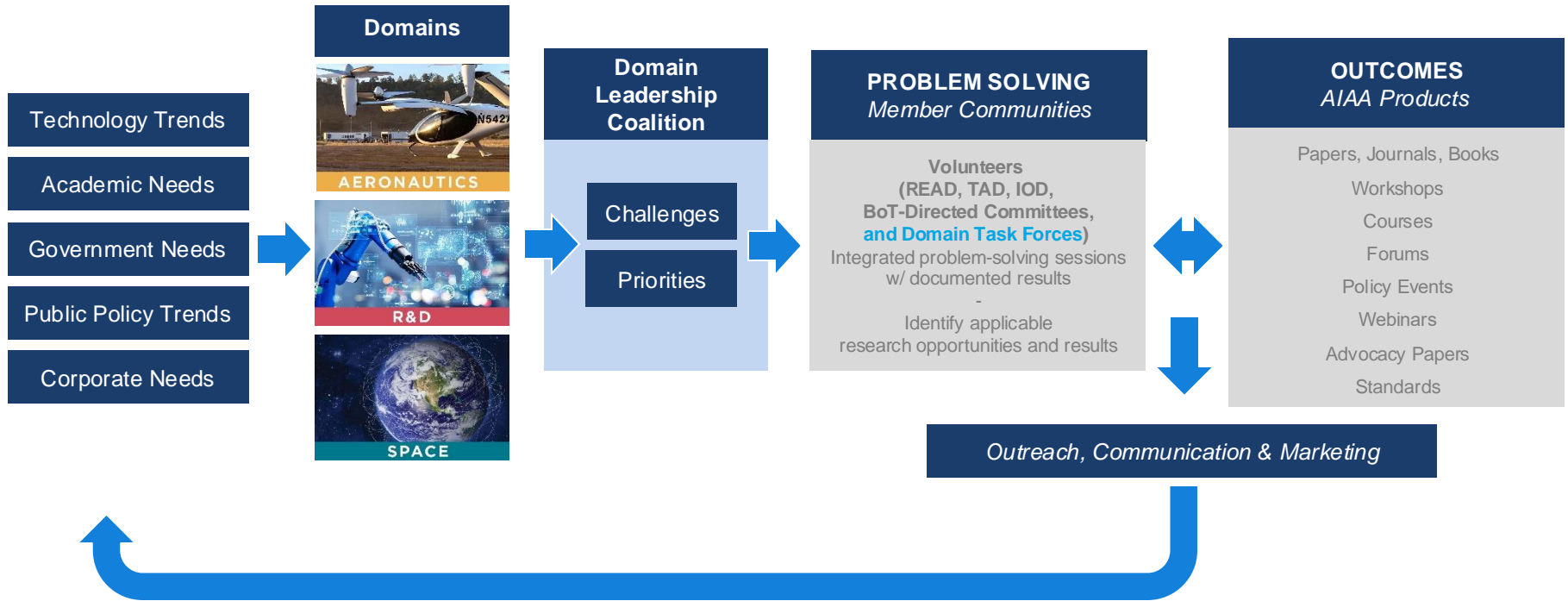


AIAA Domain Road Maps & Key Topics

Customer Needs Drive AIAA



Domain Roadmap

- A multiyear vision of AIAA's contributions to shaping the future of the domain.
- Reviewed, updated, and modified as needed based on changing Domain and ecosystem needs and markets.
 - Updates will be performed at least annually to support the overall AIAA 5-year strategic direction and annual budget development.
- Roadmap should identify, prioritize and map potential engagements among all subdomains and adjacent fields that AIAA should cultivate through products, services, and engagement strategies.
- Align with and contribute to overall AIAA Strategic Plan

Domain Key Topics



AERONAUTICS

System solutions applied by private industry, government programs to address commercial and policy customer needs

- Aviation Decarbonization and Sustainability
- Advanced Air Mobility
- Certification
- Hypersonics and Supersonics



