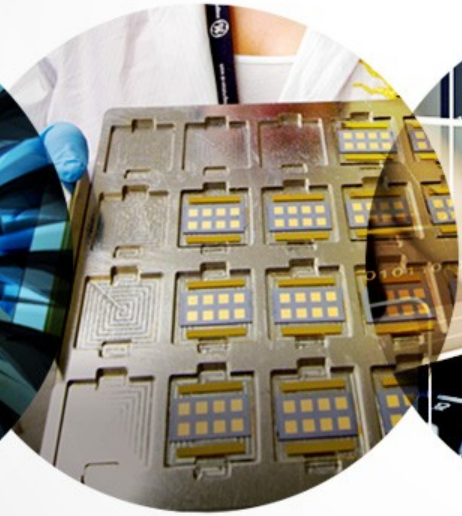


Industrial Internet: Constructive Intersection of Technology and Business



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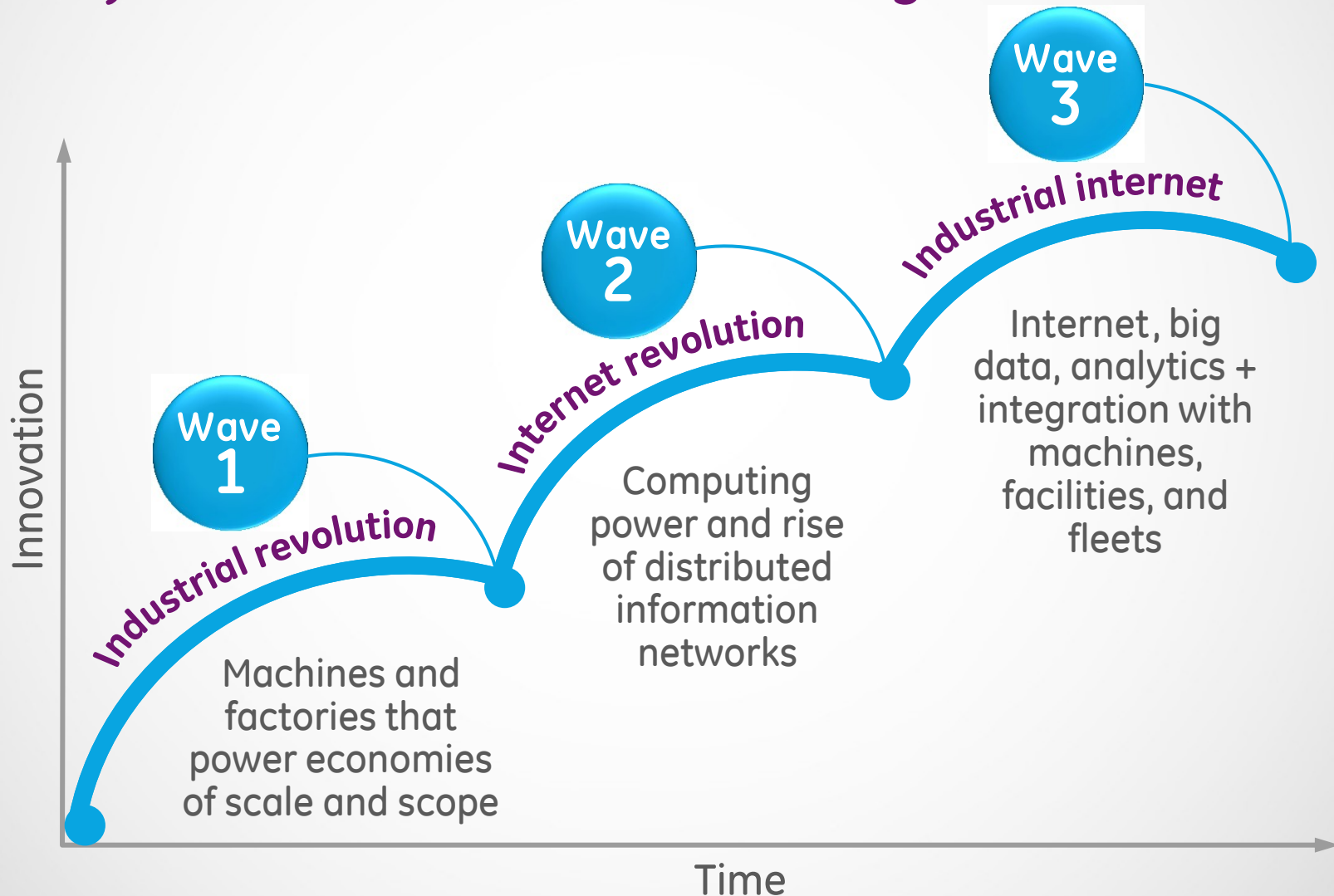
GE Software

