

# NAS Enterprise Architecture

Business & Technology Roadmaps  
v7.0



**BASELINE**

February 2024



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# Business & Technology Roadmaps Overview

## What are the Business & Technology Roadmaps?

- The Business & Technology (B&T) Roadmaps are a collection of multi-year strategic roadmaps that depict enterprise-level changes to NAS internal operations, business processes, and functions that will lead to improved efficiencies, cost savings, and other internal benefits. These NAS-focused improvements establish a life cycle approach that ensures the foundation of the NAS continues to modernize its technology and processes in support of future operational and technological improvements.
- The B&T Roadmaps are grouped by FAA Service and Capability and include Current Business or Technology Environments (CBTEs), Current Business or Technology (CBTs), B&T Improvements (BTIs), and Support Activities (SAs). CBTEs describe the current state baseline of FAA service delivery. BTIs are strategic or technological changes to the NAS intended to enhance FAA service delivery through the realization of internal benefits (e.g., cost effectiveness of ATM services) from an Air Navigation Service Provider (ANSP) perspective. Operationally available BTIs in the NAS transition to CBTs. Together, the CBTEs, CBTs, and BTIs show the evolution of the FAA Service. The CBT and BTI dates represent the operational availability (OA) of the respective change to Services.
- B&T Roadmaps also include relevant Support Activities (SAs) which inform the development or identification of new capabilities, policies, and procedures.

## Guidelines for Understanding the Roadmaps

- The Business & Technology Improvement (BTI) bars represent the date range which an improvement is expected to be initially (e.g., at the first location) available to users. For BTIs that are expected to be made operationally available incrementally, the range represents the earliest date for the first initial operational change to the latest date for the final operational change.
- Each Business & Technology Roadmap diagram is segmented by Capabilities, which are depicted by alternating gray and white backgrounds as necessary.

## Business & Technology Roadmaps Legend



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# Business & Technology Roadmaps Overview

## BTI Status Definitions

- BTI status is determined by the most mature capability solution, until the most mature solution achieves Initial Operational Availability (IOA) status.
- Once the most mature capability solution achieves IOA, the BTI will remain IOA until all capability solutions are complete, and then the BTI will transition to a Current Business & Technology (CBT).

BTI Status	Definition
<b>Planned</b>	No funding – either internally or externally (e.g. NASA or other partner agency) – has been allocated. The BTI represents a potential future concept; initial development may have begun and this is used as a placeholder to assist in further refining of solution on interdependency relationships.
<b>Concept Exploration &amp; Maturation</b>	Work is underway and funded to define the concept, develop acquisition artifacts, mitigate risks, and determine the options for the implementation strategy. Solutions under development to deliver this operational change are currently in either concept and requirement definition or investment analysis up until a final investment decision is achieved (or a comparable agreement on the scope/implementation).
<b>Development</b>	The most mature solutions to deliver the operational change are under development. There may be additional solutions needed to fully deliver this BTI which are less mature.
<b>Initial Operational Availability</b>	At least one of the capability solutions needed to deliver the operational change has been achieved or approved for use at an initial site. IOA occurs after demonstration of initial operational capability at the key test site(s). A BTI remains in IOA until all capability solutions have achieved operational use.
<b>Current Business &amp; Technology Environment (CBTE)</b>	The current operational state of FAA service delivery to NAS users.
<b>Current Business &amp; Technology (CBT)</b>	All capability solutions needed to fully deliver the BTI are complete.

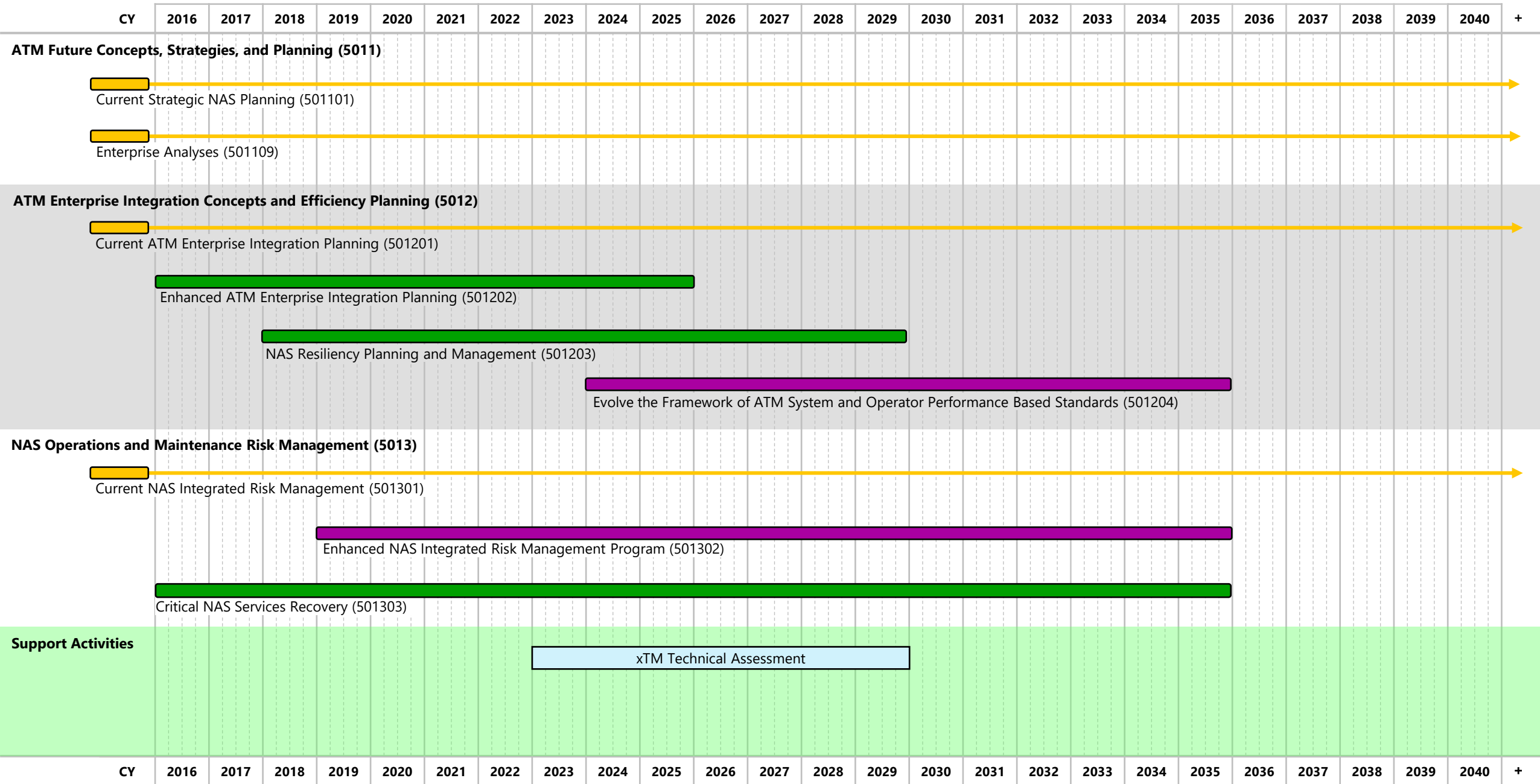
# Service Group 5: Enterprise Management

This Service Group embodies the Services provided by an organization that support a defined business scope and mission. An enterprise is comprised of interdependent resources (people, organizations, and technology) that must coordinate their functions and share information in support of a common mission (or set of related missions). The FAA Enterprise Management Services provides an explicit description of the current and desired relationships among business and management processes and information technologies within the FAA. The Services consist of business process models, technical reference models, and systems models.

