

GE Additive

Oppenheimer Annual Industrial conference

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May 9th 2017

Caution Concerning Forward-Looking Statements:

This document contains "forward-looking statements" – that is, statements related to future events that by their nature address matters that are, to different degrees, uncertain. For details on the uncertainties that may cause our actual future results to be materially different than those expressed in our forward-looking statements, see <http://www.ge.com/investor-relations/disclaimer-caution-concerning-forward-looking-statements> as well as our annual reports on Form 10-K and quarterly reports on Form 10-Q. We do not undertake to update our forward-looking statements. This document also includes certain forward-looking projected financial information that is based on current estimates and forecasts. Actual results could differ materially.

Non-GAAP Financial Measures:

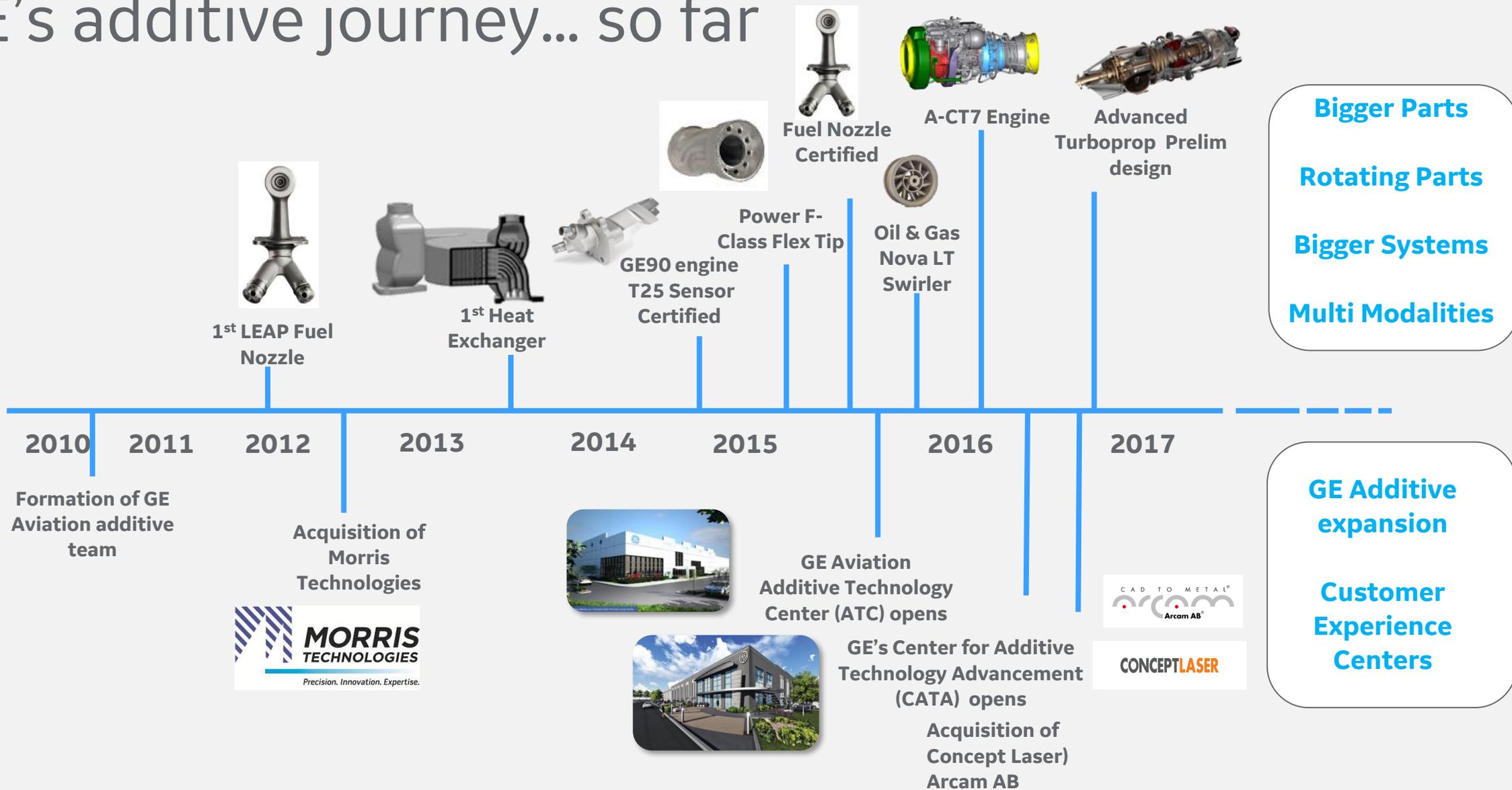
In this document, we sometimes use information derived from consolidated financial data but not presented in our financial statements prepared in accordance with U.S. generally accepted accounting principles (GAAP). Certain of these data are considered "nonGAAP financial measures" under the U.S. Securities and Exchange Commission rules. These non-GAAP financial measures supplement our GAAP disclosures and should not be considered an alternative to the GAAP measure. The reasons we use these non-GAAP financial measures and the reconciliations to their most directly comparable GAAP financial measures are posted to the investor relations section of our website at www.ge.com.

