



Langley Is the Future (LIFE) Overview

January 9, 2024

What is LIFE?

- LIFE is defining Langley's strategic path to the future and the steps needed to get there.
 - Set the center's **long-term work strategy** and the approach for pivoting the center's business model to accelerate achieving the strategy.
 - **Integrate Langley's strategic efforts** and forward-thinking endeavors
 - **Develop a strategic roadmap** to ensure alignment of the center's near-term strategy with the long-term vision
 - **Leverage internal and external knowledge and expertise to pave the way** for Langley's future aerospace opportunities and shape NASA's missions





NASA's current state

- ✓ Robust, inspiring **mission**
- ✓ Lasting record of **accomplishment**
- ✓ Diverse, committed, talented **workforce**
- ✓ Poised for enduring **stakeholder** support
- ✗ Lack of **clear roles for NASA in the future**
- ✗ Slow **decision velocity**
- ✗ Insufficient **financial** flexibility
- ✗ Uncertain **workforce** strategy
- ✗ Aging critical **infrastructure** and IT

LEADERSHIP HAS COMMITTED TO A CHANGE JOURNEY:
NASA 2040



Transformation

Cross-functional agency teams will identify and recommend strategic changes to our agency structure, mission strategy, budget alignment and institutional operations that support our future vision.



NASA 2040

“The preeminent institution for research, technology, and engineering, to lead science, aeronautics, and space exploration for humanity.”



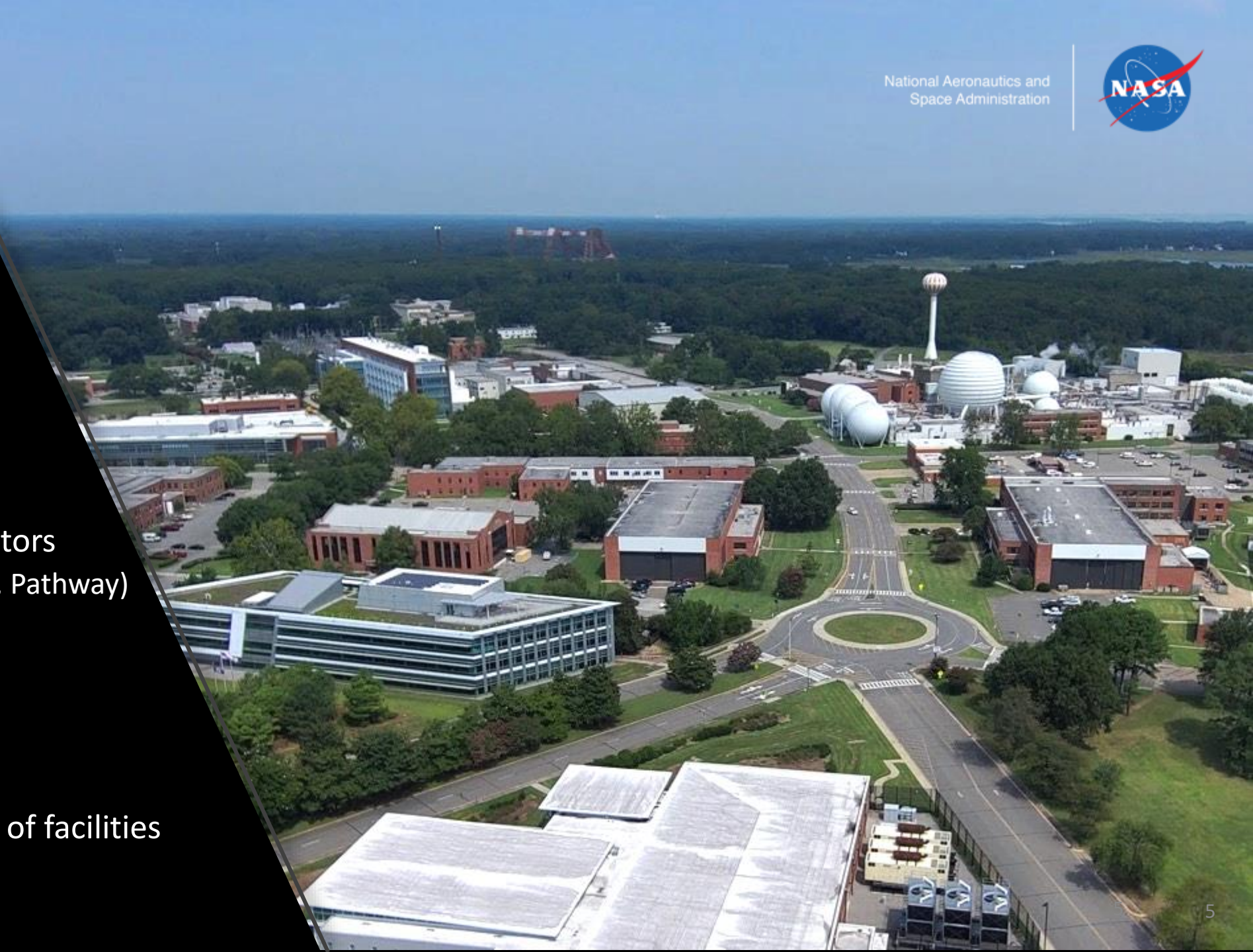
Langley Today

Occupants (FY23)