## **Service 501: FAA Strategies Planning and Concepts**

The FAA is a continually evolving operation that requires constant planning of potential improvements or capabilities to maintain operational effectiveness and efficiencies. Concepts to improve methods of how the FAA operates or provides its services or concepts that may develop into new capabilities to the FAA mission and aviation community take time to develop. The Planning, Strategies and Concepts Service identifies potential future concepts that may either develop into a new Capability or Service for improved operations creating a more effective and efficient operating environment.

# FAA Strategies Planning and Concepts (1 of 1)



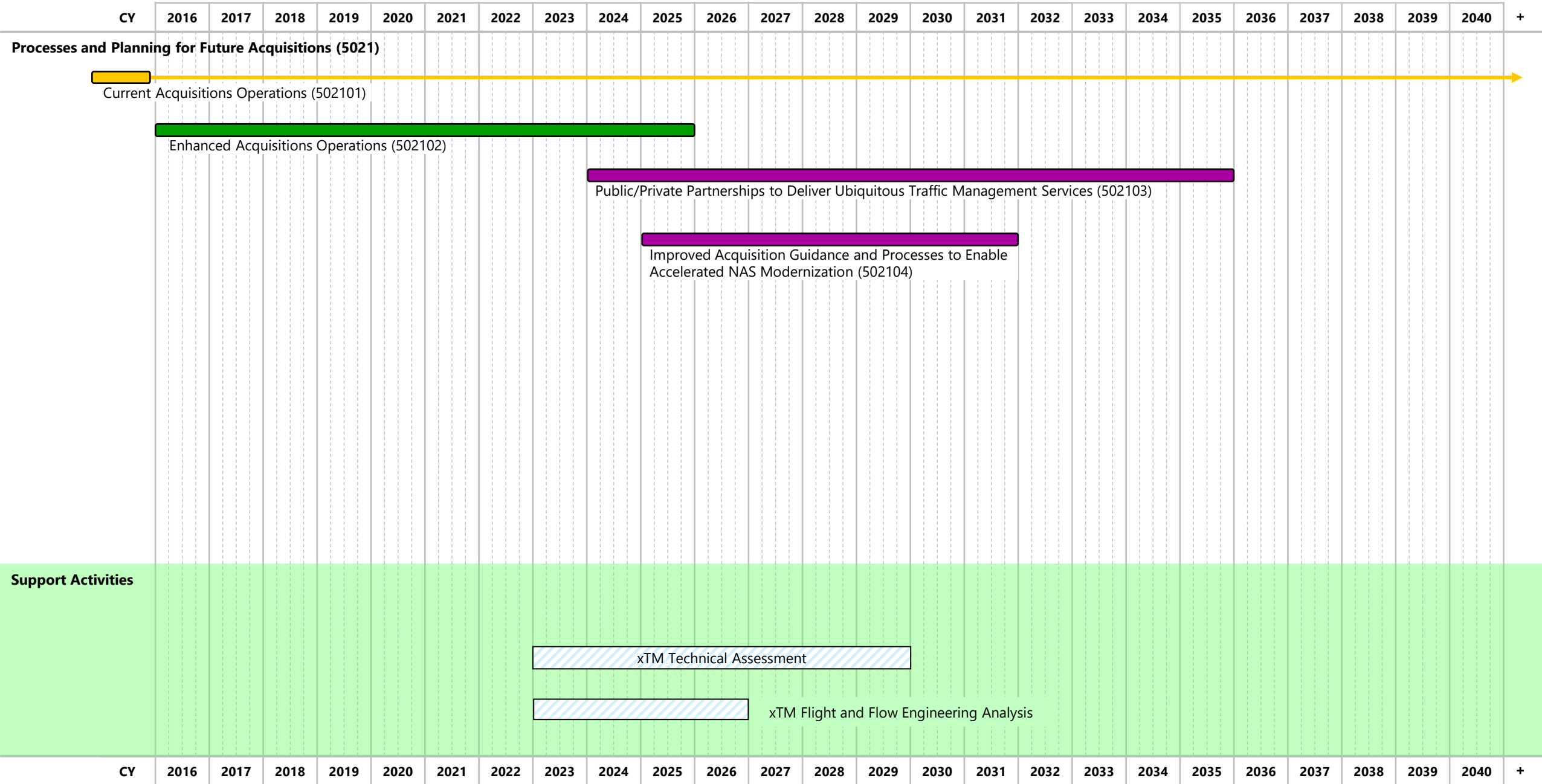
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## **Service 502: Acquisitions**

The Acquisition Management System (AMS) establishes agency-wide policy and guidance for all areas of lifecycle acquisition management.



