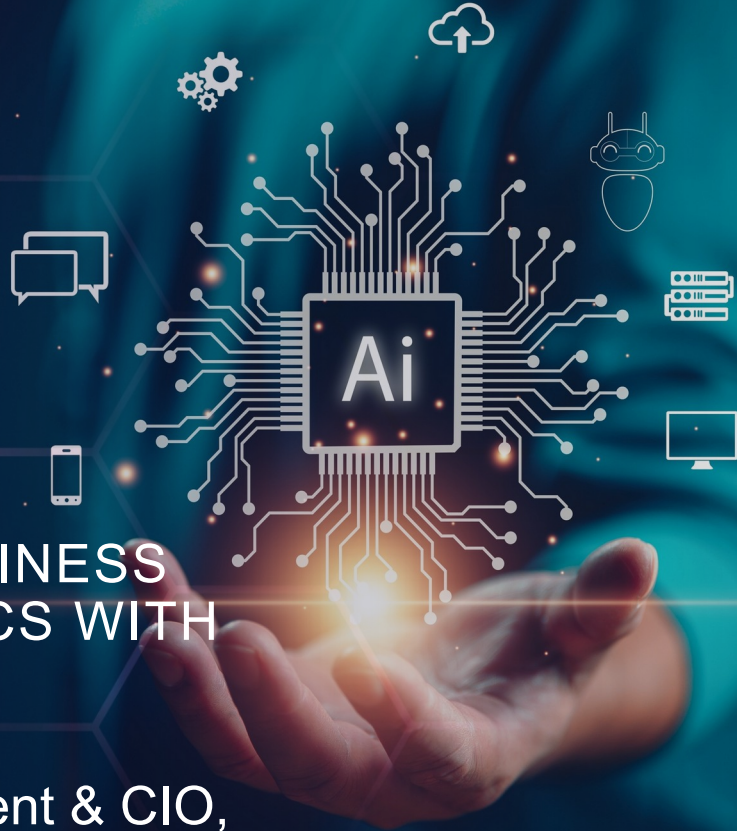


TEXTRON

ENHANCING AIRCRAFT READINESS AND MAINTENANCE LOGISTICS WITH GENERATIVE AI

Luke Pankey – Senior Vice President & CIO,
Textron Aviation



ABOUT TEXTRON

Textron Inc. is a multi-industry company that leverages its global network of aircraft, defense, industrial and finance businesses to provide customers with innovative solutions and services.

