Collaboration Strategies within NASA: How to Accelerate Innovation
C. J. Callini; K. E. Keeton; J. R. Davis; E. E. Richard

In an effort to increase exposure to government and non-government business sectors, the Human Health and Performance (HH&P) Directorate at Johnson Space Center has taken a systematic and strategic approach to infusing innovation techniques and strategies within the structure of how NASA does business. The HH&P Strategic Plan from 2007 identified how the directorate would support the development of innovative techniques and paved a path that outlined how these innovative methods and strategies would be implemented. A two-pronged approach will be reviewed that will depict the ability to accelerate innovation within an organization like NASA that aligns with the 2007 HH&P Strategic Plan. Two specific initiatives will be highlighted: the NASA Human Health and Performance Center (NHHPC) and the Solution Mechanism Guide (SMG).

The NHHPC is a global convener of government, industry, academic, and non-profit organizations that support the advancement of human health and performance innovations for space flight, commercial aviation, and challenging environments on Earth. The NHHPC serves as a catalyst within NASA and facilitates open collaboration, connections across business sectors, and best practice sharing among organizations. We will highlight the forums of this collaboration consortium and specifically highlight the most recent NHHPC workshops convened in June 2012 and November 2013. NHHPC workshops serve as a gathering space for members to hear best practices from organizations outside of their traditional circles and in many cases, outside of their industry. The two most recent NHHPC Workshops included keynote speakers who are leaders and changemakers in the space of innovation, education and/or business practices including Todd Park, US CTO; Leland Melvin, NASA Associate Administrator for Education and former astronaut; Karim Lakhani, Associate Professor, Harvard Business School; Udaya Patnaik, Founder and Principle, Jump Associates; and Philip Faisano, Executive VP and CIO, Kaiser Permanente. Results and lessons learned from these events will highlight how the NHHPC serves as a mechanism to engage, collaborate, and network with others as well as share ideas across many boundaries to disrupt the status quo and accelerate innovation, helping change the way we do business within our directorate.

The SMG is an online customized tool for users to filter solution mechanisms based on their specific needs given parameters of their problem or task. This guide comprises of two portals, an education portal and a tool portal. The educational portal provides needed training to understand fundamental concepts, view case study examples and detailed information about available solution mechanisms, and access to previous user experiences for tips and tricks about utilizing a specific solution mechanism. The tool portal allows users to input their parameters for their specific problem or task to filter solution mechanisms that meet their requirements. This innovative concept accelerates the dissemination of needed information to a wide-range of users within the directorate, increases awareness and education across solution mechanisms, and provides a unique experience for users as they engage and use the tool. The SMG serves as a catalyst to accelerate the time to solve important problems within this directorate and also improves the effectiveness in which innovation platforms can be utilized. We will review the methodology, development, and initial implementation of the alpha version of this tool as well as highlight planned development for the beta phase.