



## GE Wants Us To Buy the Industrial Internet

What do you get when you combine intelligent machines, advanced analytics and people at work? That's not a running joke in the MIT lab scene. According to GE, you get up to \$15 trillion in GDP growth worldwide by 2030, and a new revolution in productivity. You get the Industrial Internet.

Although GE's Industrial Internet would "reverberate throughout the entire economy," the company thinks advanced manufacturing will be the catalyst. Important because the Industrial Internet's blistering productivity would fuel a manufacturing revival in service-based economies.

GE visionaries Peter C. Evans and Marco Annunziata deliver a twist on the Internet of things in a recent report, *Industrial Internet: Pushing the Boundaries of Minds and Machines*.

### Big Analytics

Advanced analytics to GE is "combining the power of physics-based analytics, predictive algorithms, automation and deep domain expertise." Those domains include material science, electrical engineering "and other key disciplines required to understand how machines and larger systems operate."

The study hammers home the need for deeper integration of data from OEMs. Specifically, creating standards for integrating data from similar assets from different OEMs.

### Big Talk

This new wave of "profound transformation of global industry" will converge advanced computing, analytics, low-cost sensors and Internet connectivity into an intelligent, super platform, promising improvements in income and living standards comparable to both the Industrial Revolution and the Internet Revolution.

In practice, GE wants to trigger giant leaps in operational efficiencies and energy savings in "industries as diverse as aviation, rail transportation, power generation, oil and gas development and health care delivery."

### GE has attached big numbers to the Industrial Internet:

- Average incomes boom by 25-40 percent of today's level
- Annual productivity growth increases by 1-1.5 percentage points
- \$32.3 trillion, or about 46 percent of the global economy will benefit
- Cut \$150 billion in waste across targeted industries

## Big Questions

Is GE's Industrial Internet a bold and promising sneak preview of our economic future? Or a dangerous theory rooted in marketing propaganda? Slow sensor adoption, security issues, and a massive talent gap cloud GE's vision. But GE is investing \$1 billion in industrial Internet applications, and just announced nine new "intelligent" service technologies featuring machine diagnostics software and analytics.

Jeff Immelt, GE chairman and CEO, sees people, data and machines connected in a global network. "The Industrial Internet is about industrial companies accessing the analytical layer."

Still, we already have IBM's "Smarter Planet" and Cisco's "Internet of Everything." Aren't those projects all about machines connected by the Internet? And Robert J. Gordon, economist at Northwestern University, argues productivity from the Internet has run out of gas. Is the Industrial Internet futuristic smoke?

GE's plan is ambitious, has a decades-long view, and is more about turning the industrial economy on its head. That's enough meat to sway analysts, and GE's current customers already getting outfitted with more sensors and software. Now GE is working on academics, startups, and venture capitalists. Dreamers or not, GE is selling a great story.