



# Space Technology Mission Directorate

## STMD Knowledge Strategies

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- **STMD Knowledge Mapping**
  - Case Studies / Publications
  - Face-to-Face Knowledge Services
  - Online Tools
  - Knowledge Networks
  - Lessons Learned / Knowledge Processes
  - Search / Tag / Taxonomy Tools
- **Knowledge Capture Process Development**
- **STMD Knowledge Management Status**



# STMD Case Studies / Publications



## STMD Program Newsletters

- Technology Demonstration Missions
- Game Changing Development
- Small Business Innovative Research

## NASA Technology Publications



# STMD Face-to-Face Knowledge Services



## STMD Face-to-Face Services

- Technology Day on Capital Hill
- Outreach to University Researchers
- Program Annual Reviews
- NIAC Symposium
- Conference Presentations

## NASA Innovative Advanced Concepts Symposium



## STMD Presentation to Ga. Tech Researchers



## “Technology Day” on Capitol Hill

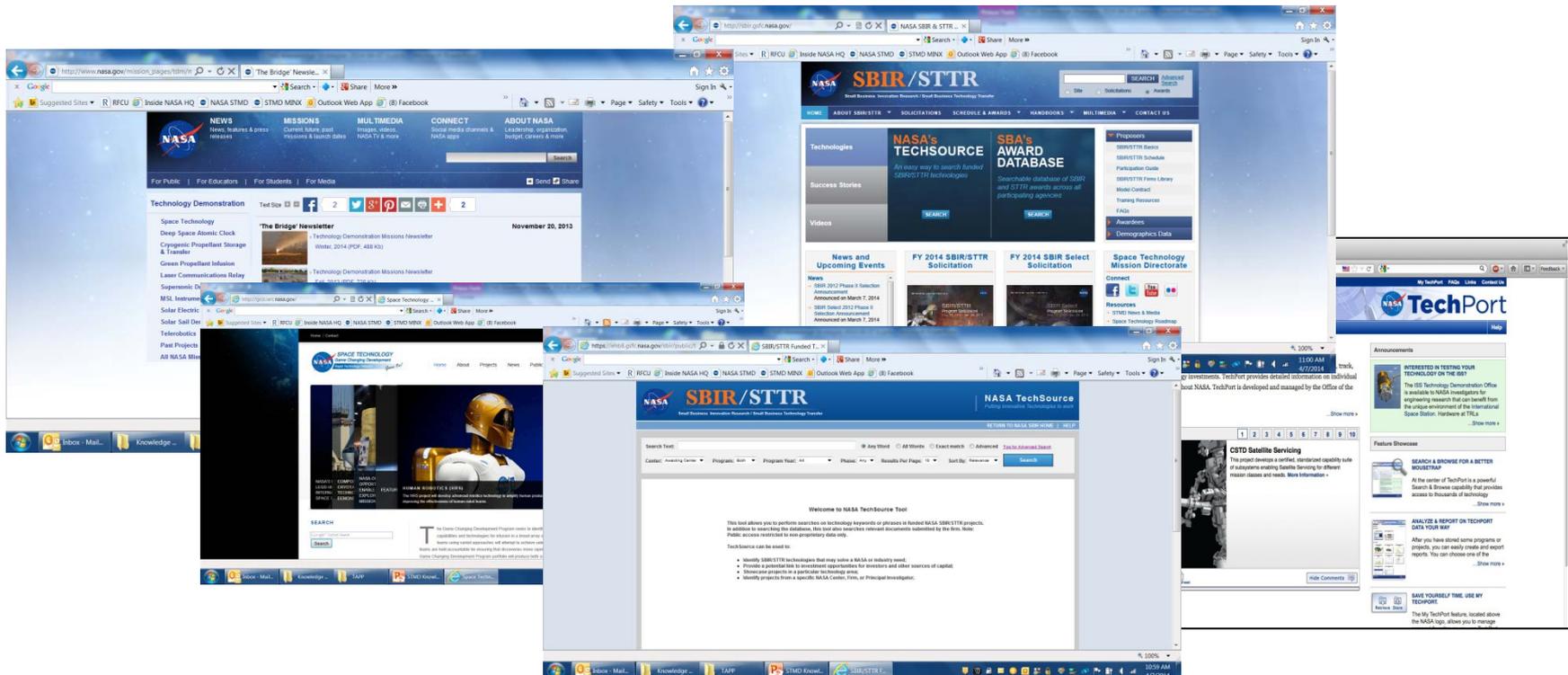


# STMD On-Line Tools



## STMD On-Line Tools

- STMD Website
- Program Websites
- OCT TechPort Website
- NASA Website



# STMD Knowledge Networks



## STMD Knowledge Networks

- Program Communities: Principle Investigator community
- NASA Innovative Advanced Concepts: NIAC Fellows
- Game Changing Development: “Meet a Game Changer” community
- Space Technology Research Grants: Researcher community