R&D

Research performed by academic institutions, government laboratories, industry laboratories to be utilized by system solutions

PROBLEMS | ISSUES | PRIORITIES

- Transformative System Engineering
- Autonomy / Artificial Intelligence / Machine Learning
- Resilient and Assured Systems
- Advanced Manufacturing and Advanced Materials



SPACE

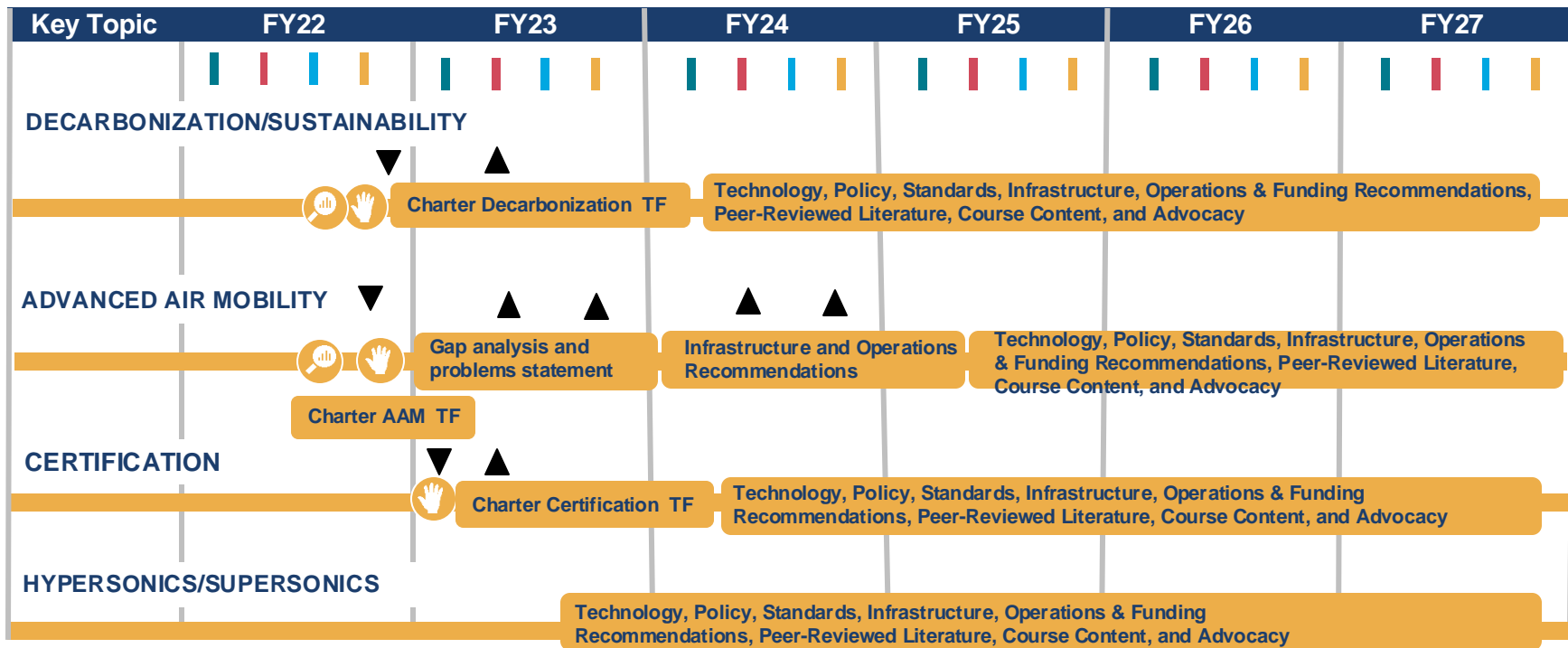
System solutions applied by private industry, government programs to address commercial and policy customer needs

- Space Traffic Management / Space Traffic Coordination
- Space Sustainability
- Space Exploration
- Outpacing the Space Threat
- Competitive and Burgeoning Space Economy



