Science*, 275(1997), pp.1616-1617.
64. C.-K. JEN, *Science and the Open-Doors Educational Movement*, in: *The China Quarterly*, 64(1975), pp.741-747.

Another reference point was the Institute of Scientific and Technical Information of China (ISTIC), founded by CAS and later moved under the State Commission of Science and Technology.[65] Its main tasks were to collect data on the national plans of development and give guidelines to researchers. This database had rapidly developed since 1976 and became the largest system in Europe with 50 databases and 25 million of searchable records in 1985.[66] ESA, SSTC and ISTIC worked on a major point: the inclusion of China in the IRS (Information Retrieval System).[67] The inclusion of China needed a careful planning because the Chinese documents, written with sinograms, might be incompatible with a Western-based system. ESA and UNESCO offered training courses to overcome the obstacles.[68] The request was discussed in the ESA Council and found the national representatives well-disposed.[69] Only the Spanish and the German delegations had concerns. Spain asked that the IRS activities for the benefit of non-Member States were kept to a minimum (4.5%). Germany wondered about the degree of reciprocity with China and recommended to keep track of these exchanges. In the end, the Council unanimously approved.

Furthermore, ESA made significant efforts to 'understand the other'. The Chinese institutional organigrams and the decision-making process might be difficult to grasp. For example, several researchers' academic statuses and their positions were often unclear. The Agency met the challenge and the preparation of the missions to China was accurately organized.[70] Some managers are recurrent, as they acquired a sort of expertise with the Chinese. In particular, the Head of the International Affairs Branch, Raymond Fife, became a point of reference.[71] When Gibson left ESA, the succeeding Directors General, Erik Quistgaard and Reimar Lüst, continued supporting the prospects of cooperation with the PRC.

However, contradictory voices emerged from time to time. Although the 1980 agreement seemed widely supported, the Agency officials quarrelled on how further the cooperation should go. Some proposed shared investment and a partnership that might give a considerable edge to ESA. If this decision was taken, it would eventually strengthen the ties with Beijing to the disadvantage of Washington. For example, an appealing proposal was joint ventures, suggested by Chinese delegations.[72] Raymond

65. HAEU, ESA-6914, The Institute of Scientific and Technical Information of China, [1980].
66. C.P. BOURNE, T. BELLARDO HAHN, *A history of online information services, 1963–1976*, The MIT Press, Cambridge, 2003, pp.304-306; *Aerospace and Space Flight Collections*, Haworth Press, New York, 1985, p.213.
67. HAEU, ESA-6914, Inclusion of Chinese documents in IRS?, 10.04.1980.
68. HAEU, ESA-7745, ESA IRAC report, 21.02.1982; HAEU, ESA-6914, Draft agreement on IRS, 17.03.1983.
69. HAEU, ESA-6942, ESA Council 6th meeting draft minutes, 25.11.1983, p.31.
70. For example, see: HAEU, ESA-7909, Background notes on China, [1986]. The notes included even peculiar elements, such as the indications of "male" and "female" for Chinese restrooms. The "Politics" section stated that "since the death of Mao the government has been moving towards a less rigid form of Communism", yet "the Chinese regard all foreigners as Barbarians" and are interested "only in the technological achievements".
71. HAEU, ESA-6910, Letter from Gibson, 27.09.1979.
72. HAUE, ESA-6912, Possible China-ESA joint venture, 07.02.1980, 03.03.1980 and 06.03.1980.

Fife and the head of the cabinet, Wilhelm Brado, made a formal request in this regard. As other officials opposed to it, Fife and Brado tried to make their point, emphasizing that a prejudicial position against China was a mistake.

