

GE's Technology and Services

Analyst Meeting

May 4, 2006



imagination at work

GE
Global Research

Big Bets on Technology

Mark Little Senior Vice President,
GE Global Research



imagination at work

Big market opportunities ...

	FROM	TO
Healthcare	See and treat	Predict, diagnose, inform & treat
Energy, Oil & Gas, Water	Scarcity, threatening	Abundant & cleaner sources
Aviation & Rail	Incremental progress	Breakthrough in efficiency, emissions & noise
Plastics & Silicones	Pellets & resins	Sophisticated material systems
Security	Limited & obtrusive	Fast, simple & safe
Appliances, Lighting, Industrial	Commodities	Step-change in efficiency, cost & performance

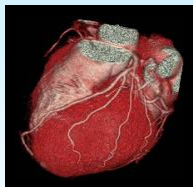
... Require technology vision



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Healthcare today: see and treat

CT



Cardiac quality

64 slice
volumetric
imaging

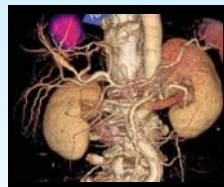
MR



20 second scans

32 channels

Biotech



Diagnostic imaging agents

PET/CT
for cancer

Ultrasound



Clinician laptop

Full performance
in small footprint

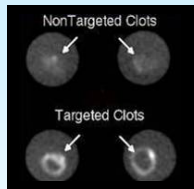
Solid technology foundation



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Healthcare vision: early health

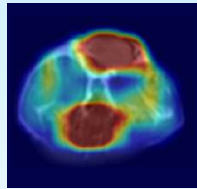
CT



Vulnerable plaque

Novel scintillator materials

MR



Metabolic imaging

Hyperpolarized MR contrast agents

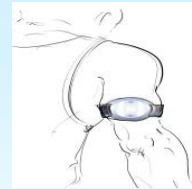
Biotech



Targeted treatment

Molecular diagnosis & therapy

Ultrasound



Patch ultrasound/ continuous monitoring

CMUTs/wireless

Predict, diagnose, inform & treat



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Security today: limited & obtrusive

Aviation



Baggage screening

CT

Checkpoint



Trace particle detection

Ion spectroscopy

Cargo



Wireless container integrity

Electromagnetic sensors

Chem



Portable - chemical

Raman spectroscopy

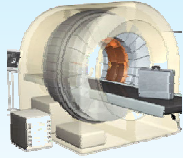
Sharing core GE technology



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Security vision: fast, simple & safe

Aviation



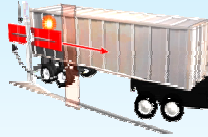
4X Faster
Multi source/
Carbon nanotubes

Checkpoint



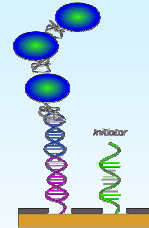
Standoff detection
RF spectroscopy/
3D imaging

Cargo



**Radiological
detector**
Scintillators

Bio/Chem



**Continuous
monitoring**
Chem/bio-
amplification

A much safer world



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Why GE will get there first

Core technologies & expertise



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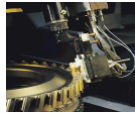
Core technologies: imaging



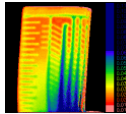
Digital
x-ray



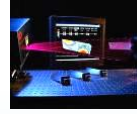
Phased Array
ultrasound



Eddy
current



Thermography



Optical
metrology

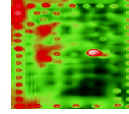


Image
processing



Healthcare



Aviation



Energy



Water



Oil & Gas



Advanced
Materials



Security



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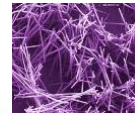
Core technologies: biosciences



Imaging



Contrast
agents



Nanotech



Sensors



Optical
sciences

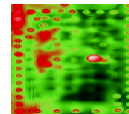
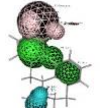


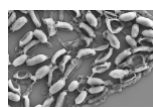
Image
processing



Personalized
medicine



Discovery
sciences



Security
biodetection



Water
analysis



Microbial
control



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Core technologies: materials & modeling



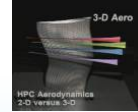
New coatings



New composites



New metal alloys



Computational fluid dynamics



Aviation



Energy



Energy



Rail



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Why GE will get there first

Core technologies & expertise

Market-focused research & development



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Global research: market-focused R&D