AERONAUTICS

Aeronautics Roadmap

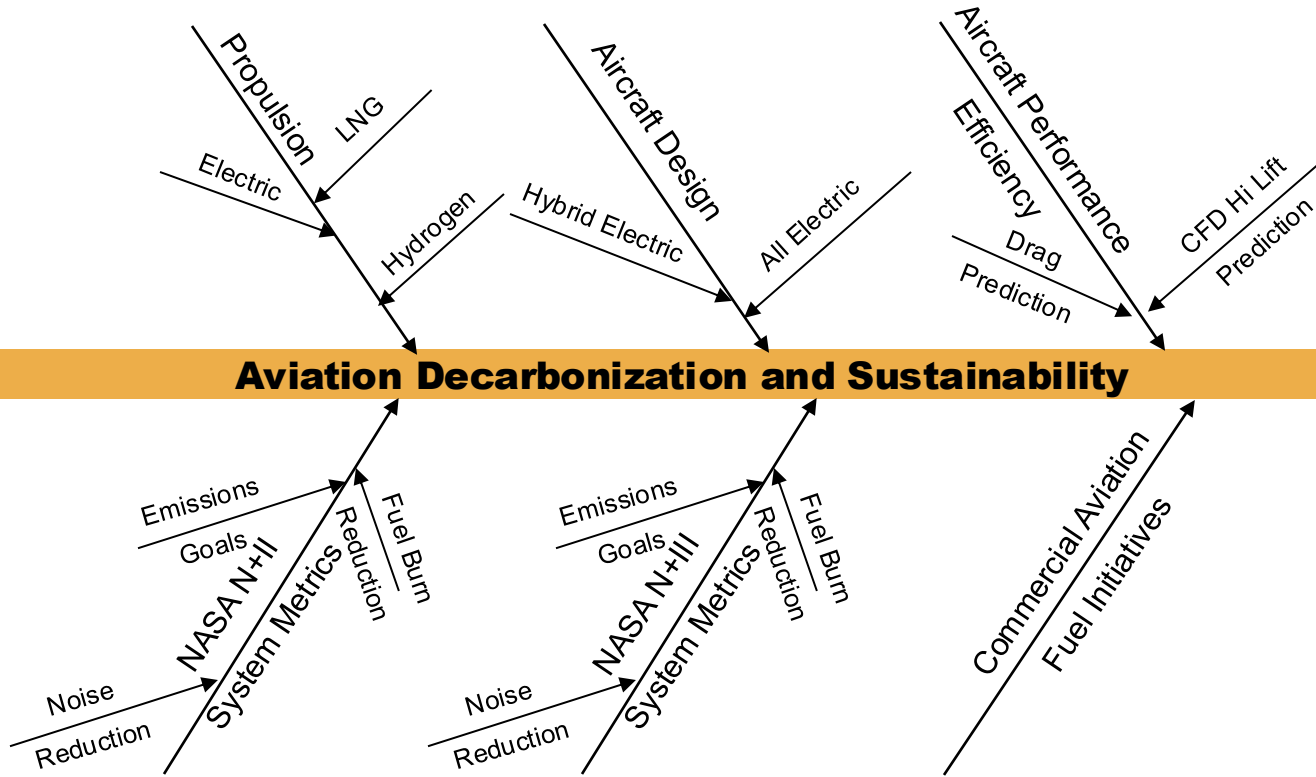


█ ASCEND
 █ SciTech
 █ DEFENSE
 █ AVIATION
 ▼ Inputs
 ▲ Report out

🔍 Research
 📅 Planning
 👤 Volunteers
 👥 Partners
 🏛️ Policy