> "Due to the present political circumstances, China is turning more and more towards the USA […] Politically, this is an opportunity for linking China with Europe. There are no others apart from long term good intentions. If no action is taken, it may soon be too late to initiate a real cooperation with China".[73]

The best opportunities, then, seemed to lie in assisting the "intermediate" stage of the PRC development, which referred to the moment when Chinese "capabilities will need to be supplemented by technically more advanced countries".[74] The remarks of pro-China officials were confirmed by the growing interest of the People's Republic in expensive goals, such as human spaceflight. These projects were still secondary in the PRC 'civil' space program, but two Chinese astronauts had been already sent to NASA for training.[75] The debate inside ESA raised the issue of the actual goals that this cooperation should have.

The same debate on China was mirrored in the larger context of the European Community. Positive signals came from the Community institutions, especially the Committee on External Economic Relations.[76] In 1983-1984, it advised the Parliament to regard the political significance of the PRC for security matters. By contrast, the ones who opposed tightening the ties with China stressed its nationalistic stance: one way or the other, the PRC seemed to have a limited idea of cooperation. Indeed, when a leader on the rise like Li Peng attended the National Meteorological Briefing Conference, he anticipated more investments to catch up with developed countries, but he remembered the deep tie between scientific discoveries and civil applications.[77] On the other hand, this was the same choice of many developing countries.

The divergence of European opinions on China seemed motivated by the transformations of the two international actors and their responses to regional challenges. As for Europe, the pro-integration politicians gained new strength. The election of Jacques Delors as President of the Commission remarked this tendency. The French-German mutual understanding, promoted by François Mitterrand and Helmut Kohl, went further in the way of prospecting a major role of Europe as a whole, particularly since the change of leadership in the USSR foresaw other substantial transformations. The concurrence of the Europeanist efforts was the premise for the Single European Act.

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73. Cited, Possible China-ESA joint venture, 06.03.1980.
74. HAEU, ESA-6912, Letter from Fife, 05.03.1980.
75. *Zhonghua Renmin Gongheguo ri shi*, vol.35, Sichuan Renmin Chubanshe, Chengdu, 2003, p.155.
76. HAEU, PE1-18102, Document 1-1345/83, Report on economic and commercial relations between EC and PRC, 08.02.1984.
77. *Zhonghua Renmin Gongheguo guoshi tong jian*, vol.4(3), Dangdai Zhongguo chubanshe, Beijing, 1993, p.388; *Zhonghua Renmin Gongheguo ri shi*, vol.40, Sichuan Renmin Chubanshe, Chengdu, 2003, pp.13-14; HAEU, ESA-7766, Information paper for the IRAC, 30.12.1982.

The People's Republic tried to acquire a role in East Asia by expanding its development. The case of the Special Economic Zones (SEZ) is significant, as it aimed to connect with communities of overseas Chinese, which were disseminated all over East and Southeast Asia. Generally, Beijing went beyond the phase of enthusiastic appreciation for the economic experimentation and faced disagreement. In particular, the Chinese war industry went under reorganization. Although the 'people's war' remained a central concept, the rearrangement included improving missile technology for military use.[78] This stirred concerns, especially since the PRC had frictions with the UK over Hong Kong. This latter issue was settled only in 1984-1985.

On space matters, Beijing acquired a polemic slant in defence of the underdeveloped countries. When China adhered to the Outer Space Treaty, the State Council stressed that it was "in accordance with the aspirations and demands of the Third World".[79] This move was meant to 'preserve' the rights of those countries that would arrive late to space technology. Even space had to be protected from the Cold War. Beijing – just like Brussels – seemed to expect major changes at the international level. Deng Xiaoping shared this idea in Japan, stating that the risks of war were linked to the lack of agreements on space armaments.[80] The situation compelled to less dogmatic positions: "the forces that can deter it are growing, and we find that encouraging. The Japanese people do not want war, nor do the people of Europe".

