June 23, 2016

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-forwardlooking-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 “non-GAAP 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. (We use non-GAAP financial measures including the following:
• GE Industrial operating & Verticals earnings and EPS, which is operating earnings of our industrial businesses and the GE Capital businesses that we expect to retain.)
Digital Industrial

Part of the GE Store

↕ Productivity and margins
↕ Services topline growth rate
↕ Customer value … products & services

Potential for new business

+ Predix operating system for the Industrial Internet
+ New industries … new GE customers
+ Global partner framework

Built on:
✓ Leading technology
✓ Service franchise
✓ GE Store
Committed to success

Digital revenue

1. Customer outcomes → service growth
2. Incremental productivity
3. Launch “killer” applications
4. Predix as the operating system in the Industrial Internet ecosystem
Services evolution

Big Iron

‘80s
+ Partners
+ Field engineers

‘90s
+ Advanced repairs
+ Part upgrades

‘00s
+ Risk sharing
+ Monitoring & diagnostics

Today
+ Analytics-enabled uptime
+ Software-enhanced output/performance
+ Remote inspections

Contractual Services

Digital Industrial

Backlog $226B

Customer Outcomes
Services growth engine

($ in billions)

Services financials

- Revenue
- Op profit

Future growth

- Growing installed base and $/installed base
- Going after every asset ... mature & competition
- Digital opens new value
- Big pipeline of upgrades

Proven services track record ... next generation services growth enabled by digital
GE view of the Industrial Internet

Why it’s important

• Big market ... ~$225B in 2020 ... could be bigger
  + Industrial world needs platform

• Real value creation for customers
  + Will drive next wave of Industrial productivity

• Significant opportunity to drive internal productivity

• Further differentiates competitiveness with customers

GE uniquely positioned

• Started initiative in 2011 ... have invested heavily

• $226 backlog, domain/physics, access to data
  + Product redesign capability

• First mover advantage ... partnerships and hiring key talent

• Complete platform ... delivering edge to cloud processing, security, data governance
Overview of Industrial Internet & GE Digital

Bill Ruh – CEO, GE Digital & CDO, GE
34 years experience (5 years GE)
Digital transformation

The Idea

Industrial productivity

- 4% 1991 – 2010
- 1% 2011 – 2015

Meets the Digital Twin

Physics + Analytics

The Principles

- Deliver outcomes
- Consumer ≠ industrial
- Talent follows ideas
- Assets + devices matter

- Build digital content
- Reform IT
- Simplify culture
- Industrials trust each other
GE delivers the winning formula

Advanced data science + Physics-based + Applied engineering

Data Continuous, accessible + Statistics & Machine learning Identify trends & anomalies + Physics Apply asset & domain expertise = Industrial outcomes

One platform for OT & IT teams to collaborate and innovate
## Market opportunity
Digital industrial revolution by 2020

<table>
<thead>
<tr>
<th>Applications</th>
<th>Consumer (~$170B)</th>
<th>Platform (~$90B)</th>
<th>Enterprise [IT] (~$200B)</th>
<th>Industrial [OT] (~$225B)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$80B</td>
<td></td>
<td>$130B</td>
<td>$125B</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$70B</td>
<td>$100B</td>
</tr>
</tbody>
</table>

Source: Harbor Research, IDC, TCG Analysis
Consumer ≠ industrial

Consumer

- Superficial asset impact
- Data volume in terabytes per day
- User managed security
- Regionalized data storage
- Compute in the cloud: reactive

Industrial

- Mission critical asset value
- Data volume in PB per day
- Multi-layer security
- Customer-focused storage
- Compute at the edge: proactive
Industrial internet building blocks

- **Outcomes**
  - Asset Performance Management (APM)
  - Operating system & Cloud (Predix)

- **Technology**
  - Digital Twin
  - Domain knowledge
  - Edge devices

- **Talent & culture**
  - Digital Thread
  - Tech skills

- **Partner ecosystem**
  - Cyber-security
  - FastWorks

- **“As a service” model**
  - Enterprise
  - +

- **Delivering customer outcomes**
  - ✓

- **Materials science**
  - ✓

- **Analytical strength**
  - ✓

- **Edge + cloud**
  - ✓

- **New team and capabilities in place**
  - ✓

- **Very different capability set than consumer internet**
  - ✓

- **GE investing in capability that’s necessary to win**
  - ✓
Landscape sample

Established tech companies, telcos, industrials, and niche players all vying for success in the industrial internet either on a standalone basis or with partners.
How we view the technology competitive landscape

**Automation only**
- Product lifecycle management
- Manufacturing execution systems

**Cloud platform**
- One-size-fits-all
- General purpose
- Standard tools and apps

**Systems of record**
- Standard ERP
- Not connected
- Transaction-based SW

**Analytics only**
- Not industrial strength
- Not multi-modal

**Industrial requirements built in**
- Integration from edge to cloud
- Industry vertical and horizontal applications built in
- Deep domain & engineering knowledge augment Digital capabilities
# What does it take to win?

## What we need

<table>
<thead>
<tr>
<th>Domain &amp; scale</th>
<th>Digital Industrial Platform</th>
<th>Commercial ecosystem</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Deep industry domain &amp; operational insights</td>
<td>- Predix as dominant digital platform, both inside &amp; outside GE</td>
<td>- GE platform which creates the industrial app economy</td>
</tr>
<tr>
<td>- Ability to win in services</td>
<td>- APM as the 1st “killer app”</td>
<td>- Global partner ecosystem of developers, integrators &amp; key technology companies</td>
</tr>
<tr>
<td>- Each GE business with its own digital industry app strategy &amp; integrated digital portfolio</td>
<td>- “All in” with Ops Optimization, Digital Thread, Digital Twin, Intelligent Environments &amp; Cyber-security</td>
<td>- Digital commercial capabilities in GE Digital &amp; GE businesses</td>
</tr>
<tr>
<td>- Global scale, depth &amp; reach</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**What it takes to win**

- 100s of GE Digital industrial apps across our businesses
- 1,000s of GE & partner apps on Predix
- 100,000s of app developers in the Predix ecosystem

**Defend against**

- Smaller competitors attacking our Industrial markets
- Larger competitors attacking our Industrial markets
- Larger competitors attacking our Platform
GE Digital organizational structure

GE Digital (horizontal)  GE Businesses (vertical)

GE Digital CEO & GE CDO  Business CEOs

- Horizontal product lines
- Predix operating system
- Digital infrastructure
- Separate P&L
- Commercial leadership
- GRC software research

Business CDOs

- Incentive plans aligned to GE Digital
- Common metrics
- Mutual accountability

- Product extensions
- Vertical product lines
- Digital business strategy
- P&L within each business
- Drive Digital culture

One GE Digital team. Connected today ... ability to quickly scale & adapt to business needs.
Today’s agenda

**Building the horizontal**
- Defining success: Khozema Shipchandler
- Technology leadership: Harel Kodesh
- Commercial approach: Kate Johnson
- Digital Thread: Jim Fowler
- Organization: Jen Waldo

**Building the vertical**
- Power Digital: Ganesh Bell
- Executing with customers: Azeez Mohammed
- Healthcare Digital: Charles Koontz
- Transportation Digital: Seth Bodnar
- Services: Kevin McAllister
- Engineering/Manufacturing: Jeff Connelly
- Current: Maryrose Sylvester
Defining Success

Khozema Shipchandler, VP & CFO, GE Digital
20 years experience (all GE)
Leading success indicators – 2016 targets

- Additional developers drive innovations, interest & stickiness of platform
- Customer proof points of new digital solutions confirm customer value
- Ecosystem drives exponential growth
- Industrial applications deliver the outcomes & efficiencies customers want

Goal: create a broad industrial internet ecosystem to lead digitization of the industrial economy
Investing at scale

Investment...

