

National Airspace System – Enterprise Architecture

Presented to: ICNS

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Federal Aviation
Administration



Content

- **What is an Enterprise Architecture?**
- **What is the NAS Enterprise architecture (NASEA)**
- **Why Do Enterprise Architecture?**
- **How do you view the Architecture**
- **Relationship to Other Organizations**



Enterprise Architecture

Enterprise Architecture - Is a discipline for assessing and recommending candidate information technology solutions in an integrated context with business and mission operations



What is NAS EA?

- **A realistic blueprint of the FAA and customer investment in the NAS.**
- **In particular, it provides the integrated decisions and synchronized investments needed to deliver NextGen.**
 - Describes changes in NAS operations
 - Describes the technology/infrastructure to support the changes
 - Projects the agency investment in new technologies, training, procedures
 - Identifies transitions from now to the mid-term and beyond
 - Constrained in transition by current FAA and customer infrastructure
 - Constrained by the agency budget

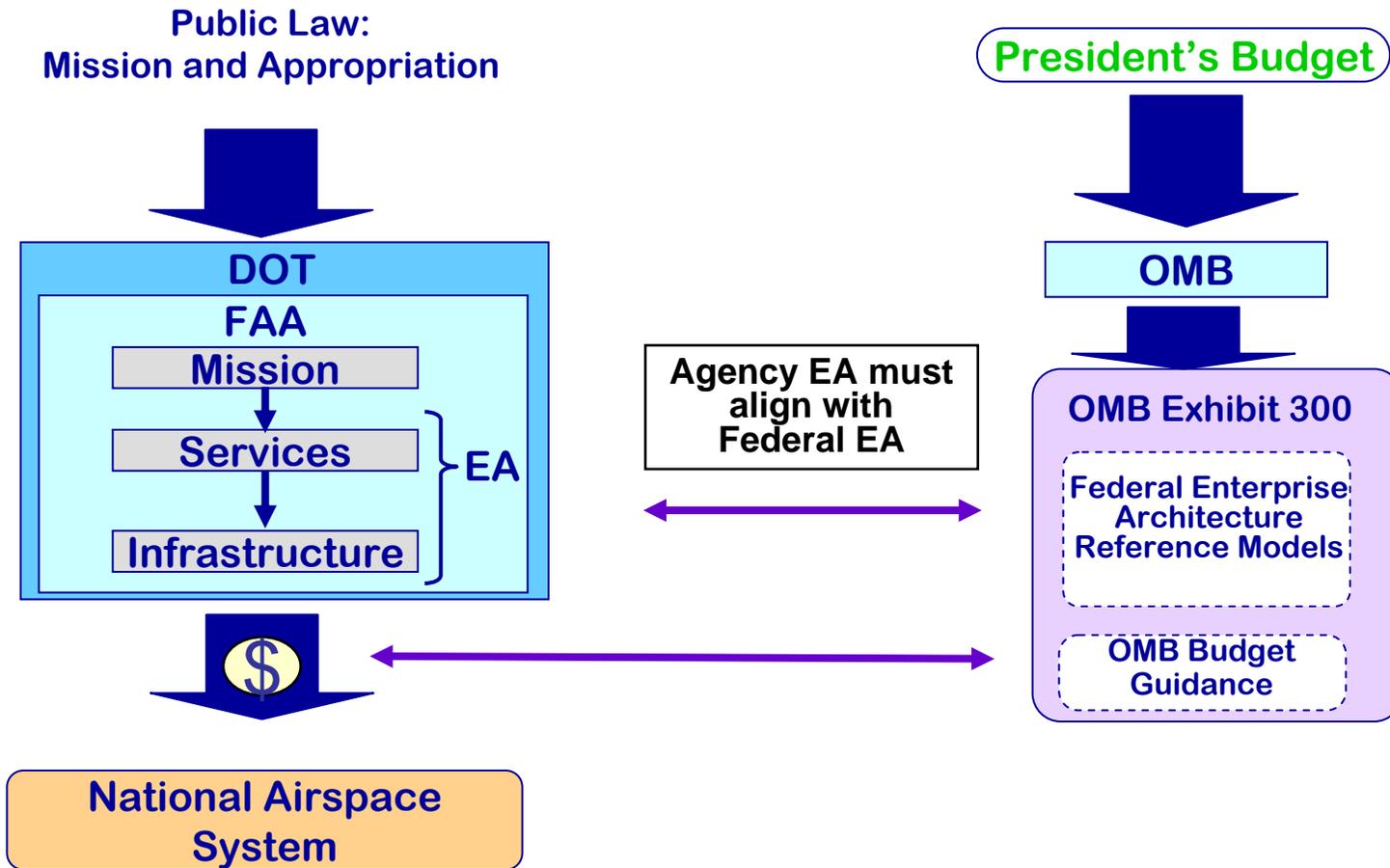


Why do EA?

