## IAF HUMAN SPACEFLIGHT SYMPOSIUM (B3) Commercial Human Spaceflight Programmes (2)

Author: Dr. Christopher Puhl European Space Agency (ESA), Space Applications Services N.V. (SAS), The Netherlands

> Ms. Chiara Piacenza Telespazio, The Netherlands Mr. Pierre Devatour European Space Agency (ESA), Germany Mrs. Julia Weis European Space Agency (ESA-ESTEC), The Netherlands Mr. Andrea Campa ESA - European Space Agency, The Netherlands

## MUNINN MISSION ON AXIOM-3: THE FIRST COLLABORATION TO FLY AN ESA ASTRONAUT ON A COMMERCIAL FLIGHT

## Abstract

The Axiom-3 mission represented a new kind of challenge from a mission planning perspective: the first ESA collaboration for human spaceflight, with Marcus Wandt being the first ESA project astronaut. Standard planning and implementation timelines needed to be substantially compressed, all the while navigating new processes and managing communication between 4 separate entities – ESA, SNSA, Axiom and NASA. Additional challenges included selection and definition of the payload complement and navigating the mission constraints (up/down mass, crew time, PAM regulations). Ultimately with more than 18 payload activities planned and performed on board, the mission was considered a success. This paper aims at showing the opportunities that lie in such a coordinated effort and provides insights in the science and technology that was performed during the mission.