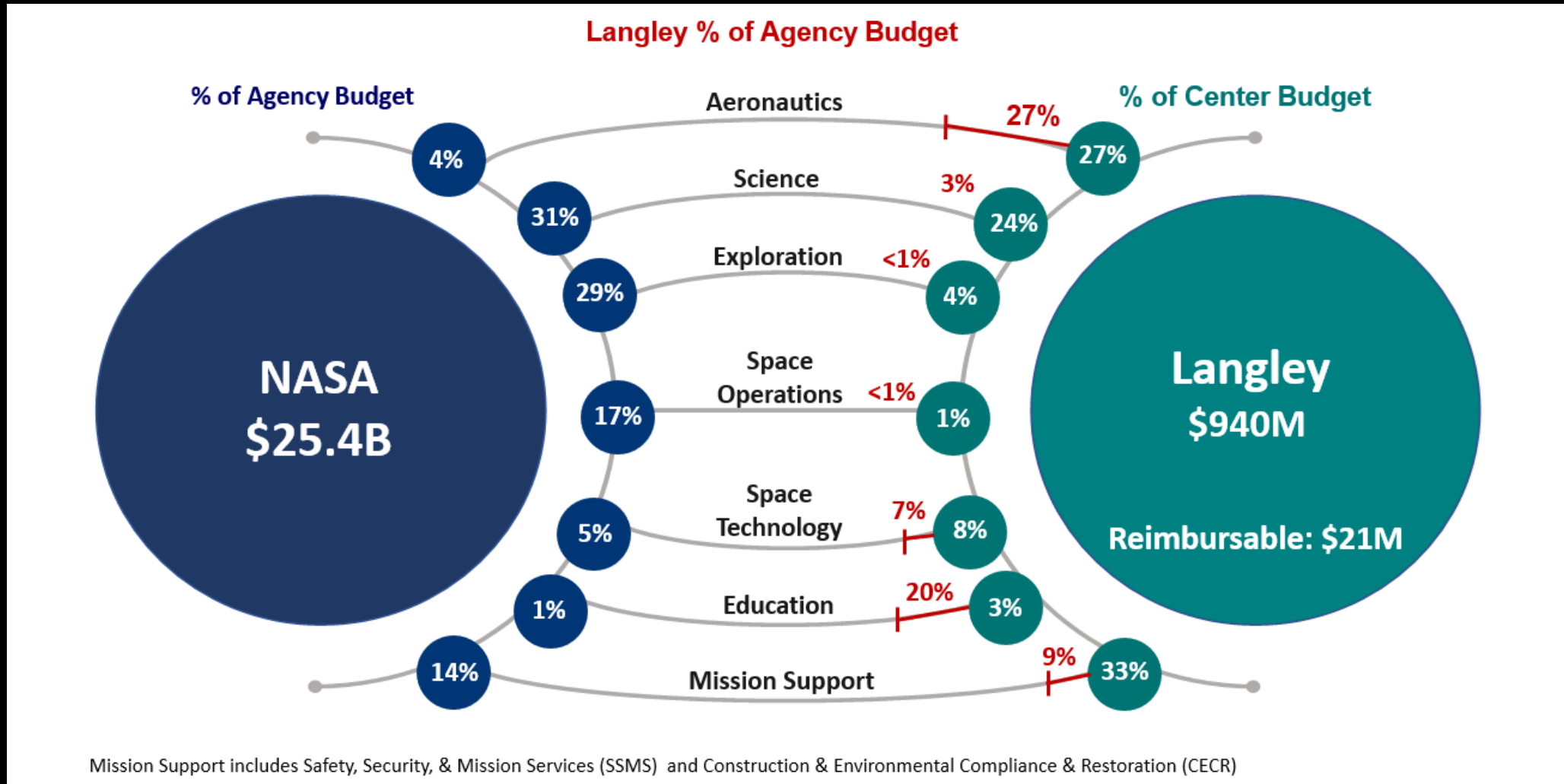
- ~1,800 civil servants
- ~1,700 on-site contractors
- ~410 students (OSTEM, Pathway)

