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Author: Dr. Serge Plattard

European Space Policy Institute (ESPI), Austria, serge.plattard@espi.or.at

Mr. Nicolas Peter

European Space Agency (ESA), France, nicolas.peter@esa.int

Dr. Pascale Ehrenfreund

Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany, pascale.Ehrenfreund@dlr.de

Dr. Henry Hertzfeld

Space Policy Institute, George Washington University, United States, hrh@gwu.edu

Dr. Gerda Horneck

Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Institute of Aerospace Medicine, Germany,
gerda.horneck@dlr.de

Dr. John Logsdon

Space Policy Institute, George Washington University, United States, logsdon@gwu.edu

Dr. Mark Lupisella

National Aeronautics and Space Administration (NASA), United States, Mark.L.Lupisella@nasa.gov

Dr. Steve Mackwell

Lunar and Planetary Institute, United States, mackwell@lpi.usra.edu

Mr. Jacques Masson

European Space Agency (ESA), The Netherlands, jacques.masson@esa.int

Mrs. Tanja Masson-Zwaan

International Institute of Air and Space Law, Leiden University, The Netherlands,
t.l.masson@law.leidenuniv.nl

Dr. Patrick Michel

CNRS, France, michel@oca.eu

Prof. Mazlan Othman

Academy of Sciences Malaysia, Malaysia, mazlan.vienna@gmail.com

Ms. Cheryl Reed

The John Hopkins University Applied Physics Laboratory, United States, cheryl.reed@jhuapl.edu

Mr. Giorgio Saccoccia

European Space Agency (ESA), The Netherlands, giorgio.saccoccia@esa.int

Dr. Kazuto Suzuki

Hokkaido University, Japan, kazutos@juris.hokudai.ac.jp

Dr. Stephan Ulamec

Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany, stephan.ulamec@dlr.de

Dr. Oleg Ventskovsky

Yuzhnoye SDO European Representation, Belgium, oventskovsky@brutele.be

Dr. Frances Westall

Centre National de La Recherche Scientifique (CNRS), France, westall@cnrs-orleans.fr

IAA COSMIC STUDY: DYNAMICS OF SPACE EXPLORATION, A FINAL UPDATE

Abstract

The International Academy of Astronautics (IAA) Cosmic Study "Dynamics of Space Exploration and Outlook" aims at presenting a comprehensive space policy report on the domain of space exploration. The proposed vision for space exploration is bold, collective, holistic, paved with attainable milestones shared by the stakeholders and conceived in a sustainable manner. This new challenge relies on a sense of common commitment towards an integrated international effort. Such a shared space vision could be implemented via an International Space Exploration Council acting as an efficient planning and decision-making body. This Council would include high-level government officials, space agencies, space entrepreneurial entities, and representatives of the aerospace industry, the scientific community and the civilian society from space-faring nations. Under this scheme, the Council would act as a top-down structure receiving inputs from activities involving science/technology analysis and space architecture working groups. In this study we identify challenges and opportunities where the different space stakeholders can line up on a national and/or international basis. Particular attention is given to maximize as much as possible an integrated and collective approach, as well as to prevent, through appropriate mechanisms (typically a fail-safe approach), a defaulting partnership that could jeopardize the overall progress of a common undertaking. The role of the Council in reconciling the interests of "individual" countries and private pursuits is also discussed. A progress report of this Cosmic Study was presented at the Heads of space agencies Summit in Washington DC in January 2014. A preview of the final conclusion and recommendations which incorporate 2014 up to mid-2015 updates on the changing space exploration context, sciences drivers for exploration, dynamics of exploration, legal and policy regime for exploration, and emerging challenges and opportunities is presented in this paper.