The Chinese position was confirmed by the fact that space research became increasingly significant for the PRC. In the past, the aerospace industry had been connected to military uses. In 1965, the security aspect was separated from the scientific one. Space development was put under the ministry of Machinery Industry and was managed by a specific office: the Seventh Machinery Department. In 1982, the latter body's functions were transferred to a completely independent institution: the ministry of the Aerospace Industry (MOA). Its tasks were to implement the government guidelines, elaborate long-term plans, lead the creation of industries and promote scientific research. The Minister Zhang Jun started a large plan of international cooperation, which interested not only the Europeans but also the Americans and the Columbus spacelab.[81]

ESA tried to meet this stance and welcomed the opportunity of a "very high level visit" of Minister Zhang to Europe. He was later deputized by the Vice-Minister (and future Minister) Li Xu'e.[82] The delegation (11 and 21 February 1985) held meetings

78. E.F. VOGEL, *Deng Xiaoping…*, op.cit., pp.543-546.
79. PRC State Council on space cooperation, 17.11.1983, in: *Zhonghua Renmin Gongheguo Guowuyuan Gongbao*, 1983-25, pp.1114-1115.
80. DENG Xiaoping, *Peace and development are the two outstanding issues in the world today*, 04.03.1985, in: *Selected works of Deng Xiaoping*, vol.3, Foreign Language Press, Beijing, 1994, pp. 104-106.
81. HAEU, ESA-7909, CNES to Fife, 10.01.1985; Visit by Chinese Scientific and Technical Counsellor, 10.01.1985; CNES to Fife, 25.01.1985; Visit by the Chinese Minister of Astronautics, 30.01.1985; Visit by Chinese Delegation to Estec, 07.02.1985; Visit of Chinese Delegation, 22.02.1985; Zhang Ziqing to Stöwer, 21.05.1985.
82. *Zhonghua Renmin Gongheguo ri shi*, vol.33, Sichuan Renmin Chubanshe, Chengdu, 2003, p.233.

at the ESA headquarters and ESTEC. The scientific counsellors of the Chinese embassy in Paris and ESA managers discussed about meteorological survey, remote sensing and unmanned space shuttle. The same topics were debated at ESTEC, together with experiments in outer space and orbit vehicles. The ministry was also interested in training programs. Generally, Li expressed the wish to maintain contacts with ESA, but no new deals were made.[83] On the contrary, he signed protocols with the UK and France.[84] One year before, Zhang Jun entered into other deals with Italy and West Germany.

The issue of reciprocity

In summary, the ESA-China relations showed signs of progress in the mid-1980s. However, the expectations failed to be satisfied in the second half of the decade, notwithstanding the positive trends. The European integration made considerable improvements with the entrance of Spain and Portugal. The Delors Commission maintained the support to pursue a single currency. As for space matters, high-standard results were reached with the prestigious Giotto mission that analyzed Halley's Comet. Beijing took all these factors into the due consideration. The People's Daily, which had previously given little attention to ESA, followed more closely the Giotto mission and other projects of the European agency. Several relevant news, like the agreement with the US on the Columbus spacelab, were reported on the CCP-linked newspaper.[85] Generally, political comments were avoided. At most, some references were made about the non-military nature of ESA and about the European reliance on its own expertise, a rather positive comment.[86]

The visit of Li Xu'e gave way to a new ESA mission (24-28 May 1986). The Agency had good expectations for a new agreement with ISTIC, which had been chosen as reference point by the Chinese State Science and Technology Commis-

