



## Space Week

### Workshop: International cooperation in the SPACE sector

22 October 2015 – Moderator: Gabriella Arrigo

- Welcome greetings.
- **Gabriella Arrigo** personal presentation. Head of the International Relations in the Italian Space Agency, where she arrived in 1991 to manage the International Relations. Her first experience in the Agency was related to the relations with the European Institutions and European countries and later, until today, she followed the relations with non-European countries.
- Moderator of the special Session dedicated to the International Cooperation in the SPACE sector.
- Indeed, she is highly convinced that Space is a virtuous model to establish and develop a real and sustainable cooperation through concrete projects, in which Science, Technology and Management can express their best capabilities in a challenging environment.
- The ASI auditorium was full of a lot of friends and distinguished representatives of different countries and partners. Some of them will present their experience in Space cooperation as space-faring or space emerging countries.
  
- **The first distinguished speaker is Dr. Sandro D'Angelo, European Commission – General Directorate for Internal Market and Industry - Space Policy, International Relations and COPERNICUS Unit.** Dr. D'Angelo will present and introduce the EU Space Policy dialogue with the Third Countries.
- **The first country of the list is the ARGENTINA.** Gabriella Arrigo knows personally Argentina since 90s, when Italy and Argentina signed the first inter-governmental agreement on the Cooperation for the utilization of outer space for peaceful purposes in 1992. From that date she went in Argentina many times to meet space players and Authorities and to visit the space facilities, like in Cordoba, where the CONAE (*Commission National de Actividades Espaciales*) operates its ground segment by receiving and archiving earth observation data of Argentinian satellites (like SAC series) and other satellites of international partners. In particular, she mentions the unique satellite radar system in the world, SIASGE, composed by the Italian

COSMO-SkyMed satellites in X band and the Argentinian SAOCOM satellites in L band. A cooperation project is in progress between the two national space agencies, ASI and CONAE.

Recently, Argentina launched successfully two telecommunication satellites, ARSAT-1 and ARSAT-2, demonstrating its capacity to build and manage complex infrastructures. Both satellites will be also used for borders control, fishing monitoring and ATM remote control. Finally Argentina is developing its launching vehicle, TRONADOR, scheduled to be ready in the coming years.

➤ **The Argentinian speaker is Cecilia Aversa, from the National Directorate of International Relations, in the Ministry of Science, Technology And Productive Innovation.**

➤ **The second country of the list is Brazil.** Mrs. Arrigo went in Brazil for the first time in 2001 and she will be there, once again, next week with an Italian delegation which will accompany the Italian Minister of Foreign Affairs and International Cooperation. Brazil is a big country in South America. In space it represents a changing and innovative environment, where researchers, professionals and industries find opportunities and favorable conditions. Recently the space governance in Brazil is changing, involving different Ministries and Institutions. In fact, the Brazilian Space Agency reports to the Ministry of Science, Technology and Innovation, that other Ministries are interested in space applications, as agriculture, telecommunications and earth observation. The 10 year National Space Plan 2012-2020 is ambitious. With around 10 billion of Brazilian Reals, the country wants to achieve autonomy in the space access, independency in space technology and ability in the development of different payloads, of a multi-purposes platform and of a launching vehicle with related infrastructures. In EO Brazil launched the CBERS satellites, but other satellites are scheduled, like Amazonia, Sabia-Mar and Geomet. In TLC the country is developing a national satellite to bridge the digital divide. In Science Brazil developed the LATTES satellite and it is working on SARA and VSB technologies.

With regard to the EU-Brazil dialogue, the first Summit started in 2007 and, in particular, the space policy dialogue started during the Summit in 2010.

