



“BASE LUNA”: AN ITALIAN CHALLENGE

In the past, Italy has made courageous choices in the space sector and has, as a result, acquired a central role on the international scene. In fact, it was the first western European country to independently develop a satellite (San Marco), and it has promoted total and fruitful cooperation on a global level, aimed at creating the International Space Station, confirming the historical Italian penchant for “exploring” new territories of knowledge.

Through an initiative by the President of the United States, a Presidential Commission was established in order to define the policy for Human Exploration of Space, which defined this Exploration as a “Human Adventure” of the 21st century, highlighting the need for extensive international collaboration in such a project. Based on the results of the Commission, Human Space Exploration will begin with the creation of a permanently staffed Lunar Base from which to focus on the conquest of Mars.

Europe, which has begun its path towards planetary exploration with the Aurora program (proposed by Italy), is getting ready to define, in concurrence with the ministerial meeting of May 2005, its Long Term Space Exploration Program, with a view to seizing space exploration opportunities to support European scientific and technological research and strengthen a European identity in future generations.

Together with the above-mentioned experience, Italy has acquired a position of excellence at the global level, as regards the development of staffed Orbital Systems and relative subsystems, engineering support activities for their missions (in particular, for those related to the International Space Station) and the use of said Systems to carry out scientific and technological research. Italy has succeeded in developing intense and special collaboration relationships with other European nations, as part of ESA, as well as with the United States and, therefore, NASA.

In addition, Italy is at the technological forefront of certain technologies that could soon become a key element of competitive edge in the development of planetary exploration systems.

These conditions, if properly optimised, could guarantee Italy a leading role in the strategic choices made by the international space community as part of Human Space Exploration. Italy could thus achieve globally the objectives currently defined by its National Space Program as far as aspects regarding planetary exploration and the presence of man in space are concerned.

Italy's participation in the promotion of Space Exploration will allow it to acquire a key position in defining the strategic development guidelines qualifying Human Space Exploration. This will lead to enhancement of the national technological heritage and ensure participation of Italian industries, especially small and medium-sized companies, in research and innovation in sectors offering large possible gains in terms of acquisition of competitive advantage on a global scale.

From a scientific point of view, sufficient participation in the Exploration program will provide continuity to the research activities carried out by a broad community of national scientists who have contributed to our Country's achievement of a position of excellence in Europe as well as in the rest of the world.

Therefore, a detailed National Program for Human Space Exploration must be drafted as soon as possible, adequately preparing the scientific community and national industry for participation in future international cooperation, with leading roles in terms of preparation of scientific projects that represent cutting-edge knowledge and the development of systems, subsystems and services with high value added for strategic applications judged to be of primary importance on a national level.