2024 Revenues

\$13.7
Billion

NYSE
Symbol
TXT

Employees
34,000

Fortune 500
Rank
311



BUSINESS SEGMENTS AND CORE BRANDS

Textron
Aviation



Bell



Industrial



Textron
Systems

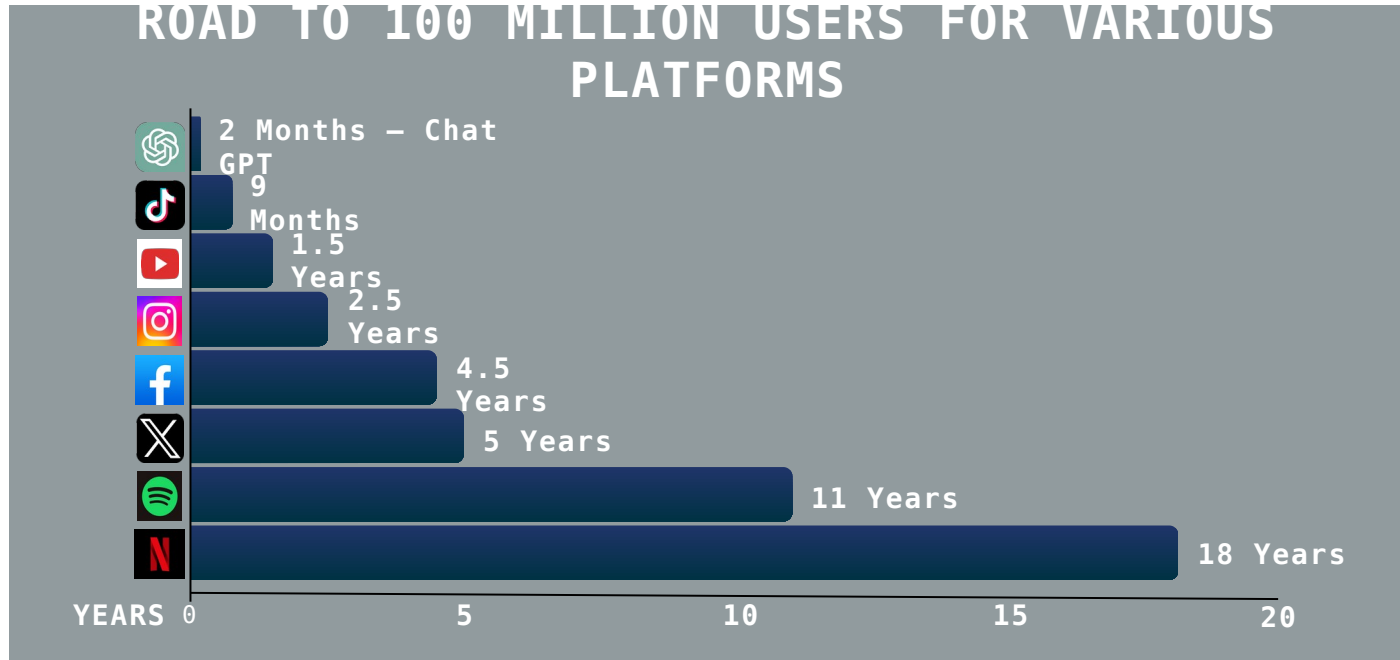


Finance

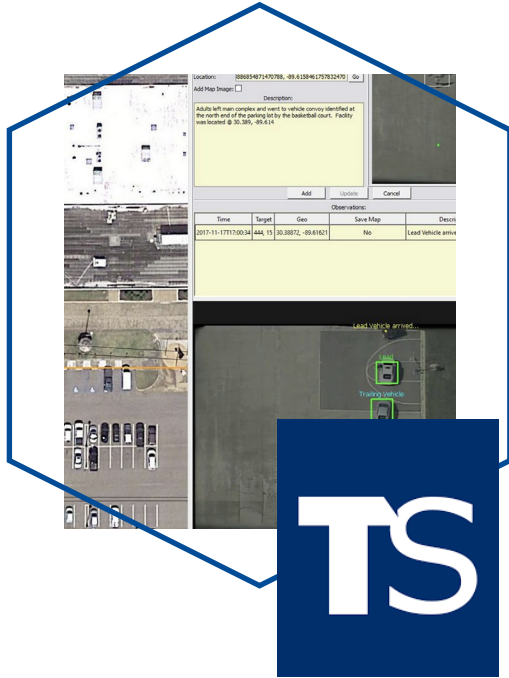


THE ASK

“What should we be doing about Generative AI?”