# STMD Lessons Learned Activities

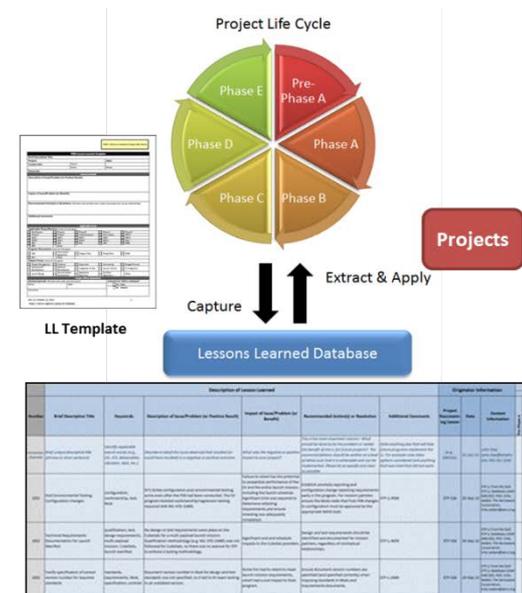


## STMD Lessons Learned / Knowledge Processes

- Technology Demonstration Missions: Lessons Learned Database
- Game Changing Development: Close-Out Process includes lessons learned
- NASA Innovative Advanced Concepts (in development)
- Center Investment Fund (in development)
- Small Business Innovative Research (in development)

### TDM developed a new Lessons Learned database

- Developed thru an Aerospace task
- TDM is partnered with USAF Space Test Program (STP) to share Lessons Learned
- Database is pre-populated with STP LL applicable to TDM missions by phase (150+ lessons to date)
  - Implemented in Excel; simple and searchable
  - Uses capture template that is compatible cross-platform
  - Baseline delivery is Dec 2013.



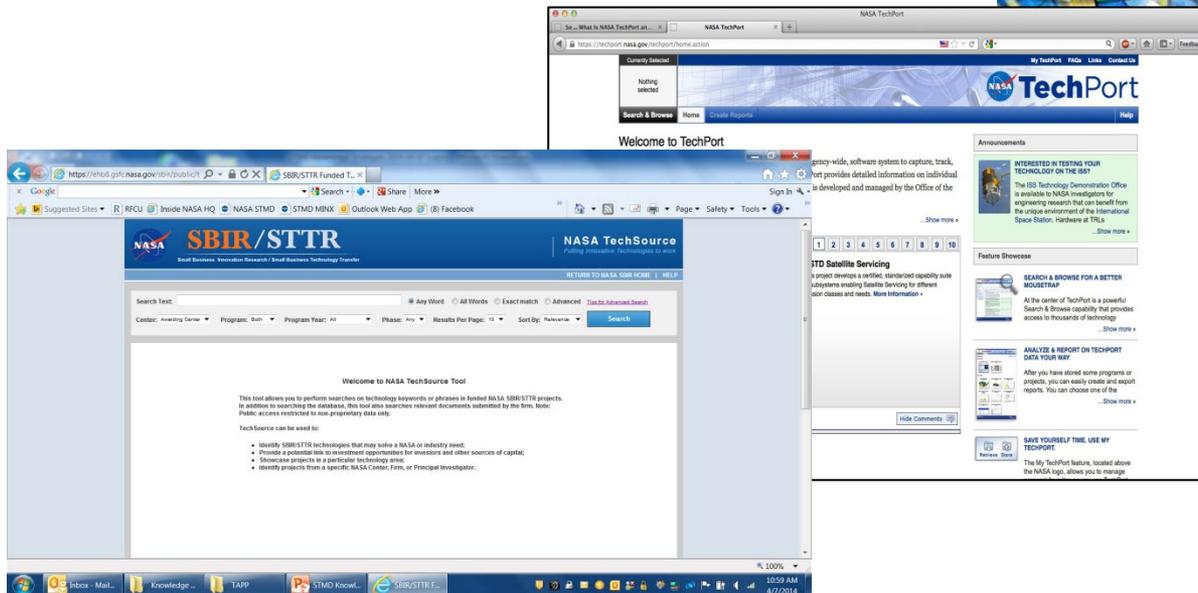
A resource for Project Managers to find and employ applicable Lessons Learned

# STMD Search / Tag / Taxonomy Tools



## STMD Search / Tag / Taxonomy Tools

- Small Business Innovative Research: TechSource
- STMD Programs:
  - General Website Search Capabilities
  - OCT TechPort Website
  - STMD Knowledge Capture Initiative





# Knowledge Capture Process Need



- **Currently each STMD Program has its own process for the documentation of program results**
- **Knowledge capture processes vary among programs**
- **Access to program results usually requires direct requests to program offices**

***An integrated STMD knowledge capture process would provide efficient access to the knowledge gained from STMD Programs***



# Knowledge Capture Summary



Program	Defined Closeout Process	STMD MINX Archive	Dedicated Program Server	Dedicated Program Website	STMD Website
Game Changing Development	✓	✓	✓	✓	✓
Technology Demonstration Missions			✓		✓
Small Spacecraft Technology			✓		✓
Space Technology Research Grants	✓		✓		✓
NASA Innovative Advanced Concepts	✓	✓		✓	✓
Center Investment Fund	✓	✓			✓
Centennial Challenges	✓				✓
SBIR / STTR	✓			✓	✓
Flight Opportunities				✓	✓



# STMD Knowledge Capture Interfaces



## Current Interfaces

Knowledge Capture Levels	Program Internal Servers	STMD Minx Server	STMD Websites	OCT TechPort Website
STMD Programs	✓	✓		
STMD		✓		
NASA			✓	✓
Engineering Community			✓	✓
Public			✓	✓

*Partial Knowledge Availability*



- **Where are we?**
  - STMD has many activities that apply to the Agency Knowledge Map
  - STMD has not integrated its' activities into the Agency Knowledge Map
- **Where are we going?**
  - STMD has initiated development of a Knowledge Capture Process
  - Several programs are developing Lessons Learned processes
- **Where do we need help?**
  - STMD Programs need to increase awareness of the Agency Knowledge Management activities
  - STMD needs help to develop inputs to the Agency Knowledge Map