

GE AEROSPACE RESEARCH

– An Innovation Differentiator

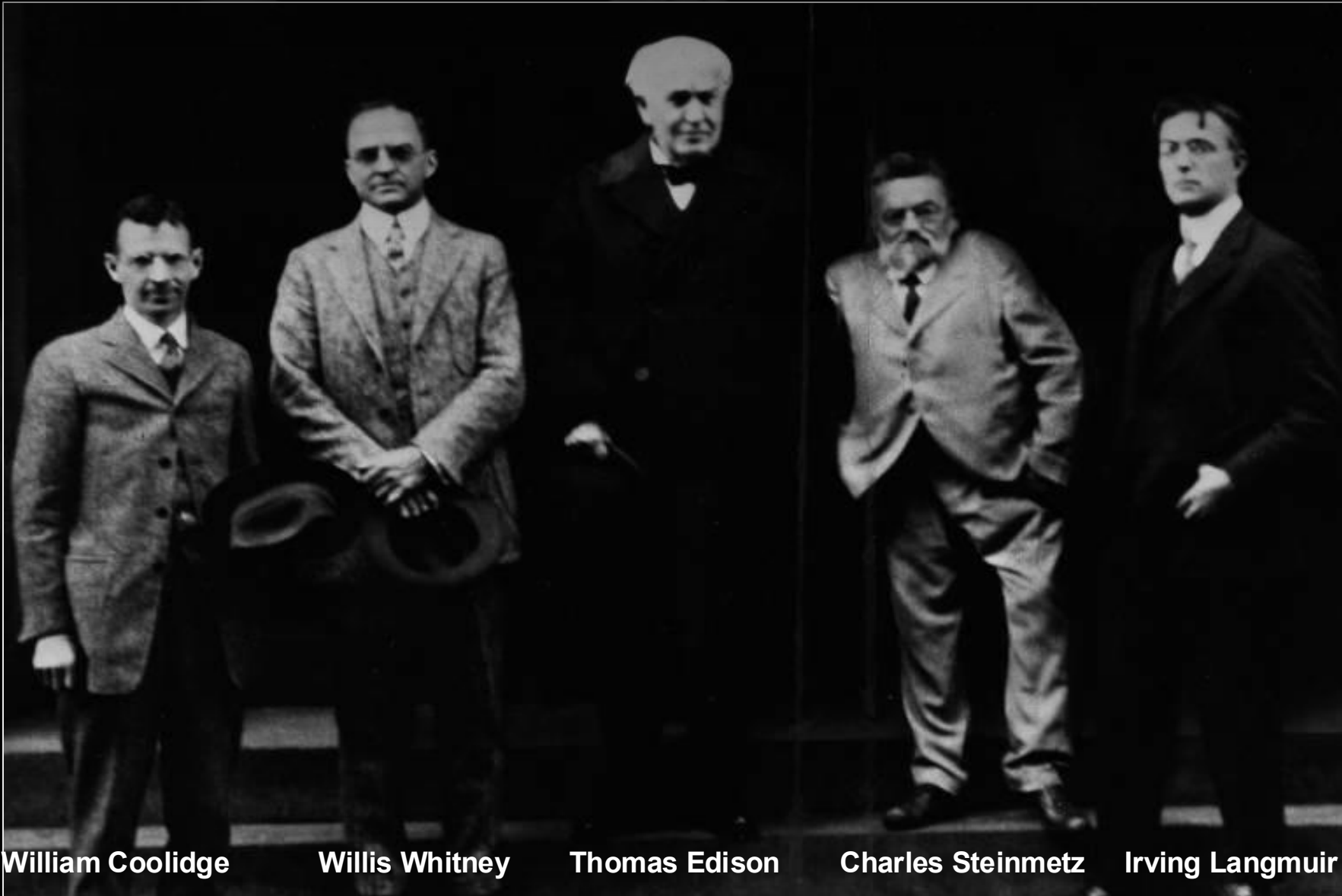
Joe Vinciguerra, General Manager & Sr. Executive Director, GE Aerospace Research