# Acquisitions (1 of 1)

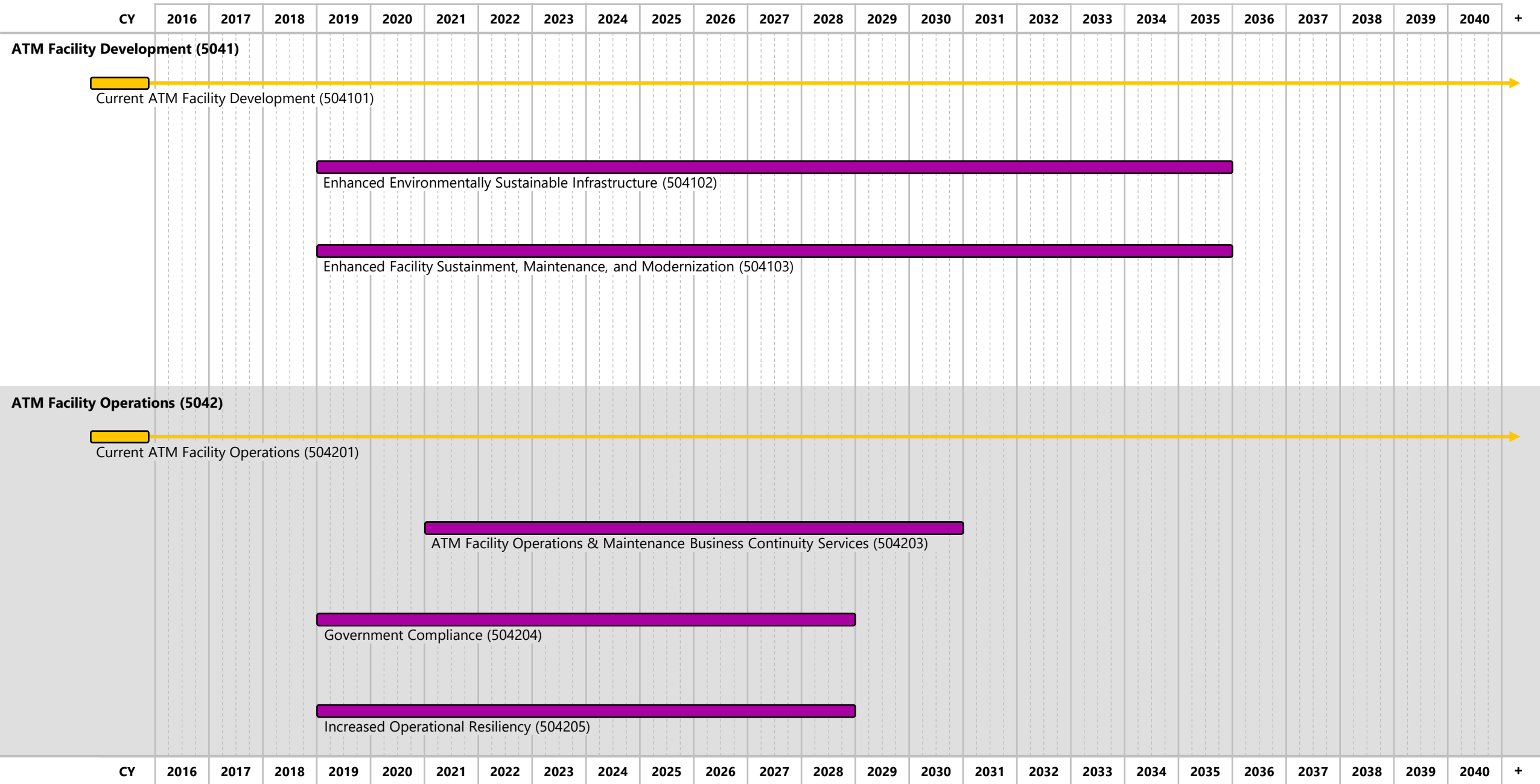


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## **Service 504: FAA Facilities**

ATM Facility infrastructure consists of land that houses communications, surveillance and navigation systems and facilities that house operational personnel and their automation systems. ATM facilities procure, operate and maintain these facilities to ensure continuous operations.

# FAA Facilities (1 of 1)

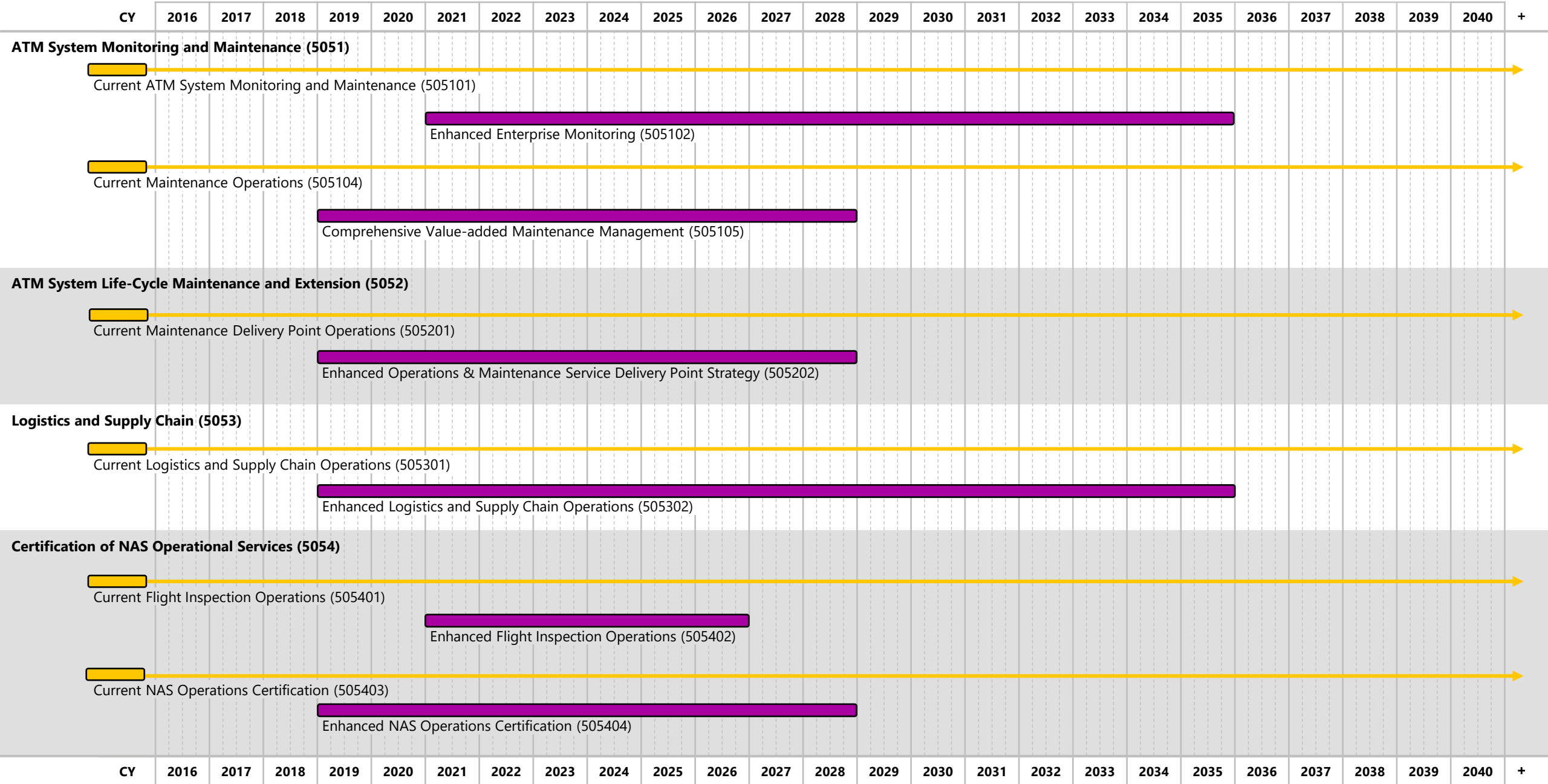


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## **Service 505: FAA Sustainment**

The Sustainment Service describes the general lifecycle management of systems and capabilities. This Service ensures air traffic services are safe, available, and reliable.

