

PHILIPS

sense and simplicity



Management – Trends in EMS

Een nieuwe strategie voor MRI

Mark van Helvoort

Philips Healthcare, Magnetic Resonance Imaging

Juni 17, 2010

PHILIPS

sense and simplicity



“Healthcare is a people business. To be sustainable, health organizations must communicate and connect with their customers through innovative approaches and fresh perspectives...”

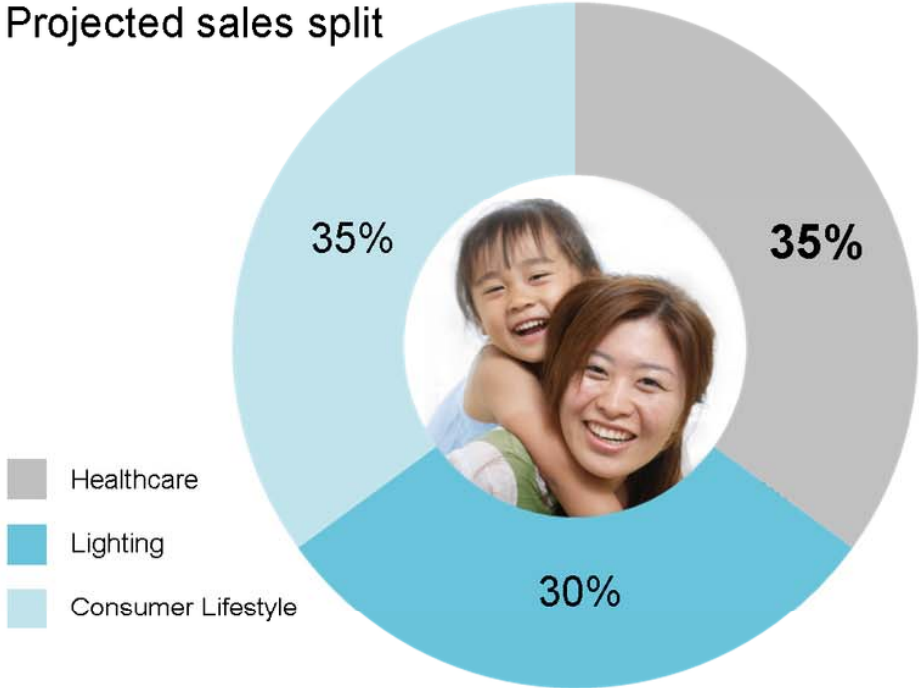
Top 7 Trends in Health Care, PricewaterhouseCoopers' Health Research Institute, 2007

Philips Healthcare

Philips

Simply focused on health and well-being

Projected sales split



We can help improve the quality of people's lives through the timely introduction of meaningful innovations.

1 million

Customers purchase our products every day

A leader in healthcare for over 100 years

80,000+

Technology patents

€26.3

Billion in sales

Healthcare's current reality

The issues

We're getting older and sicker

cost

Demand for care is growing

cost

We don't take good care of ourselves

cost

We expect better choices

diversification

The rate of change is accelerating

speed

The consequences

By 2050, 50% of the developed world is projected to be chronically ill.

There are simply not enough nurses and doctors to cope with our growing (and aging) population. Rising healthcare costs are unsustainable.

Obesity, heart disease and cancer are global health issues that are worsened by the way we live.

We have higher expectations about care and will demand more choices in healthcare.

Innovation introduces both complexity and promise.

Depth and reach of Philips Healthcare

What we do. Where we are.

