Office of the Chief Technologist Update

Presented to the NASA Advisory Council, Technology, Innovation and Engineering Subcommittee

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NASA Acting Chief Technologist

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Topics

- **Executive Council Review of the Roles and Responsibilities of**

  OCT/STMD and Resulting Realignment

  -
    - **NASA Technology Executive Council (NTEC)**

  -
- **Draft 2017 NASA Space Technology Investment Plan (STIP)**

- **Review the roles and responsibilities of the Office of Chief Technologist and recommend changes consistent with:**

  - Align OCT functions consistent with providing technology advice and guidance to the NASA Administrator

  - Consider the structure and operation of the Office of Chief Scientist (OCS) as a model for OCT

  - OCS has no programmatic functions

- **Options presented to EC April 19, 2016**

  - Organizational decisions on the following page

  - Implementation Plan presented at a follow on EC on June 17, 2016

  - Schedule

    - Personnel in place August 1, 2016 (complete)

    - Resources shift October 1, 2016 (complete)

NASA – Executive Council
DECISION PACKAGE

OCT/STMD Implementation Plan

Dr. Steve Jurczyk
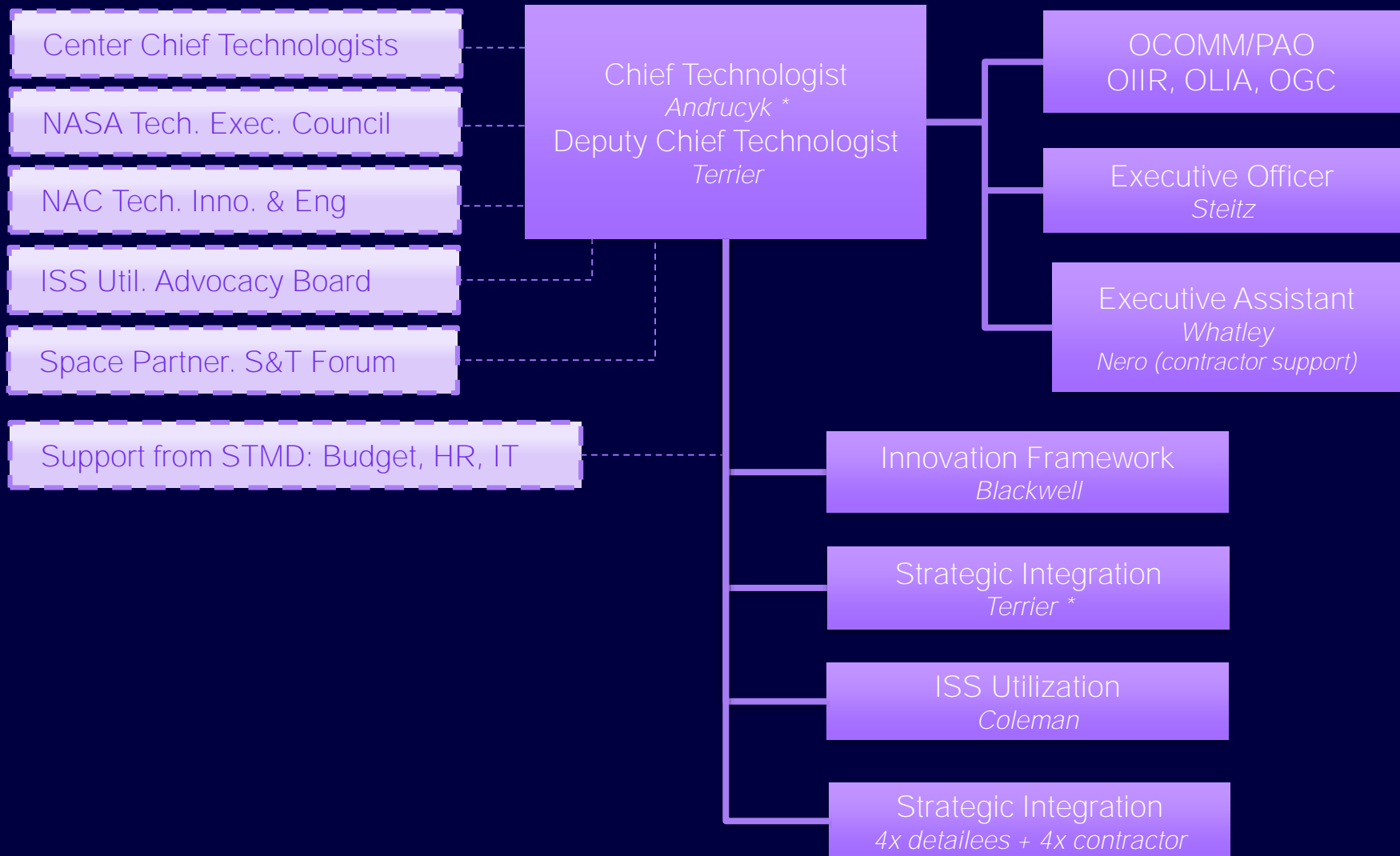**Dr. David Miller**

June 17, 2016

Executive Council Recommendations:

c. **Re-charter NTEC with support from Agency Council Staff**

d. **Move management of Emerging Space Grants to STMD**

e. **Conduct independent assessment of Centennial Challenges Program to improve alignment with Agency goals and objectives**

f. **Conduct independent assessment of TechPort**

g. **Implementation of the NASA Innovation Framework will be the responsibility of OCT under the direction of the Deputy Administrator**

   - This decision does not reflect a change in OCT or STMD operations

h. **Move Technology Transfer and Prizes & Challenges to STMD**

i. **Move TechPort management to STMD for cross-agency data gathering, archiving and reporting**

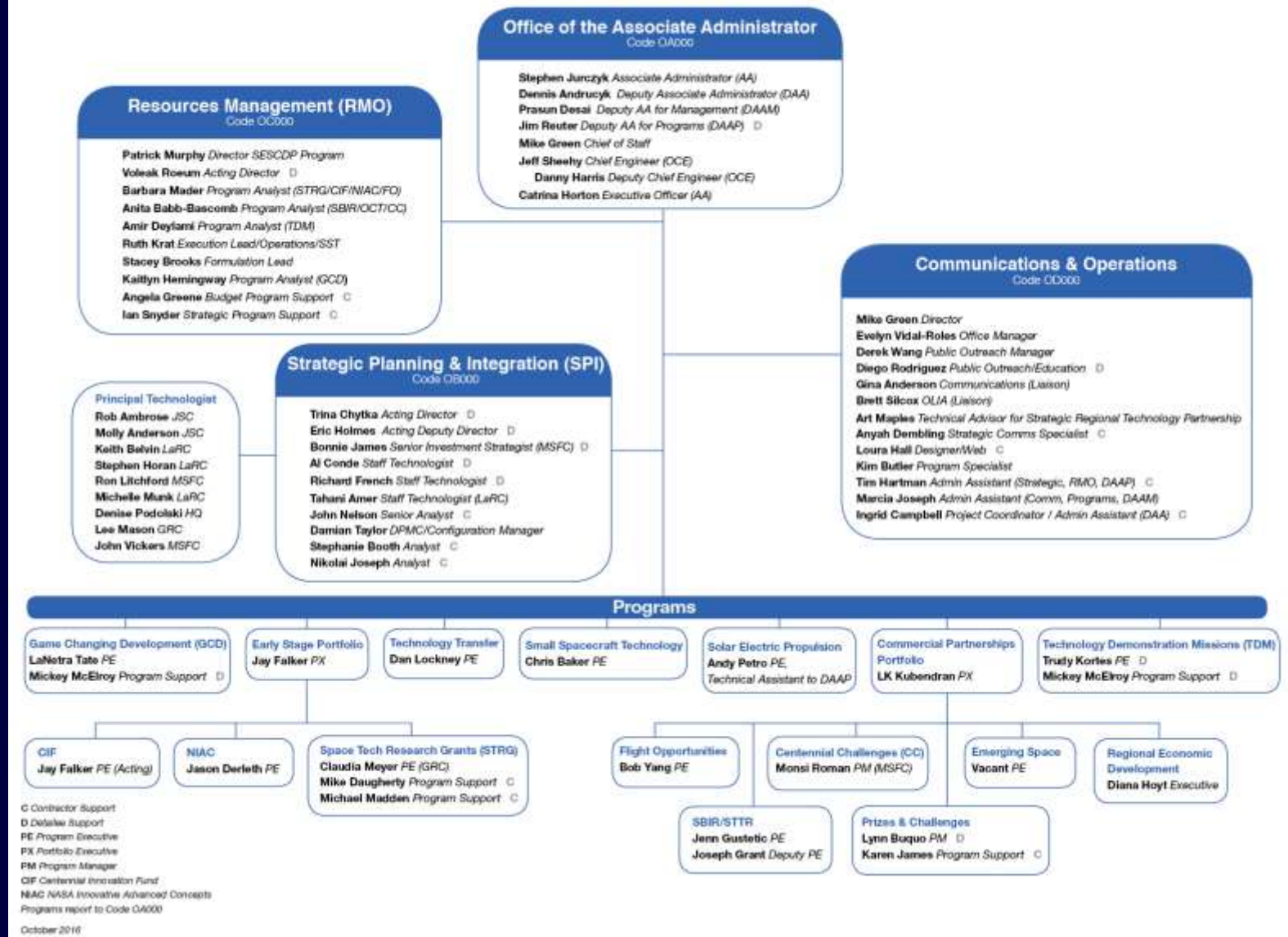# Office of the Chief Technologist Organization Chart