General Electric Capital Corporation (GECC) has been merged into GE and our financial services business is now operated by GE Capital Global Holdings LLC (GECGH). In this document, we refer to GECC and GECGH as "GE Capital". We refer to the industrial businesses of the Company including GE Capital on an equity basis as "GE". "GE (ex-GE Capital)" and /or "Industrial" refer to GE excluding GE Capital. Our financial services segment previously referred to as GE Capital is now referred to as Capital. GE's Investor Relations website at www.ge.com/investor and our corporate blog at www.gereports.com, as well as GE's Facebook page and Twitter accounts, contain a significant amount of information about GE, including financial and other information for investors. GE encourages investors to visit these websites from time to time, as information is updated and new information is posted.

GE's additive journey... so far

Technology

Infrastructure



From fuel nozzle to bigger parts & systems in the future

Moving beyond the parts ...

Part cost reduction

Supplier productivity

System simplification

New product & performance entitlement



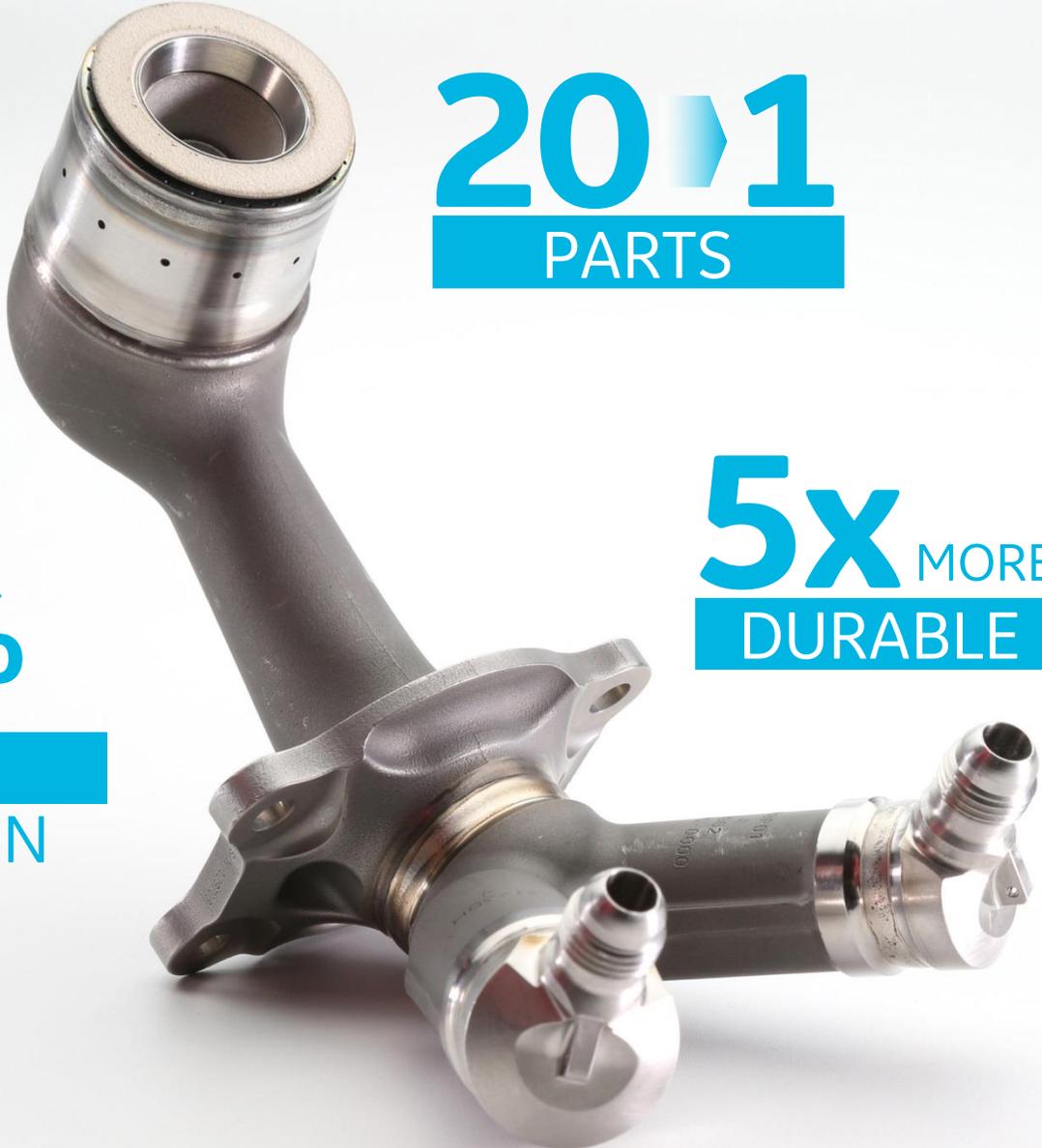
It started with one part ...