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* Approximate

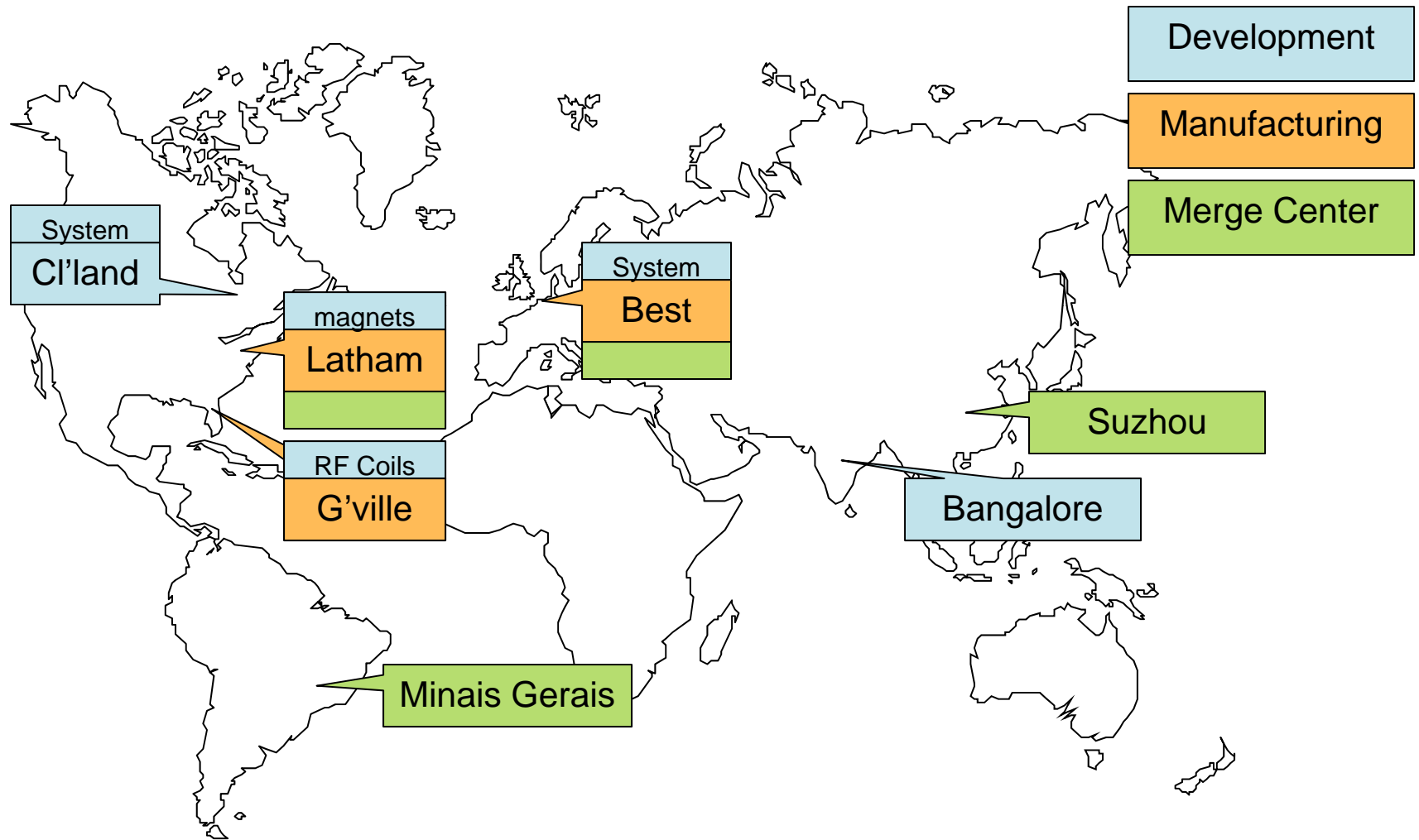
€7.6
Billion in sales
in 2008