Center Chief Technologists

NASA Tech. Exec. Council

NAC Tech. Inno. & Eng

ISS Util. Advocacy Board

Space Partner. S&T Forum

Support from STMD: Budget, HR, IT

Chief Technologist
*Andrucyk ***
Deputy Chief Technologist
Terrier

OCOMM/PAO
OIIR, OLIA, OGC

Executive Officer
Steitz

Executive Assistant
Whatley
Nero (contractor support)

Innovation Framework
Blackwell

Strategic Integration
*Terrier **

ISS Utilization
Coleman

Strategic Integration
4x detailees + 4x contractor

* Acting

6

Update on the

NASA Technology Executive Council (NTEC)

The New NTEC Charter: Purpose and Process

PURPOSE

6.8.1 The NASA Technology Executive Council (NTEC) serves as the Agency's senior advisory body regarding the Agency technology portfolio. This includes commissioning technology-related studies directed by the Administrator, as well as developing findings, making decisions and recommendations on the Agency's technology strategy.
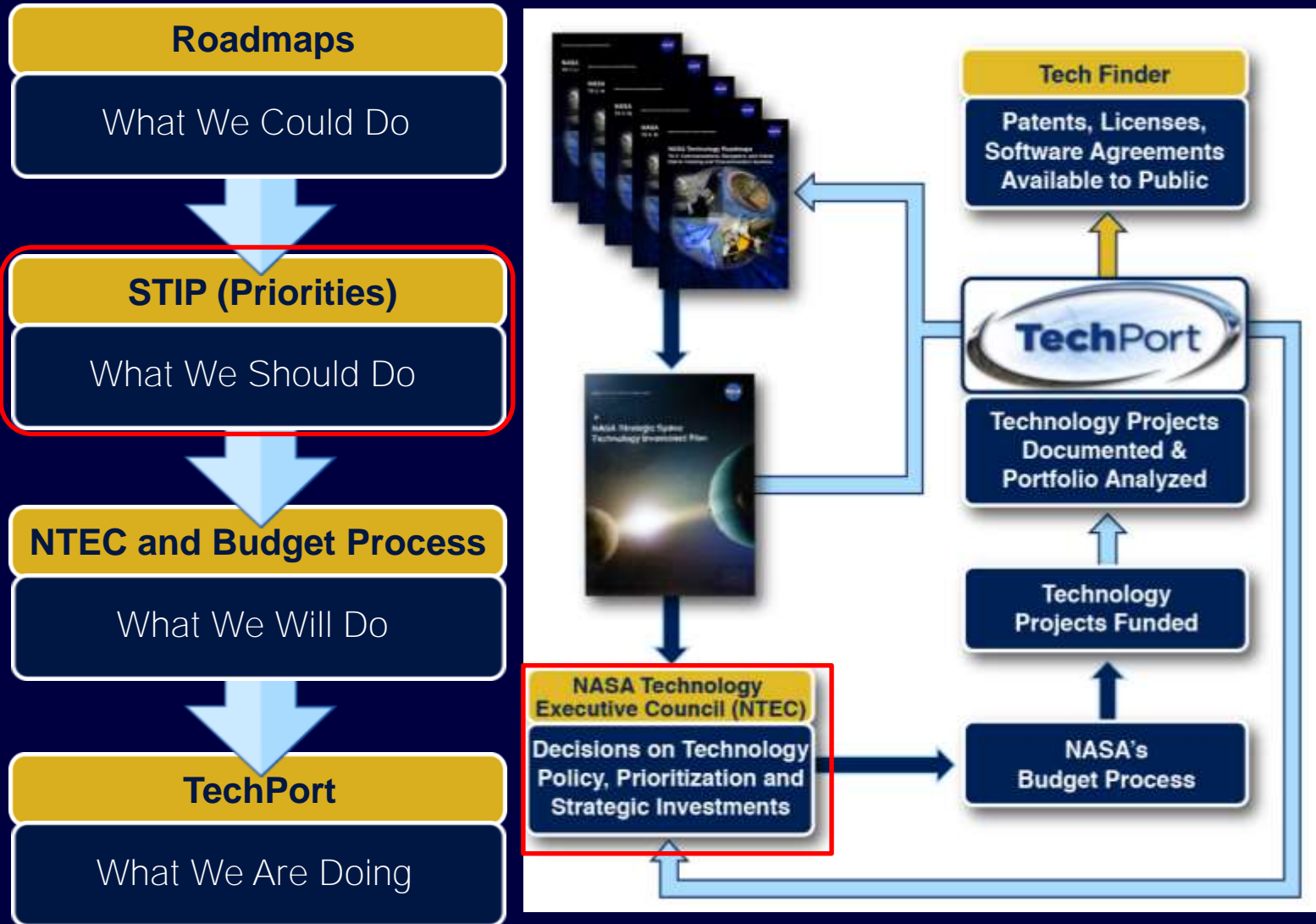
PROCESS