Capabilities of full production
35,000 - 40,000 per year

25%
WEIGHT
REDUCTION

20 → **1**
PARTS

5x MORE
DURABLE



GE Confidential Information



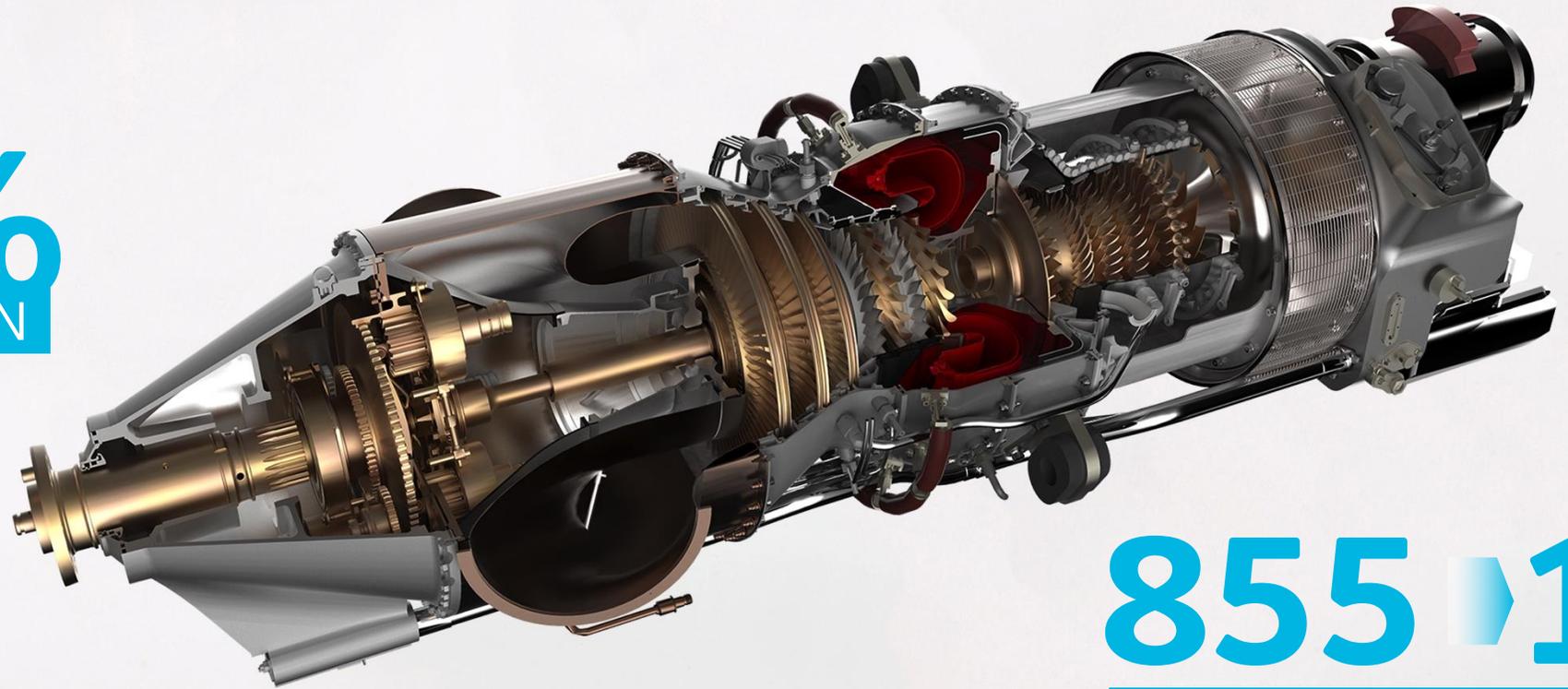
Proof point: Advanced Turboprop Engine (ATP)

Combustor test schedule reduced from **12 months** to **6 months**

No structural casting

20%
LOWER MISSION
FUEL BURN

5%
WEIGHT
REDUCTION



855 → **12**
PARTS



Additive at GE Power & Oil & Gas

1 pt. of combined-cycle
efficiency to 65%

Additive enabling single
digit NOx capability

Performance



Speed to market



Cost



HA turbine shroud



2016

Tested in Greenville

2018

In production: 7 HA.02

20% Flow Savings

\$1.5MM Value

Nova LT GT Fuel Burner



2014

Replaced cast Swirler

2016

Fuel burner re-design
(single piece)

50% Cost out



Additive productivity ...changing entitlements in GE

Accelerating internal adoption

2000+ GE business engineers engaged

100+ Focused application & material engineers