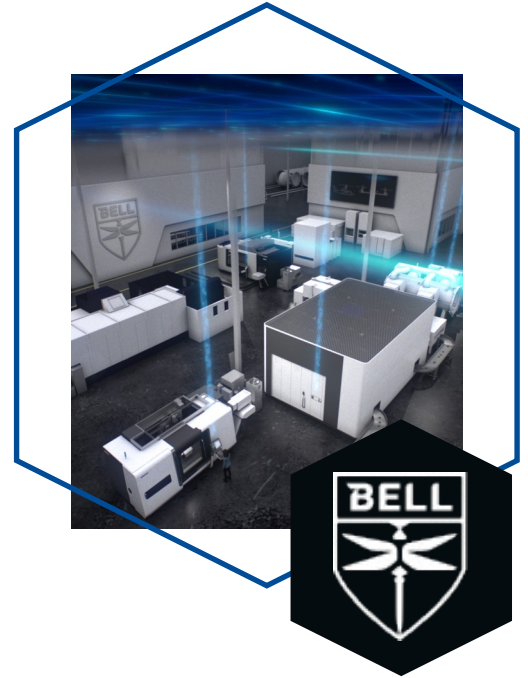
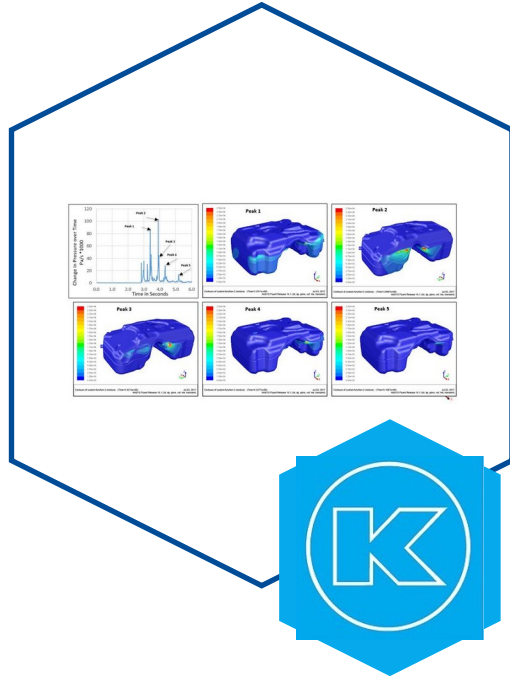


HISTORICAL USES OF AI AT TEXTRON



A screenshot of a vehicle tracking software interface. The interface includes a map on the left, a data table, and a description box. The description box contains the text: "Add to left main complex and send to vehicle convoy identified at the north end of the parking lot by the basketball court. Facility was located @ 30,385, -89,634". The data table has columns for Time, Target, Geo, Status Map, and Description. The TS logo is overlaid at the bottom.

Time	Target	Geo	Status Map	Description
2017-11-17T17:00:34	444, 15	30,38872, -89,63617	No	Lead Vehicle arrive



ACTION ITEM: AI USE CASE

Complete a proof of concept to quickly demonstrate value, while also ensuring:

- § Secure data
- § Predict cost at scale
- § Understand operational considerations
- § Evaluate upskilling