30,000+
People employed
worldwide in 100 countries

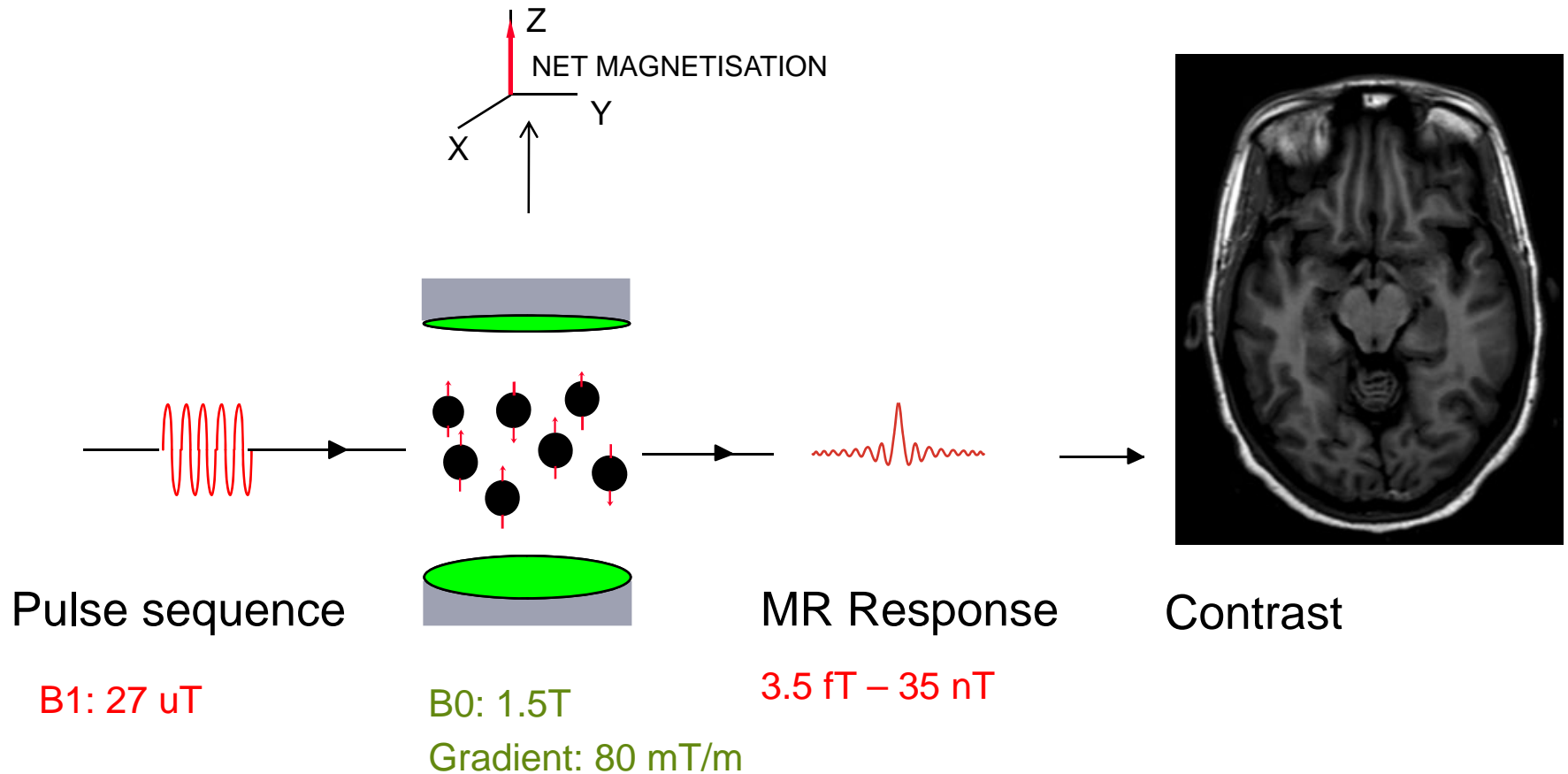
11%
of system sales
invested in R&D

450+
