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**Commercial Development**  
**Leader – Healthcare**





# AMCHAM Healthcare Innovation Seminar 2014

Brian McIlroy  
Healthcare Commercial Development  
GE Ventures, Licensing

Imagination at work.

# Today's agenda

- GE and GE Licensing Overview
- Technology Collaboration
- GE Technology Portfolio(HC) and Summary

# GE by the numbers



Energy Mgmt



Power & Water



GE Capital



Healthcare



Oil & Gas



Aviation



Transportation



Home & Business

\$147B  
2012 revenue

# A tradition of innovation



1879

Carbon  
Filament  
Incandescent  
Lamp



1895

World's  
Largest  
Electric  
Locomotive



1920

Portable  
X-Ray  
Machine



1921

The  
Magnetron



1941

Entering  
the Jet Age



1998

Lightspeed™  
CT Scanner



2002

Wind Power



2003

Evolution@  
Locomotive



2009

Vscan™



2010

WattStation™



2012

Durathon™  
Battery

# Investing in innovation

## \$5.4B

6% of industrial revenue  
invested to develop intellectual  
content



1,660 patents were generated by this content in the U.S. alone.



1,000 technical disclosures are published each year on new technologies in development.



Development dollars also fuel our **ecomagination** and **healthymagination** efforts and Imagination Breakthroughs that stimulate growth across GE businesses.