6.8.5.2 The NASA Chief Technologist serves as the chair but the final recommendations provided to the Administrator and the Executive Council is made by consensus of voting members.

a. Consensus views are defined as a majority of votes from voting members. Dissenting views will be documented if at least one third of the voting members are in favor.

Update on the Draft 2017 NASA Space Technology Investment Plan (STIP)

Technology Portfolio Management

Roadmaps

What We Could Do

STIP (Priorities)

What We Should Do

NTEC and Budget Process

What We Will Do

TechPort

What We Are Doing

Tech Finder

Patents, Licenses, Software Agreements Available to Public

TechPort

Technology Projects Documented & Portfolio Analyzed

Technology Projects Funded

NASA Technology Executive Council (NTEC)

Decisions on Technology Policy, Prioritization and Strategic Investments

NASA's Budget Process

Draft 2017 NASA STIP

Forward

Draft 2017 NASA STIP

- **Key consideration in this STIP**

- Effort began in early FY2016,
    - Started from current roadmaps, linked technology solutions to reference missions,
    - Factored in NRC, Mission Directorates and offices priorities,
    - Examined combination of weighing factors reflecting space policy, strategic plan,
    - Implemented a custom, formal multi criteria decision making process,
    - Recommended a 70% critical – 20% essential – 10% complementary balance to the investment portfolio.

- **What is new in this STIP (compared to 2012 version)?**
    - Linked to the NASA Strategic Plan with top-down and bottom-up assessment
    - Updated roadmaps (2015),
        - "Included" Aeronautics roadmaps,
    - NTEC <u>initially</u> involved, setting technology policy, prioritization, strategic investments.

- **Status of the STIP development**
    - Initial draft developed, awaiting NTEC/STIP leadership team feedback.
    - ID'd 378 critical technologies at the 4th roadmap level (technology candidates)
        - This process under review

- Start from **NRC 2016 report,** factor in **STIP 2017** draft
- Sort out fundamental assumption differences and impact on different prioritizations
- Re-visit 70%/20%/10%, consider alternatives, seek consensus
- Factor in Aero so as to highlight cross-cutting technologies
- Focus on reflecting
  - MD priorities
  - Cross-cutting technologies
  - Lead-collaborate-watch-park classification
- Run a 2-3 days workshop in December
- Facilitated by CTC, OCT with technical/analysis support by Tauri Group

Questions