



## The future of space exploration in Europe : an industrial point of view

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Europe has been involved in space exploration for a very long time, in its two aspects : planetary robotic exploration through the ESA Science programme as well as national projects, and the human space flight programme with Spacelab and then Columbus and ATV. These programmes have allowed building a solid industrial and technical background, demonstrated by successful achievements.

Space Exploration is now at the crossroad in Europe. The Bush 2004 Vision for Space Exploration, targeting a human return to the Moon and then to Mars, has not generated a large enthusiasm in ESA and European national agencies. The debate of priorities between Moon and Mars or other planets, and robotic or human exploration is still open, and the uncertainties of the evolutions in the US with the new Obama's Administration has not allowed to take decisions at the last ESA Ministerial Conference in 2008. The next key step shall be the organisation of Exploration Workshops in order to define a clear European policy in the domain, providing a roadmap for agencies and industry.

A rapid convergence on a European Space Exploration policy, is an important stake for industry : top level competences and technological base have been built during the past three decades, and industry needs to know which of these ones have to be sustained in the future, depending on the priorities in European Space Exploration. Any abandoned technological base in short term, will request huge investments to be rebuilt if needed in longer term, ... as shown in the USA with Constellation program trying to "reuse" some technologies derived from Apollo.