America's 1st Industrial Research Lab ... 125 years of innovation



GE Aerospace

The Roots of our Innovation DNA



William Coolidge

Willis Whitney

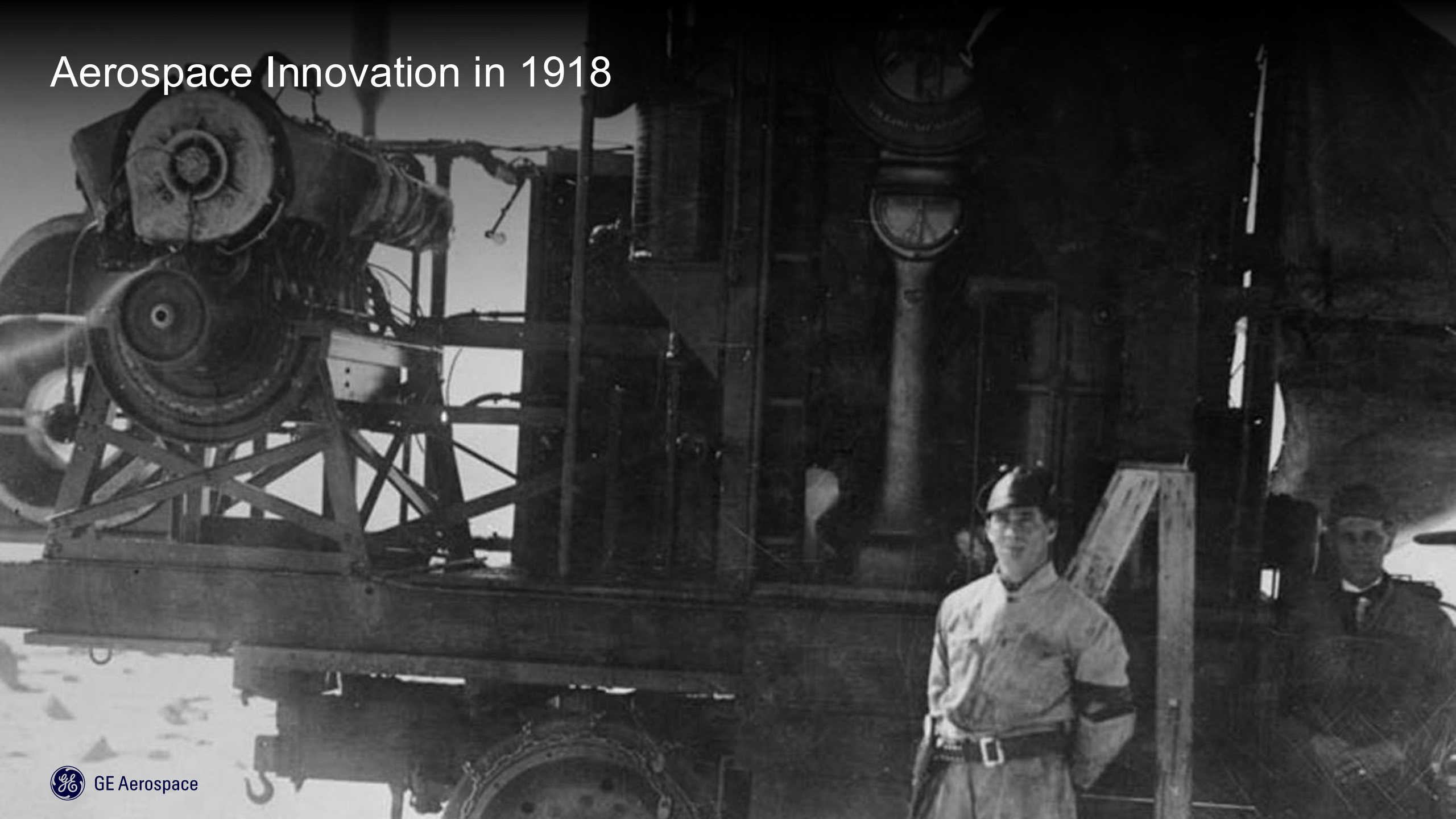
Thomas Edison

Charles Steinmetz

Irving Langmuir



Aerospace Innovation in 1918



GE Aerospace

Who We Are

GE Aerospace is a world-leading provider of jet and turboprop engines as well as integrated systems for commercial, military, business, and general aviation aircraft.

