

STS Forum Panel Discussion: Innovation
Monday, Oct. 8, 2007

Mark Little Opening Remarks
Talking Points

Good afternoon. I am very honored to be in your company today to share GE's thoughts on innovation. It is fitting that we have such a discussion here in Japan, where GE has enjoyed many great partnerships over the years. In fact, our founder Thomas Edison used bamboo from Kyoto to develop the carbon filament for the incandescent lightbulb. I am very pleased to be in a place so connected to our Company's origin. Thank you for inviting me.

Innovation is at the very core of the General Electric Company. Since our founding, innovation has enabled us to grow into one of the world's most diversified and respected corporations.

When the Dow Jones Index was created in 1896, GE joined just 11 other companies who represented the strength of industry at the time, companies such as the U.S. Leather Company, the American Sugar Company, and the National Lead Company.

Today, GE is the only original company that remains part of the Dow Jones Index. What enabled us to expand from lighting and power generation into jet engines, locomotives, medical diagnostics, security and much more?

It's the power to innovate.

To help foster and drive innovation, GE established the first U.S. industrial research lab in 1900 in Schenectady, NY. It was no more than a barn behind the home of Charles Steinmetz, a contemporary of Thomas Edison. And the staff numbered three.

But, the directive for the research lab was clear: improve GE businesses through technology innovation.

The breakthroughs soon began, including
Ductile tungsten for improved light bulbs
and Coolidge's medical x-ray.

During the past century, many other innovations followed such as
Lexan polycarbonate,
man-made diamonds,
magnetic resonance imaging
the GE90 jet engine composite fan blade
and many more.

And our past scientists have even won the Nobel Prize – twice.

Today, the mission of developing technology to drive GE's innovation and growth remains strong 107 years later.

GE Global Research is one of the world's most diversified research laboratory. We are 2,600 technologists strong, including more than 1,000 PhDs.

We've expanded from our headquarters in Upstate New York in the United States with state-of-the-art facilities in Bangalore, India, Shanghai, China, and Munich, Germany.

Our scientists are developing an impressive array of technology for the next generation and beyond of GE products, including:

Holographic data storage – imagine using 1 disc to replace 200 DVDs.

Optical imaging that leverages bio markers and will allow doctors to see an entire tumor during surgery.

Superhydrophobic metals, which are surfaces that have been treated to repel water. This would help reduce ice build up in turbines.

These are just a sample of the incredible array of the innovations being developed today at the GE Global Research Center.

Interesting to note, GE was one of many U.S. companies to establish corporate research labs a hundred years ago or so. However, most of these great labs have since ceased.

Why has GE Global Research prospered for 107 years? We have successfully connected innovation to business needs.

We see our role in driving innovation as six-fold:

First, delivering core technologies for new products and productivity – this is perhaps what we have done best and must continue to do. For example, we build on our outstanding CT technologies for GE Healthcare to create the VCT, which is the world's first volume CT scanner to image the heart in just five beats.

Next, discovering new technology-based opportunities – we must seek out the next big technologies to ensure GE remains innovative. We are using our electronics expertise to lead in electrification to improve reliability and cost for our Oil & Gas and Aviation businesses.

Third, establishing foothold in emerging technologies – whether from within or through strategic partnerships in business, academia and government. For example, we have about 75 Global Research scientists who are focused on nanotechnology, the ultimate material science. Nanotechnology will have vast applications across GE, from contrast agents in MR to ice repellent turbine blades for Energy.

Also, spreading technology across businesses – Global Research perhaps best fosters the synergy of one GE. We can look across the company and apply composites technology from aviation to wind turbines. We have leveraged imaging technology such as CT from healthcare to create an entire new business -- GE Inspection Technologies – for industrial applications.

Fifth, developing world-class technical talent. Our people are incredibly intelligent and passionate about what they do. We must keep that passion for innovation strong.

Finally, connecting with the world's technology. We are strengthening our existing partnerships and establishing new ones in exciting new regions. We want to defend against the "not invented here" mentality that stifles innovation.

We successfully manage this innovation with our Growth Process. This includes new idea forums, a technology council to evaluate potential opportunities and needs in current projects, and the GE Growth Playbook.

The GE Growth Playbook – which is developed by Global Research, every GE business and ultimately by Jeff Immelt for all of GE – is all about innovation.

We evaluate our markets, our customers' needs and the technology space to determine the growth outlook for each business.

Through the Growth Playbook, we align our resources to drive innovation where it matters most. We identify essential technologies, products and the imperatives for success.

At GE, we are quite proud of our innovation. We have rich beginnings, an incredible research organization, robust processes and a culture that thrives on innovation. Our mantra is, "what we imagine, we can make happen."

So, imagine what we'll make happen next?