- **Its the right thing to do integrated planning, and**
- **IT IS THE LAW!**
 - Office of Management and Budget requires federal agency to use an EA to guide transition to future systems.
 - OMB A-130: A framework must be use to describe agency architecture
 - OMB A-11: Agency investment must be related to the architecture
 - Reflect in agency exhibit 300 submission
 - General Accountability Office assess agency EA usage in investment
 - Agency funding may be withheld without an adequate architecture
 - Agency EA audits



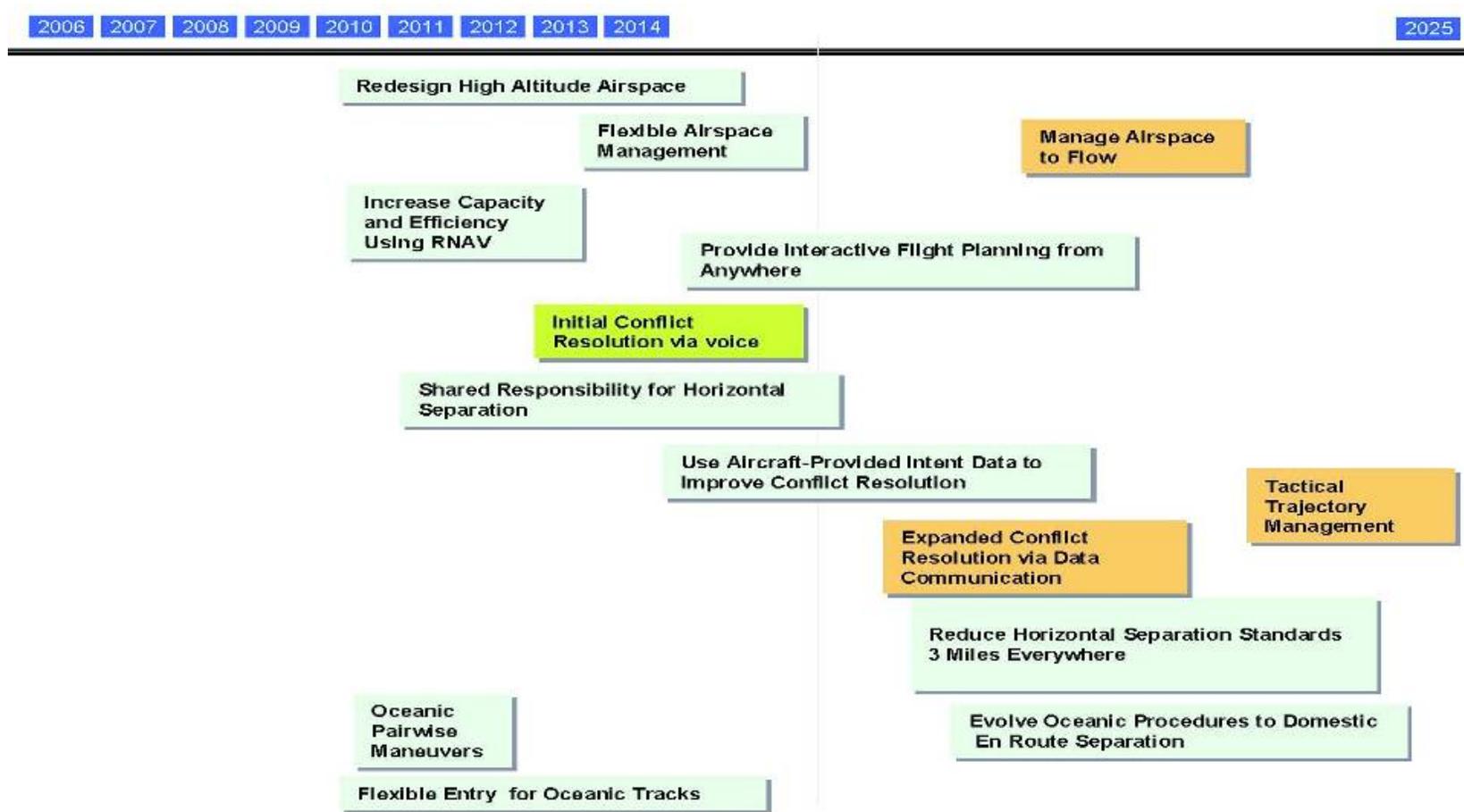
Agency EA and OMB

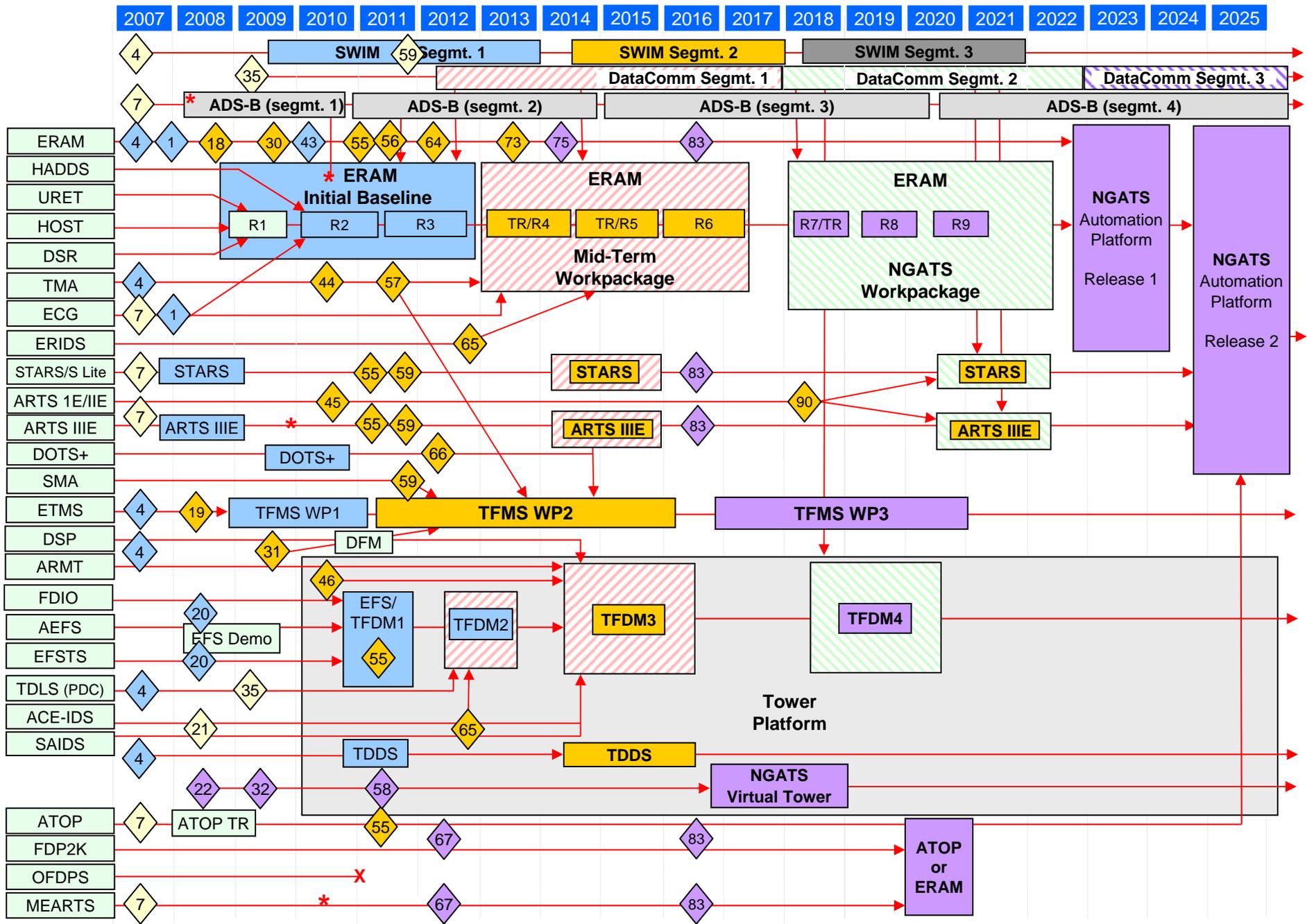


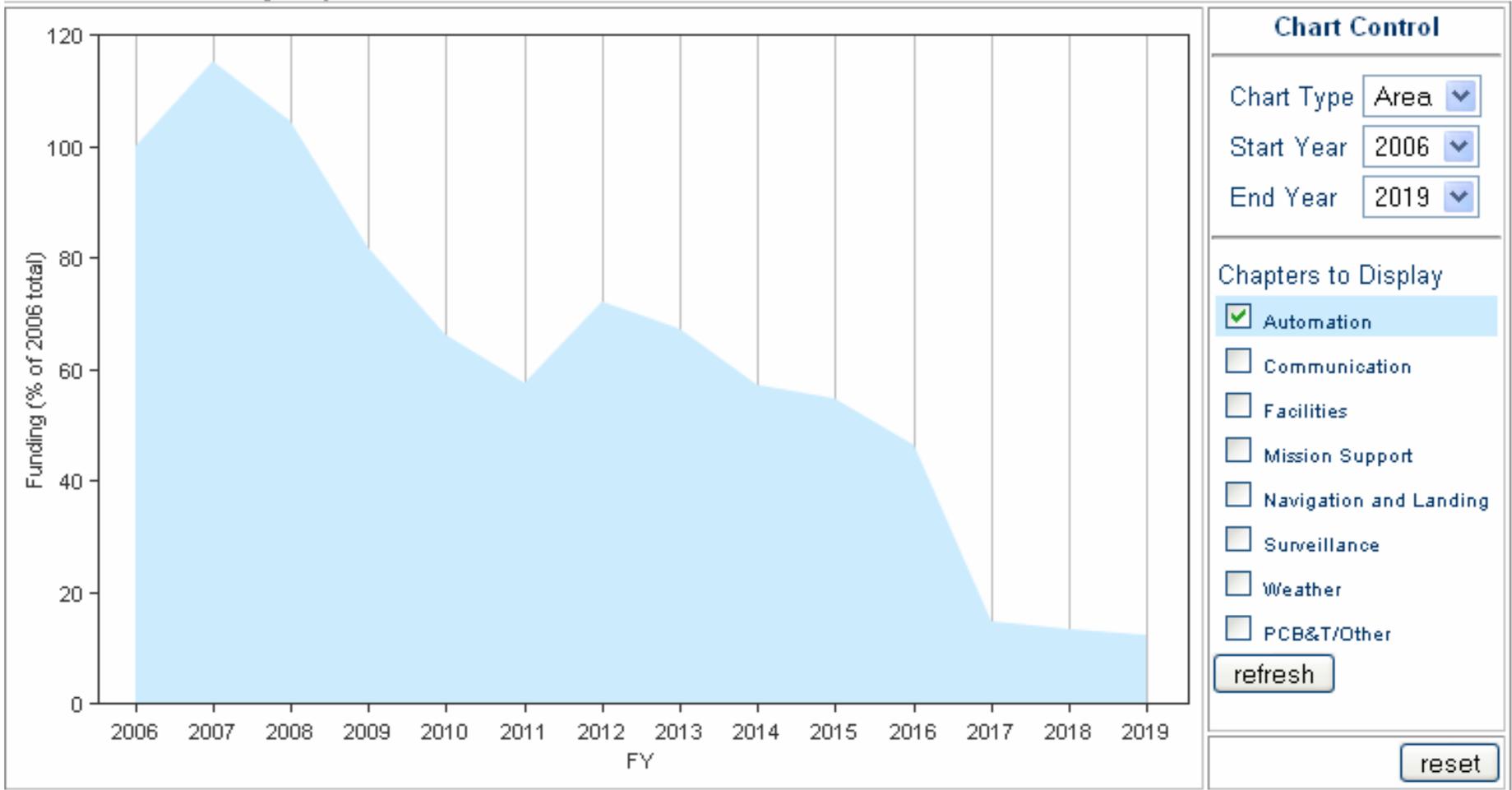
How do you view the Architecture