- Digital Thread: ~$1.4B
  - $0.4B
    - Digitally connecting factories
    - Design, manufacturing, services, commercial
- Vertical capabilities: $0.3-$0.4B
  - Industry applications, cloud migrations, product extension
  - Commercial
- Horizontal capabilities: $0.6-$0.7B
  - Predix
  - Applications
  - Cloud infrastructure
  - Cyber
  - Edge

...attractive payback

- $0.5B productivity
- $6B+ revenue

'16E
## orders of $7B+

<table>
<thead>
<tr>
<th>Business</th>
<th>'16 V%</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power</td>
<td>&gt;30%</td>
<td>✓ Broad-based contribution across every business</td>
</tr>
<tr>
<td>Oil &amp; Gas</td>
<td>&gt;30%</td>
<td>✓ Re-building Healthcare portfolio, target 10%+ growth rate in 2017</td>
</tr>
<tr>
<td>Renewables</td>
<td>&gt;40%</td>
<td>✓ Significant expansion into new verticals</td>
</tr>
<tr>
<td>Aviation</td>
<td>&gt;30%</td>
<td>✓ Growing globally ... partners / ecosystem expand reach</td>
</tr>
<tr>
<td>Energy Connections</td>
<td>&gt;100%</td>
<td></td>
</tr>
<tr>
<td>Transportation</td>
<td>&gt;30%</td>
<td></td>
</tr>
<tr>
<td>Healthcare</td>
<td>&lt;10%</td>
<td></td>
</tr>
<tr>
<td>Current</td>
<td>F</td>
<td>Strong foundation to build from ... working on a path to $1B+ for every business</td>
</tr>
<tr>
<td>Digital core</td>
<td>&gt;100%</td>
<td></td>
</tr>
</tbody>
</table>
How we generate revenue

Through services

- Upgrades ... † value to existing deals
- Licenses or subscription ... GE, 3rd party or partner developed
- Outcome-based ... asset specific offering; GE/customer share the benefits
- Platform-as-a-service ... Predix operating system; price per micro-service

Incremental value from each revenue stream

Standalone

- Revenue share ... share of apps sold

GE Digital
### Future value creation

<table>
<thead>
<tr>
<th>Today: $6B+ Digital business</th>
<th>By 2020: ~$15B Digital business</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Software and professional services</td>
<td>✓ Productivity</td>
</tr>
<tr>
<td>✓ Operating system</td>
<td>✓ Applications/upgrades</td>
</tr>
<tr>
<td>✓ Digitally enabled outcomes</td>
<td>Asset Performance Mgmt</td>
</tr>
<tr>
<td>✓ Productivity solutions</td>
<td>Brilliant Manufacturing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>2016E</th>
<th>2020F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Productivity</td>
<td>$6B+</td>
<td>~$15B</td>
</tr>
<tr>
<td>Applications/upgrades</td>
<td>$0.5B</td>
<td>~$10B</td>
</tr>
<tr>
<td>Operating system</td>
<td>&lt;$50MM</td>
<td>~$4B</td>
</tr>
</tbody>
</table>

Current period return through productivity and new revenue streams … long term 30%+ operating margins accretive to bottom line
Strategic investments & accelerators

- **Pivotal**
  - Components needed for Predix architecture model
  - Greater influence over op. system for Ind. Internet

- **servicemax**
  - Leader in cloud based field service management
  - Enabler of Digital Thread strategy

- **Daintree Networks**
  - Critical accelerant for smart building strategy
  - Enables faster monetization for Current

- **NeuCo**
  - Improve fossil-fuel-fired power plants
  - Accelerate & enhance value-proposition

- **wurldtech**
  - Assess & protect GE’s & customers’ infrastructure
  - Added protection to industrial internet offerings

**Future considerations**

- ✔ Accelerate platform services & capabilities
- ✔ Rapid market entry
- ✔ Enhance tech stack
- ✔ Build vertical adjacencies

Will deploy capital to expand technology capabilities & commercial offering
Cultural change

- Energizes entire company ... Digital Thread and Predix demand internal & commercial transformations
- Strengthens strategic customer relationships & enables delivery of unprecedented outcomes
- Hired external talent & paired with internal GE executors. CDOs bring expanded view of market, fresh ideas, new models ... attracting the best. Repositioned CIO.
- Operating with renewed urgency and intensity, investing at rate required, unafraid to experiment, fail fast & pivot
- GE uniquely positioned to do this. Domain + analytics our “killer app” ... very few have capital and knowledge required.
Technology Leadership

Harel Kodesh – VP & CTO, GE Digital
32 years experience (2 years GE)
Industrial requires a whole new operating system
Predix, the operating system for industry

Built for industry + Over 100 years of domain expertise + Applications & analytics for IoT use cases = GE's competitive advantage
## What it takes to run a digital cloud-based industrial business

| Industrial-focus semantics | - System of asset abstractions  
<table>
<thead>
<tr>
<th></th>
<th>- In-stack security</th>
</tr>
</thead>
</table>
| **Industrial-focus operations** | - Right scaling the data centers  
|                           | - Critical infrastructure security  
|                           | - Distributed compute from cloud to edge |
| **Industrial-focus intelligence** | - Multimodal machine learning stack  
|                           | - Combining unsupervised and model-based machine learning algorithms |
Predix edge capability

Built by industry for industry
Digital Twin

Physics & analytics

No unplanned downtime
Asset optimization
Machine learning/pattern recognition
Continuous tuning
Condition-based repair
Analytics based lifing
Per asset models
As-a-service models
Ecosystem benefits