Products and services
offered in over 100 countries

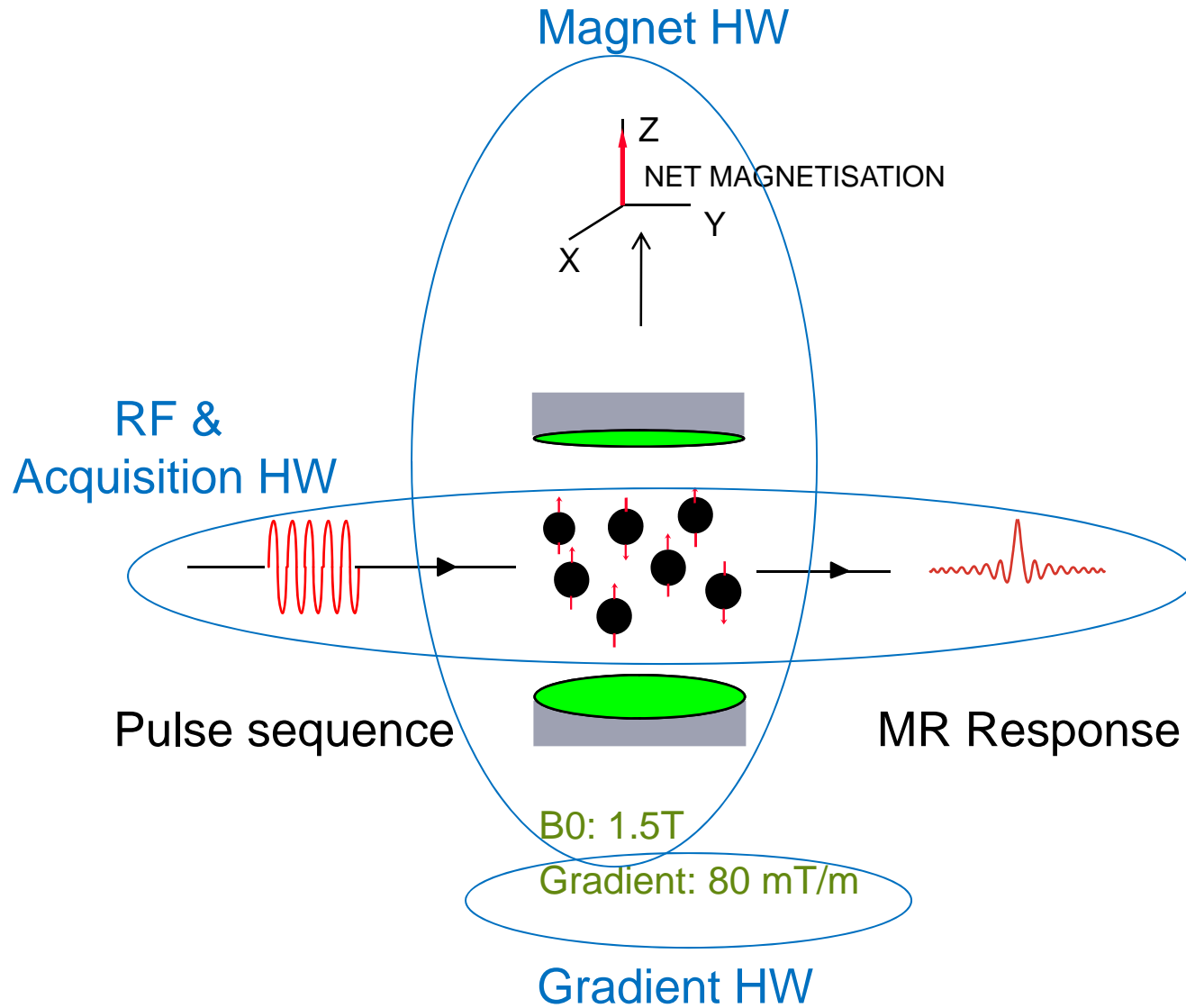
Magnetic Resonance Imaging – Global footprint