➤ **The distinguished representative of Brazil is João Viane Soares, Coordinator of the CBERS Segment applications, in the National Institute for Space Research (INPE).**

➤ **The next country of the list is CHINA.** It is impossible in a few words to summarize the large and complete space Chinese program. Mrs. Arrigo simply mentions that in 1981 Italy transferred to China, in Beijing, an antenna of a telecommunication satellite (SIRIO) for experiments to promote the space technology transfer and support the local capacity building by *ad hoc* training of Chinese personnel. After 25 years, today, China is one of the bigger space

emerging country able to build and launch yearly tens of space objects. In 2003 China launched its first astronaut by Shen-Zhou 5. In 2008 China operated the first EVA (Extra vehicular activity). In 2011 we all saw the first docking in orbit between Shen-Zhou and Tiangong, the first Laboratory. Around 2020 China will launch and assemble its space station composed by 20 modules. China is also preparing its program to Moon through the missions CHANG-e. In 2015 CHAN-e 5 will be a lunar sample return mission and in 2025 there is a prevision to have the first manned lunar landing. Furthermore, China is developing an independent satellite navigation system, BEIDOU, in a first phase regional and after 2020 global. Finally China has a family of launching vehicles, LONG MARCH, composed by 13 models.

With regard to the EU-China dialogue the first Summit started in 1998 and, in particular, the 1st EU – China Space Dialogue was in 2012

- **The Chinese speaker is the distinguished Scientific Counsellor of the China Embassy in Rome, Mr. Cao Jianye.**
- **The next country of the list is MEXICO.** Mexico is a new space emerging country. In 2010 the Mexican government established the National Space Agency that published its first space plan until 2030 with 5 main goals:
  1. Develop joint programs between government and industry
  2. Develop private space science and technology industry sector through PPPs
  3. Human capital development through alliances with universities, industry, government and international partners
  4. Advocate the importance of space science and technology among the population
  5. Participation in international projectsThe Mexican industry is developing its capacity moving from the aeronautic to the space field. A lot of groups in different Universities are interested in nano-technology, astrophysics, astronomy, telecommunications and biotechnology.
- **The first Mexican speaker is the distinguished colleague of the Mexican Space Agency, Mr. Alejandro Balan Gutierrez.**
- **The second Mexican speaker is the distinguished representative of the Council of Science and Technology, Ms. Jessica Urueta Quiroz, Deputy Director for Cooperation between Mexico and EU.**
- **Finally the last country today is South AFRICA.** South Africa is the largest economy in Africa. The only African country in the G20 system. The country holds a 10 year Space Strategy, the 10 year Innovation Plan and the South African Earth Observation Strategy.
  - The Earth Observation Program is focused on day to day use of space to address social needs, food security and global change monitoring;

- The Space science Program drives scientific enquiry, knowledge, technology development and innovation.

- The Space Operations Program is the vehicle through which the National Space Agency, SANSa, interfaces with space assets and supports the international space industry.

The Space dialogue between EU and Africa started in 2000 with the first EU-Africa Summit. In particular, the EU-South Africa Dialogue on Space Cooperation initiated in 2009.

- **The first South African speaker is the distinguished representative of the Department of Space Science and Technology, Dr. Humbulani Mudau, Chief Director for Space Science and Technology.**
- **The second representative of South Africa is the distinguished colleague of the South African National Space Agency, Dr. Amal Khatri, Executive Director of Space Program Division.**
  
- **The next speaker of today is the distinguished representative of the Agency for the Promotion of European Research, APRE, Ms. Monique Bossi, National Contact Point for Research infrastructures & Space H2020.**
  
- **The last speaker today is the distinguished representative of the European Innovation Management Academy, Dr. Martin Ruppert, Managing Director of IMP3rove.**

#### ❖ Questions and Answers

### CLOSING REMARKS

Mrs. Gabriella Arrigo thanks all the participants of this first session dedicated to the International Cooperation in the Space sector.

She hopes that after around 4 hours of listening space policies, strategies and experiences we are all convinced that space cooperation is a valid and pragmatic instrument to improve the global knowledge, security and implement ambitious programs for the benefit of all humankind.