New language of productivity
## Physics and analytics – a portfolio approach

<table>
<thead>
<tr>
<th>Business Problem</th>
<th>ML Technology</th>
<th>Physics Model</th>
<th>Business Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fleet Segmentation</td>
<td>Learning from a low number of events</td>
<td>Integration with Lifting Models</td>
<td>Increased uptime, optimize maintenance schedule for aircraft engines</td>
</tr>
<tr>
<td></td>
<td>Bayesian estimation, similarity search, clustering.</td>
<td>Spallation, and Metal Fatigue models</td>
<td></td>
</tr>
<tr>
<td>Early Warning</td>
<td>Unsupervised and Supervised Learning of the Asset Operational Model</td>
<td>Integration with Performance Model</td>
<td>Move unplanned downtime to scheduled downtime in Aviation and locomotives</td>
</tr>
<tr>
<td></td>
<td>Gaussian Mixture Model, Similarity Based Model</td>
<td>Using Thermal model to produce virtual sensors</td>
<td></td>
</tr>
<tr>
<td>Performance Optimization</td>
<td>Supervised Learning of Asset performance</td>
<td>Systems Performance Models</td>
<td>Reduce fuel consumption while maintaining production MW target</td>
</tr>
<tr>
<td></td>
<td>Neural Network, Active Learning</td>
<td>Gate Cycle model of Power Plant, real time control of Power Plant</td>
<td></td>
</tr>
<tr>
<td>Services Optimization</td>
<td>Learning from a low number of Shop Events</td>
<td>Integration with Selected Domain Knowledge.</td>
<td>Decrease service turnaround time for engines in shop</td>
</tr>
<tr>
<td></td>
<td>Ridge Regression, Similarity Search</td>
<td>Survival analysis, domain features</td>
<td></td>
</tr>
</tbody>
</table>
Asset Performance Management (APM)

**Get Connected**
- **MACHINE & EQUIPMENT HEALTH**
  - Securely Connect Equipment
  - High Probability of Detection
  - Data-Rich Actionable Insights

**Get Insights**
- **RELIABILITY MANAGEMENT**
  - Confidence Around Best Outcomes
  - Identify Emerging Problems
  - Collaboration

**Get Optimized**
- **MAINTENANCE OPTIMIZATION**
  - Balance Performance & Reliability
  - Optimize Maintenance
  - Maintenance Strategy

- No unplanned downtime
- ↓ operating costs & risk
- Longer asset life
- Value-based pricing ... win/win for GE & customers

**Foundational application for industrial asset productivity**
Predix cyber security design

Secure and certify operational infrastructure
... app users to operational

Bring operational availability and governance with “IT”
... at every connection and layer

Protect OT/IT in an app factory delivery model
... automated secure apps

Establish user-based world for industrial apps
... end-to-end visibility

End-to-end cyber, information and operational security
Why Predix

- An operating system, built by GE, to deal with the key abstractions, performance & cyber security requirements of industrial assets

- Defines a standard ontology & abstraction that allows complex industrial asset models to be queried & processed in a standard way, removing an obstacle for entry & innovation

- Provides a standard way to connect machines, data & people while delivering analytical insights in real-time to optimize industrial infrastructure & operations

- Distributed edge computing ... build & run high fidelity digital twins of industrial machines in the cloud or at the edge

- Machine learning capabilities ... optimized for the industrial internet to build, run & train analytics models
Commercial Approach
Kate Johnson - VP & CCO, GE Digital
23 years experience (3 years GE)
Commercial approach

- Close big Predix-powered deals ... marquee customer references
- Build digital commercial engine ... digital thread for efficiency & scale
- Establish GE as a reference ... tap into adjacencies
- Develop strategic partnerships ... build out a rich ecosystem
- Dedicated team of Digital experts working horizontally & vertically to drive adoption
Commercial talent: the winning combination

Digital Talent

- Software sales lifecycle
- Solution architects
- CIO relationships
- Demos & use case vernacular
- CIO pain points

~1,000 Commercial resources

Industrial Talent

- Deep industrial domain
- VP Ops & C-suite relationships
- Service franchise
- Industrial KPIs
- COO/Engineering pain points

~13,000 Commercial resources

Outcome Selling

Industrial Outcomes
Efficiency, yield, downtime, throughput, quality, safety

Combining digital and industrial talent to drive meaningful customer outcomes
**Predix wins – APM as the killer app**

<table>
<thead>
<tr>
<th>Solution</th>
<th>bp</th>
<th>SRP</th>
<th>RG</th>
</tr>
</thead>
<tbody>
<tr>
<td>APM software and Predix</td>
<td>▪ Provide analytical insights at enterprise scale through knowledge sharing on demand</td>
<td>▪ Enterprise-wide APM</td>
<td>▪ APM</td>
</tr>
<tr>
<td></td>
<td>▪ Eliminate disruptions by being proactive and analyze problems more efficiently</td>
<td></td>
<td>▪ 1,000+ GE &amp; non-GE equipment connected to Predix</td>
</tr>
</tbody>
</table>

| Outcome                   | ▪ Provide analytical insights at enterprise scale through knowledge sharing on demand | ▪ Shift from unplanned outages to planned outages                    | ▪ Increasing reliability by 1%                                       |
|                           | ▪ Eliminate disruptions by being proactive and analyze problems more efficiently | ▪ Significantly reduced maintenance costs                            | ▪ Reduce volumetric downtime                                         |
|                           |                                                                      | ▪ Optimized asset life                                               | ▪ Decrease excess flash gas                                          |
|                           |                                                                      |                                                                      | ▪ Manage maintenance costs                                           |
|                           |                                                                      |                                                                      |                                                                      |  

**Outcome**
- Provide analytical insights at enterprise scale through knowledge sharing on demand
- Eliminate disruptions by being proactive and analyze problems more efficiently
- Shift from unplanned outages to planned outages
- Significantly reduced maintenance costs
- Optimized asset life
- Increasing reliability by 1%
- Reduce volumetric downtime
- Decrease excess flash gas
- Manage maintenance costs
### Predix wins – beyond the asset for enterprise health

<table>
<thead>
<tr>
<th>Solution</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Smart automation and digitized manufacturing platform</td>
<td>- Increasing operational efficiency, and reducing fuel consumption</td>
</tr>
<tr>
<td>- Operations Optimization (OO)</td>
<td>- Increased analytics velocity as part of digital transformation</td>
</tr>
<tr>
<td>- APM software and Predix</td>
<td>- Improved reliability with APM</td>
</tr>
<tr>
<td>- Operations Optimization (OO)</td>
<td>- Reduced SCRAMS and improved plant performance with OO</td>
</tr>
<tr>
<td>- Business Optimization (BO)</td>
<td>- Better power forecasting with BO</td>
</tr>
<tr>
<td>- Predix (across Gas, Wind, Nuclear)</td>
<td>-</td>
</tr>
</tbody>
</table>
## Predix wins – making new markets

