



The Space Congress® Proceedings

2016 (44th) The Journey: Further Exploration
for Universal Opportunities

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International Space Station National Lab

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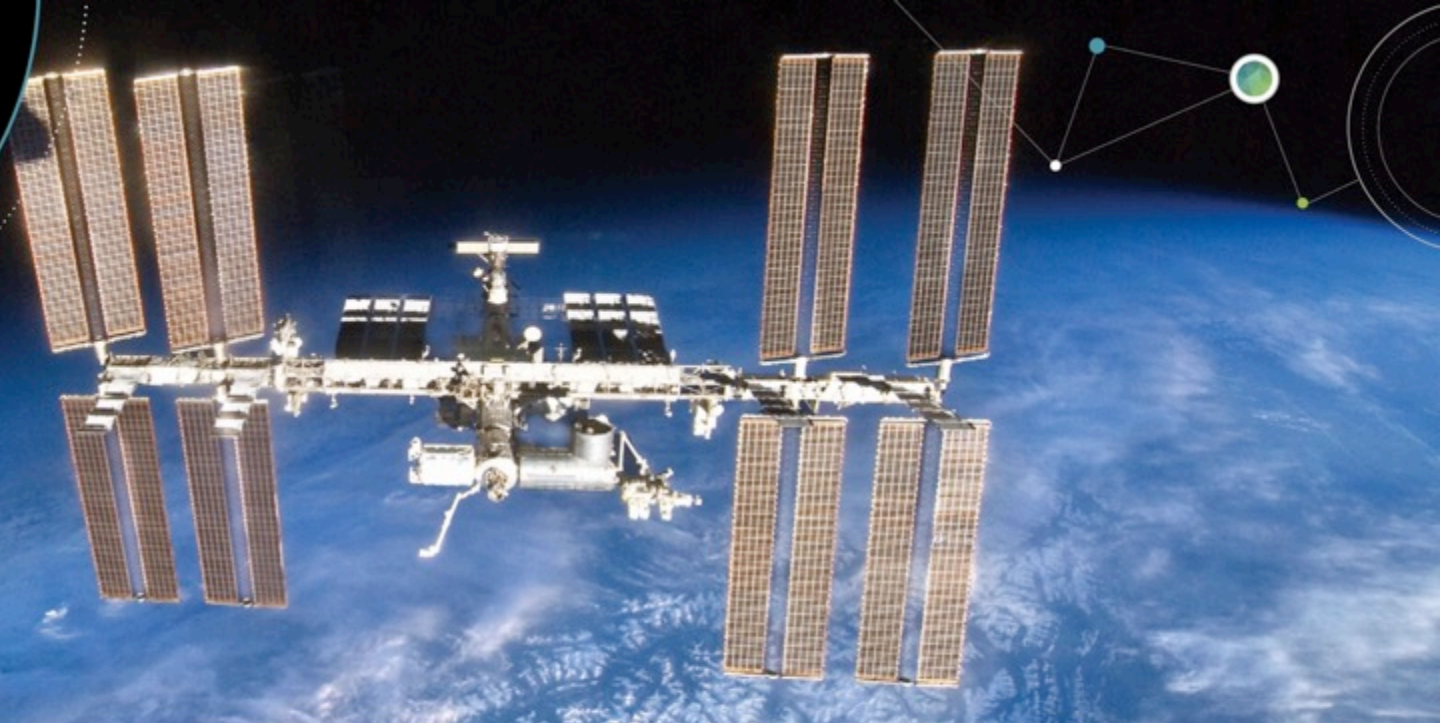
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25 May 2016