83. The French and German delegations to IRAC stated that "a joint approach must necessarily remain somewhat theoretical since commercial and industrial activities were involved". See HAEU, ESA-9757, ESA IRAC 38th meeting draft minutes, 12.04.1985.
84. *Hangtian Gongye Buzhang Zhang Jun fu Lianbang Deguo he Yidali fangwen*, in: *Renmin Ribao*, 27.02.1984, p.4; *Zhong-Ying qianshu kongjian keji hezuo liangjie beiwanglu*, in: *Renmin Ribao*, 30.01.1985, p.6; *Zhong-Fa qianshu kongjian kexue jishu hezuo yidingshu*, in: *Renmin Ribao*, 13.02.1985, p.6.
85. *Ouzhou hangtian ju mingnian jiang fashe kongjian shiyan shi*, in: *Renmin Ribao*, 02.07.1982, p.7; *Ouzhou hangtian ju chenggong fashe halei huixing tance qi*, in: *Renmin Ribao*, 04.07.1985, p.6; *Meiguo he ouzhou hangtian ju gong jian taikong zhan*, in: *Renmin Ribao*, 06.08.1986, p.7; *Ouzhou hangtian ju pizhun jiushi niandai guihua*, in: *Renmin Ribao*, 14.11.1987, p.7.
86. When a Chinese mission visited ENI, the delegates expressed "disappointment" for the foreign origin of some machineries. See: AsENI, "Eni/Estero", "Rapporti commerciali con l'estero", UDC-1, NUA-7CC, Relazione sulla visita della Delegazione cinese all'ENI, 10.12.1962.

sion.[87] Those hopes involved the use of the IRS in two different shapes: to assist the creation of a Chinese information system; or to formalize a partnership on the use of IRS. The project of the Long March 4 launcher was not yet defined and the Chinese expressed interest in Ariane 5. The Chinese attention for European rockets was explicitly linked to long-period goals: manned space vehicles. The delegation actually reached a preliminary agreement with the ministry.

The ESA Council took a long time to approve it, giving precedence to other matters.[88] Generally, the possibility to increase ESA activities was under discussion. Italy supported it, but the Foreign ministry, Giulio Andreotti, stressed the advantages of purchasing advanced technology from NASA.[89] China was less cutting-edge from that point of view. Margaret Thatcher was reconsidering the possibility to increase its contribution.[90] Many times, the door seemed open to prioritize space sciences, but this goal was often found financially unfeasible. Finally, the ESA Council agreed in October to cooperate with China on in-orbit infrastructures and technical projects.[91] Beijing accepted to create two working groups only in January 1987.

Another Chinese delegation visited ESTEC and ESA (11-15 May 1987).[92] The delegation was headed by Yu Fusheng, engineer and Vice Director-General of the Foreign Affairs Bureau. CAST shared the need of consolidating its diagnostic systems. ESA proposed a purchase of its software. Not only the number of topics increased, but the economic value of the operations also became higher.[93] Lüst and Bao Keming, Vice-President of the ministry, exchanged well-disposed letters. In particular, the Chinese politician stated, "June, 1987 saw fruitful results in ESA/MOA technical exchange".[94]

Nonetheless, these positive statements faced an increasing lack of follow-up between 1987 and 1989. A substantial agreement failed to be reached, raising negative comments more than often. Although the prospects of space development in Europe were uncertain, the ESA officials presented themselves as supportive. The several meetings and missions produced plenty of proposals, but the slippery slope of the

87. HAEU, ESA-7909, Shi Guangchang to Lüst, 16.03.1985; ESA-6914, ESA Delegation to China, 21.05.1986; ESA-7909, Agreements with the Chinese ministry, 27.06.1986; Report of the ESA Mission to China, 13.06.1986.
88. There are no indications of a debate. Also see: J. KRIGE, A. RUSSO, L. SEBESTA, *A History of the European Space Agency*, op.cit., pp.144-176.
89. Andreotti alle Commissioni Esteri e Difesa del Senato, 13.04.1986, in: MAE, *Testi e documenti…*, op.cit., 1986, pp.90-91.
90. United Kingdom National Archives, CAB 128/87/1, 23.07.1987, pp.5-6; CAB 128/87/8, 12.11.1987, p.1.
91. HAEU, ESA-7909, Brado to Zhang Jiqing, 30.10.1986; Wang Xiuting to Brado and Hood, 12.01.1987.
92. HAEU, ESA-7909, Visit of Chinese Delegation to ESTEC, 04.05.1987; Visit to ESA Headquarters of a Chinese Delegation from the Ministry of Astronautics, 05.05.1987; Cable from Arets, 07.05.1987; ESA/MOA Minutes of the Working Group on Technology, 15.05.1987.
93. HAEU, ESA-7909, ESA Mission to China, 14.05.1987; Mission en Chine, 17.06.1987.
94. HAEU, ESA-7909, Bao to Lüst, 31.07.1987.

relations with China gave few hopes that the negotiations might actually produce results.