# FAA Sustainment (1 of 1)

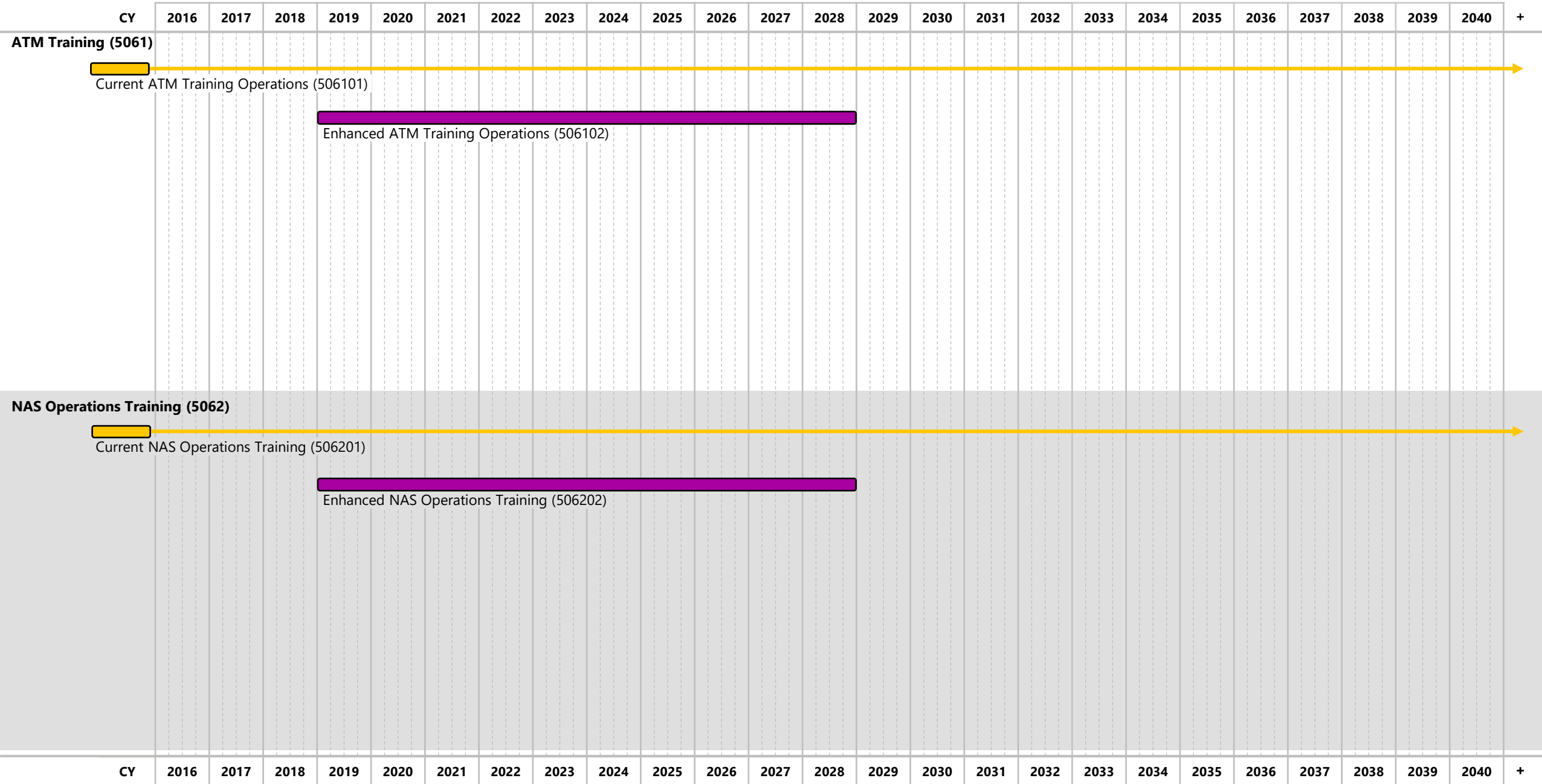


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## **Service 506: Training**

Provides training and develops standards that comply with the flexibility of the current rules and regulations and creates training products and guidelines that account for the current and future ATM and aviation technologies.