Magnetic Resonance Imaging - Basics



Magnetic Resonance Imaging - Basics



Software & Computer



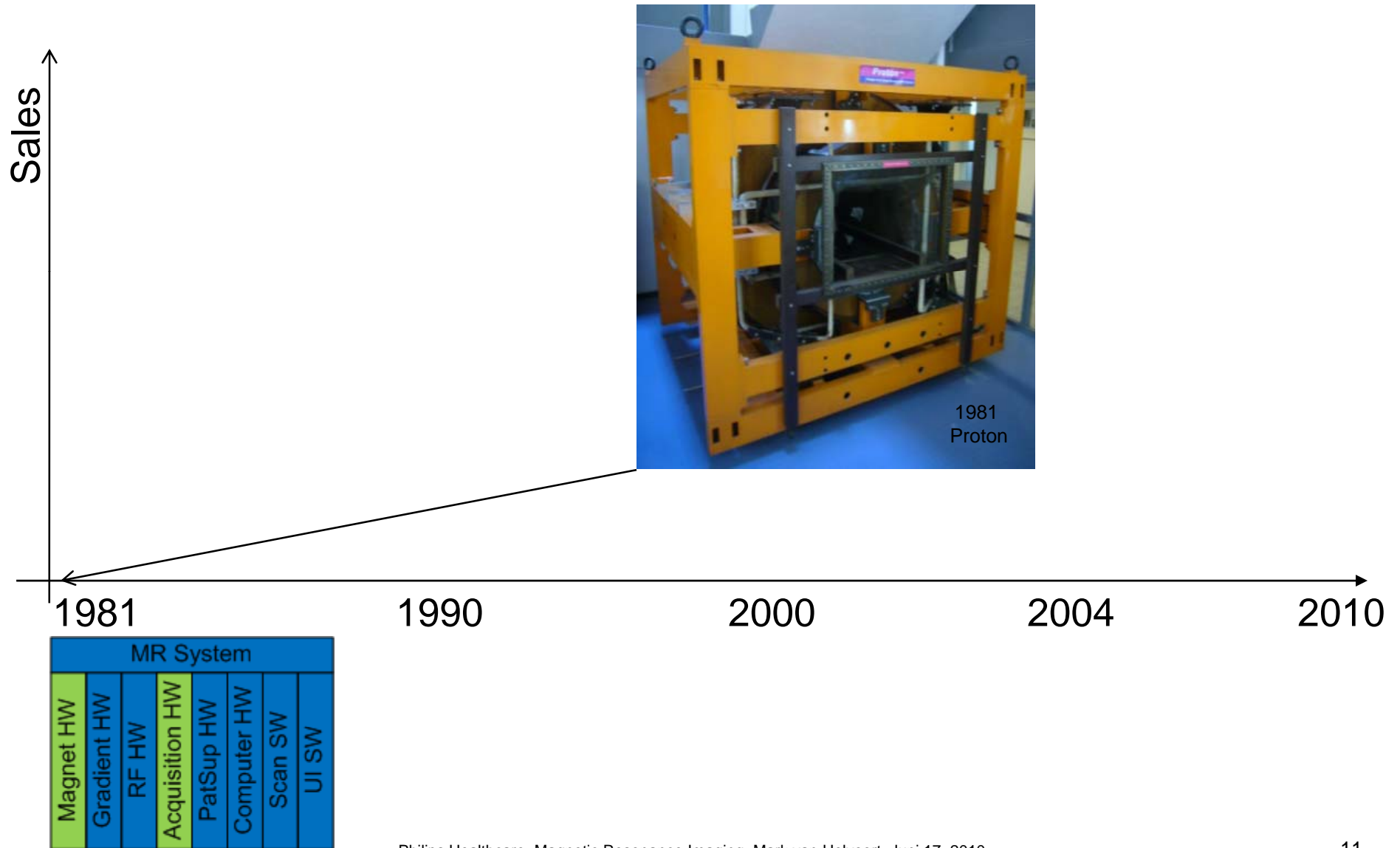
PatSup HW

Magnetic Resonance Imaging - Basics