Overview

- 
- 1 Rise of the Industrial Internet
 - 2 Forces shaping & challenges facing
 - 3 GE Today– Our business and scale
 - 4 Current and future applications
 - 5 Customer value

Rise of the Industrial Internet

History of transformation and change



Forces shaping the Industrial Internet

1 Internet of things
A living network of machines, data and people

2 Intelligent machines
Increasing system intelligence through embedded software

3 Big Data
Transforming massive volumes of information into intelligence

4 Analytics
Generating data-driven insights and enhancing asset performance

Challenges facing the Industrial Internet

1 Performance
Must be able to keep up with the needs of users

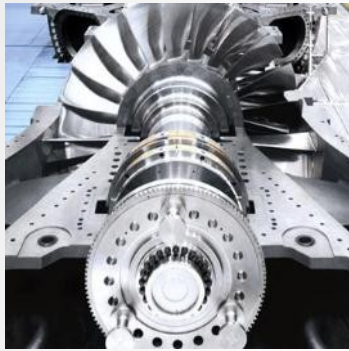
2 Cyber Security
Like in Maslow's hierarchy of needs security is foundational to higher level actualization

3 Maintenance
At scale, cost here could limit the value created

4 Inter-Operability
Open standards need to continue

GE Today - Our business and scale

A lot of things powered by intelligence, data, analytics



Power & Water



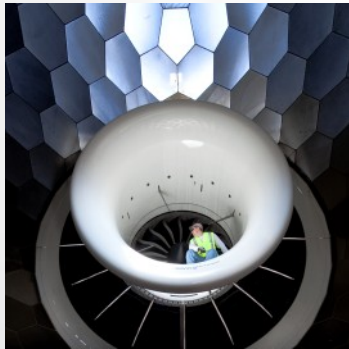
Oil & Gas



Energy Management



Transportation



Aviation



Healthcare



GE Capital



Home & Business Solutions



Current Applications...

**Attacking
Waste with
M2M &
Analytics**



No More Waiting...

Industrial Internet @ Healthcare

Hospital operations management

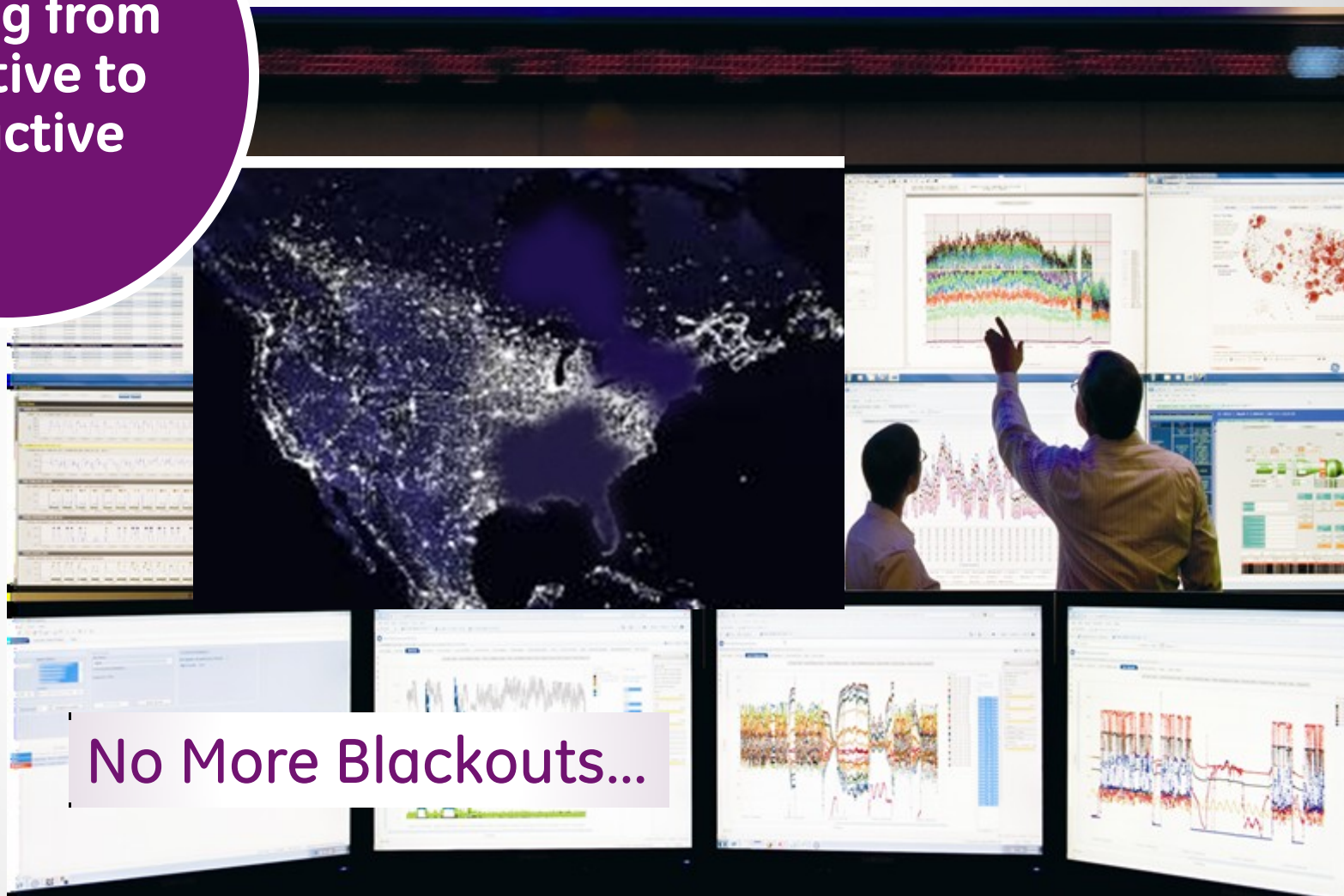
Early warning system created using real-time data and clinical workflow patterns to:

- Predict capacity bottlenecks
- Improve patient flow
- Enable remote monitoring to reduce liability
- Facilitate intelligent decisioning

Mount Sinai Hospital, NYC
1,171 bed, 2.7 million
square foot hospital



Moving from Reactive to Proactive



No More Blackouts...

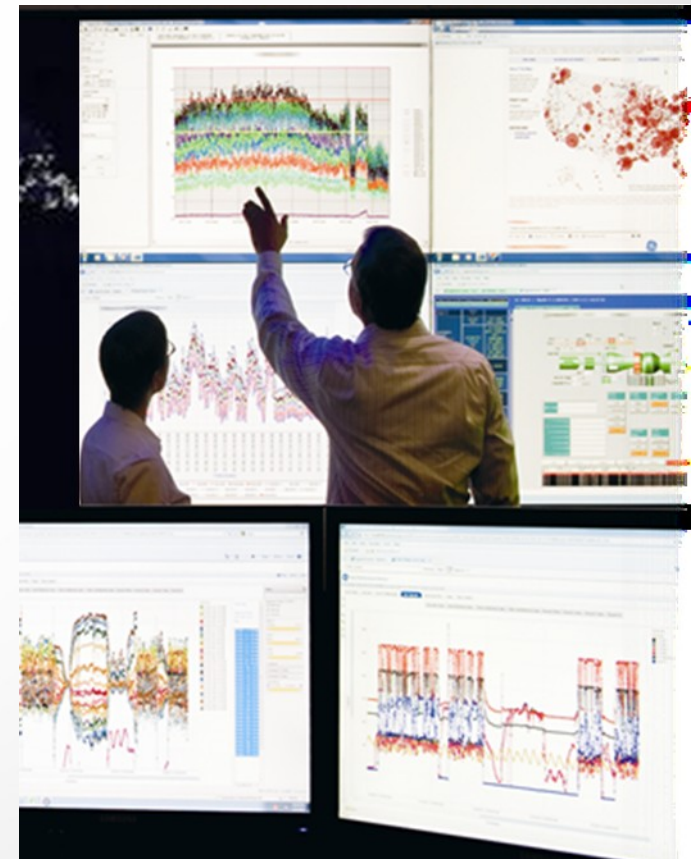
Industrial Internet @ Power & Water

Remote Monitoring & Diagnostics

Everything from the biggest machines generating power to transformers on power poles can provide status updates and performance data to:

- Reduce infrastructure maintenance
- Enable faster response – early detection
- Reduce trips (unplanned outages)

~8,000+ units monitored by
M&D today
24x7x365 coverage





Future Applications...

Wind Power that is Brilliant

How do you define brilliance? GE is redefining the future of wind power and marrying the Industrial Internet with it's advanced technology platform. By helping to manage the variability of wind, GE is providing smooth, predictable wind power to the world regardless of what Mother Nature throws its way.

Farm to Grid

When the grid needs more voltage, wind farms take action. Every second, 150,000 data points on a farm are analyzed to integrate 400MW onto the grid.

Wind Farm to Wind Farm

Farm to farm communication allows automated control of a wind farms' voltages to the grid, providing stability to a broader regional area through optimizing multiple farms.

Turbine to Turbine

If a turbine loses wind speed or wind direction, it simply asks its neighbor what it's doing and replicates the action, improving availability and power output.