# Training (1 of 1)

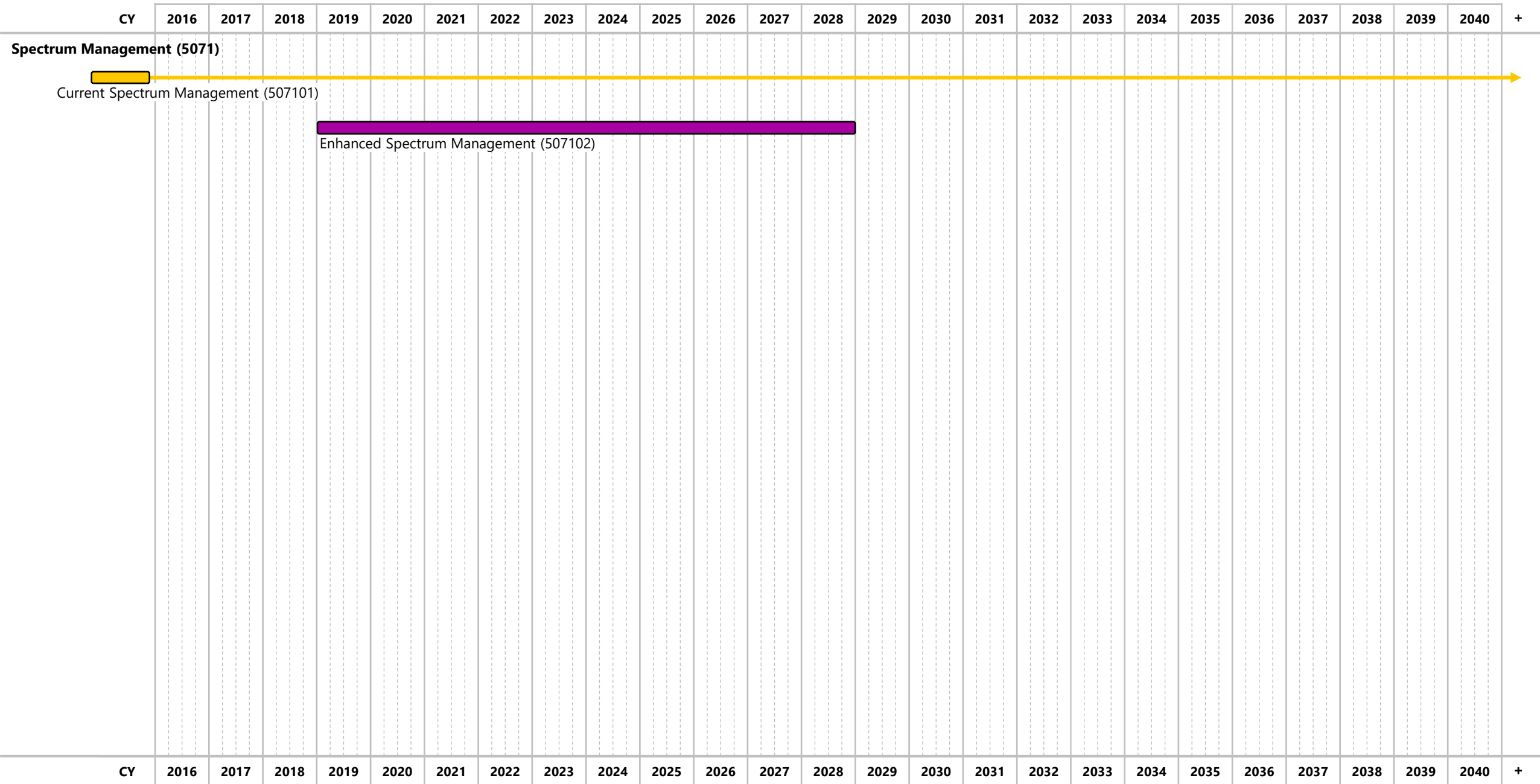


## **Service 507: Spectrum Management**

Spectrum management secures, protects, and manages the radio spectrum for the FAA and the U.S. Aviation community. Through coordination and negotiation, it secures spectrum resources for aviation usage and establishes and issues policy and standards regarding frequency use. It assigns radio frequencies for ATM systems, and conducts the engineering analysis and testing for new system requirements. It protects ATM systems by conducting Radio Frequency Interference investigations and coordinating with FCC and FBI to enforce the laws against unauthorized broadcast within the aviation protected radio frequencies. Spectrum Engineering Services protects the National Airspace System from any potential sources of interference from new wireless systems.



# Spectrum Management (1 of 1)



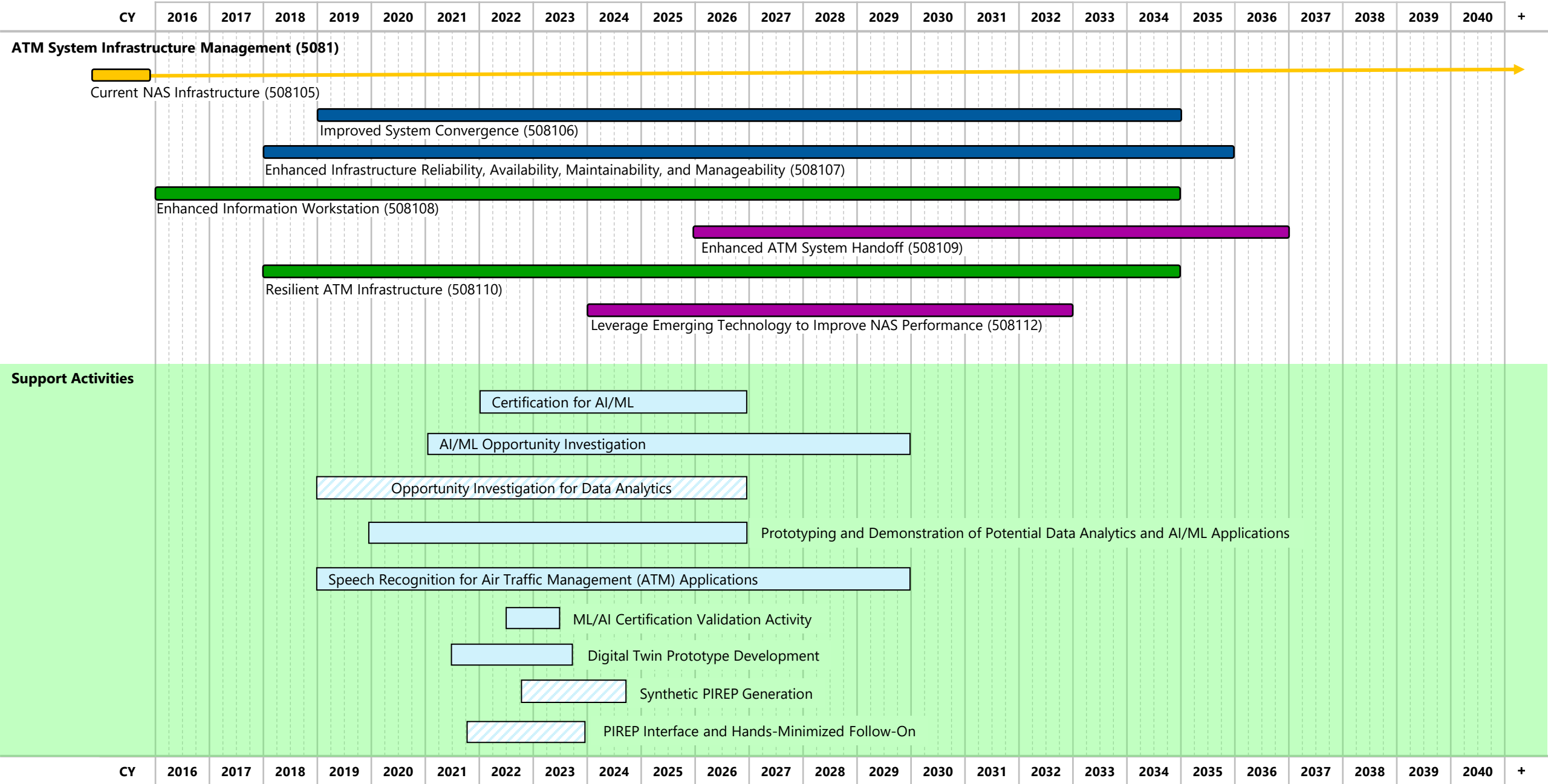
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## **Service 508: FAA Technology and Infrastructure**