- **At the highest level there are executive views**
 - Rollups of the underlying details
- **Operational Roadmaps**
 - Operational changes are captured in the NASEA and in the Operational Evolution Partnership Solution Set Roadmaps
- **Infrastructure Roadmaps**
 - Capture the transformation of the infrastructure and the required decisions (analyses) needed to support the operational changes
- **Programmatic Roadmaps**
 - Projected funding by enabler

Trajectory Based Operations Roadmap - Example







Chapter	Funding (% of 2006 total)													
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Automation	100.0	115.4	104.5	81.9	66.1	57.7	72.3	67.4	57.2	54.8	46.3	14.9	13.4	12.2
Total Funding Level	100%	115%	105%	82%	66%	58%	72%	67%	57%	55%	46%	15%	13%	12%

Relationship

- **Internal**

- Aligns activities across ATO line units
- OEP provides the overall monitoring and integration process on the activities required to develop and deploy NextGen
- Basis of coordination with FAA (non ATO) organizations and individual activities
 - Safety, AIO, etc.

- **External**

- The top level of the NAS EA goes into
 - JPDO EA,
 - Department EA and
 - Office of Management and Budget Examiners

ATO Players in Roadmaps

Roadmaps	En Route	Terminal	SysOps	TecOps	PIng
Automation	X	X	X		X
Weather	X	X	X		X
Communications	X			X	X
Surveillance		X		X	X
Navigation				X	X
Avionics*					X

* AVS a major player

www.nas-architecture.faa.gov