Turbine to Remote Monitoring

GE turbines are monitored and analyzed 24x7 using 150+ unique software rules to detect, prioritize, and identify the best fix for wind turbine operation issues. It's like having a team of experts around the world solving issues real time.

Turbine to Battery

Battery storage makes predictable power a reality, driving wind farm output, improving service productivity and creating new revenue streams for customers.

Wind Turbine to Service Tech

In the event of an issue, a tech is notified of an issue and automatically knows what needs to be fixed or looked at without having to perform a diagnostic inspection, saving time and costs for customers.



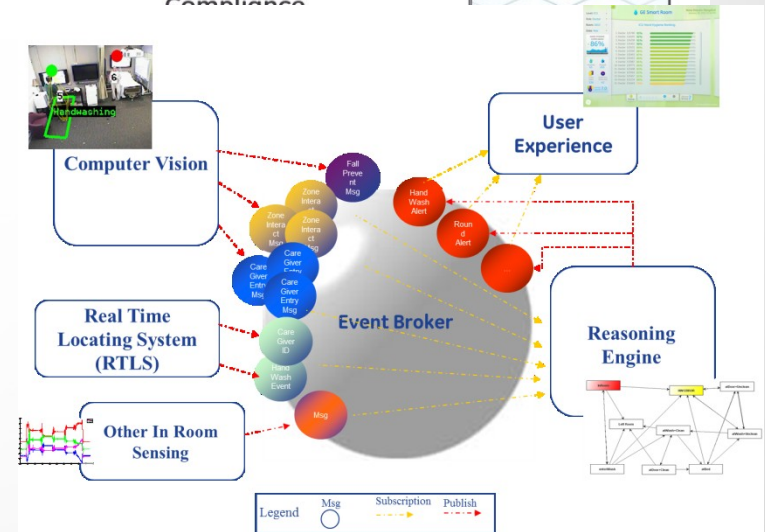
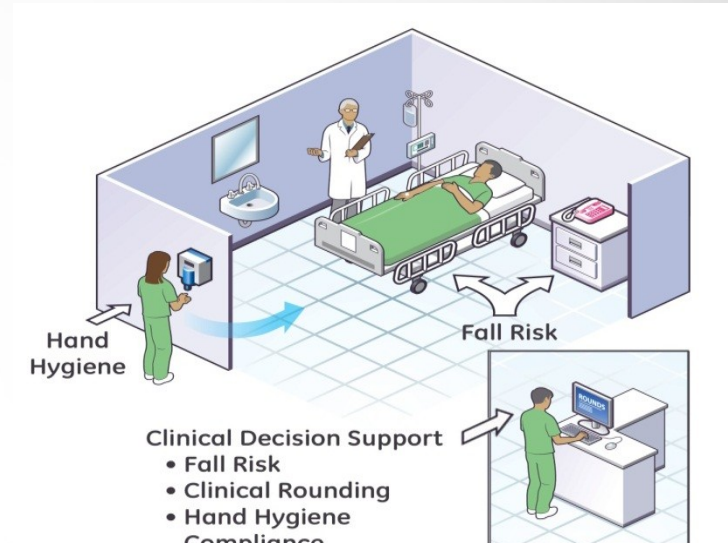
Spaces that care - IntelliRoom 360° Patient Safety Platform

What:
Real-time safety protocol monitoring system

Why:
To improve patient safety and save lives

How:
Fully automated and integrated system of sensors and advanced computing and decisioning analytics

Scope:
Hand hygiene
Rounds
Fall prevention
Pressure ulcers
+ many more



Automated Perioperative Sterilization System

Tackling Surgical Site Infections Through Automation

Partnering with the US Department of Veteran's Affairs to develop and end-to-end system to automate hospital surgical implement sterilization incorporating:

- Robotics
- Multi-Agent Systems
- Auto-ID
- Computer Vision
- M2M
- Operations Research
- Software and Systems Integration










Customer Value...

The value to customers is huge

Connected machines could eliminate up to **\$150 billion** in waste across industries

Industry	Segment	Type of savings	Estimated value over 15 years (Billion nominal US dollars)
 Aviation	Commercial	1% fuel savings	\$30B
 Power	Gas-fired generation	1% fuel savings	\$66B
 Healthcare	System-wide	1% reduction in system inefficiency	\$63B
 Rail	Freight	1% reduction in system inefficiency	\$27B
 Oil and Gas	Exploration and development	1% reduction in capital expenditures	\$90B

Note: Illustrative examples based on potential one percent savings applied across specific global industry sectors. Source: GE estimates



The vision is clear



“ The real opportunity for change... surpassing the magnitude of the consumer Internet... is the Industrial Internet, an open, global network that connects people, data and machines. ”





Thank you!

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