Such a pessimistic perception was linked to the late-1980s turn in Chinese foreign policy. After the 12th CPC Congress, Deng Xiaoping launched the idea of an "independent" agenda.[95] This statement implied an equal distance between the USSR and the US, and this certainly favoured the relations with EEC. Yet, Deng also intended to focus on national priorities. Beijing seemed less ready to participate in joint international projects that involved a strong sharing process.[96] As seen, this point had been already stressed by the ESA officials that opposed the collaboration. In the second half of the 1980s, many seemed to believe that the PRC concept of 'international cooperation' differed from the idea of 'interdependence'. In fact, Deng certainly used to Condemn autarky at the beginning of the decade.[97] In 1988, he continued advocating the cooperation with foreign countries, but he added that "the world is changing and we should change our thinking and actions along with it".[98] Deng reasserted that China gave birth to scientists and engineers capable of high-ranking results. The government was suggested to produce a more suitable environment for those who studied abroad and found no job in their homeland. The PRC looked prone to shift again towards a more self-reliant stance.

The political situation was reflected by a change of course in the Chinese space program.[99] In 1988, the ministry of the Aerospace Industry was merged with the ministry of Aviation Industry into a single entity. The decision-making processes was changed for the second time in six years. This operation was part of a complete reform of the PRC State Council. The functions of the combined ministry focused on industrial development strategies and the presentation of new products on the market. Scientific research was still one of the ministry's responsibilities, but it was inserted in a long list of duties. Clearly, the Chinese advancement in space development continued. CSA, which had become a member of the International Astronautical Federation, was commissioned to organize its 40th convention in 1989.

The ESA Council, especially the UK delegation, expressed extremely negative reactions in 1989.[100] The hope to reach major deals soon resembled an illusion. Furthermore, the PRC agencies were having talks with NASA on topics like launchers technology, which could be a major investment. The ESA Executive requested the Council to explain its position on China. All the delegations to the International Re-

95. C.-K. MARK, *China and the World Since 1945*, op.cit., pp.96-108.
96. DENG Xiaoping, *Kexue jishu shi di yi shengchanli*, 5-12.09.1988, in: *Deng Xiaoping wenxuan*, vol.2, Renmin Chubanshe, Beijing, 1993, pp.274-276.
97. DENG Xiaoping, *Woguo jingji jianshe de lishi jingyan*, 06.05.1982, in: *Deng Xiaoping wenxuan*, vol.2, Renmin Chubanshe, Beijing, 1993, pp.405-407.
98. *Deng Xiaoping sixiang nianpu (1975-1997)*, Zhongyang Wenxian Chubanshe, Beijing, 1998, pp. 367-368.
99. *Zhonghua Renmin Gongheguo guoshi tong jian*, vol.4-3, op.cit., p.388. *Zhonghua Renmin Gongheguo ri shi*, vol.40, Sichuan Renmin Chubanshe, Chengdu, 2003, p.176.
100. HAEU, ESA-13371, Perspectives of cooperation with China, 12.01.1989; ESA-13366, ESA IRAC 55th meeting draft minutes, 28.02.1989, pp.7-8.

lations Advisory Committee (IRAC) expressed their good will, but there were reluctances. Denmark, Germany and Switzerland were cautious and stressed the notion of "reciprocity". Italy asked to clarify the "rules of the game" with the Chinese representatives. In addition, some delegates feared that the transfer of technology was potentially harmful at the commercial level. In particular, Sweden and Switzerland emphasized the need for "safeguarding the interests of ESA Member States that were not members of the European Communities". This statement confirmed that the scientific initiative involved Europe as a whole, as a community. The presence of non-EEC members in ESA might reduce the Agency's power to negotiate. When the situation was not suitable, Beijing could uphold the cooperation on the bilateral level.