 📅 Event
 📄 Reports

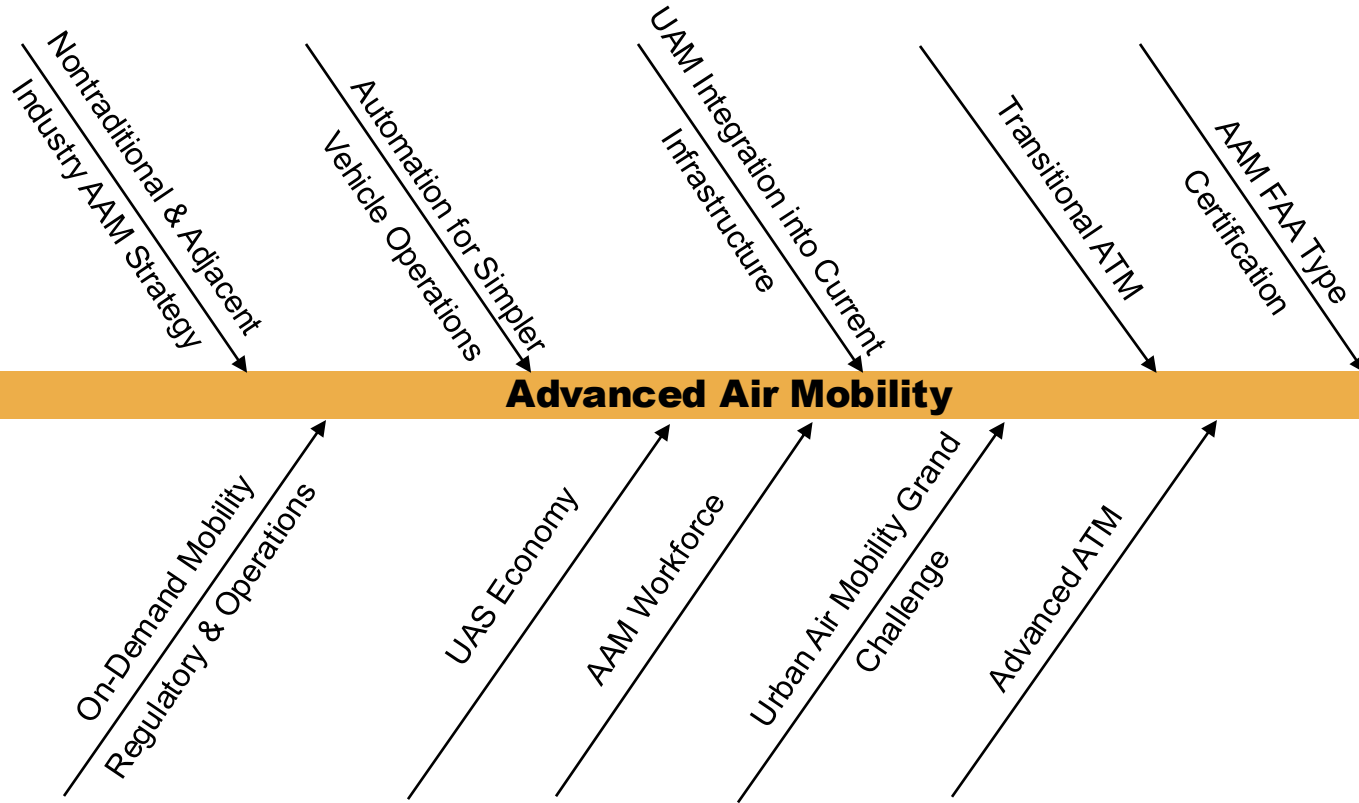


Aviation Decarbonization and Sustainability



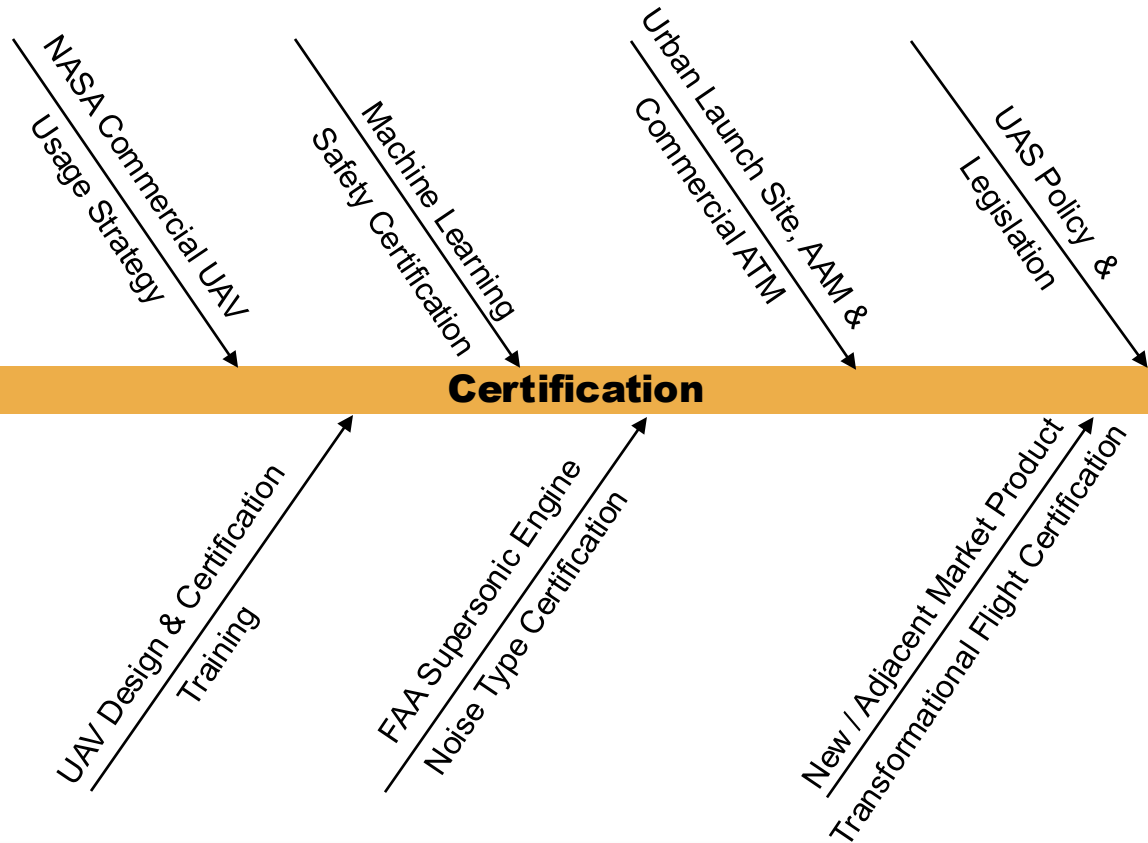
- 1) **NASA-funded research on all-electric aircraft**
- 2) **FAA invest \$100M into sustainable aviation**
- 3) **Lufthansa use of sustainable aviation fuel for selected routes**
- 4) **Airlines invest research on biofuels to cut emissions**

