

HUMAN SPACEFLIGHT SYMPOSIUM (B3)
Governmental Human Spaceflight Programs (Overview) (1)

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THE EUROPEAN SPACE EXPLORATION ENVELOPE PROGRAMME: ESA'S ANSWER TO AN
INCLUSIVE EXPLORATION VISION FOR A UNITED SPACE IN EUROPE.

Abstract

Since the late nineties, ESA has worked intensively on backing up the European exploration activities with a sound strategic vision. Through a proactive engagement with the international community, in particular the International Space Exploration Coordination Group, the European strategy matured into the European Space Exploration Strategy, adopted at the ESA Council at ministerial level in 2014 (CM14). The resolution paints a European space exploration vision where four strategic objectives are guiding Europe's exploration efforts: science, economics, global cooperation, and inspiration. The vision expresses the ambition to have one day Europeans working and living on Mars. Hereby, LEO and Moon are important stepping stones. More recently, in December 2016, the ESA Council at ministerial level (CM16) adopted the resolution "Towards Space 4.0 for a United Space in Europe". This resolution encourages ESA to "pursue and further strengthen European cooperation in the space sector for the benefit of European citizens". Under the roof of both, the CM14 European Space Exploration Strategy and the overarching CM16 resolution, ESA Member States adopted at CM16 the European Space Exploration Envelope Programme (E3P). E3P integrates existing space exploration efforts into a single programme. It is ESA's answer to the European Space Exploration Strategy. The E3P programme for 2017-2019 comprises exciting missions serving the three European exploration destinations. Three European astronauts will perform science on ISS (LEO). ESA will contribute to the Russian Luna 25, 26 and 27 missions. The European Service Modules 1 and 2 will be critical components for getting humans travelling to Lunar vicinity, for the first time since the Apollo programme. The ExoMars 2020 mission will bring European drilling technology to Mars. Furthermore, the programme includes a compelling science programme (SciSpaceE), as well as activities preparing for future missions (ExpeRT), and a "Commercial partnerships" initiative to support European industry to step up commercial exploration services in the light of Space 4.0. E3P delivers the European exploration strategy. It fully supports the objectives of the 2016 resolution "Towards Space 4.0 for a United Space in Europe". It covers all destinations, fully in line with the ISECG Global Exploration Roadmap. The programme is conceived as an open ended programme that can evolve, within the 2014 strategic framework, accounting for evolving expectations and priorities of European Member States. E3P will be a crucial instrument to secure Europe's central role in global space exploration.