Real Property

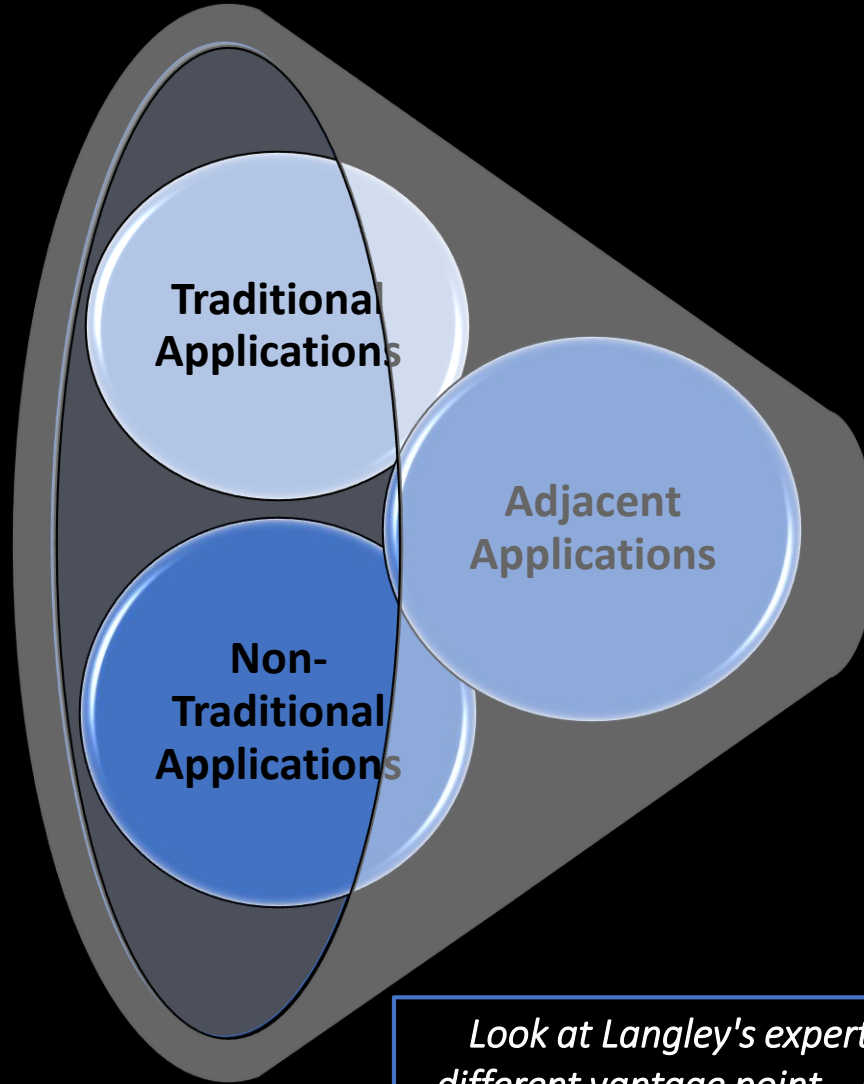
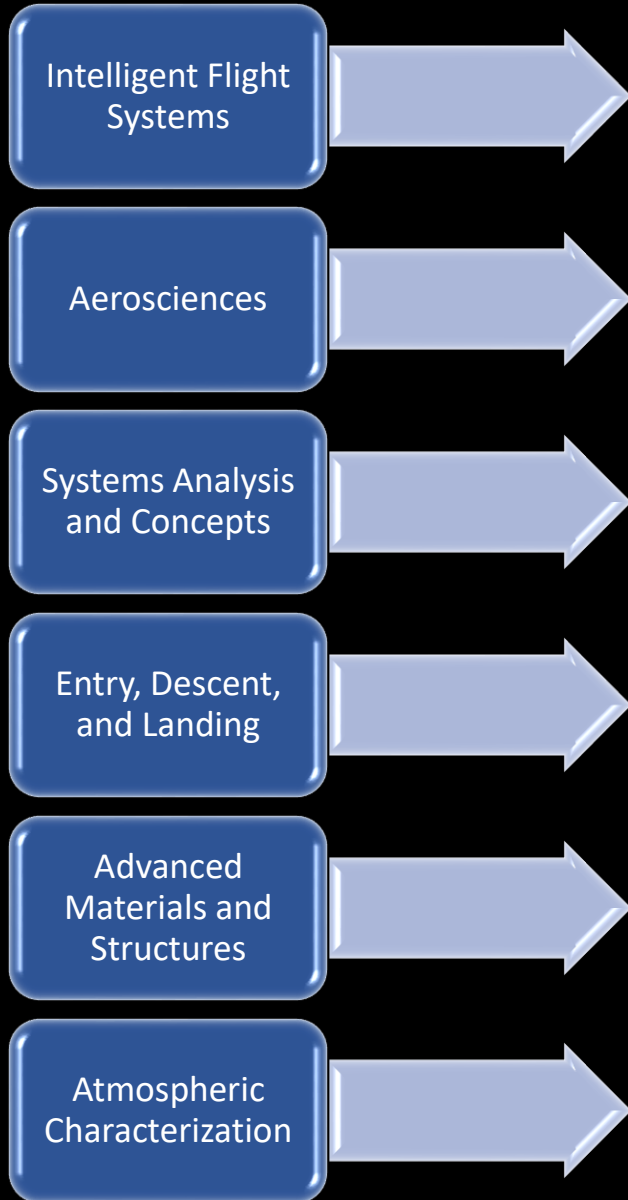
- 190 buildings
- ~764 acres
- ~\$5B: estimated value of facilities and infrastructure