# Licensing at-a-glance

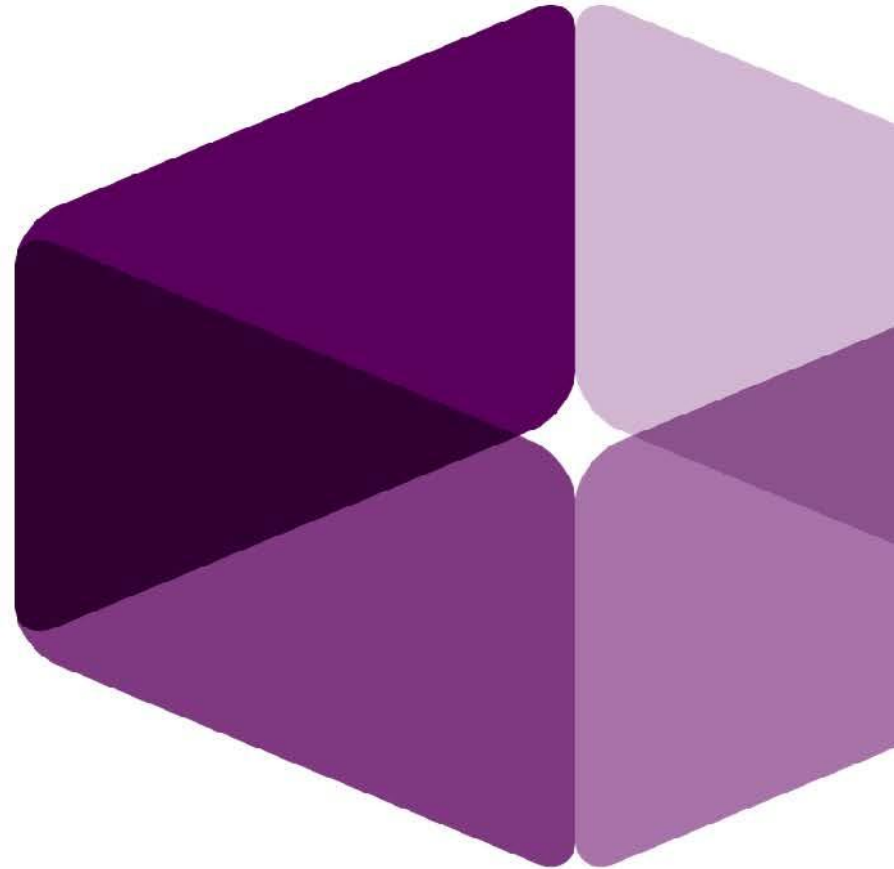
Part of GE Ventures

Co-located with GE  
Global Research; global  
operations

50 year operating history

70 employees –  
technical, ops,  
marketing, BD, legal

200+ active licenses  
under management

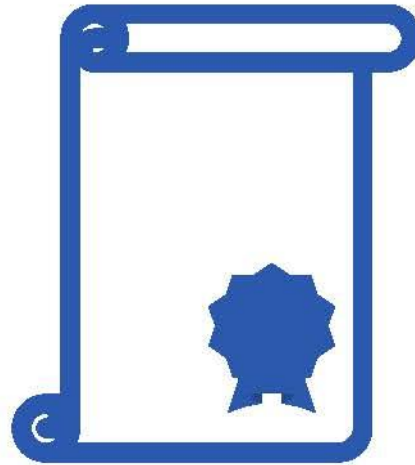


# What we do at Licensing

Harnessing the power of GE's intellectual property



Technology



Patents



Brand



# Closely integrated with GE Global Research...

Over 2,000 scientists/engineers, nearly two-thirds PhDs

3,615 .US. patents filed in 2011

One of the world's most diversified industrial research organizations, providing innovative technology for all of GE's businesses