Results of the last 90 days

1000+ application ideas identified

110 prototypes made

\$500M+ new savings ex. Aviation

Impacting value chain across GE

Renewables
Hydro Model Runner



O&G
Nova LT Burner



Power
F class DLN Flex Tip



Healthcare



Stargate Collimator
Milestone - AM3



Stargate Shield Frame
Milestone - AM1

Aviation
ATP C Sump



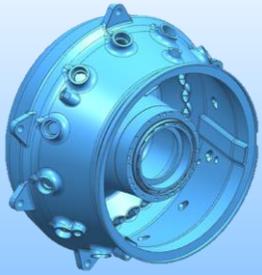
GE Enterprise level disruption

Design

Manufacturing

Services

Additive



Turbine frame

1 Digital Twin

6-8 Engineers



1 Mfg. sources & Inspection Sys.

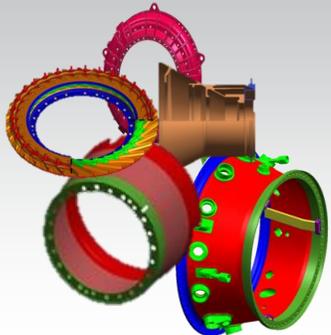
1 data lake
...powering **PREDIX**

1

Repair Source



Conventional



Same frame

300 parts

60 Engineers



50+
Mfg. sources

40 data systems



5 Repair sources



Investing in machine technology

Concept Laser

- **Key components**
 - **Laser and gantry system**
 - Machine/scan control software
 - Optics and sensors
- **Product type**
 - Larger format; faster build speed



