Advanced Air Mobility Project

- FY2020 new start

- Davis Hackenberg, Project Manager; other staff, TBD

- Under Integrated Aviation Systems Program (IASP)
  - Emphasis on flight-validating mid-TRL technologies
  - Integrated system testing, validation, and demonstration
  - Development of candidate certification requirements/methods

- Focused on emerging, transformational aviation markets
  - Initial focus is UAM
  - Transformational, system-wide impacts & challenges
  - Facilitate cross-project strategy, coordination, integration (e.g. ATM-X, RVLT, SWS , AS)

- Subprojects
  - UAM Grand Challenge Series
  - Autonomy

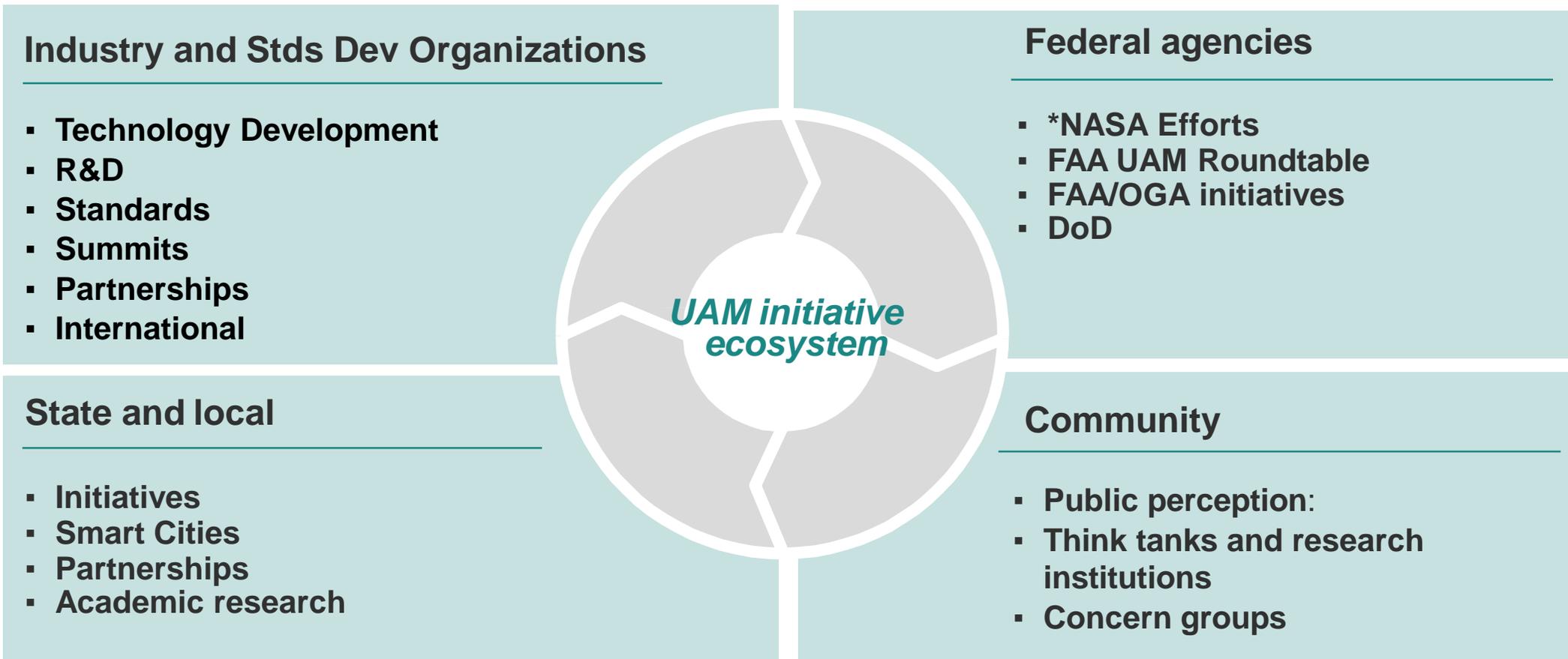**UML4 -- Collaborative and Responsible Automated Systems**
- Medium density and complexity operations in urban core
  - 100's of aircraft aloft, 10's of vertiports per metro area
  - Operations independent of external visibility (e.g. 0 ft ceiling, 0 ft visibility)
- Comprehensive update of pilot certification and experience requirements
- Demonstrate readiness for M:N, remotely supervised operations

Automation / autonomy principles across levels:
- Design, certification, and approval processes holistically consider the aircraft, airman, and airspace operations
- Novel, safety-critical technologies must have known fallbacks or mitigations until operationally proven (*full-credit requires operational history)*
- Designs must balance requirements of current level *and enable* transition to higher levels

AAM Collaboration Opportunities

Industry and Stds Dev Organizations

- **Technology Development**
- **R&D**
- **Standards**
- **Summits**
- **Partnerships**
- **International**

Federal agencies

- *NASA Efforts
- FAA UAM Roundtable
- FAA/OGA initiatives
- DoD

UAM initiative ecosystem

State and local

- Initiatives
- Smart Cities
- Partnerships
- Academic research

Community

- Public perception:
- Think tanks and research institutions
- Concern groups

*NASA Efforts include: ARTR, National Academies UAM Study, Public forums (AIAA, VFS, AUVSI, etc), Industry associations (GAMA, AIA, etc), Grand Challenge, Standards bodies (ASTM, RTCA, etc), Industry workshops (Acoustics, autonomy, etc), Project Research Partnerships, SMART Cities, RFIs, and more