

The Brussels Space Policy Round Table The Ups and Downs of Euro-China Space Cooperation

June 20th 2012, EIAS, Brussels

On 20 June 2012, the Secure World Foundation (SWF) and the European Institute for Asian Studies (EIAS) held a conference to stress the ups and downs of cooperation between Europe and China in the realm of space. The event took place after a symbolic week for the Chinese space program: the Middle Kingdom successfully sent into space their first female *taikonaut*, and effectively docked a module to their spacelab.

This event, chaired by Mrs. Agnieszka Lukaszczyk, Brussels Office Director of SWF, gathered specialists and decision-makers from various horizons to tackle the issue from different perspectives: Mr. Karl Bergquist, Administrator with the European Space Agency's International Relations Department, Mr. Hartwig Bischoff from DG for Research in the European Commission, Mr. David Fouquet, Senior Associate at the EIAS, Mr. Gongling Sun, Chief Representative of the China Aerospace Science and Technology Corporation and Mr. Brian Weeden, Technical Advisor for SWF.

When debating the cooperation between Europe and China in space, one has to analyze it through many prisms: economic, technologic, geopolitical and strategic. All those implications have various impacts on the general relation between the EU and China, and have had, since the early steps of their collaboration. On 5 August 1987, China accomplished its first commercial launch for a French firm, MartraMarconi. Things have changed tremendously since then. China has developed its own capacities, notably in land and sea observation. It has also shown significant progress lately in the realm of space exploration; it is assembling its own manned space program and has plans for a moon landing. It is also working on Beidou, China's own regionally operated global navigation satellite system (GNSS), intending to extend it to the international scale with 37 satellites by 2020 under the name COMPASS. Eventually, also by 2020, its space station should be operational.

With the impetus of the China Aerospace Science and Technology Corporation, the country has developed a high standard launching programme. The Long March family is composed of 12 launchers, used for commercial, as well as scientific goals. Nineteen launches took place in 2011 and 21 satellites, including from foreign countries, were sent into space by China. It is the second country after Russia in regard to the frequency of launches, with a success rate of 98.9% in the last 10 years.

Several actors have to be considered when dealing with China in the realm of space. The Chinese National Space Administration is a governmental body that acts as a window for cooperation at the international level. It is an important partner for Europe to deal with. The Ministry of Science and Technology funds research programmes and supervises the National Remote Sensing Centre. The Chinese Academy of Sciences is the leading research entity in China. The Chinese Launch and Telemetry Centre, and the China Manned Space Engineering Office, among the institutions mentioned above, represent different actors, different ways of working and different rationales. It is an interesting echo to the multi level institutions in Europe as well. All these aforementioned structures nevertheless lack agency process and cooperation. It is also difficult to find actors in China that have crossover experience among the scientific, diplomatic or strategic domains, even though they have world-class personnel in these specialties.

Sino-European space relations have become more in depth in the course of time. In this aspect, the cooperation between the European Space Agency (ESA) and its Chinese counterparts illustrates how concrete and small-scale projects can create on solid relations. Almost 20 years ago, ESA involved China in its European Remote Sensing (ERS) satellites programme by setting up data reception opportunities for Chinese users. China and Europe cooperated on many projects, and kept doing so even in times of economic downturns. Many grounds for potential cooperation existed because of common interests such as earth observation, the exploration of the universe, space debris. Concrete projects were successful in the past—Dragones (marine monitoring), Carbones (study of carbon fluxes), Core-climax (earth observation data)—and Europe and China are at the spearhead of cooperation thanks to comprehensive sharing of data. During the Dragon Programme, which started in 2003, pooling resources allowed significant results. The Programme now concerns 25 different themes with 400 to 450 scientists working on them. Dragon 3 was launched in late June 2012, in Beijing, and China has come to play a significant role, along with Europe, in carrying out this programme.

The European Union agreed with the Minister of Sciences of China to cover potential topics for cooperation for Horizon2020, an EU investment project in innovation to strengthen competitiveness. The involvement of the Europeans in the Chinese space station could be a topic of discussion. Cooperating on scientific projects and pooling resources have proven cost efficient and important in building mutual trust. Yet, in this highly strategic domain, some political questions may be raised, which could prevent further cooperation. If ESA's decisions to cooperate are taken from a scientific point of view, the European Commission is driven by political motivations. This aspect led to a glitch in the cooperation on the Galileo project, the European GNSS project. Being a public-private consortium during its first stage, the project welcomed participations from foreign industries. In 2005, China agreed to invest in the project. Then in 2007, reshaping Galileo's budget and institutional functioning at the request of its member states, the European Commission took a more important role in the carrying of the project, making it a highly political issue and a strategic interest for the EU. Therefore, the participation of China was no longer suitable. Discussions are still on going about this setback and the Beidou and the Galileo's security signals frequencies are now overlapping, which could be an issue.

Some domains remain too sensitive to be tackled cooperatively, for example, space technologies, as they potentially involve transfers and knowledge sharing. During the 14th EU-China Summit in February 2012, both actors agreed to hold conference about the matter in the near future. But what will the EU's international partners and industries say?

After years of lack of positive cooperation, things seem to be on the move again. The theme of space is an interesting opportunity for Europe to strengthen its relationship with China, as other countries, i.e. the United States, are unable to do so. For example, NASA is prevented from cooperating with China due to restrictions from the U.S. Congress. Europe needs to formulate a coherent policy towards China and cooperation in the realm of space. To offset economic costs and to apply hard power or soft power China is looking for partners and not for help. Europe and China need to learn how to treat each other as equal partners, a task they have achieved before.

Does Europe see itself as an equal power compared to Russia, the U.S. or China in space, or as a facilitator between other powers? Europe could play an excellent role as facilitator to build a bridge between different actors, but it also has the capabilities to be an equal power to each of them. It shows a grand openness on some of its programs. in which any country can participate.. The main partners of the EU are Russia, the U.S., and China. The latter seems to be an exception in Asia, as relations are less developed between the EU and India, Korea, and Japan. On the question of the dual use of technology, Europe has a different role and a different strategic culture from the U.S. and China. China has its own ideas about the use of space, a perspective that is a function of its stage in the development of its programme. It is currently building capacities both for security reasons and as a matter of prestige. The Middle Kingdom has set itself as a main actor on the space stage. No doubt Sino-European relations in this matter will continue in the coming years.