Partnering with NASA

An Overview

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Partnering with external organizations to access capabilities under collaborative agreements

Entering into reimbursable agreements for partner access to NASA capabilities

Expanding overall landscape of space activity (maximizing public and private sector growth)

Spurring innovation
How does NASA partner?

**Non-Reimbursable Space Act Agreements**

Agreement benefits both parties, with each funding their own participation.

Proposed activity must be relative to a NASA mission or program requirement.

The level of the other party’s contribution is relatively equitable to NASA’s contribution.

**Reimbursable Space Act Agreements**

Requires transfer of funds or other financial obligations from the other party to NASA.

No goods or services are provided to NASA.

NASA provides unique facilities, equipment, or expertise.
Technology Areas of Common Interest

**NASA Missions**
- Planned human-machine interaction in natural and time delayed environment
- Space & planetary navigation
- Spacecraft autonomy
- Cyber-security for “one-off” systems
- Space environment
- Limited ability to address/recover faults

**Self-Driving Cars and UAVs**
- Partners’ Requirements
  - Diverse human-machine interaction in a structured environment
  - GPS & map-based navigation
  - Distributed and cloud-based autonomy
  - Cyber-security for consumer product

**Common Technologies**

- **Autonomy**
  - Advanced planning & scheduling algorithms, etc.

- **Human-Autonomy Teaming**
  - Robotic supervision including human/robotic interactions, etc.

- **Networked Operations**
  - Remote vehicle management, etc.

- **Prognostics and Diagnostics**
  - Including state management, etc.

- **Sensor Technologies**
  - Data processing / fusion methodologies, etc.

- **Verification & Validation**
  - Methodologies & application experiences, etc.
The mission of the SBIR program is to support scientific excellence and technological innovation through the investment of Federal research funds in critical American priorities to build a strong national economy.

NASA’s SBIR and STTR programs have awarded over $3.3B to research-intensive American small businesses to date.
NASA Centers and Installations

Occupants:
~1,130 civil servants
~2,100 contractors; 1,650 tenants
~1,344 summer students in 2015

FY2016 Budget: ~$915M (including reimbursable/EUL)

Campus: ~1,900 acres (400 acres security perimeter); 5M building ft²

Airfield: ~9,000 and ~8,000 ft runways
Major Research Facilities

Wind Tunnels

ARC Jet Complex

Range Complex

Simulators

Advanced Supercomputing
Core Competencies at Ames Today

- Air Traffic Management
- Entry Systems
- Advanced Computing & IT Systems
- Intelligent/Adaptive Systems
- Cost-Effective Space Missions
- Aerosciences
- Astrobiology and Life Science
- Space and Earth Sciences
NASA Research Park

An established regional innovation cluster that facilitates commercialization by serving as a technology accelerator through vital and robust onsite collaborations.

70+ Partners Today

- University Associates-Ground Lease
- PV “Google” (North East Section) Ground Lease
- M2MI Corporation-Bldg.19
- Carnegie Mellon University-Bldg. 23, 19
- Kentucky Science & Technology Corporation-Bldg.19
- Bloom Energy-Bldg. 543, 154 (Fuel Cell Research)
- UAV Collaborativer-Bldg.18
- Singularity Education Group-Bldg. 20
- BAER Institute-Bldg. 19

- Chandah Space Technologies-Bldg. 19
- IDM Technologies-Bldg. 19
- Logyx LLC-Bldg. 19
- Made in Space-Bldg. 153
- Neurovigil Inc.-Bldg. 19
- Rhombus Power-Bldg. 19
- Scanadu Inc.-Bldg. 20
- SkyTran-Bldg. 14
- Verdigris Technology-Bldg. 19
- ZeeAero-Bldg. 210
- LatIPnet-Bldg. 19
- Wyle Laboratories-Bldg. 19