<table>
<thead>
<tr>
<th>Solution</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LIIXIL</strong></td>
<td><strong>TOSHIBA</strong></td>
</tr>
<tr>
<td>Predix + scheduler application</td>
<td>Predix + application for predictive maintenance and service scheduling</td>
</tr>
<tr>
<td><strong>Outcome</strong></td>
<td><strong>Predix + asset health application</strong></td>
</tr>
<tr>
<td>Reducing cost and project delays</td>
<td>Up to 10% machine efficiency</td>
</tr>
<tr>
<td>Improving controller productivity</td>
<td>Up to 20% increases in machine yield</td>
</tr>
<tr>
<td>Enhancing customer satisfaction</td>
<td>Up to 15% savings on parts replacement</td>
</tr>
<tr>
<td></td>
<td>Up to 10% tech support time-savings</td>
</tr>
</tbody>
</table>
The partner ecosystem is our force multiplier

<table>
<thead>
<tr>
<th>System Integrators</th>
<th>ISVs</th>
<th>Telcos</th>
<th>Technology Partners</th>
<th>Resellers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joint Selling</td>
<td>Customized Solutions</td>
<td>Strategic Partnerships</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

275+ target accounts across 30+ partners ... 1,000s of certifications drive share and help build the app economy ... 10x multiplier
Portfolio of services offerings aligned to customer journey

<table>
<thead>
<tr>
<th>Advisory services</th>
<th>Rapid start services</th>
<th>Implementation services</th>
<th>Managed services</th>
<th>Support services</th>
</tr>
</thead>
<tbody>
<tr>
<td>IIOT workshop</td>
<td>Cyber</td>
<td>Architecture</td>
<td>Remote monitoring and diagnostics</td>
<td>Certification programs</td>
</tr>
<tr>
<td>Design thinking</td>
<td>APM</td>
<td>Migration</td>
<td>Security ops center</td>
<td>Services</td>
</tr>
<tr>
<td>Data science</td>
<td>Brilliant Manufacturing</td>
<td>Blueprint</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Predix</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Operations Optimization</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
What is the Digital Thread?

Connecting people, machines & data throughout the value chain to drive previously unattainable outcomes by changing the way we sell, manufacture, design & service.

How?
- Using Predix, advanced analytics, talent & the Digital Twin to create speed
- Scaling reusable solutions to solve GE wide problems / pain points

Why?
- Driving $500MM of internal productivity in 2016 & $1B by 2020
- World class user experience to make GE the workplace of the future
Digital Thread strategy

**What**
- Make GE the BEST example of Digital Industrial ... Lean + Digital
- Deliver $500MM of productivity in ‘16 and $1B by 2020

**How**
- Horizontal solutions for optimizing value chain
- Optimized for products/machines
- Delivered with persona based applications

**ITO**
- Commercial
  - ~$28MM
  - 15 Live Solutions
  - 10 Pipelined

**NPI**
- Engineering
  - ~$76MM
  - 24 Live Solutions
  - 35 Pipelined

**OTR**
- OTR
  - ~$86MM
  - 30 Live Solutions
  - 20 Pipelined

**Services**
- Services
  - ~$310MM
  - 32 Live Solutions
  - 30 Pipelined

**Digital Twin**

**Predix**

**APM**

‘16 goals ... enable $500MM+ in cost out and connect 75 factories
Services at GE – horizontal solution

Persona-based apps

Field Vision

Smart Repair

Horizontal solutions

APM

Inspection as-a-Service

Resource scheduling & Mgmt

Contract Mgmt

Repair & scoping

Platform

Predix

Across GE

✓ Personal based applications driving services productivity

✓ Built on reusable services that are tied to Digital Twin models

✓ Eliminates low value manual work

✓ Analytics drive the work scope

✓ Optimizes the services value chain

Enterprise data + machine data driving ~$250MM in productivity

Internal reference site ... services tools key for Predix customers
## Services repair facility at GE – Grove City (Transportation)

<table>
<thead>
<tr>
<th></th>
<th>Yesterday</th>
<th>Today</th>
<th>Tomorrow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machines connected</td>
<td>0</td>
<td>98</td>
<td>110+</td>
</tr>
<tr>
<td>Conditional</td>
<td>0</td>
<td>20%</td>
<td>70%</td>
</tr>
<tr>
<td>Auto routing</td>
<td>0</td>
<td>15%</td>
<td>60%+</td>
</tr>
<tr>
<td>3D drawing conversion</td>
<td>0</td>
<td>3,700</td>
<td>10,000+</td>
</tr>
</tbody>
</table>

Early identification enabling conditional remanufacturing ... controlled through Auto-Routing

- Auto-fed conditional work scopes
- Real time repair status

$25MM productivity in ’16
Organization

Jen Waldo – Senior HR Manager, GE Digital

14 years experience (all GE)
GE’s Digital Workforce ...~28K employees globally

Tech industry external hires into GE
5,500 through 2015 ... +2,000 more by YE 2016

Function
- Products & Eng: 56%
- IT: 32%
- Services: 9%
- Commercial: 3%

Attrition
- GE Digital: 5.5%
- Tech Industry: 22%
Building the GE Digital talent pool

Developer Profile

Development Experience
full stack, platforms for applications, frontend/backend, dev ops

Skills
REST API, JavaScript, Java, node.js, React, Hibernate, Python, Jenkins

Education
Degrees: CS, electrical engineering
Schools: UC Berkeley, Stanford, MIT, Cornell, Carnegie Mellon, UT Austin, USC

POC Projects
Cisco, SAP, Sybase

Applications
Y, IBM, Oracle, Walmart, AT&T

Platform & Cloud
Facebook, Google, LinkedIn, Amazon, Apple, Salesforce
Transforming our approach to digital talent

<table>
<thead>
<tr>
<th>Recruiting</th>
<th>Compensation</th>
<th>Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model:</strong> Outsourced → Insourced</td>
<td><strong>Market:</strong> Industrial → Tech</td>
<td><strong>Delivery:</strong> Classroom → Online</td>
</tr>
<tr>
<td><strong>Candidates:</strong> Active → Passive</td>
<td><strong>Structure:</strong> Base → Base + Bonus + Equity</td>
<td><strong>Focus:</strong> Leadership → Technical</td>
</tr>
<tr>
<td><strong>Brand:</strong> Limited → Growing</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Career Development</th>
<th>Culture &amp; Community</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Leaders:</strong> Managerial → Technical</td>
<td><strong>Community:</strong> Unknown → Connected</td>
</tr>
<tr>
<td><strong>Careers:</strong> Band climb → Capability growth</td>
<td><strong>Culture:</strong> Industrial → Digital industrial</td>
</tr>
</tbody>
</table>
Power Digital
Ganesh Bell – CDO, GE Power
22 years experience (2 years GE)
Power Digital Solutions

**Market environment**
- Digital agenda becoming a top priority for Power & Utility CxO’s
- Electricity Value Network (EVN) is an emerging opportunity: $95B by 2020

