

The future of Energy efficiency

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Imagination at work



Many energy challenges...

78% GROWTH IN ELECTRICITY DEMAND
BY 2040

35% GROWTH IN ENERGY EFFICIENCY BY 2040

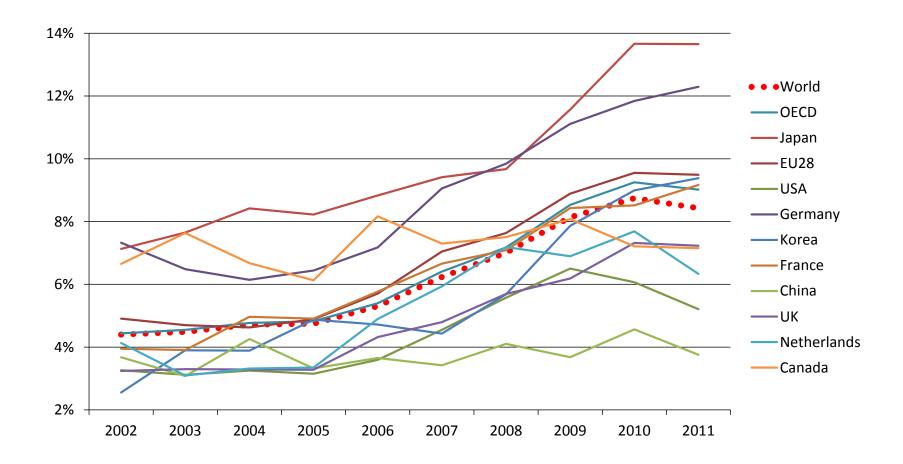
40+ AGING INFRASTRUCTURE IN MANY MARKETS



Source: IEA World Energy Outlook



...at a time innovation is facing headwinds Share of patent on climate





GE is investing massively in Digital Industrial



POWER

\$21B 62K **EMPLOYEES**



ENERGY CONNECTIO

\$8B 45K **EMPLOYEES**



RENEWABL

ENERGY **\$6B** 11K **EMPLOYEES**



OIL & GAS

\$16B 39K **EMPLOYEES**



AVIATION

\$25B 45K **EMPLOYEES**



TRANSPORTATI ON

> \$6B 12K

EMPLOYEES



HEALTHCA RE

\$18B 52K **EMPLOYEES**



APPLIANCE

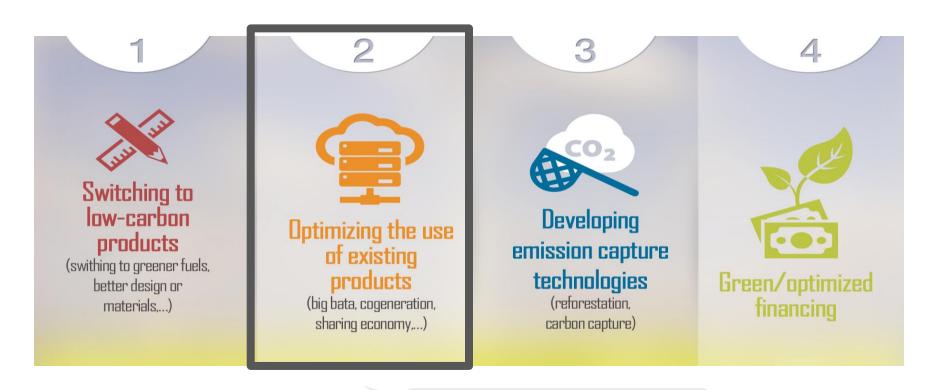
& LIGHTING 24K

EMPLOYEES



Smart everything, a key efficiency lever

"Transition through innovation" report



- Digital ~20% of GHG reduction
- Low cost per ton of CO2



Why it happens now



Secure Connected Devices

-100x Sensor/chips cost

Emergence of

CaaS

IPv6

Industrial Data Management

-50x Storage cost

10 year maturity:

Hadoop 2.0+



Industrial Data Science

10,000x In-memory speed

Hot Job '15: **Data Scientist**



Mobile and Cloud

7+ billion mobile phones

Rise of API's & Apps





Examples: Plant/Fleet Management

Plant Operators



Fleet/Asset Managers



Plant managers



Keep **Equipment** Running By

- **Identifying Outages**
- Resetting Turbines
- Fixing Equipt before they break

Availability Reliability

Improve **Operations** By ...

- Analyzing Historical **Performance**
- Recommending Improvements Improving Services/flexibility
- Better control/monitoring

Productivity

Reduce Cost By ...

- Forecasting/Scheduling Power
- Minimizing cost of downtime

Cost reduction



OPERATIONS OPTIMIZATION



New business models



Creating a start-up with our own walls

Current brings innovation in one place by combining GE's capabilities in LED, Solar, Energy Storage, Onsite generation, and Electric Vehicle infrastructure into a sustainable energy ecosystem that benefits our customers and partners.

ASSESS AND ANALYZE

We'll figure out your energy strategy by assessing and analyzing your energy usage and its effects on your operations. Our evaluation is meant to future proof risk and identify solutions that will help convert your energy consumption into increased productivity.

RECOMMEND HARDWARE & SOFTWARE

Whether you are a hospital, a university, retail store or a city, Current will provide hardware, software and financing solutions to make you more reliable, efficient, and profitable. This means unlocking new revenue streams through the use of sensors and networked systems.



Predix is the backbone of the Industrial Internet, taking data from machines and generating insights for customers. Customers can use Predix to analyze energy consumption and create efficiencies.

The Digital Transformation

Examples on how we are evolving

Increased opportunities for software-defined everything; & data as a revenue generator

New Business Models

Current, powered by GE

Increasing Speed of change (months to days), scalability

Cloud-based Platform

Predix Industrial Internet Operating System

New industrial model
« Finding the needles of value in a haystacks of data »

New talents
New ecosystems

GE foundrys
Datascience & design



Thank you!

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