- First US industrial lab
- Began 1900 in Schenectady, NY
- Founding principle ... improve businesses through technology
- One of the world's most diverse industrial labs



c. 1900



2006

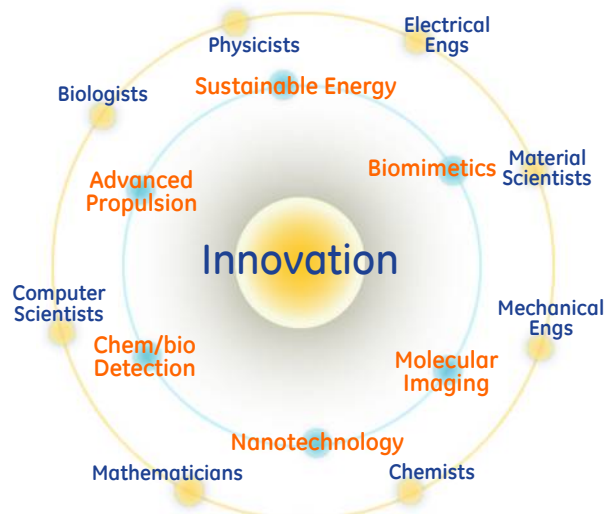
Cornerstone of GE's commitment to technology



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Technical diversity ...



... drives innovation



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Technical diversity ...

2005

- 1,118 GE patents issued
- 2,269 GE disclosures filed

... drives innovation



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Customer connection in R&D



Session Ts



CEO quarterly reviews



Customer visits



The "lodge"

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Why GE will get there first

Core technologies & expertise

Market-focused research & development

World-class talent



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Global brains



Global Research Center
Niskayuna, NY



John F. Welch Technology Center
Bangalore, India



China Technology Center
Shanghai, China

- 2,600 research employees

- 26,000 GE technologists worldwide

- GE technology spend: \$5.2B

Global Research – Europe
Munich, Germany



Qatar Innovation Center



Great place to work



Bringing technology to the world



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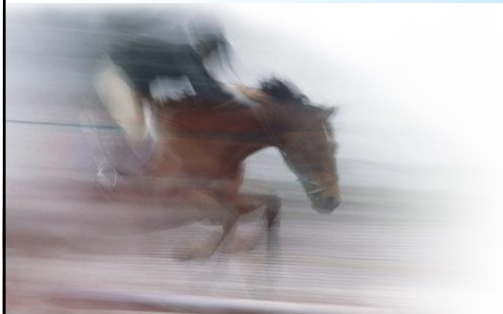
Why GE will get there first

Core technologies & expertise

Market-focused research & development

World-class talent

Willing and able to take the big swings



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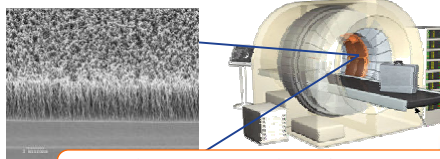
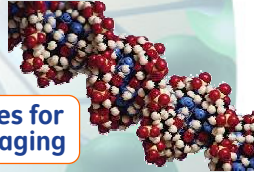
Big swings: Nanotechnology

Manipulating structure at the molecular level to create new materials

Nano-metals for high strength & stability



Nano-particles for molecular imaging



Carbon Nanotubes for next generation baggage screening

Superhydrophobic materials

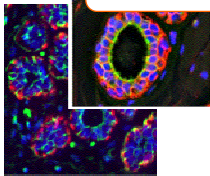


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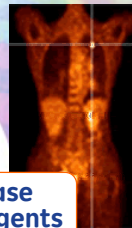
Big swings: Biotechnology

Physics meets biology to explore new paradigm for early health

Molecular & digital pathology for in vitro diagnostics



Binders for disease specific contrast agents



Targeted MR contrast agents



Convergence of diagnostics and therapeutics



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Big swings: Gasification

Enabling technology to address environmental challenges

Cleaner coal



Waste to energy



Liquid fuels



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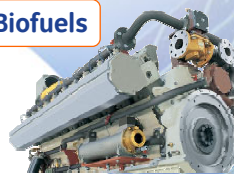
Big swings: Sustainable Energy

Developing new ways to power an energy-hungry, eco-conscious world

Solar



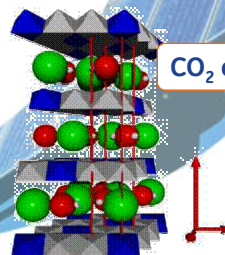
Biofuels



Hydrogen



CO₂ capture



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Big bets on technology

- Big growth opportunities
- Technology is key to capturing those opportunities
- GE has the vision, people & resources to bring those technologies to life



Big bets ... big wins



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