Beechcraft®

BY TEXTRON AVIATION

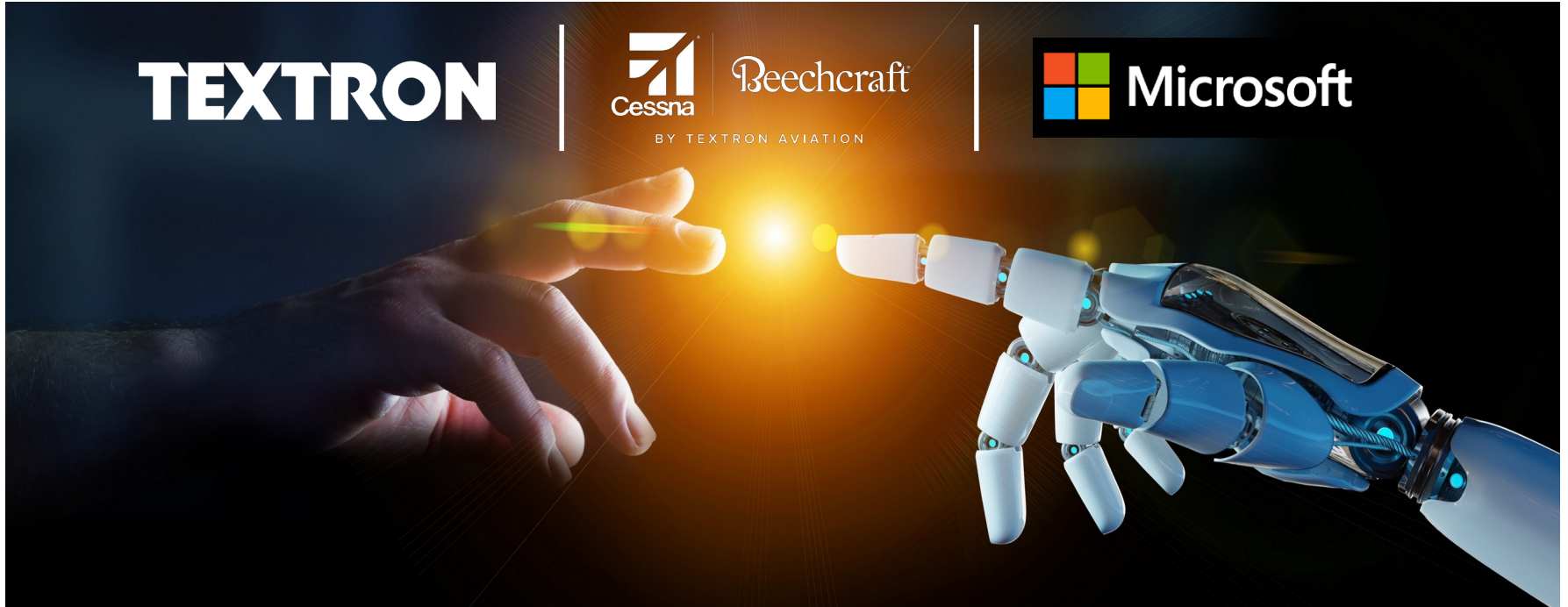
PICKING OUR USE CASE

TEXTRON



Beechcraft

BY TEXTRON AVIATION



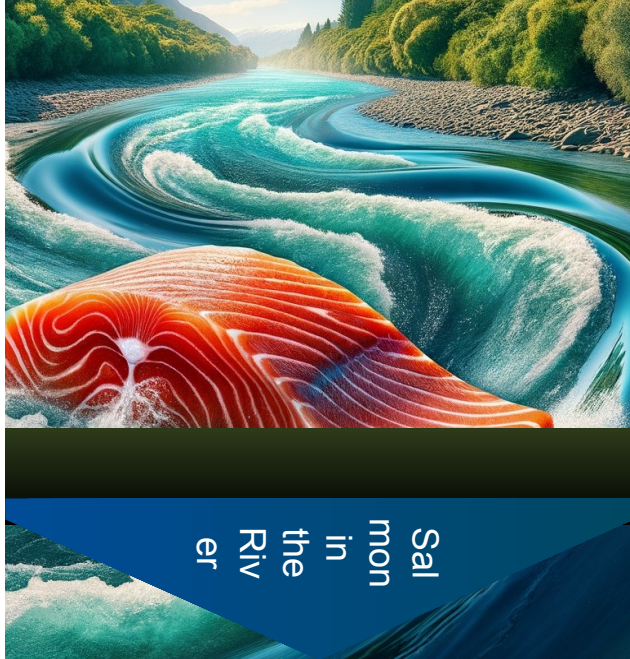
OPPORTUNITY: AIRCRAFT SERVICE TECHNICIAN

Trained to
Repair Aircraft



- § Can we leverage AI with our data to help us troubleshoot and fix issues faster than without AI?
- § Can AI provide the knowledge of an experienced service technician?
- § Pilot Scope: Service data for CJ3, CJ3+ and CJ4
 - Technical Publications
 - Part Diagrams
 - Controlled Procedures
 - Part Numbers
 - Service Bulletins
 - Videos
 - CAD Files
 - MRO History
 - Tribal Knowledge

ART OF THE PROMPT



PROMPT ENGINEERING & GOVERNANCE



Supporting Content



Thought Process



.PDF



YouTube



Videos



XML

System:

You are an intelligent assistant helping aviation technicians diagnose and resolve problems with aircraft that have been brought in for maintenance.

You will be provided with sources (delimited with XML tags) that will help you provide guidance to diagnose/resolve problems with aircraft.

The provided sources include historical service records from other aircraft and maintenance manuals.