With 45,000 Commercial engines in service, GE Aerospace Technology powers:

-  $\frac{3}{4}$ of commercial flights;
-  950,000 people flying at any given time on GE Aerospace powered aircraft; and
-  3.4B passengers in 2024

With 25,000 military engines in service, GE Aerospace Technology powers:

-  $\frac{2}{3}$ of US military fighter and helicopter fleets;
-  $\frac{1}{2}$ of US military bomber fleets;
-  $\frac{3}{4}$ of surface combat vessels in global fleet.



GE Aerospace Innovation a Differentiator in the Aerospace Industry

Long-term, sustained investment in Innovation

America's 1st industrial research lab, celebrating 125 years of technical excellence

\$~2.7* billion R&D investment, 900+ engineers hired in 2024

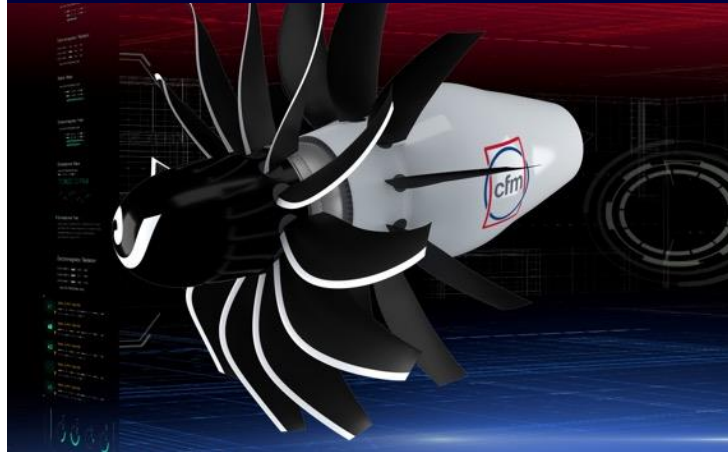
Investments continuously being made across the engine lifecycle to deliver innovation at scale

Delivering Best-in-Class GE9X



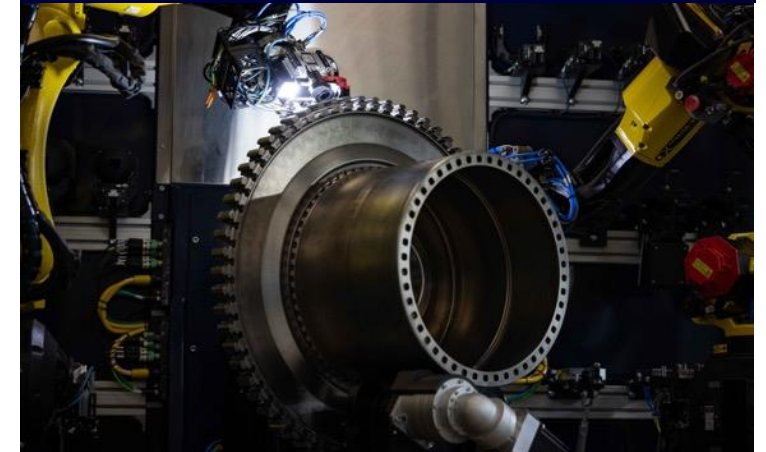
World Record Setting Thrust,
Loaded with aviation first technologies

Accelerating the Road to RISE**



Revolutionizing efficiency,
One of the largest tech demonstrators in GE Aerospace history

Creating the MRO of the Future



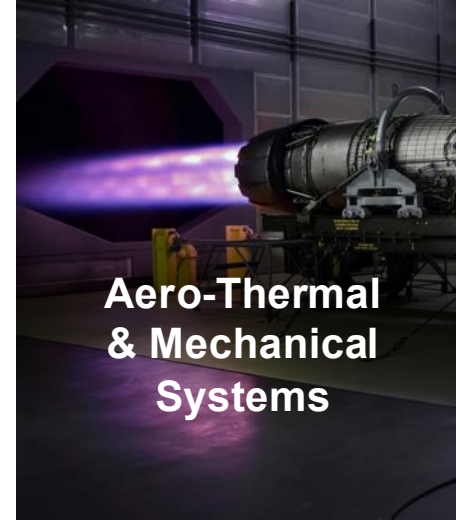
Maximizing-Time-on-Wing,
Bold Vision to transform the Aftermarket segment