The ESA-China cooperation reached a critical point when the Tiananmen Incident caused a breakdown and had a huge resonance that led the PRC to a period of isolation. The US approved sanctions in 1990, while the EEC remained in a middle position, but the ESA-China collaboration came to a standstill anyway. The general relations remained frozen for almost two years.[101] This deadlock affected space cooperation too, stirring China towards non-Western partners.[102] When diplomatic relations took their course back, also space collaboration regained strength. ESA and CAS signed a new agreement in 1992. The Clinton administration tried to abolish the non-cooperation policy, but they failed in 1999, when the Cox report was published as a supposed proof that Chinese had been spying on the US program for nuclear weapons. Nonetheless, the re-internationalization of the PRC continued. In 2001, Beijing entered the WTO, while ESA and China reached the mentioned agreements in the 2000s. China achieved its first manned spaceflight in 2003 with the Shenzhou 5 program.

Conclusions

The ESA-China cooperation represents a noteworthy outcome of the interactions between Europe and China during the Cold War. While trade was relevant at the bilateral level, the scientific and the political aspects were stressed at the agencies level. For ESA, the Chinese space organizations were an opportunity to show the European potential in vanguard sectors. For Beijing, the European agency was a bet to find a partner of relevance in the long period. In general, the cooperation on space matters expressed the European and Chinese desires to be recognized as independent actors.

The chance to do so was offered by the international situation, but the Cold War seemed to have less relevance than expected. It really was *the ending stage* of the

101. C.-K. MARK, *China and the World…*, op.cit., pp.109-122; J.-P. CABESTAN, *How China managed to de-isolate itself on the international stage and re-engage the world after Tiananmen*, in: *The Impact of China's 1989 Tiananmen Massacre*, Routledge, New York, 2011, pp.194-205.

102. M. ALIBERTI, *When China Goes to the Moon…*, op.cit., pp.243-246; J. KRIGE, A. LONG CALLAHAN, A. MAHARAJ, *NASA in the World: Fifty Years of International Collaboration in Space*, Palgrave-Macmillan, Basingstoke, 2013, pp.270-277.

Cold War that emerged as an opportunity. Most of the European and Chinese arguments were based on the outlook of an upcoming transformation of the international balance. Both Europe and China were less inclined to 'exploit the détente'. They aimed instead to shape it in the attempt to pursue their own projects: the renovation of the communist republic and the enhancement of the integration process. What Europe and China intended to exploit were the underway (or foreseen) transformations of the world scenario. The ESA-China collaboration was made possible by the EEC and PRC agendas over the medium-ranged period that went from the Soviet invasion of Afghanistan to the nationalistic turn of the Chinese foreign policy.

In this context, the influence of the 1989 watershed might be reconsidered. As historiography suggests, it was a moment of change. Technological cooperation made no exception, as the Tian'anmen Incident, together with the disintegration of the USSR, affected politics as well as development. However, the ESA-China relations were already running low before the incident and the events of 1989-1991 might have had an overwhelming impact. On the contrary, the resumption of the collaboration proved to be quite smooth. It was even faster than what happened in the US-China case. Therefore, the cooperation on space matters apparently showed an aspect of continuity between the pre-1989 and the post-1989 periods.

The idea that the Moscow-Washington opposition was coming to an end, certainly was just a hypothesis in the 1980s. Yet, Europe and China showed an inclination to overcome the Cold War in that moment when they overcame the fear of technology leakages. The same can be said for the renewal of the scientific collaboration in the 1990s. This resumption would have been less significant without the improvements made during the Cold War, if the Cold War was a mere strategic occasion. The renewal of space cooperation really expressed the desire of Europe and China to continue what they started in 1979-1980, reiterating the stance of two increasingly important actors and, eventually, anticipating the multipolar panorama of the new millennium.