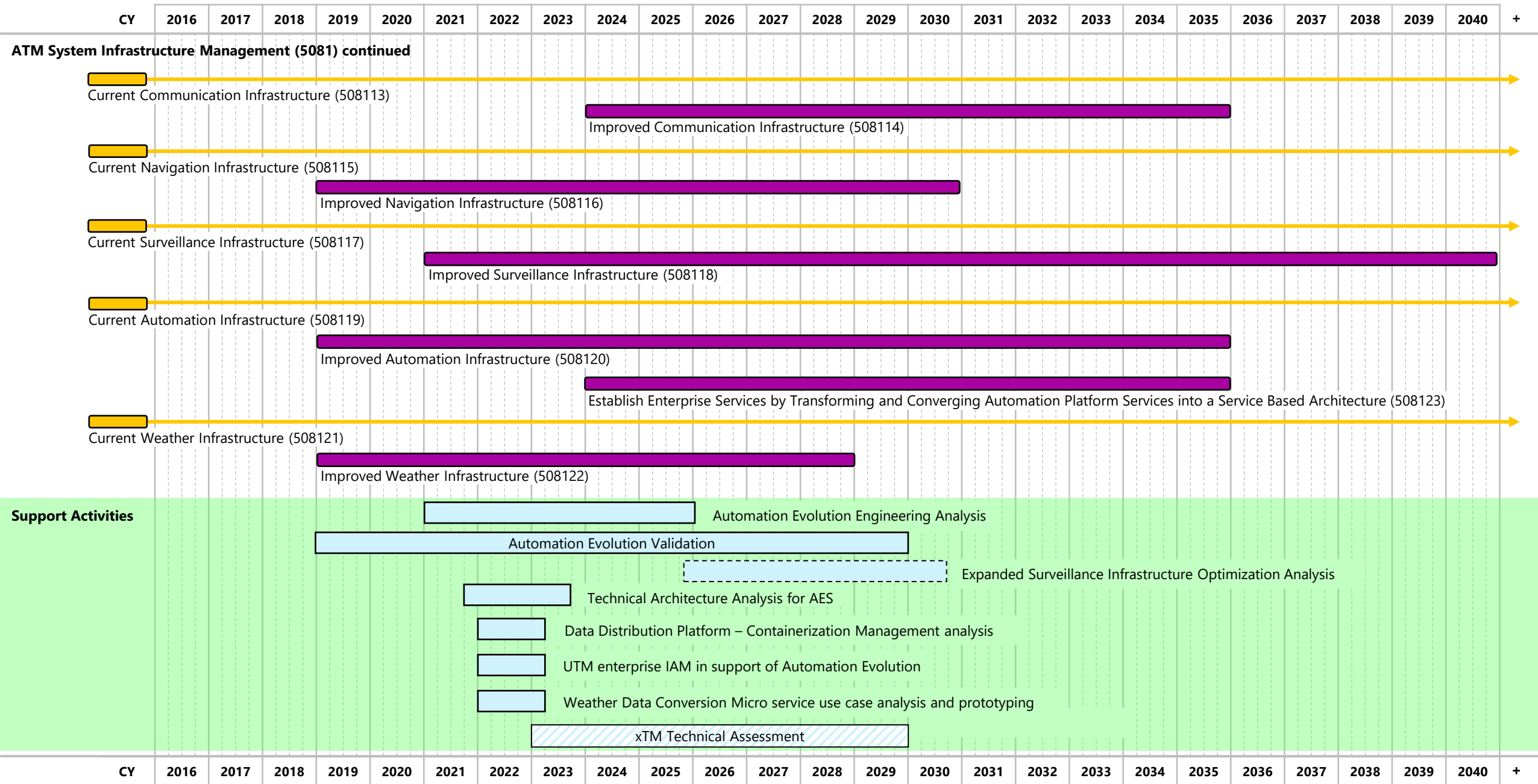
The FAA Infrastructure is the set of telecommunications, radios, computers and other electronics that supports the FAA's ability to meet its mission. Specifically, the ATM Infrastructure is comprised of the surveillance, communications, automation, navigation, and other support systems needed to provide air traffic management services that are safe and efficient.

The Mission Support (MS) Technology and Infrastructure consists of General Support Systems on which functional user application systems depend. GSS serve multiple systems that in turn serve multiple FAA Services and Capabilities. Technology and Infrastructure functions include data, email, text, and voice communications services; hardware/software host platforms, middleware, application COTS and custom software development, COTS/GOTS acquisition and implementation, and software operations and maintenance services.