~\$0.3B Revenues '17E
Growing ~40% CAGR

Arcam

- **Key components**
 - **Electron Beam 'gun' and filament**
 - Machine/scan control software
 - Smaller capacity, faster build
- **Product type**
 - High temperature build capability



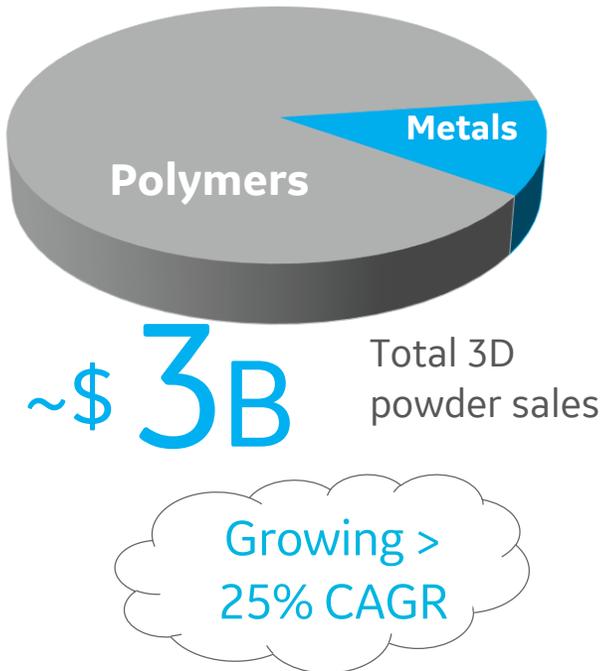
Dynamics

- Accelerating machine technology with GE's knowledge from all industries
 - Better design
 - Bigger size (1 meter+)
 - Speed (10x)
- Differentiating machine technology with GE store: GRC & Digital
 - Product
 - Materials
 - Software & Predix
 - \$1.5B investment in past 6 years

Enabling technology for faster & larger parts to capture full potential



Building an additive material catalogue



Aerospace	BioMed	Auto	Industrial	GE Potential
Ti64	Ti64	Titanium Ti64		50% LOWER COST
HX IN625 IN718	CoCrMo	IN625	CoCrMo HX IN625 IN718	5X MORE APPLICATIONS
F357 AlSi10Mg	Aluminum AlSi10Mg			50% LOWER COMPONENT COST
316L GP1	PH1 316L GP1	CX Steel 17-4PH	MS1 PH1 GP1	30% LOWER COMPONENT COST <small>Source:</small>

BCG

- ✓ 6 GE businesses consume powder metal today
- ✓ GE has 346 patents in the material space
- ✓ ~25% of powder metal sold will be additive by 2020