INTERNATIONAL SPACE STATION NATIONAL LAB

Michael Roberts, Ph.D., Deputy Chief Scientist

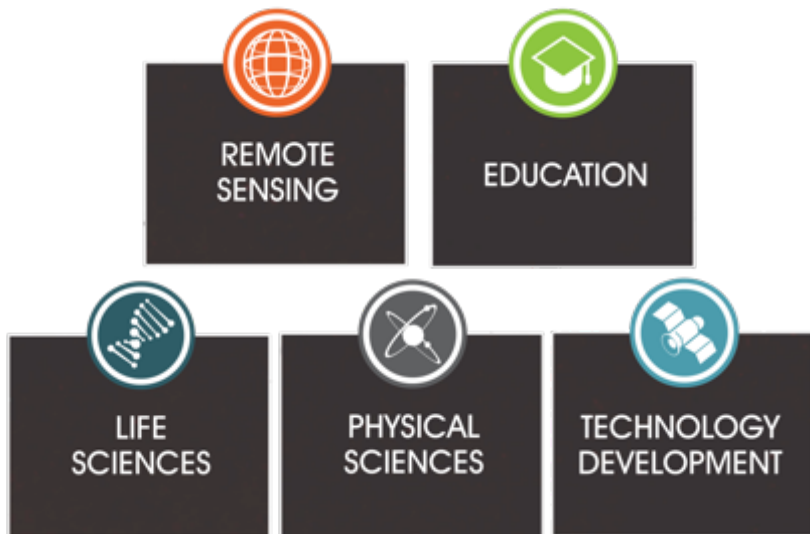
mroberts@iss-casis.org



THE ISS U.S. NATIONAL LAB

The ISS U.S. National Lab provides opportunity for research and discovery targeted to definitive impacts on Earth.

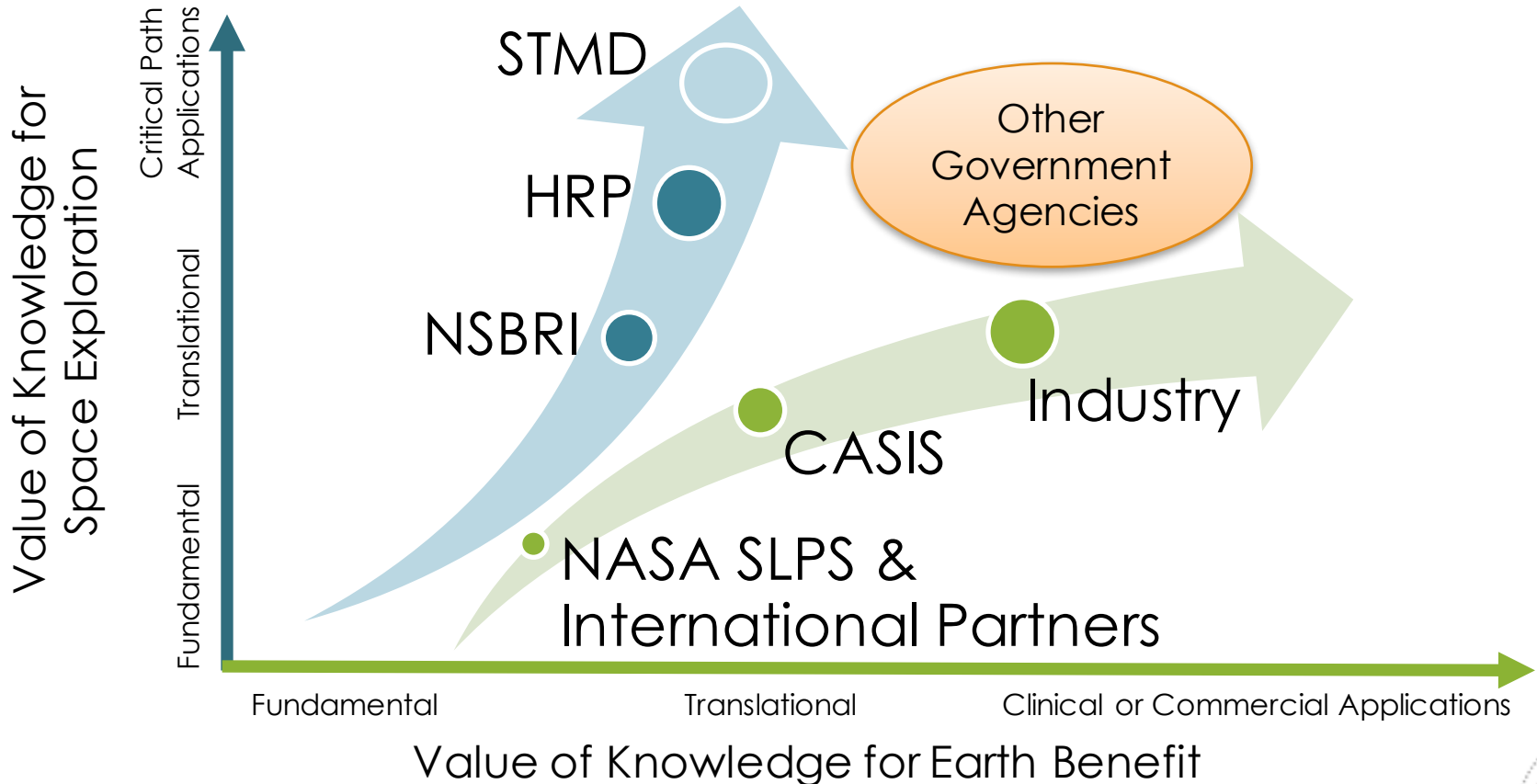
The opportunities on the ISSNL are wide-ranging:



IMPROVE LIFE ON



R&D OBJECTIVES OF ISS NATIONAL LAB STAKEHOLDERS





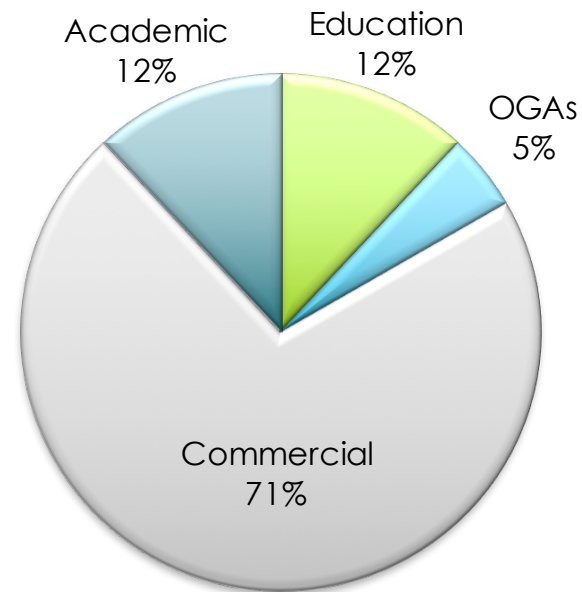
PROMOTING R&D IN SPACE

Managing the ISS National Lab and enabling “demand side” interest in Low Earth Orbit alongside NASA, commercial launch service providers, and others

- ⊕ The CASIS mission is to maximize the value of the ISS to the nation by developing and managing a diversified R&D portfolio based on U.S. national needs for basic, applied, and translational research.
- ⊕ CASIS is not in this alone, and looks to NASA, other government agencies, and businesses such as SpaceX, Orbital ATK, Boeing, Bigelow Aerospace, Nanoracks, Space Tango, and others to help create demand.

EVOLVING ISS NATIONAL LAB

- ⊕ **Commercial engagement** – 71% of FY15 CASIS-sponsored research projects represent commercial companies
- ⊕ **Robust portfolio** – CASIS has evaluated more than 200 proposals since inception
 - ⊕ Awarded more than \$20M in seed money to ~100 projects
- ⊕ **Sponsored program model** – Leveraged the financial resources of other outlets with our ability to manifest ISS National Lab flight opportunities
 - ⊕ NSF – \$1.8 million investment a significant step to larger scale funding partnerships
 - ⊕ NIH – In discussion with the National Center for Advancing Translational Sciences (NCATS)
- ⊕ **Network building** – Developing/managing partnerships across targeted geographic ecosystems
 - ⊕ e.g., MassChallenge in Boston, Houston Angel Network in Houston, Space Angels Network in SoCal, Lux Capital in CA



*OGAs – other government agencies



April 10, 2016. The International Space Station with a SpaceX *Dragon*, Orbital ATK *Cygnus*, and one of two docked Soyuz.

Not pictured, the Bigelow Expandable Activity Module (BEAM) attached at Node 3 aft.

Dragon

Cygnus

Soyuz