3

TECHNOLOGY DOMAINS



Materials &
Manufacturing
Technologies



Aero-Thermal
& Mechanical
Systems



Digital & Electrical
Systems

GE Aerospace Research Research by the numbers

31 Research
Laboratories

12

9

10

50 Scientific
Capabilities

19

8

23

350k^{sq.}_{ft.}

Lab space

750+

Researchers

50+

Customer
visits/yr.

75%

Advanced
degrees



GE Aerospace

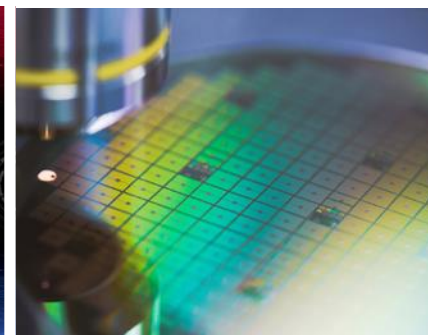
Customer-driven Innovation



Supporting
THE FLEET



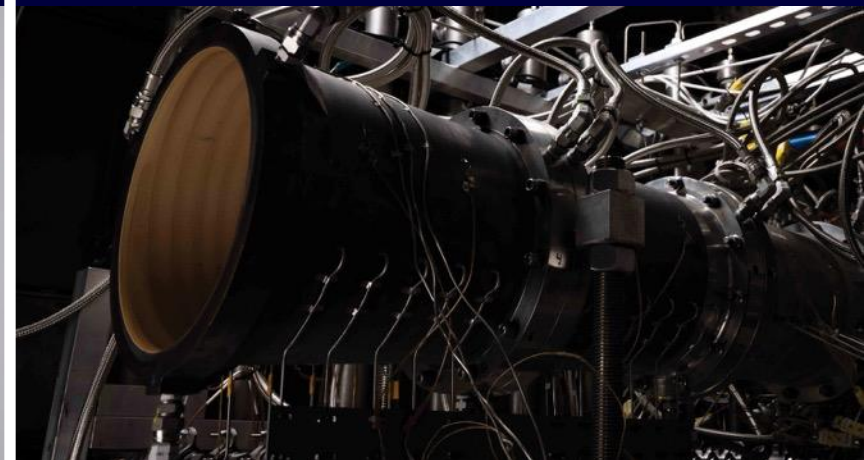
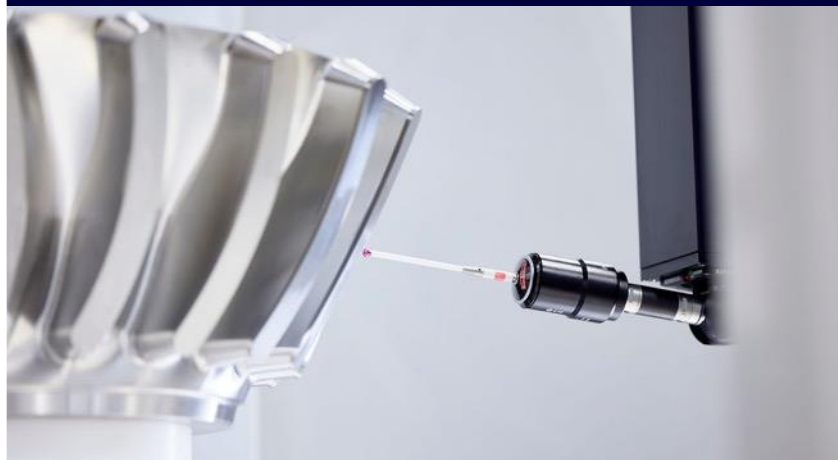
Advancing
THE STATE OF THE ART