# FAA Technology and Infrastructure (1 of 4)

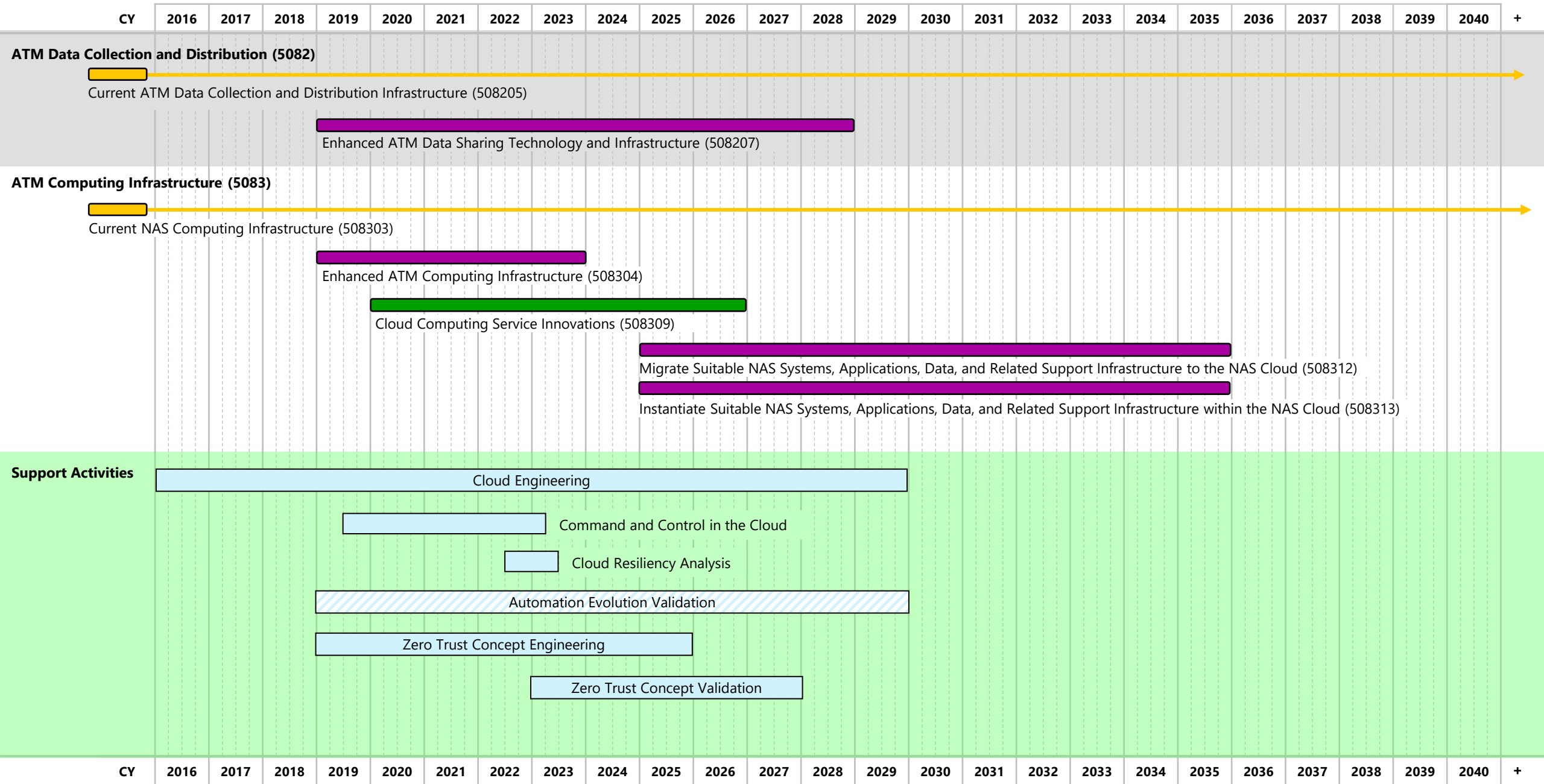


# FAA Technology and Infrastructure (2 of 4)

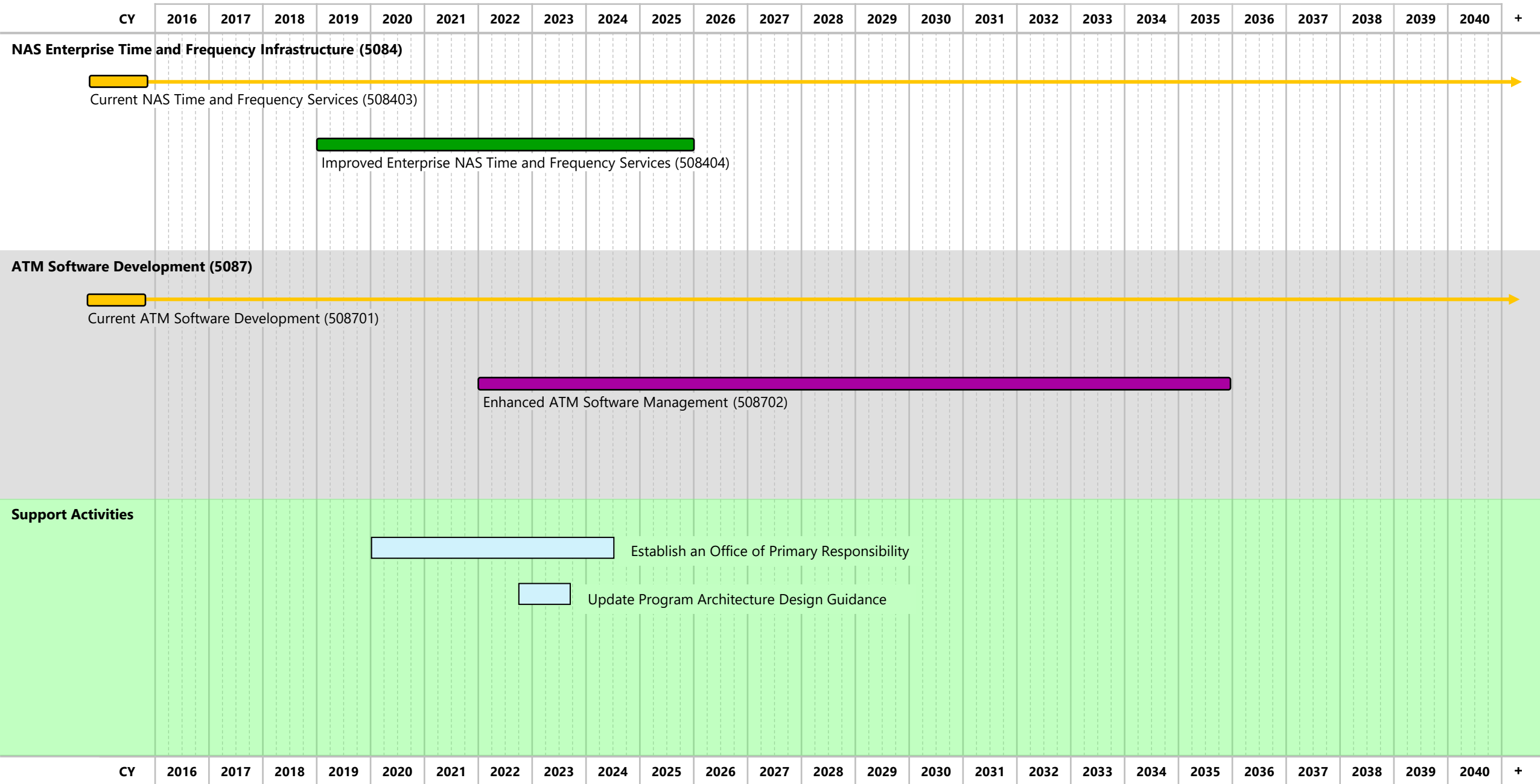


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# FAA Technology and Infrastructure (3 of 4)



