

# Closing the NextGen Business Case



Federal Aviation  
Administration

One FAA Perspective

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# Evaluating NextGen Investments

**Office of Management and Budget calls for evaluation of incremental cost and benefits**

**Recent congressional language calls for evidence of:**

**Reduced congestion**

**Reduced delay**

**Increased capacity**

**These initiate metrics by which NextGen efforts will be judged**

**Good News: These same metrics can yield value to our investing partners in the near term.**



# Building the Business Case

- **Early challenges:**
  - Benefits postulated on uncertain traffic growth
  - Some ambiguity around today's operational problems
    - Lack of quantification
  - Transition steps from current NAS systems to future capabilities not always explicit
  - Limited information around industry business case
  - Payback timing expectations vary considerably



# Managing Down Risk To Assure a More Reliable Pay-Off

The pace at which Technology changes...

- Cost
- Capability
- Feasibility
- Market Conditions affecting Return on Investment

...Will almost always *outstrip* the ability of both large government agencies and our partners to reliably adapt or predict.

*This is the main argument from technology in favor of an incremental approach to technology investments.*

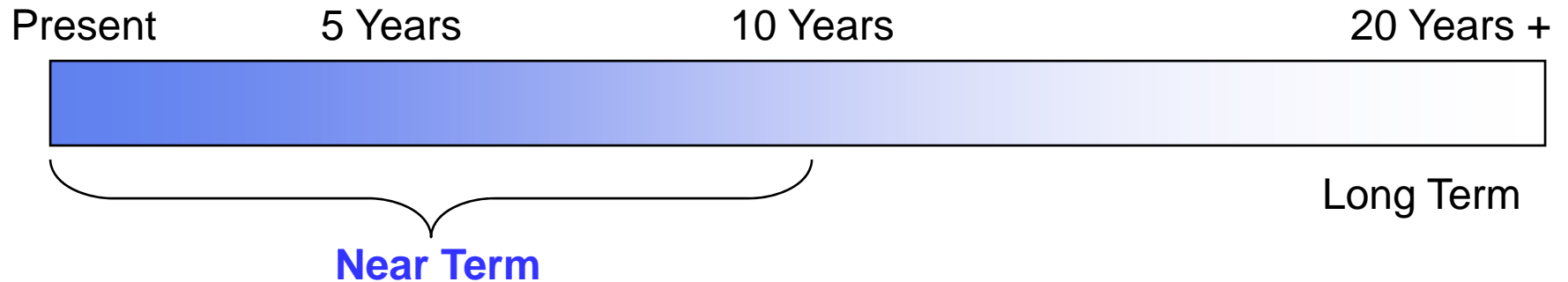


# Two Classes of Agency Investments

- **Investment Horizon: Long Term**
  - 10 to 20 years to deployment and pay-off
  - Immature technology or uncertain operational impacts require “incubation”
  - More “R&D” than “shovel ready”
  - Some investments necessary to create pipeline of future capabilities worthy of deployment
- **Investment Horizon: Near Term**
  - Mature technologies
  - Optimize existing and latent aircraft capabilities
  - More predictable impact to flight operations
  - More predictable value proposition to Agency and to partners



# Optimize Returns by Narrowing Investment Horizon



By tailoring the Investment Horizon to the **Near Term**, the reliability of returns for the Agency and our partners improves:

- Course of technology change more predictable
- Impact of proposed changes on flight operations more certain
- Risks to Pay-Off Minimized:

# Forecasting and Measuring Portfolio Returns

## Within the NextGen Portfolios

Reduce Weather Impact

Trajectory-Based Operations

Collaborative Air Traffic Management


High Density Airport Arrival/Departure

Flexibility in Terminal Environment

Transform Facilities

Safety, Security and Environmental Performance

**FAA Portfolio Managers** and **Executive Leadership** would evaluate projects based on their near- and longer-term pay-offs:

Projected Benefits and Performance				
Potential Projects	Reduction in Congestion	Building Capacity	Reducing Delays	Safety
1				
2				
3				
4				
5				

# RTCA Task Force

- **Evaluating incremental changes needed to achieve NextGen capabilities**
  - Striving for complementary investments that drive early benefits.
    - Ground infrastructure and aircraft equipage--together--should make sense at each point in time
    - Capabilities trump individual systems
  - FAA does not want to conduct its analyses in a vacuum. We welcome the recommendations of all partners with respect to the value propositions of proposed projects.



# Conclusion

- **Reliance upon proven technologies will reduce risk and drive benefits in the near term.**
- **Improved fidelity around the industry side of the business case will help achieve better investment decisions.**
- **If we focus on a comprehensive understanding of the business case for all partners, we are more likely to increase capacity and reduce delay and congestion.**