Enabling additive manufacturing for all industries



Creating a strong additive business

The Opportunity

\$255B

Size of Casting & Forging Industry in 2016

30% Growth

Growth across all industries: Industrials, Aerospace, Medical, Automotive



Source:  **WOHLERS**
ASSOCIATES

Critical for Success

Lead in technology... need to differentiate: speed, quality, multi-modality

Materials sophistication.. standards drive broader adoption

Application engineering....Demonstrate a clear path for productivity outcomes

Innovate commercial offerings ... enable true customer collaboration

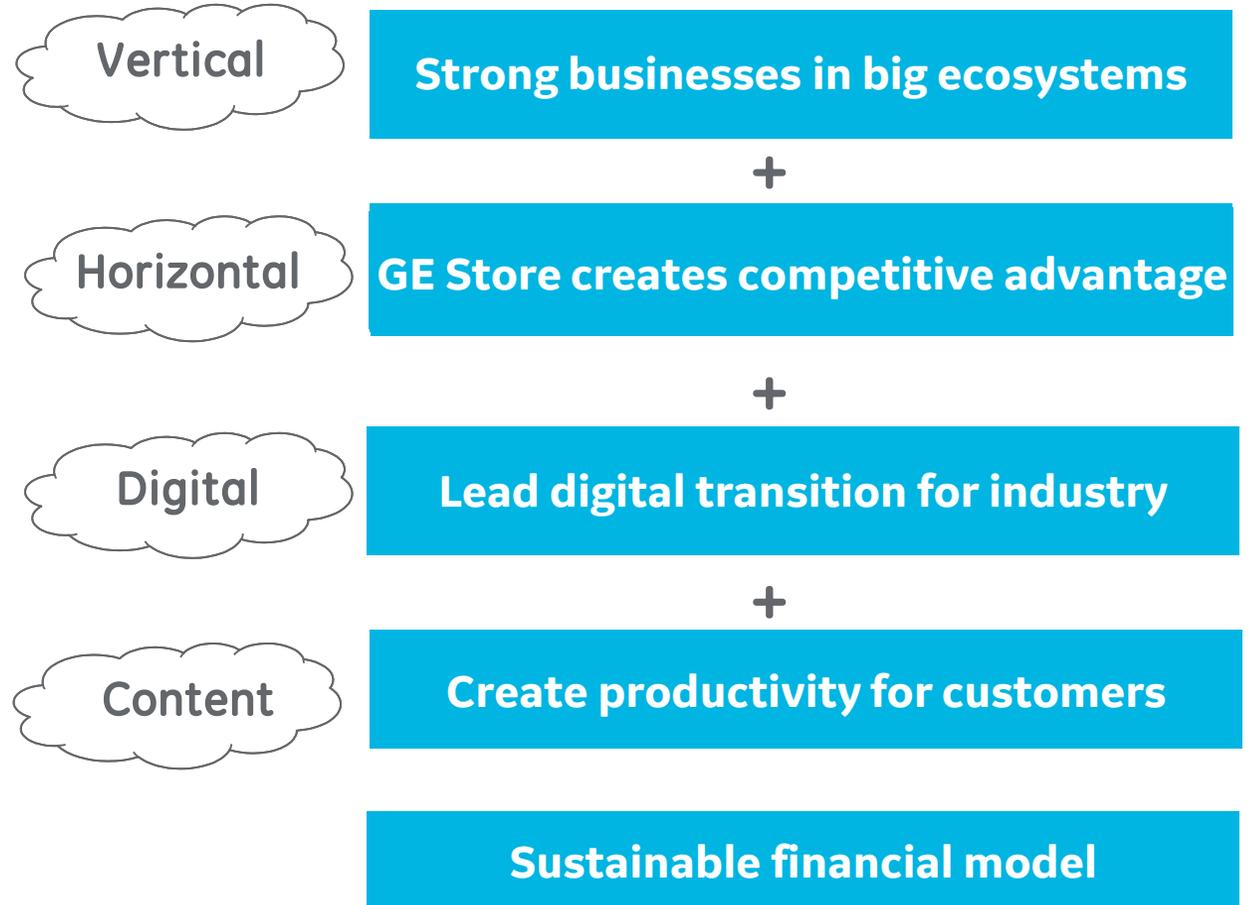


Additive leading the manufacturing revolution



GE Additive's offering

- 1** Best technology **Our Opportunity**
 - Cost & Cycle out
 - Vertical integration
 - Services value
 - New products
- 2** Application engineering & GE Internal proof points **Domain Expertise**
- 3** Material science **Foundational competency**
- 4** Digital **PREDIX Premier digital industrial**
- 5** GE Store: **Financing, GRC technology, internal application learning**



Positioned to win in this market



GE Additive ... our combined mission

\$1B annual revenues by 2020

10,000 units sold by 2026

\$3-5B+ product cost-out by 2026