Suggest potential causes and/or fixes for the following question using only the data provided in the sources below.

Be detailed but concise in your response.

Each source has a name followed by a pound and the actual information, always include the source name for each fact you use in the response.

If you cannot answer using the sources below, say you don't know.



Man on the left wearing a dark blue polo shirt and safety glasses, looking at a Dell laptop.

Man in the center with a beard and safety glasses, wearing a dark blue t-shirt with the **Boechraft** logo, looking at a laptop. A red power tool is on the desk in front of him.

Man in the background wearing a light blue polo shirt, working at a workstation.

Man in the background wearing a dark blue polo shirt and safety glasses, working at a workstation.

Small white label on the left side of the workstation with technical specifications.

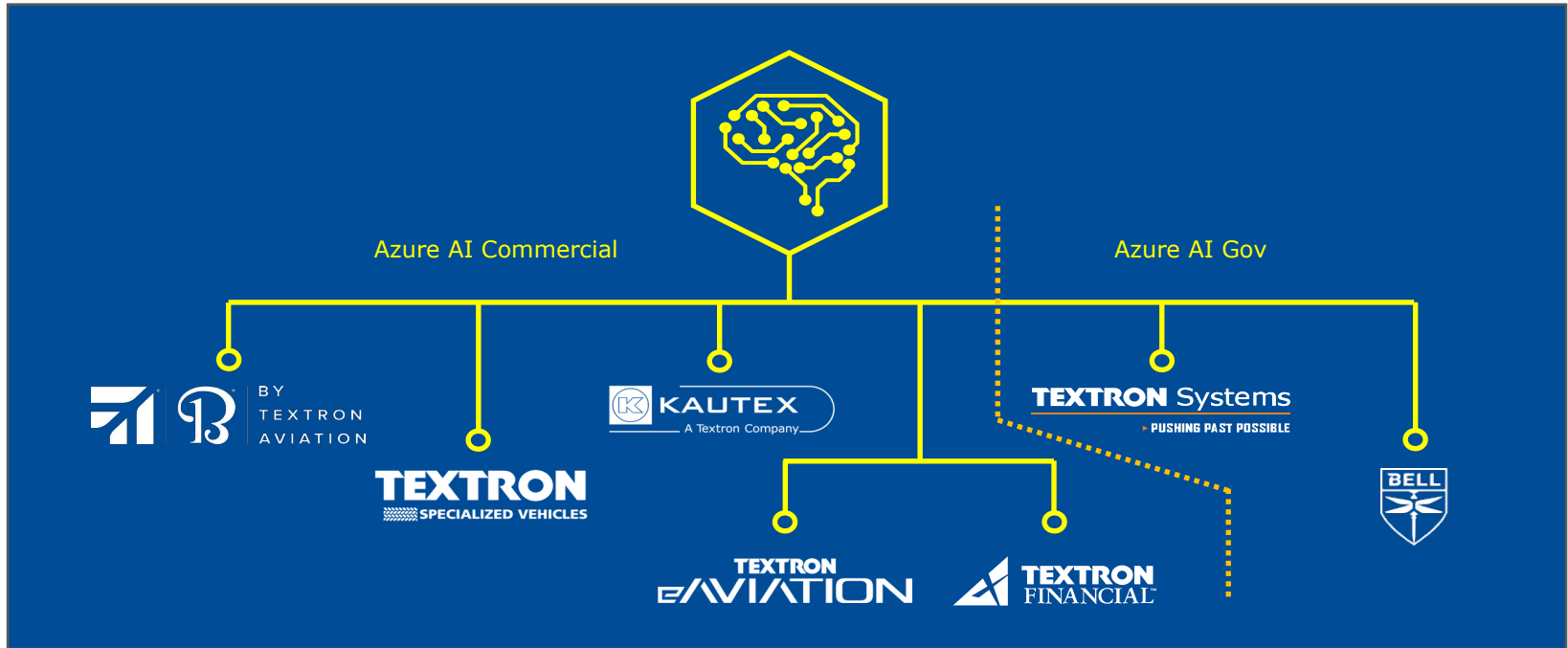


PROOF OF CONCEPT: IMPACT

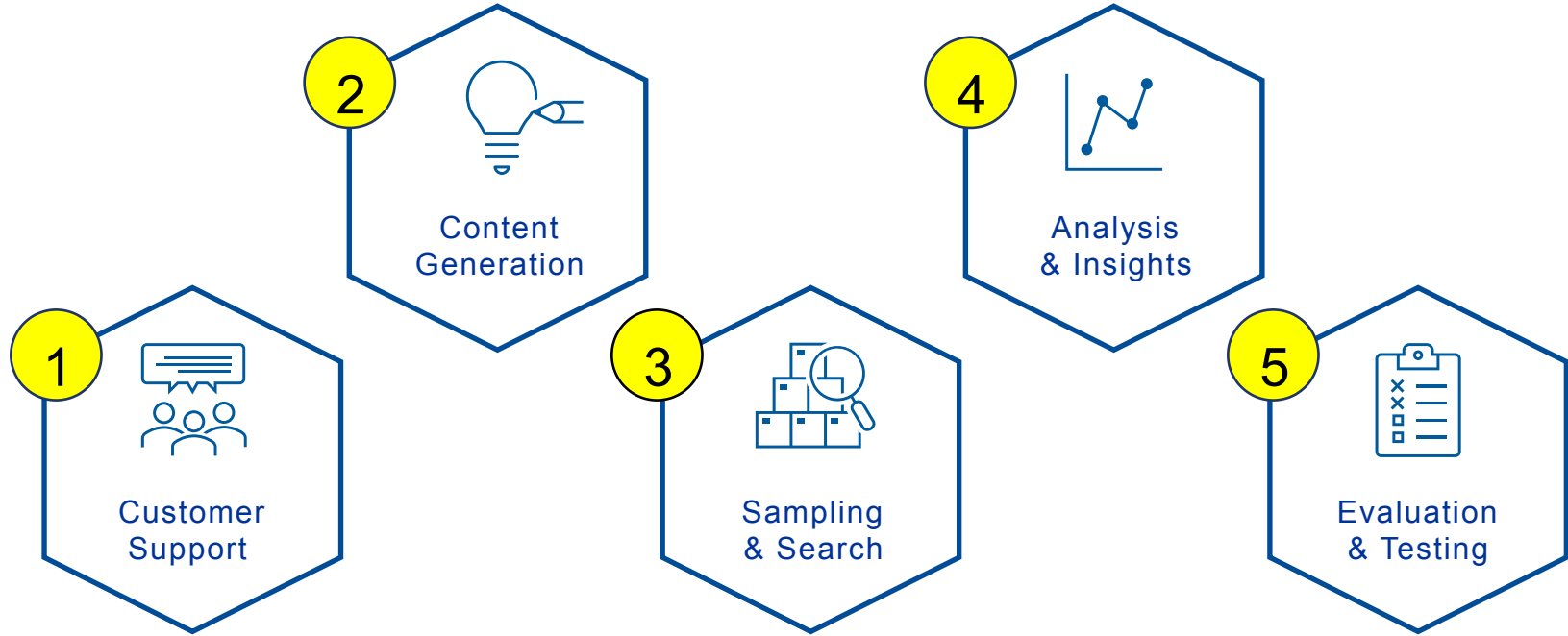
- § AI produced significant productivity improvements for service technicians
- § AI provided summaries from documentation in a matter of seconds
- § New data sources could easily and quickly be combined into the model
- § We could secure data and understand model cost
- §



SCALING GENERATIVE AI ACROSS TEXTRON



CURRENT APPLICATIONS OF GENAI



KEY TAKEAWAYS

1

Understand
How To Make
An Impact

2

Business
Stakeholder
Engagement

3

Make Space
For
Innovation

4

Foster
Replication
Versus
Reinvention

