| Document Markings | | | | |
|--|-------------------------------------|--|--|--|
| Revision: Baseline | Document No: COSMIC-E02-C015-2024-A | | | |
| Release Date: 8/20/2024 | Page: i of 2 | | | |
| Title: Mapping of COSMIC 2024 Products to National ISAM Implementation Pla | an | | | |



RELEASE DATE: 08/20/2024

COSMIC-E02-C015-2024-A

COSMIC

CONSORTIUM FOR SPACE MOBILITY AND IN-SPACE SERVICING, ASSEMBLY AND MANUFACTURING (ISAM) CAPABILITIES

MAPPING OF COSMIC 2024 PRODUCTS TO NATIONAL ISAM IMPLEMENTATION PLAN

Greg Richardson COSMIC Executive Director The Aerospace Corporation

> COSMIC information approved for unlimited public release The electronic version is the official approved document. Verify this is the correct version before use.

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REVISION AND HISTORY PAGE

| Revision No. | Description | Release Date |
|-----------------|------------------|-----------------|
| Baseline | Initial Baseline | TBD |
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COSMIC 2024 Products



Consortium Management Entity (CME)

COSMIC Lexicon

Mapping of COSMIC Products to COSMIC Objectives Mapping of COSMIC Products to National ISAM Implementation Plan

Industry Caucus

Government Caucus

Academia Caucus

Research & Technology (RT)

Steering Committee (SC)

State of COSMIC Assessment

- ISAM Technology Taxonomy
- 2. ISAM Technology Inventory
- 3. Data Collection for ISAM Critical Capabilities Roadmap

Demonstration Infrastructure (DI)

- ISAM Testbed Taxonomy (Digital, Ground, Flight)
- 2. ISAM Testbed Inventory
- 3. State of US ISAM Testbeds Report

Missions & Ecosystems (ME)

- 1. ISAM Capability Taxonomy
- 2. ISAM Use Cases & Value Proposition
- 3. ISAM Funding Opportunities Repository
- 4. Data Collection for ISAM Critical Capabilities Roadmap

Policy & Regulation (PR)

 ISAM Policy and Regulation Repository

2. ISAM Policy Education Seminar Series

Workforce Development (WD)

- 1. ISAM Education Advocate Inventory
- 2. ISAM Hard Problems List
- ISAM STEM
 Resources and
 Outreach
 Opportunities

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Mapping 2024 Products to the National ISAM Implementation Plan

LEGEND:

2

Indirectly informs



| . Advance ISAM Research & Development | 2. Prioritize Expanding Scalable ISAM Infrastructure | 3. Accelerate the Emerging ISAM Commercial Industry | 4. Promote International Collaboration & Cooperation | 5. Prioritize Environmental Sustainability | 6. Inspire the Future Space Workforce |
|--|---|--|---|---|---|
| 1.1.1 Evaluate ISAM cost / benefit | 2.1.1 Coordinate on standards development | 3.1.1 Adopt commercial modular infrastructure | 4.1 Encourage international cooperation on norms | 5.1 Develop ISAM procurement options | 6.1 Engage K-12 students in ISAM |
| ME1 ME2 | 2.1.2 Incorporate standards in government SVs | 3.2.1 Convene a nationwide ISAM consortium | 4.2 Assess ISAM national security risks | 5.2 Revise US policy for RPO | WD3 |
| 1.1.2 Launch an in-space ISAM test capability | 2.1.3 Flight qualify standard hardware | 3.2.2 Improve access to USG | 4.3 Inform ISAM regulations | PR2 | 6.2 Increase access to education programs |
| 1.2.1 Maintain ISAM State of Play | 2.2.1 Close gaps in US testing capability | test facilities | RT2 | 5.3 Evaluate EOL disposal policies | WD1 WD3 |
| RT1 RT2 DI2 ME2 | DI1 DI2 DI3 | 3.3.1 "Buy services" vs. "buy | 4.4 Promote US regulatory intent | PR2 | 6.3 Expand multi-disciplinary education opportunities |
| 1.2.2 Prioritize ISAM research | 2.2.2 Create propellant purchasing strategy | hardware" | PR1 PR2 | | WD2 WD3 |
| RT3 ME4 | | 3.3.2 Create procurement | 4.5 Promote international cooperation | | |
| .2.3 Research power technologies | | documentation for ISAM | | | |
| .2.4 Research autonomy technologies | | | 4.6 Promote international research and joint testing | | |
| | | | DI2 | | |

Directly supports

FOCUS

AREA

ME

DI

WD

PR