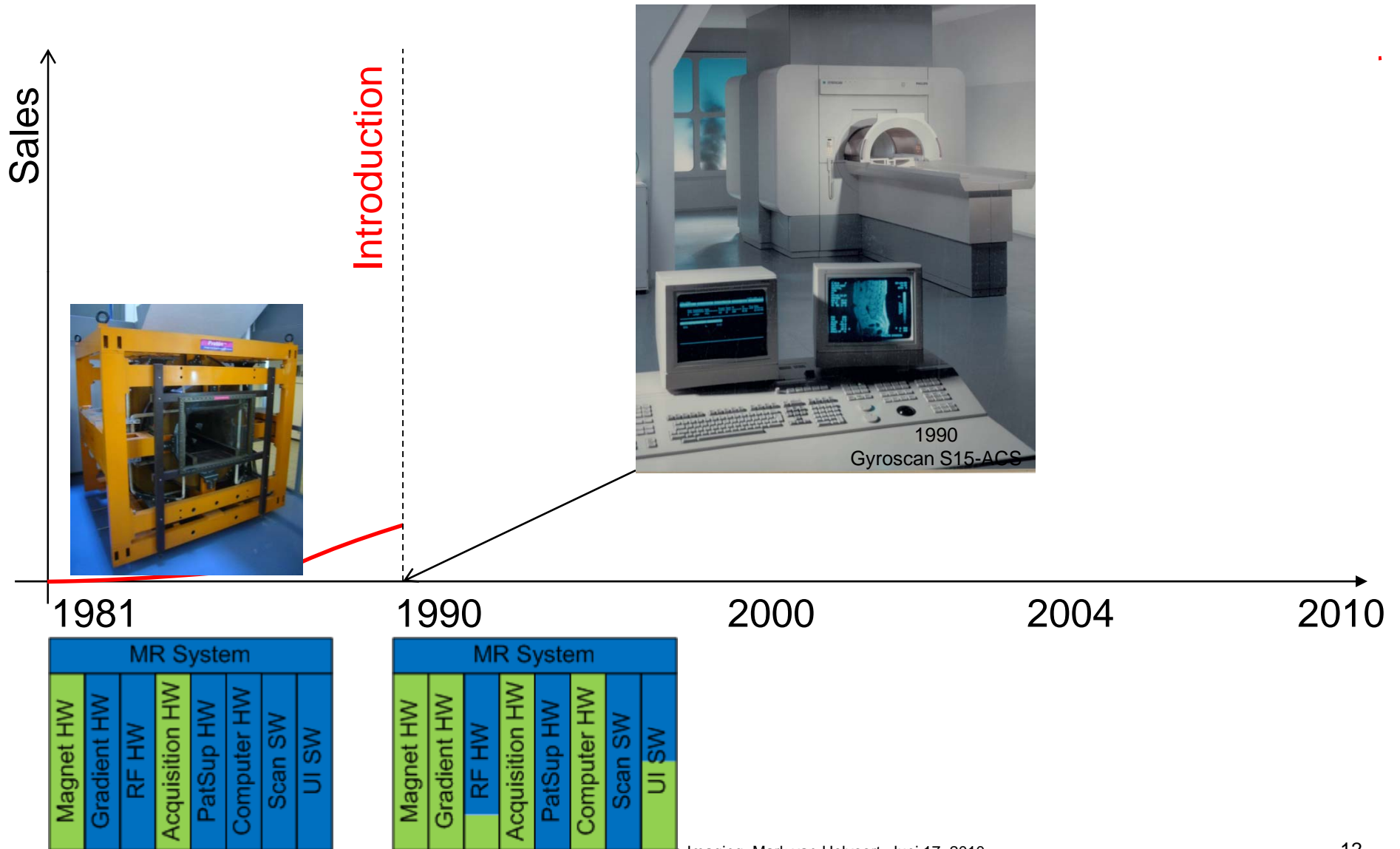
- System decomposition

MR System							
Magnet HW	Gradient HW	RF HW	Acquisition HW	PatSup HW	Computer HW	Scan SW	UI SW

