

14th HUMAN EXPLORATION OF THE MOON AND MARS SYMPOSIUM (A5)  
Long Term Scenarios for Human Moon/Mars Presence (2)

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SPACEROAD – A SOCIAL SCIENCES AND HUMANITIES-BASED RATIONALE FOR HUMAN  
SPACE EXPLORATION

**Abstract**

Since 2007, the European Science Foundation (ESF) has been exploring the social science and humanities (SSH) dimension of the exploration and use of outer space. A workshop and two conferences were organised jointly with the European Space Policy Institute (ESPI) and the support of ESA, and this activity has resulted in, among other things, one ESF position paper and two books on SSH topics related to outer space published with ESPI. In a recent scoping workshop it was concluded that there was a need to identify a coherent, future-oriented research agenda for SSH research in relation to space, aimed at catering to the unmet, in many ways still unarticulated, needs of the space research and space policy communities.

Research in the exploration and use of space is currently mostly an affair of the natural and engineering sciences, and this may create a blind spot for opportunities, challenges and threats related to the increased possibilities that space offers. Increasingly it is clear though that SSH research is important for understanding certain key questions in space research and for informing policy-makers and major space stakeholders. Space offers new opportunities and challenges to humankind, and insights from SSH research are needed to identify, understand, evaluate and manage these. Issues range from more or less obvious topics such as earth monitoring, space security, space situational awareness, space pollution, space-enabled research and services, space industry, space-derived applications, to (perhaps) less obvious topics such as cultural differences between space nations or the impact of space exploration on religion. Space-based assets have become indispensable enablers for a wide spectrum of applications, and the dependency on these assets will grow. Yet, the new possibilities raise many legal, socio-economic, ethical and institutional issues.

Bringing SSH and space communities closer together is especially important for more accurately identifying the possible future(s) of the exploration and use of space; to assess the possible implications of these future(s) for society; and to give input for well-informed choices on these issues. There is a need to identify the research questions that follow from a better insight in future developments. In line with these observations, the Standing Committees for Social Sciences (SCSS) and Humanities (SCH) and the European Space Sciences Committee (ESSC) of ESF approved the development of a Forward Look proposal (ESF's foresight instrument) and the presentation will detail its goals and work plan.