

BUSINESS INNOVATION SYMPOSIUM (E6)
Case Studies and Prizes in Commercial Space (1)

Author: Dr. Jeffrey R. Davis

National Aeronautics and Space Administration (NASA), Johnson Space Center, United States,
jeffreydavis99@me.com

Ms. Elizabeth Richard

Wyle Science, Technology & Engineering Group, United States, erichard@wylehou.com

PUBLIC-PRIVATE COLLABORATIONS WITH EARTH-SPACE BENEFITS

Abstract

The NASA Human Health and Performance Center (NHHPC) was established in October 2010 to promote collaborative problem solving and project development to advance human health and performance innovations benefiting life in space and on Earth. The NHHPC, which now boasts over 135 corporate, government, academic and non-profit members, has convened four successful workshops and engaged in multiple collaborative projects. The virtual center facilitates member engagement through a variety of vehicles, including annual in-person workshops, webcasts, quarterly electronic newsletters, web postings, and the new system for partner engagement. NHHPC workshops serve to bring member organizations together to share best practices, discuss common goals, and facilitate development of the collaborative projects. The most recent NHHPC workshop was conducted in November 2013 on the topic of “Accelerating Innovation: New Organizational Business Models,” and focused on various collaborative approaches successfully used by organizations to achieve their goals. Past workshops have addressed smart media and health applications, connecting through collaboration, microbiology innovations, and strategies and best practices in open innovation. These events have led to multiple projects between NASA and member organizations from around the world.

One area of great interest to NASA is mobile health applications, including mobile laboratory analytics, health monitoring, and close loop sensing, all of which also offer ground-based health applications for remote and underserved areas. Another project being coordinated by NASA and the Health and Environmental Sciences Institute is the pursuit of one to several novel strategies to increase medication stability that would enable health care in remote terrestrial settings as well as during space flight. NASA has also funded work with corporate NHHPC partner GE, seeking to develop ultrasound methodologies that will enable NASA to further understand the eye changes related to long-duration space flight. The adaptation of ultrasound to this type of eye examination could also expand the use of ultrasound in health care on the Earth in settings where MRIs are not available.

To further engage NHHPC members and facilitate partnership development for NASA, the NHHPC is creating an engagement system which will be deployed in 2014 that will enable facilitated identification and evaluation of technical needs and opportunities among all NHHPC members.