Advanced Air Mobility



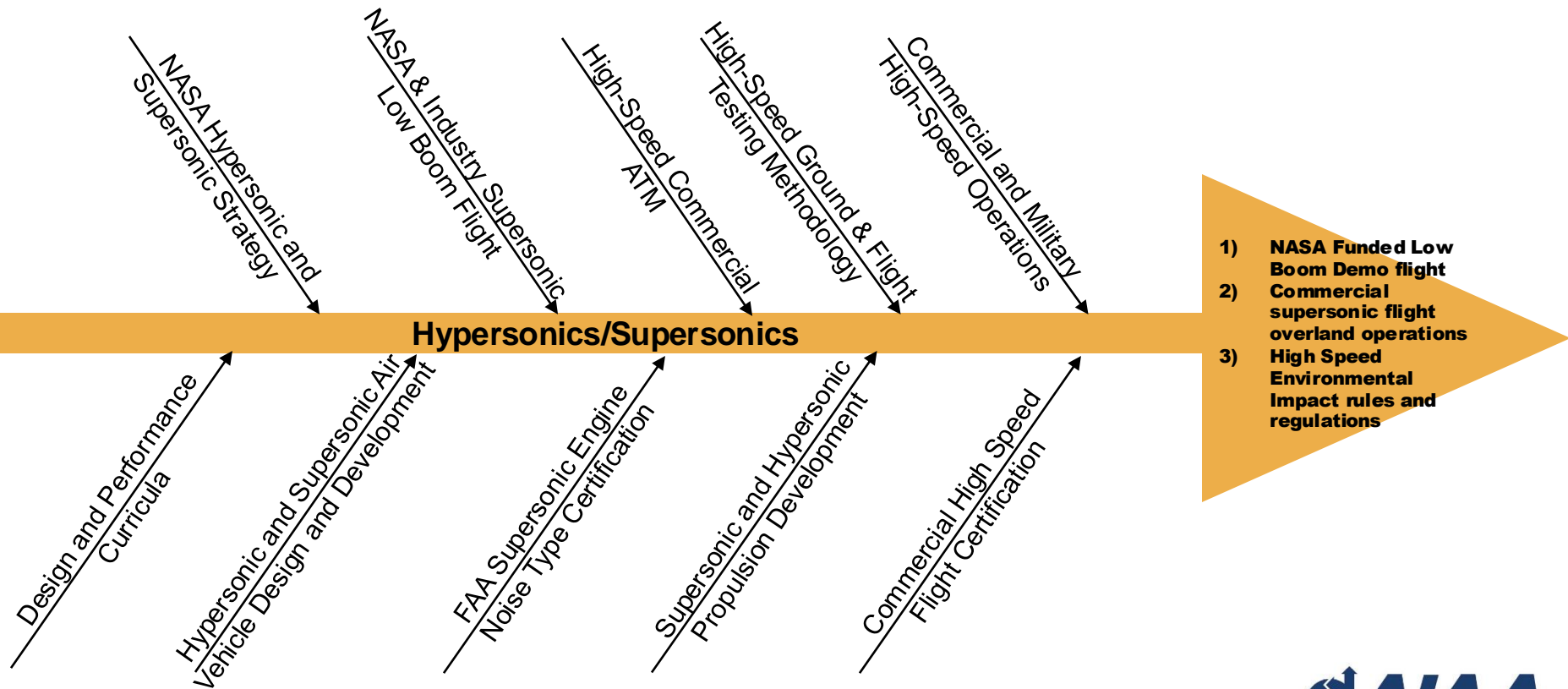
- 1) Pathway to AAM Operations
- 2) Urban Safety & Traffic Management Integration Processes, Rules & Regulations
- 3) Urban Environmental & Quality of Life Impact
- 4) Integration of Human-Machine Training & Operation
- 5) Autonomous Cargo Delivery Demonstrations

Certification



- 1) Pathways to uncrewed certification
- 2) Innovative pathways for new or adjacent market technology certification
- 3) Launch, commercial, and urban traffic safety and traffic management
- 4) Low noise overland supersonic flight demonstration
- 5) Urban environment autonomous cargo delivery demonstration