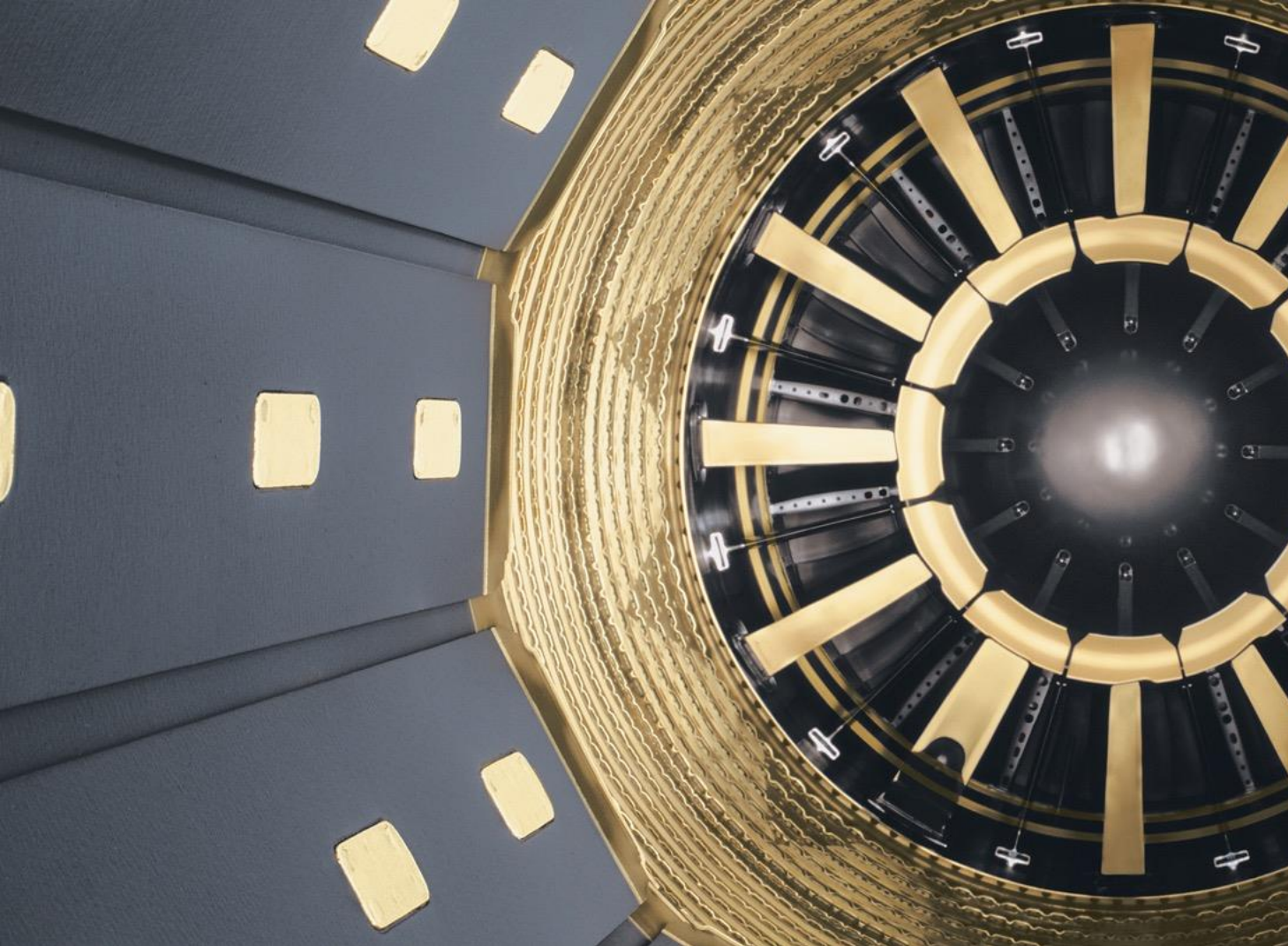
Defining
WHAT'S NEXT



Sustaining Advancements



Long-term Disruptors

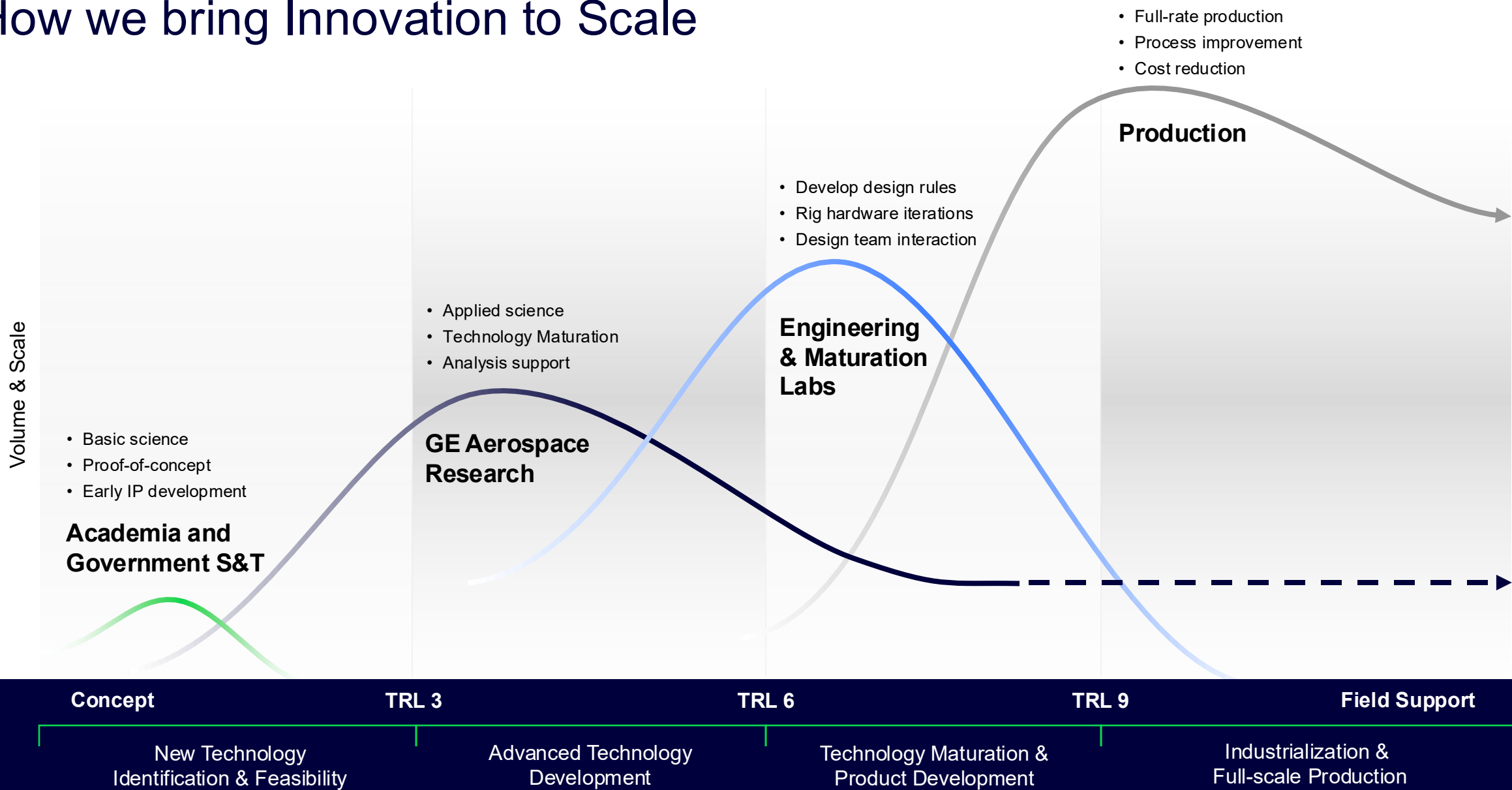


Technology Platforms

- Industrialization & Readiness
- Future Power & Propulsion
- Systems Electrification
- Supercomputing & Artificial Intelligence
- Next-generation Materials
- Atmospheric & Climate Sciences
- Emerging Sciences & Technologies
- DoD Advanced Programs

Delivering next generation capabilities

How we bring Innovation to Scale



Inventing the Future of Flight



1995



2016



2016



Today

WE WERE MEANT TO FLY