**Orders**
- ’15: $2.4B
- ’16E: >30% VPY

**Priorities**
- Category defining portfolio from sensor to cloud (AGP to APM)
- Leverage Alstom + GE installed base
- Grow new portfolio +80% VPY ... 20+ DPP customers since launch
- Drive customer adoption & success
- Lead with enterprise digital transformation
- Innovate new business models (e.g. outcome-as-a-service)
Digital Transformation of Electricity

~$1.3T
Industry value

$2T+
Societal impact

$387B
APM

Customers investing “innovation dollars” into software companies

$500MM+

Business models under threat

Digital is a Board priority

World Economic Forum White Paper
Digital Transformation of Industries:

2-way grid
Self-generation
Distributed Energy
Behind the Meter

E.ON
Exelon
RWE
ENGIE
SOUTHERN
COMPANY
Digital transformation market opportunity

<table>
<thead>
<tr>
<th>Value Chain</th>
<th>Generation</th>
<th>Grid</th>
<th>Prosumers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Opportunity</strong></td>
<td>$40B</td>
<td>$50B</td>
<td>TBD</td>
</tr>
<tr>
<td>2020</td>
<td>2020</td>
<td>2020</td>
<td></td>
</tr>
</tbody>
</table>

$95B opportunity across the EVN by 2020

**Current Categories**
- Business Optimization
- Plant Operations Optimization
- Outage Management
- Wide Area & Congestion
- Energy Management System
- Energy Efficiency as a Service
- Energy Intelligence
- Asset Performance Management

**Emerging Categories**
- Renewable Integration Management
- Distributed Energy Resource Management
- Micro-Grid, Demand Response, Virtual Power Plant
- Integrated Customer Services
- Digital Field Worker
- Cyber Security
- Platform for Supply Flexibility
- Platform for Demand Flexibility
Portfolio solution map

- **BUSINESS OPTIMIZATION (BO)**
  - Market Intelligence & Forecasting
  - Portfolio Optimization
  - Fuel Nominations
  - Financial Settlement

- **OPERATIONS OPTIMIZATION (OO)**
  - Performance Metrics
  - Plant Optimization
  - Outage Management
  - Fuel Supply Management
  - Financial Planning
  - Regulatory Compliance

- **ASSET PERFORMANCE MANAGEMENT (APM)**
  - Machine & Equipment Health
  - Reliability Management
  - Maintenance Optimization

- **PREDIX**

- **EDGE & ADVANCED CONTROLS**

- **CYBER**
Machines to cloud – story of digital outcomes

**AGPs**
- Outcomes delivered via analytical applications close to “edge”
- Customer journey of analytics and digital twin
- Sold alongside hardware retrofit

**Edge**
- Next gen “AGP” expanding to rest of fleet
- Evolution to Predix Edge Platform + Edge Apps (e.g: Virtual Battery, Ancillary Response, Smart Start)
- Digital twin from sensor to cloud
Power & utilities: winning with the ecosystem

**Data Sources:** Data acquisition
- Examples: Integ, Genscape

**OEM:** Creating analytic packs
- Example: Woodward, oOEM

**System Integrator:** GTM scale
- Examples: PwC, CapGemini, E&Y

**Advisory/Academia**
- Example: EPRI, Stanford

**Asset Mgmt:** Winning BoP... beyond the turbine
- Example: Meridium

**Plant Operations:** Enabled Enterprise
- Examples: Ingen, Neuco, etaPRO

**Business Opt:** Winning trading efficiency
- Examples: Power costs, Pioneer, Allegro
Innovating with new business models

1. **Software as a Service (SaaS)**
   - ✓ Connect assets
   - ✓ APM, OO, BO

2. **SaaS within multi-year agreement**
   - ✓ Underwrite outcomes, ↑ return
   - ✓ Include SW in every reneg

3. **Outcome-as-a-service (OaaS)**
   - ✓ New offering to TX customers
   - ✓ Next generation CSA offering

Expanding TAM & wallet share
Executing with Customers

Azeez Mohammed – VP, Services MEA, GE Power
17 years experience (all GE)
Digital solutions capturing needs of MEA power customers

**Large installed base 300GW+**

- Customers pursuing efficiency & reliability
  - ✔ Efficiency improvement
  - ✔ Better reliability

- South Africa
- Saudi Arabia
- Egypt
- UAE

**Emerging demand for power**

- Customers building out infrastructure
  - ✔ Real-time visibility
  - ✔ CAPEX → OPEX

- Pakistan
- Libya
- Iraq
- Angola
Case study 1: APM improves reliability of LNG complex

Improve volumetric down time (VDT) ... 1 day VDT multi-million savings for an LNG complex

7 LNG Train ~1.5KM long with mechanical & electrical assets

Customer dynamics
✓ RAS Gas ... 2nd largest LNG producer & 45% of Qatar’s GDP
✓ GE’s APM to reduce volumetric downtime, decrease excess flash gas & manage maintenance costs
  • Significant value in flash gas/train per annum

GE solutions for a typical LNG processing plant
✓ Power APM + LNG extensions + Predix
✓ 1,000+ GE & non GE equipment connected to Predix
✓ Estimated savings @ 2 days of down time multi $MM
✓ Long term commitment ~25 year recurring revenue

Expand to other power intensive industries e.g. smelter, water, etc
Case study 2: Saudi Electric Co. (SEC) – Generation Optimization

Single source of truth aligned to SEC’s KPIs ... phase I solution for a mixed fleet of 500+ units

Operational Inputs
- 40 GW
- 500+ units
- GE + non-GE
- Gas & steam turbines
- 16 large power plants

Financial metrics
- Fuel delivery
- Dispatch schedule
- IPP data
- Dispatch actuals
- Balancing requests

Predix Cloud
- Digital Twin (APM,OO,BO)
- Connect assets to Predix
- Real time analytics

SEC Business Value
- Fuel Planning
- Economic Dispatch
- Settlements
- Load forecast
- Alarms
- Condition Indicators
- Apps for specific use cases

SEC viewed as fleet leader ... 30+ asset managers in MEA need similar solution
Case study 3: HUBCO – selling outcome as a service

Up to 4% efficiency driven by Digital Twin ... optimizing process & hardware at plant level

HUBCO
• 1.3GW
• Ansaldo Turbines
• Fuel = expensive furnace oil

✓ GE advantage ... bringing physics based expertise & data analytics to deliver value for customer
✓ How we are executing ... typical financials:

<table>
<thead>
<tr>
<th>Product</th>
<th>Efficiency</th>
<th>10 year value</th>
</tr>
</thead>
<tbody>
<tr>
<td>APM</td>
<td>1%</td>
<td>$50MM</td>
</tr>
<tr>
<td>Neuco ... OO</td>
<td>1%</td>
<td>$50MM</td>
</tr>
<tr>
<td>OO (Gas)</td>
<td>1.5%</td>
<td>$75MM</td>
</tr>
<tr>
<td>Hardware/svc</td>
<td>0.5%</td>
<td>$25MM</td>
</tr>
</tbody>
</table>