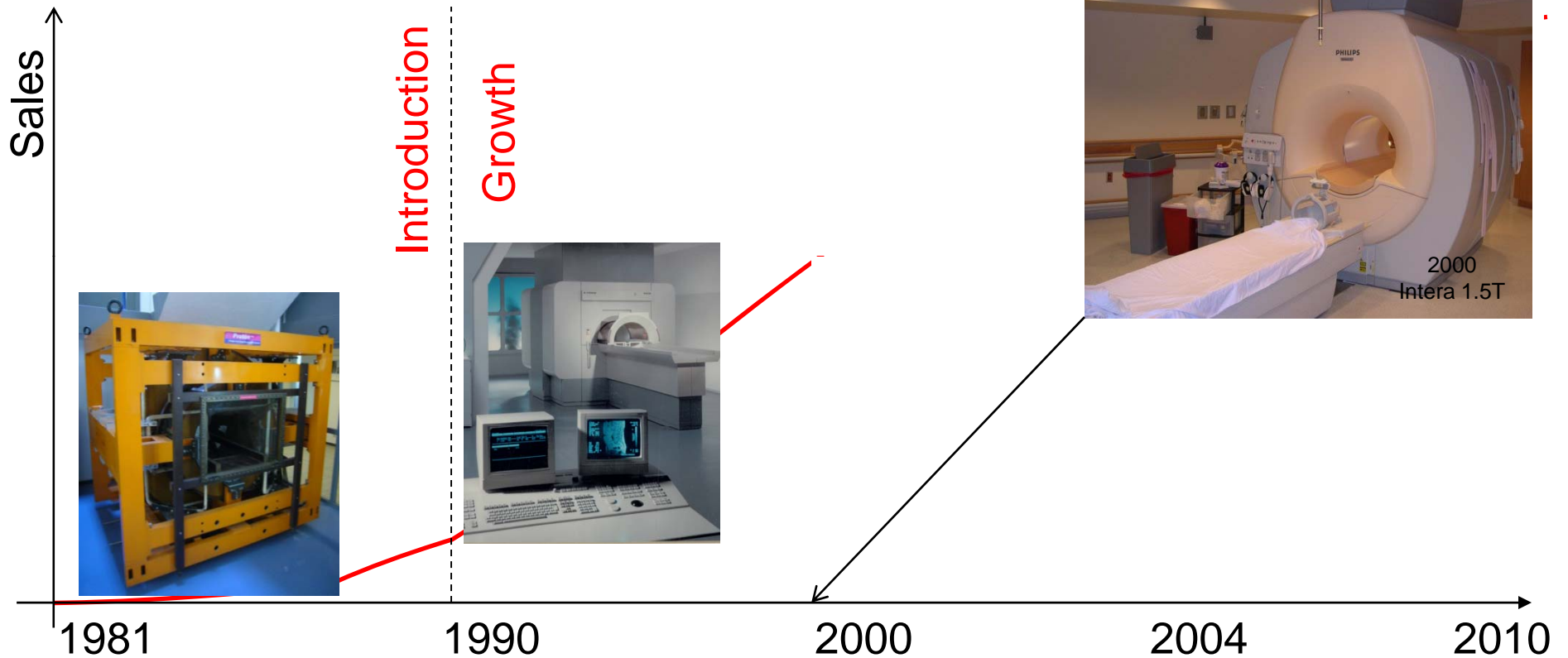
MRI - Maturity versus Sourcing



MRI - Maturity versus Sourcing



MRI - Maturity versus Sourcing