FY23 Agency vs. Langley Budget



Langley Today



Look at Langley's expertise from a different vantage point – how can our capabilities be used to meet the needs of the nation and humanity; in ways we had not considered before...

Langley in the Future



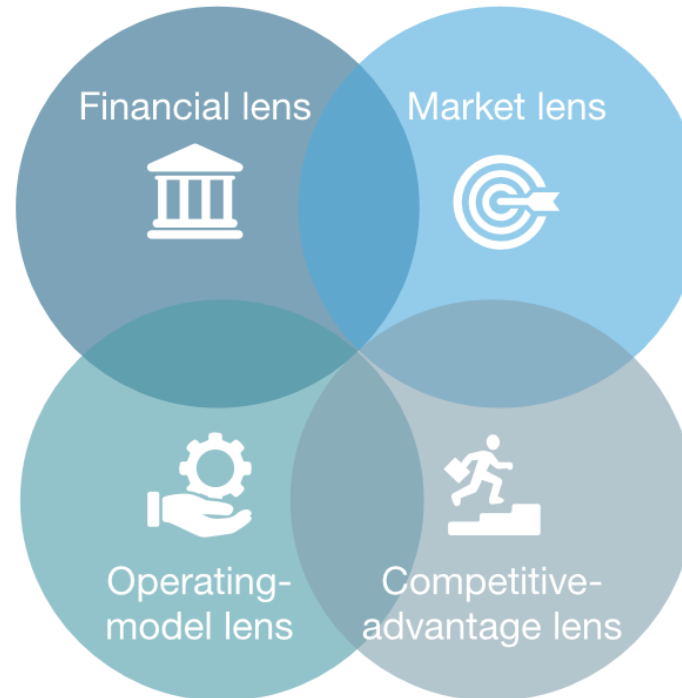
Strategy Lenses

What is required to create value in the business?

- A benchmark of financial performance against peers
- An assessment of impact on value from growth and ROIC¹ improvement
- A momentum case

Do I have an organization that can deliver?

- Resource allocation
- Funding sources
- Capabilities and talent
- Performance management



Am I playing in profitable markets that will deliver growth over time?

- Structural attractiveness of markets
- Profit pools and pockets of growth
- Impact of trends and disruptions
- Adjacent markets in existing value chains or new ones

What does it take to win in these markets?

- Market position and trajectory relative to competitors and potential disruptors
- Requirements to shape industry conduct
- Ownership advantages in the portfolio
- Ability to compete in adjacent markets

Lenses will be used to evaluate the sustainability of scenarios

McKinsey&Company

Progress & Next Steps

- **Completed 2 Visioning Workshops**
 - Helped to define the future role of a research center
- **Completed 6 Product Line Workshops**
 - Developed assessments of our core capabilities in terms of current health, future demand, and strategies in response to future scenarios
- **Continual NASA 2040 Coordination**
 - Meetings with Langley personnel on the Mission, Structure, People, Budget, IRAD, and Engine teams
 - Roundtable discussions with NASA leaders (e.g. Casey Swales)
- **Next Steps**
 - Integrate workshop output into most likely scenarios to be vetted using market research
 - Develop an integrated Center strategy that will include implementation plans for our portfolio, workforce, infrastructure, and business model



Thanks for listening

*We look forward to
hearing your ideas*

About LIFE

- There are unprecedented shifts in the external sector in all of Langley's portfolio areas, as well as ever-present budget constraints – **LIFE is using workshops as the first steps to create an overarching center strategy that provides a blueprint for the future of Langley.**
- **Challenge - how can the center's expertise bring value to the changing nation, to the changing world, in ways we have not considered before?** In some ways this will be as simple as bolstering the existing direction; in other ways it may need a larger pivot. Think boldly.
- **Everything is on the table** – existing and new product lines, alternate applications of product lines, new operating models, infrastructure, spin-offs, etc.
- Langley has been in existence for over 106 years and our contributions have already shaped the nation and the world – **what should our next 106 years look like?**