✓ ~$200MM of additional value from existing installed base with minimum hardware changes
✓ Gain share model

Improving life & performance of aging installed base ... global opportunity
Healthcare Digital

Charles Koontz – CDO, GE Healthcare
28 years experience (<1 year GE)
**GE Healthcare Digital**

- Deep installed base/customer relationships
- Leader in Radiology imaging
- Gaining share in enterprise imaging & financial management
- Multiple platforms

### Dynamic healthcare marketplace
- Shift to pay-for-performance & value-based care
- Care delivery moving outside the hospital
- Transition to cloud to handle large volumes of data
- Providers looking for new business models to monetize their data to improve patient outcomes

### GEHC investment priorities
- Own the digital layer that sits above the GEHC hardware install base – connectivity, analytics, and applications
- Stand up the GE Health Cloud as a platform and establish a 3rd-party ecosystem
- Build out a robust solutions organization in conjunction with ecosystem of partners
- Develop differentiated applications to enable collaborative care that improves clinical outcomes

**Revenues**

- **‘15**
- **~$28**

**‘16+**

Cloud: ++  
Existing: =
Accelerating shift towards value-based healthcare

Industry Forces
- Care Delivery shifting
- Explosion of data
- Risk moving

Systemic Reactions
- GOVERNMENT POLICY: Enabling the value agenda
- CONSUMERS: Bear more risk, demand value
- DIGITIZATION: System-wide connectivity to enable value delivery
- NEW ENTRANTS: Creating disruptive models to capture new profit pools

New Paradigms of Care
- Community-based Care ... moving to clinic
- Acute Care ... area-focused
- Post-Acute Care ... moving to mobile health

Analytics will enable value based care
GE Healthcare Digital portfolio

### Applications
- **GE Healthcare**
  - Enterprise Imaging
  - Care Delivery Workflows
  - Diagnostic Imagine
  - Asset Performance
  - Cellular Diagnosis
  - Financial Management
  - Workforce Management
  - Ultrasound
  - Dose Management
  - Drug Development
  - Population Health (Caradigm)
  - Monitoring
  - Analytic Apps & Dashboards

- **3rd Party**
  - Applications built by Customers and Independent Software Vendors

### Analytics Layer
- Interoperability
- Deployment and service models
- Industry compliant
- Data management
- Security and privacy
- Consistent user experience
- Mobility Support
- Guidelines & Protocol
- Workflows
- Workflow
- Core Coordination
- Core Navigation
- Collaboration
- Analytics
- Technology Interoperability Tools & Standards
- Analytic Model Development
- Identity Management
- Cloud Partner Services
- Infrastructure as a Service
- Connectivity as a Service
- Platform as a Service

### Predix Cloud Services
- Security & Privacy
- Identity Management
- Cloud Partner Services
- Infrastructure as a Service
- Connectivity as a Service
- Platform as a Service
HW & SW installed base creates competitive advantage

Hardware
- 1MM imaging & ultrasound machines installed
- 16K scans every minute on a GE machine
- 124K machines under “active management”

Software
- 69B images under management
- 73MM medical records in quality reporting database
- $220B in financial transactions processed annually

Why GE Healthcare wins
- Utilize deep clinical domain to properly apply insight to caregiver workflow
- Connect clinical + financial + operational data to generate insights
- Wing-to-wing view of imaging value chain
- Continuous pipeline of new imaging data
- Leverage Predix platform for security, user experience, analytics engine

Become the partner of choice to help providers move to the digital future
GE Health Cloud is a differentiator for large enterprise wins

East Midlands Radiology Consortium (EMRAD)
- 6MM patient population across diverse regions
- 2.5MM exams/year ... 50K clinicians ... 7 NHS trusts
- Severe radiology resource constraints → led to outsourcing significant # of exams/year

Contract details
- New cloud apps (collaboration, image sharing)
- Termed “Vanguard innovation project” ... NHS will use EMRAD as model for follow-on trusts
- Scheduled to go live in 2H’16

Create clinical collaboration network to provide timely radiology care
Asset Performance Management in Healthcare
Expanding capacity through data-driven workflow optimization

Houston Methodist

- Not-for-profit health system serving the greater Houston area with a fleet of GE systems
- Robust demand for outpatient scans & high volume of inpatient studies causing operational bottlenecks
- Utilized GE machine data and advisory services to drill down to actionable operational improvements

Impact

- Methodist: 10-30% shorter MR exams → 3,250 additional cases/year ($4MM additional revenue)
- GE: commercialize APM offering across GE IB

↓ exam times and ↑ throughput
↑ fleet asset utilization

Analytics as a service ... ↑ service renewals, ↑ price
Transportation Digital

Seth Bodnar – CDO, GE Transportation
15 years experience (5 years GE)
Transportation Digital

Orders

- ‘15: 0.4B
- ‘16E: >30% VPY

Market environment
- Carload volumes down ... shift away from coal
- Intermodal key... industry growth driver
- Focus on supply chain sensitive volumes ... opportunity for end-to-end solutions

Priorities
- Grow from our core & drive customer productivity ... enable locomotive as “mobile data center”
- Build-out Rail Operating System (rOS) & leverage Predix ... cohesive, connected suite of offerings
- Enable integration of rail supply chain ... first mile/last mile connectivity
- Expand ecosystem partners for adjacent growth ... integrated inspection, analytics
- Enhance customer engagement ... outcome selling & strategic engagement

Leveraging Predix & innovating with customers to create digital solutions to deliver key outcomes
Transportation Digital value chain

First Mile
- Shipper
- 500+ short lines
- 6000+ rail shippers
- 1.5MM railcars
- 450K wayside assets
- Train / Main Line

Locomotive
- 250 rail yards
- 100 Terminals
- Yards / Terminals

Last Mile
- Receiver
- 25,000 locomotives
- 1.5MM railcars
- 450K wayside assets
- Train / Main Line
Delivering for our customers

Railroad outcomes

<table>
<thead>
<tr>
<th><strong>1%</strong></th>
<th><strong>1%</strong></th>
<th><strong>1 MPH</strong></th>
<th><strong>1%</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>ASSET UTILIZATION IMPROVEMENT</td>
<td>CAR DWELL IMPROVEMENT</td>
<td>NETWORK VELOCITY IMPROVEMENT</td>
<td>FUEL EFFICIENCY IMPROVEMENT</td>
</tr>
<tr>
<td>= $800 MILLION</td>
<td>= $2.2 BILLION</td>
<td>= $2.5 BILLION</td>
<td>= $140 MILLION</td>
</tr>
</tbody>
</table>
Train performance

GoLINC
- Network, comm, processing platform
- Predix-edge enabled; >6,000 in service
- Locomotive mobile data center