1. SAN RAMON, CALIFORNIA



2. DETROIT, MICHIGAN



3. NISKAYUNA, NEW YORK



4. RIO DE JANEIRO, BRAZIL



5. MUNICH, GERMANY



6. BANGALORE, INDIA



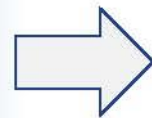
7. SHANGHAI, CHINA



# GE Ventures – Licensing

## Technology Collaboration/Licensing Partnership

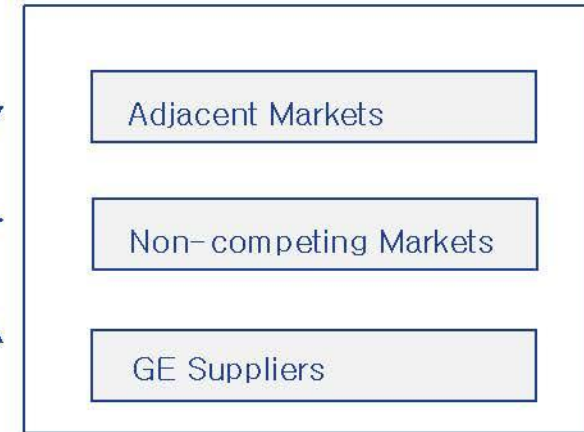
GE Technology



GE  
Licensing

IP and technology  
Know-how  
Management

Network of Partners / Licensees



Partnering with local companies and form a value chain

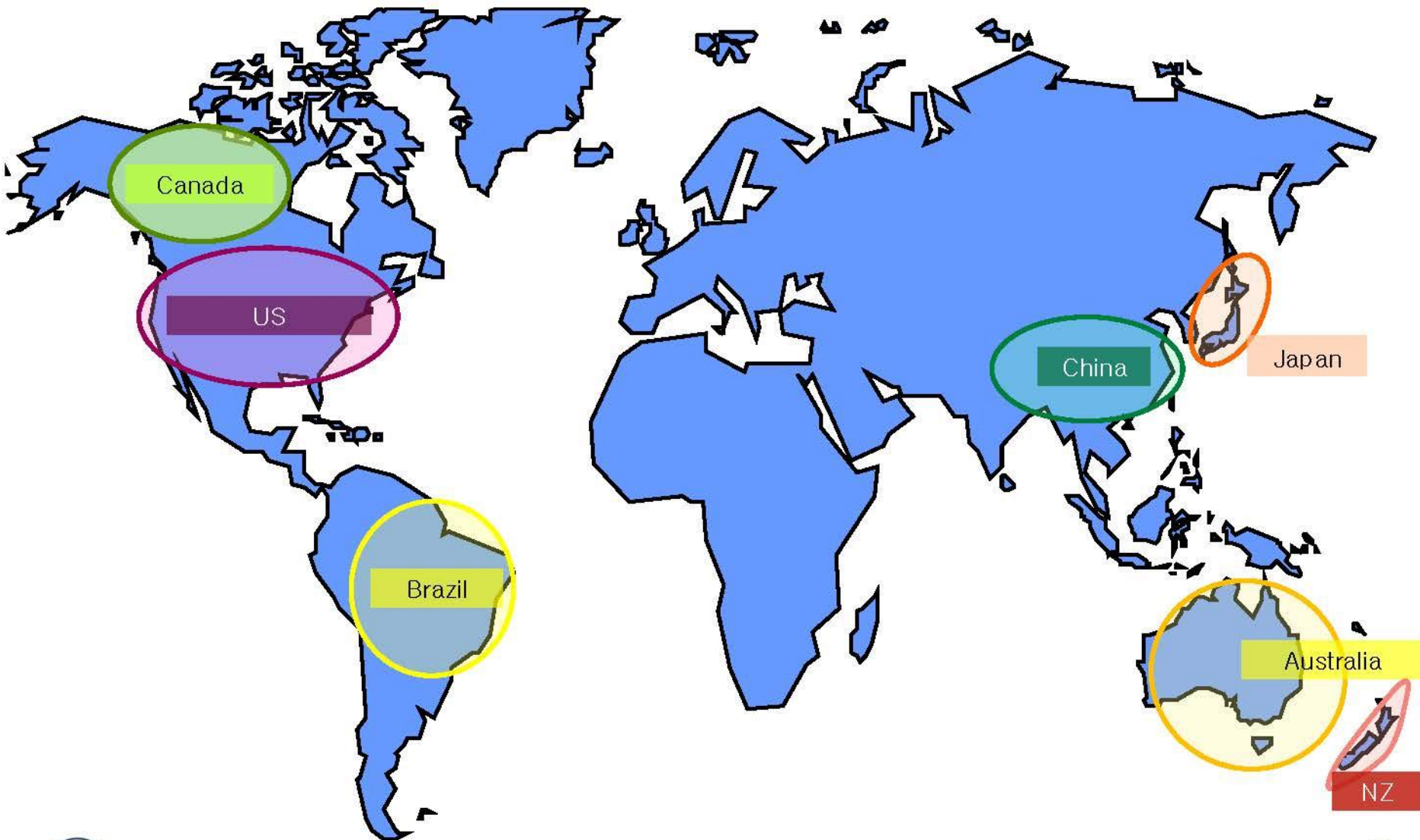
Transferring GE Technology Know-How/IP and drive market development

Supporting future technology development between GE and the network

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# Partnership Across the World



# How Technology Partnership are Established

## GE Business Unit Developed Solution

GE HEALTHCARE

GE HEALTHCARE

## Technology Licensing Partnership

**THERMAL COOLING TECHNOLOGY:**  
GE SPINLAB™ HARNESES  
HYPERPOLARIZED CARBON 13C



**GE TELEMATICS TECHNOLOGY:**  
HIGHLY-RELIABLE, HIGH-POWER MEMS  
SWITCH FOR POWER AND RF SWITCHING  
APPLICATIONS

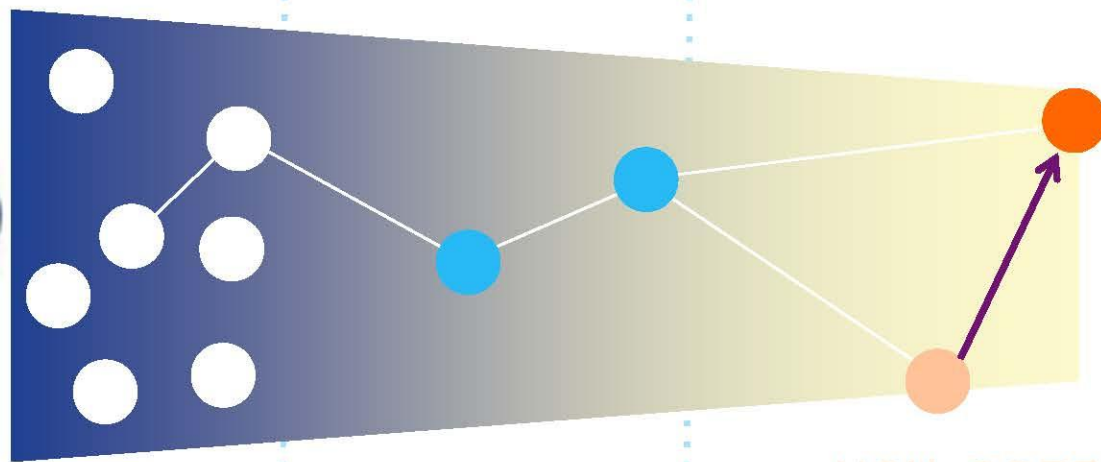


# Technology collaboration

Example: Enable New Market: C13 Hyperpolarized MR (Metabolic Imaging)



