

The European space agency: a new frontier for the understanding of outer space

On the 2nd of February our Global Governance team gave the first year students the opportunity to visit one of the most international environments in Europe and in the world in order to enrich our knowledge and our understanding of the planets which surround us. Our off-campus activity brought us to discover a parallel world: ESRIN.

We met researchers who are working on many projects regarding discoveries, scientists, engineers and all the staff who was very explicative. In particular we met Sergio Benetti, Head of Operations and Ground Segment Procurement Division who illustrated all of Esa's current activities. Then, we met Stephen Coulson, Head of the Industry Section, Directorate of Earth Observation who showed us how to observe the earth for international development matters. Last but not least was the best activity with Massimo Cuomo which consisted in a 3D Earth observation of satellite models.

Europe has provided space exploration through the development programmes which ESA created. The most important project launched by the European Commission is GMES (Global Monitoring for Environment and Security) which managed to highlight, map, monitor, track, assist, and guide issues affecting environmental or natural matters such as climate change and civil security.

The main goals of ESA are space access, research, observation, satellites for innovative technologies, and telecommunications. Cosmic Vision is another key program for ESA's missions because it has been invented in order to discover other planets and understand the process of evolution which started from the Big Bang. The themes of this module are the conditions which enable the formation of planets and possible forms of life, the functioning of the solar system, the universal physics laws, and the origin and composition of the universe.

Another important role of Esa is the observation of the Earth for climate change and meteorological phenomena, in order to create data about interactions between the different parts of Earth's crust and how human activity affects nature. These studies brought to the creation of "Copernicus", which allowed Europe to gather and control data on environmental and civil security, and "Climate Change Initiative", which produces information on the concentration of gas, the thickness of ice and the temperature and salinity of the sea.

As far as innovative technologies and telecommunications are concerned there are two systems which are being developed. One is "Galileo" used for the global satellite navigation while the other one is "ARTES" which converts investment done in research in successful final goods and commercial products which are competitive in the global market. ESA came up with a compact launcher and what is evident nowadays is that ESA is extremely active and efficient in all sectors, from the economic to the humanitarian to the environmental one. ESA is flawlessly affecting the European scenario and enriching it.



The feelings that this experience brought up were the willingness to explore and understand the world we live in and all its parallel realities. The organization is very well-organized and it is something Europe should be proud of because it is competing with NASA's high standards even if their policies are extremely divergent because ESA's purpose is "to provide for, and to promote, for exclusively peaceful purposes" and not for strategic reasons regarding war. It was extremely important to visit this entity because Global Governance students have to learn the role of

organizations and be able to create their perspective about global habitats and policies to be able to formulate coherent analyses which can help them understand the world's global governance.

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