Trip Optimizer
- EPA-certified Energy Mgmt. Solution
- 10% ↑ in fuel efficiency
- >90MM gallons saved, 125MM auto miles

LocoVISION
- High def. digital video recording system
- Enables onboard video analytics
- Detects rail flaws – wide gauges, etc.
Network performance

Movement Planner
- Real-time network optimization
- 2 N.A. installs covering 1/2 of traffic
- 10% ↑ in network velocity

Smart Intermodal Terminal
- Next gen Terminal Operating System
- Architected on Predix
- 100+ terminals, 30MM containers/yr

Transportation Management
- Automates train, switching ops
- SaaS solution serving ~500 short lines
- ~8MM carloads handled per year
Predix: powering the portfolio

- Operating system that connects our apps
- Leverages data across disparate system & drives productivity
- Performance analytics – driving data-driven outcomes
Transforming services

Kevin McAllister – VP, Services, GE Aviation

29 years experience (27 years GE)
A growing installed base

Departures

Young fleet

Growing demand

Daily flights powered by GE or GE JV’s

Shop visit status per engine

Total fleet shop visits

Sustainable growth

2 of 3

61%

39%

61%

39%

4,300

5,200

'15

'20F

GE Digital
## Our Services value proposition

<table>
<thead>
<tr>
<th>Backlog $115B</th>
<th>Services ($B)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CF34</td>
<td>$7</td>
</tr>
<tr>
<td>CF6</td>
<td>$10</td>
</tr>
<tr>
<td>CFM / LEAP</td>
<td>$29</td>
</tr>
<tr>
<td>GE90 / GE9x</td>
<td>$44</td>
</tr>
<tr>
<td>GP7000</td>
<td>$4</td>
</tr>
<tr>
<td>GEnx</td>
<td>$21</td>
</tr>
</tbody>
</table>

**TrueChoice Flight Hour**
Optimizes lifecycle cost with flexible risk transfer options

**TrueChoice Material**
Provides material options for new, used parts and repair for MROs and operators

**TrueChoice Overhaul**
Optimizes cost per shop visit

**TrueChoice Transitions**
Tailored to changing ownership horizons
Technology upgrades into the installed base

Enabling technologies ...

- **Aerodynamics**
  - Efficiency
- **Materials**
  - Durability, efficiency
- **Cooling**
  - Durability
- **Coatings**
  - Durability

Time-on-wing improvement
(Since service entry)

<table>
<thead>
<tr>
<th>Engine</th>
<th>Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE90-115B</td>
<td>15%</td>
</tr>
<tr>
<td>GE90-94B</td>
<td>15%</td>
</tr>
<tr>
<td>CFM56-7</td>
<td>20%</td>
</tr>
<tr>
<td>CF6-80C</td>
<td>30%</td>
</tr>
</tbody>
</table>

Fuel efficiency improvement (SFC)
(Since service entry)

<table>
<thead>
<tr>
<th>Engine</th>
<th>Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE90-115B</td>
<td>-1.3%</td>
</tr>
<tr>
<td>GE90-94B</td>
<td>-1.6%</td>
</tr>
<tr>
<td>CFM56-7</td>
<td>-2%</td>
</tr>
<tr>
<td>CF6-80C</td>
<td>-2.5%</td>
</tr>
</tbody>
</table>

Customer value through the lifecycle
35,000 engines monitored via Predix

Fidelity
Detection
Accuracy

↑ 30%
↑ 25%
↑ 12 pts

100MM flight records per year
35,000 installed engines ... in a world of variation

A GE or CFM powered aircraft takes off every 2 seconds

Predix + analytics ... a powerful toolkit to create and convert learnings across operations and environments into actions
Analytics ... better tools to segment fleet variation

Variation across environments

Variation across fleets

Variation within customer

Mapping airborne particulates

source: NASA

Ambient Temperature

Takeoff thrust (similar mission)
- Operator A
- Rest of fleet

Climb power
- Flight > 6 hours
- Flight <= 6 hours
Marrying physics to analytics

CFM56 HPT blade

- Core speed distribution
  - CFM fleet
  - Carrier A

CF34 combustor baffle

- Baffle metal temperature (°F)
  - Long flights
  - Short flights
  - Short-haul, low cruise altitude

Number of flights

Speed and effectivity of learnings ... creates opportunities to target actions
GE90 High pressure turbine shroud

Cumulative distress

Cycles

Nominal environment

Harsh environment

Reduced maintenance burden = removals ↓ disruptions ↓ inspections ↓

ABATE
Predictive on-wing workscopes through analytics

- More distress leads to higher repair cost
- Less distress leads to lower repair cost

Better planning and prioritization ... on-time delivery ↑ and turn-around time ↓
Retooling our Services team

Digital MRO Tools Suite
Fueling customer value, GE productivity and simplification

- Reduced maintenance burden and disruptions
- More differentiated, customized TrueChoice offerings
- Better cost management ... emerging productivity tools
- Faster, simpler decisions
- A huge shift in how we learn and collaborate

Growth and productivity opportunities for our customers and GE
Transforming engineering & manufacturing

Jeff Connelly – VP, Global Supply Chain, GE Power
37 years experience (27 years GE)
<table>
<thead>
<tr>
<th>Supply chain opportunity</th>
</tr>
</thead>
<tbody>
<tr>
<td>▪ 450+ factories, 45 countries</td>
</tr>
<tr>
<td>▪ ~20K suppliers</td>
</tr>
<tr>
<td>▪ ~$50B direct material</td>
</tr>
<tr>
<td>▪ $20B+ conversion costs</td>
</tr>
<tr>
<td>▪ $2B+ cost of quality</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Digital Thread</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model Based Enterprise</td>
</tr>
<tr>
<td>Virtual validation – finding &amp; fixing issues digitally ↓ 80% reduction in first time build defects</td>
</tr>
<tr>
<td>Intelligent models – automating &amp; connecting designs ↓ 50% reduction in cycle &amp; cost, plus improved FTQ</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Brilliant Manufacturing Suite</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machine performance – preventing unplanned outages ↑ 7% productivity from machine availability</td>
</tr>
<tr>
<td>Quality – linking product to process ↑ 10% yield improvement from part/unit traceability</td>
</tr>
</tbody>
</table>

Digitally connecting & transforming global supply chain
Creating a digital model based enterprise

<table>
<thead>
<tr>
<th>Engineering</th>
<th>Integrated and collaborative system, 3D product definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing &amp; sourcing</td>
<td>Rapid &amp; seamless production of products</td>
</tr>
<tr>
<td>Services</td>
<td>Single source of truth, revision history, and instantaneous updates</td>
</tr>
</tbody>
</table>

**BEFORE**

- 2D blueprints up to 8 weeks
- Manual design of tools and fixtures
- Design changes identified via red-line

**AFTER**

- 1 hour 3D PDF
- Design re-use, automate fixture designs
- Design changes directly in model