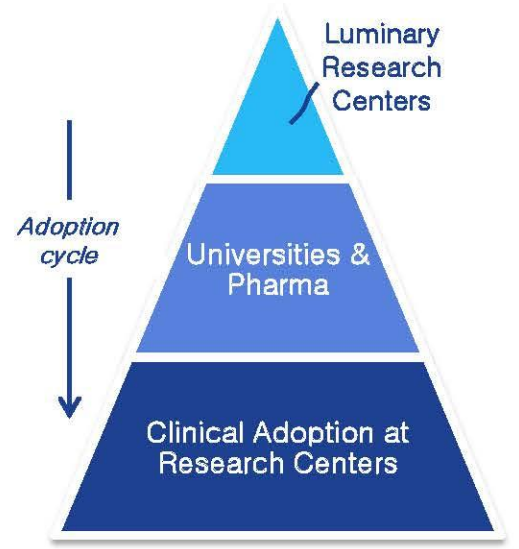
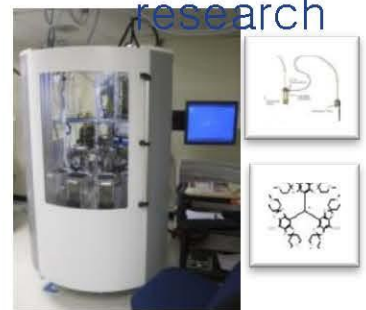
**CORE:**  
Commercial Clinical use