# FAA Technology and Infrastructure (4 of 4)

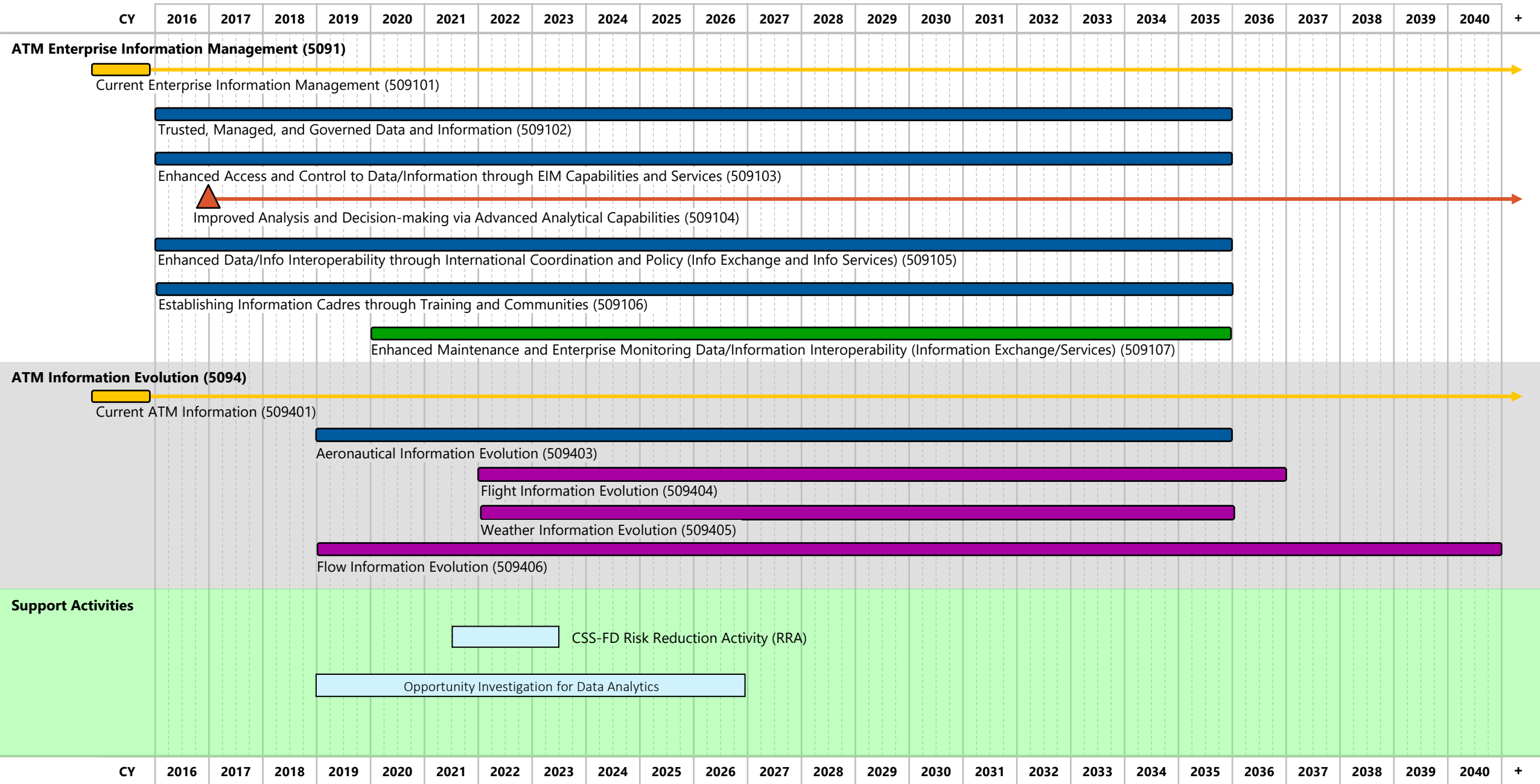


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## **Service 509: FAA Data and Information Management**

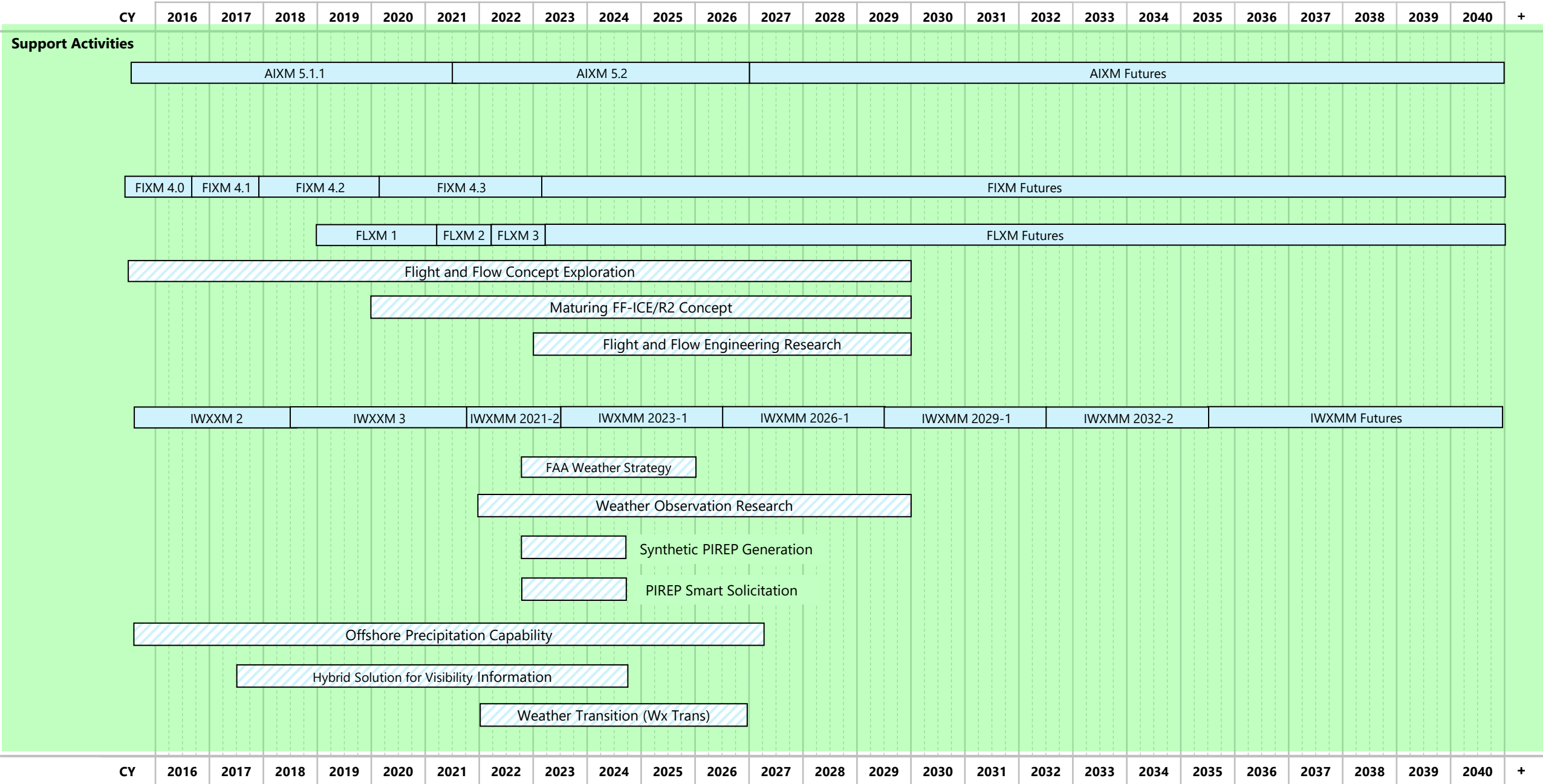
Data and Information Management provides services to organize, disseminate, exchange and govern data and information used in the safe and efficient provision data and information management services.

# FAA Data and Information Management (1 of 2)





# FAA Data and Information Management (2 of 2)






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## **Service 510: Workforce Planning and Development (Human Resources)**

This Service focuses on ensuring the FAA has a stable cadre of federal employees and maintains core in-house capabilities necessary to successfully manage ATM and FAA operations. It lays out the blueprint for sustaining a high-performing workforce capable of successfully meeting objectives set by the agency. It includes the processes and assets related to the management of Agency personnel, including recruitment, performance appraisals, benefits management, payroll, skills development and other related activities.

# Workforce Planning and Development (Human Resources)(1 of 1)

CY	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	+
<b>ATM Workforce Planning and Development (5101)</b>																										
																										
																										
																										
	Current Workforce Planning and Development (510101)																									
	Enhanced Workforce Planning and Development (510102)																									
CY	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	+

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