MBE + ERP + Predix = Digital Enterprise
Model-based transformation (Greenville, SC)

Results
Design system integration
Single toolset for aero, heat transfer, stress, vibration analyses

Design productivity
Automation delivers 20% labor reduction
12K digital designs since inception

Results
$103MM across 3 years
✓ 60 of 200 steps automated/eliminated
✓ 530K hours saved across system
✓ 30% NPI cycle reduction
✓ 40% fewer manual inspection points
Integrated digital ecosystem

- **e-Design models**
  - Enables digital twin
  - Lower cycle time

- **Design validation**
  - Innovation speed
  - Reliability

- **Robust testing**
  - 6,000+ sensors
  - 5TB data/200hrs

- **Advanced mfg.**
  - New design spaces
  - Tighter tolerances

- **Performance mapping**
  - Services upgrades
  - Higher plant output

Continuous innovation delivering differentiated performance ...~$30MM per GT
F vs. H gas turbine

~5X faster H vs F

~5X unit selections vs. F at first COD

$/kw ... 10^{th} H = 1,000^{th} F
Applying additive technology

**Identify**
**Develop**
**Industrialize**
**Globalize**

**Tooling**
Both metal & polymer tooling applications

**Design prototypes**
NPI applications
Low rate initial production
Complex geometries
Lighter weight parts/ efficiency

**Product offering differentiation**
Unique concepts that leverage non-traditional solutions for customers

**Production parts**
LEAP fuel nozzle

**Repairs & Services**
Crankshaft repair

**Industrialization**
Machine change-over reduction in process monitoring

GE Digital
Current
Maryrose Sylvester – CEO, Current
28 years experience (all GE)
Exploring new business models

GE Store
- LED
- Solar
- EV
- Storage

Digital Industrial
- Predix
  - Sensor enablement

New Models
- Energy-as-a-Service
  - Power purchase agreements

Commercial Capabilities
- Outcomes
  - Sellers

Focused on customer outcomes ... reduce, produce, shift, optimize
Energy-as-a-service

Wave strategy

WAVE 3
Create a marketplace to monetize controlled assets in energy/grid service markets

WAVE 2
Deliver energy savings, optimization and productivity through sensor-enabled cloud solutions

WAVE 1
Build and operate largest network of connected, controlled, distributed energy assets

Technology stack

Distributed grid assets
- Demand response
- Frequency regulation
- Volt control

Utility

Energy optimization

Analytics

Predix platform

Equipment communication

Equipment controllers

LED
Solar
CHP
Battery
EV
HVAC
Unleashing energy-as-a-service

Integration from edge to cloud

Current Energy Management App

Predix

Ecosystem Partner Industry App

Site Gateway Controller

Wireless Area Controllers (WAC)

Zigbee

Wireless Adapters

HVAC 1

HVAC 2

Lights

Solar Panels

Large multi-site enterprise example

50% LIGHTING ENERGY REDUCTION THROUGH LEDs

10% PEAK DEMAND REDUCTION

20% PRODUCTION THROUGH ONSITE SOLAR GENERATION

10% OPTIMIZATION ENERGY MANAGEMENT & CONTROLS

Reduced energy costs & CO₂ + additional industry app value
Customer application

Need

Energy management solution for multi-site clients

Distributed hardware + software + service from multiple vendors + financing into secure single source platform

Operational savings & value added insights

The path forward

Predix Platform

- PARTICIPATE
- OPTIMIZE
- ANALYZE
- UNDERSTAND

- Virtual Power Plant
- Applications
- Predictive Analysis
- Digital Twin

Projected outcomes

Example:
Large Box retailer annual savings (~1,700 stores)

- Electricity savings $130MM
- LED replacements $25MM
- LED utility rebates $20MM
- Tax incentives $40MM

3 year payback
~ $215MM year 1 savings

Working ~$3B pipeline across 3 waves ... targeting $5B total revenue by 2020
## 2016 operating framework

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Target</th>
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<tbody>
<tr>
<td>1</td>
<td>Operating EPS(^a)</td>
<td>$1.45-1.55</td>
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<td></td>
<td>- Organic growth of 2-4%</td>
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<td>- Core margin expansion</td>
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<td></td>
<td>- O&amp;G ↓ ~30% offset by Aviation, Healthcare, Renewables, Power</td>
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<td>- Corporate @ $2.0-2.2B</td>
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<td>- Alstom ~$.05; Appliances gain ~$.20(^c)</td>
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<td>- Restructuring = gains</td>
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<td>- Total FX impact ~$(.02) at today’s rates</td>
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<td>2</td>
<td>Free cash flow + dispositions</td>
<td>$28-31B</td>
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<td>- CFOA of $30-32B(^b); ~$18B Capital dividend(^c) $3-4B(^b)</td>
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<td>- Dispositions of $2-3B(^b)</td>
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<td>- Net P&amp;E of ~$4B</td>
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<td>3</td>
<td>Cash returned to investors</td>
<td>~$26B</td>
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<td>- Dividend of ~$8B</td>
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<td>- Buyback of ~$18B</td>
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\(^a\) Industrial + Verticals  
\(^b\) Deal taxes are excluded from CFOA and included in dispositions  
\(^c\) Subject to regulatory approval
Portfolio update

Appliances

- Deal closed June 6th
- $5.6B cash proceeds
- $3.1B pre-tax gain ... $.20 EPS impact
- 2Q restructuring ~$(.10)

Good deal for GE and investors

GE Capital

- $171B Signings
- $156B Closings

GE Capital exit plan 80%+ complete

- To go signings ... France, Italy, Korea, run-off
- Returned $32B in dividends/split ... $23B to go
- Focused on remaining sales, SIFI rescission and exit of European banking licenses

- ~$35B Signings
- ~$50B Closings

Completed

To go
Financial outlook

GE Operating EPS\(^{[a]}\)

- **2015**: $1.31
  - **Buyback impact**: ~$.32
  - **Alstom**: ~$.15-.20
  - **Industrial growth**: ~5%
  - **2018F Outlook**: $2.00+

- **Ending shares** ~8.3B
- **Yr. 5 cost synergies** ~$3B

Key Points:
- GE Store + leadership franchises
- Organic revenue growth > peers
- Resilience in cycles
- Strong EPS growth, margin expansion, and high returns
- $30B of capital to allocate
- Valuable Industrial Finance company
- Attractive dividend
- Predix platform upside
Aspirations of a Digital Industrial

2020F Digital revenue

- $10B Applications
  - 30%+ margins
  - Enhanced CSA value & upgrades

- $1B Productivity
  - Digital thread deployment
  - Commercialization opportunity

- $4B Platform
  - GE a market leader
  - 100k+ developers

✓ More value to customers and partners
✓ Significant productivity gains
✓ Predix as the #1 industrial platform

On path to $15B ... with bigger aspirations