○  
DNP  
Technology  
Foundations

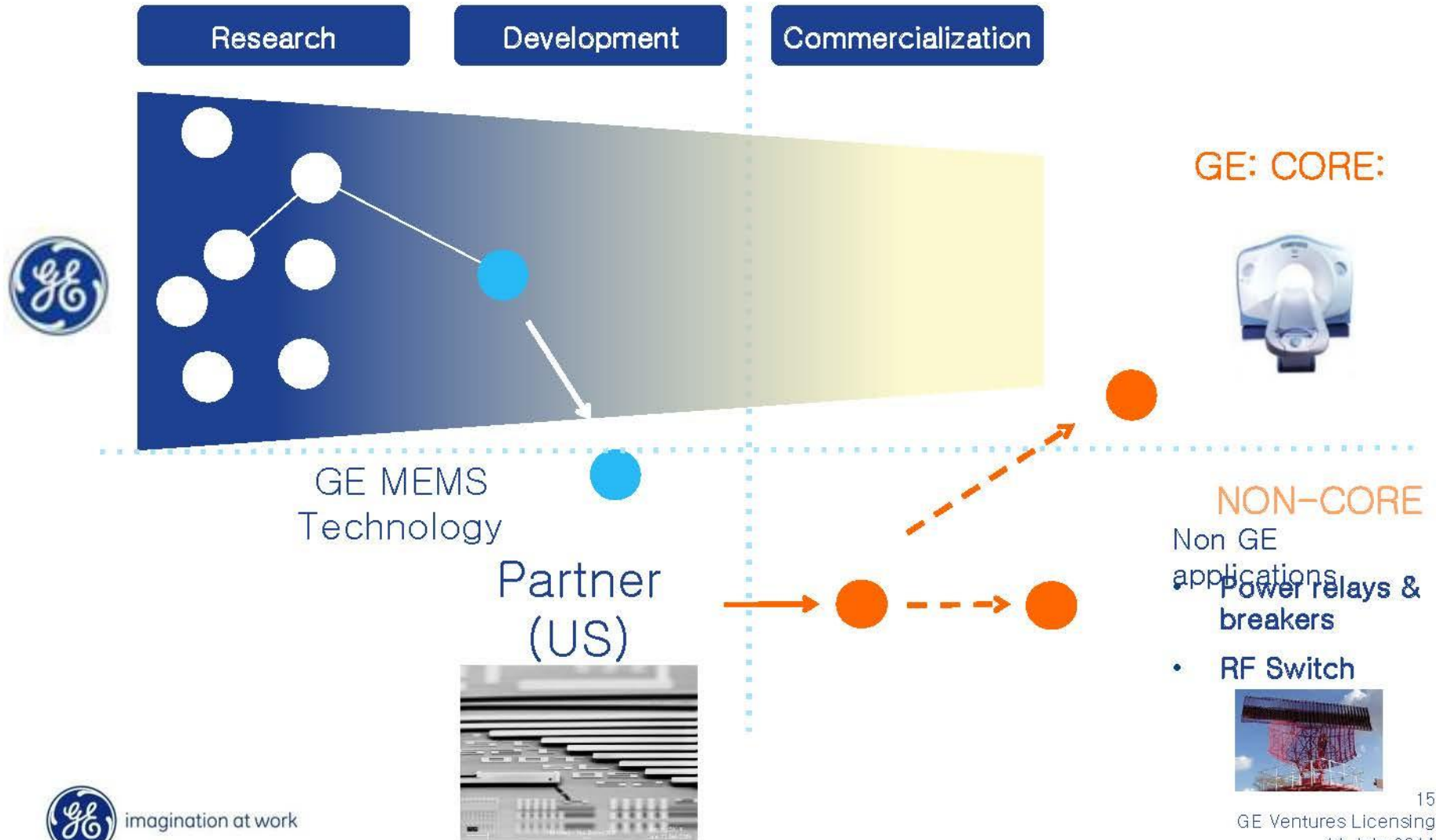
●  
Develop with  
sourcing  
partners

**NON-CORE**  
Clinical  
research



# Technology collaboration

*Example: MEMS Microswitch Technology*





# Beyond Technology collaboration

Technology partnership

Business partners  
Successful Commercialization

Establishing value chain partners



+ Technology partners



Identify customers



Maximizing global GE business connection



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# GE Technology Portfolio (Healthcare Examples)

## Optical imaging

Extensive  
experience  
designing and  
manufacturing  
(small scale)  
imaging agents.



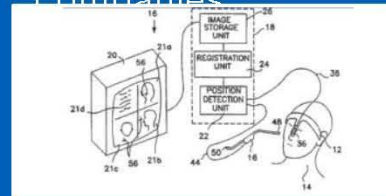
## DNA Sequencing

DNA Sequencing  
and Nucleic Acid  
Synthesis portfolio  
provides users with  
novel DNA  
sequencing and  
RNA amplification  
methods and  
reagents.



## Surgical Navigation

Surgical Navigation  
provides users with  
novel  
electromagnetic  
tracking methods  
and systems in  
areas of core  
importance to  
surgical navigation  
companies and  
medical instrument  
companies.



## RF Sensors

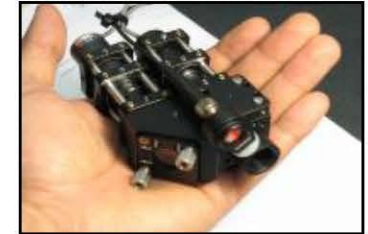
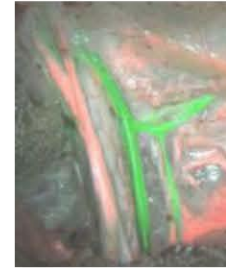
Disposable  
ubiquitous sensor  
based on RF  
technology provides  
accurate multi-  
detection capability



# Optical Imaging Solutions

## GE Optical Imaging Solutions Technology

- Extensive experience designing and manufacturing (small scale) imaging agents
- Solution based approach combining instrumentation and agent to deliver clinical impact



## GE Optical Imaging Solutions Benefits

- Direct visualization of physiological pathways
- Labeled solutions for nerve, tumor margin – preliminary tox established
- Solution build into current workflow

## Potential applications

### Surgical Intra-Operative Visualization

- Lymph Nodes – (Application Development)
- Ureters / Bile Ducts – (Application Development)
- Tumor Border – Multiple Candidates
- Peripheral Nerve – Multiple Candidates

### Diagnostics

- Optical & MR Oncology Agent – Single Candidate
- Colorectal Cancer – Multiple Candidates
- Alzheimer's Occular Imaging

# Summary

GE Licensing is very happy to bring technology partnership experience and continuously discuss all members for future IP/technology collaboration.

Thank you



imagination at work