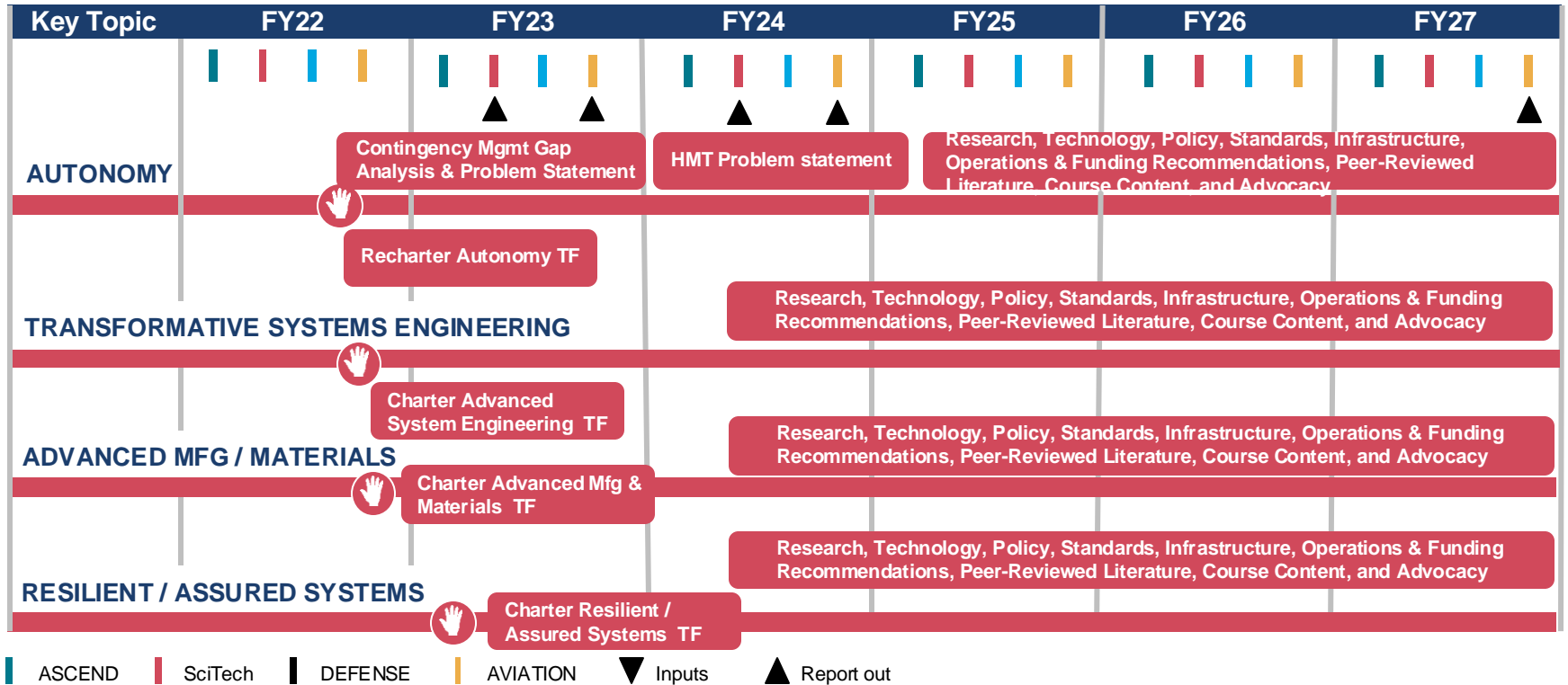
Hypersonics/Supersonics

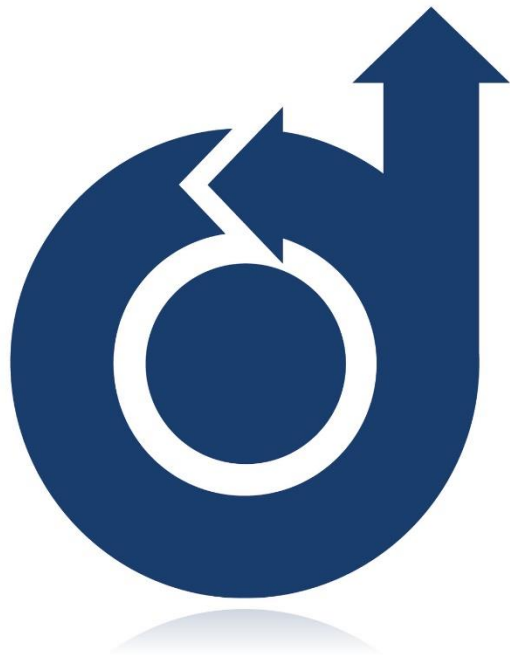




Research & Development

R&D Roadmap





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AERONAUTICS AND ASTRONAUTICS**