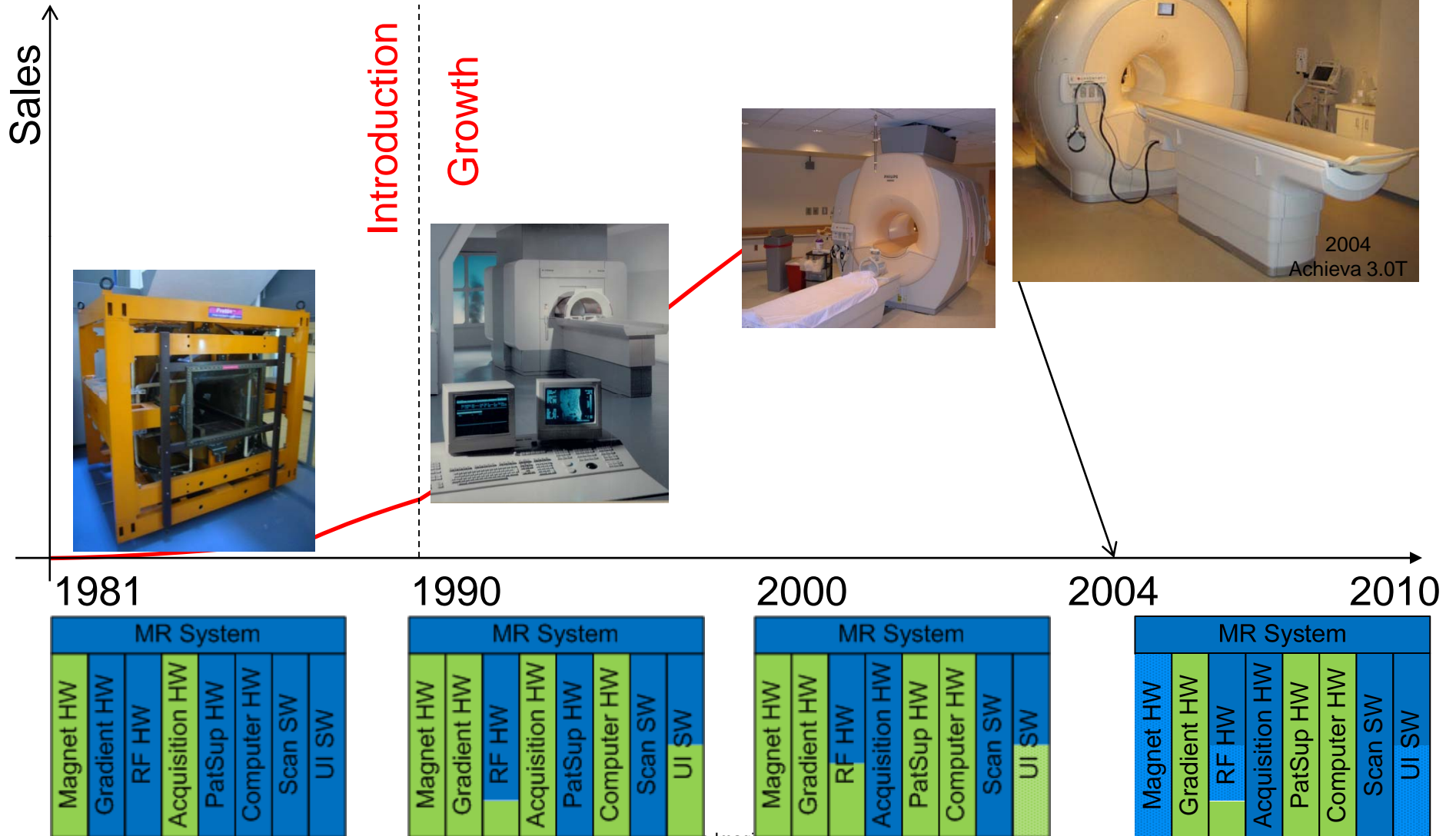
MR System						
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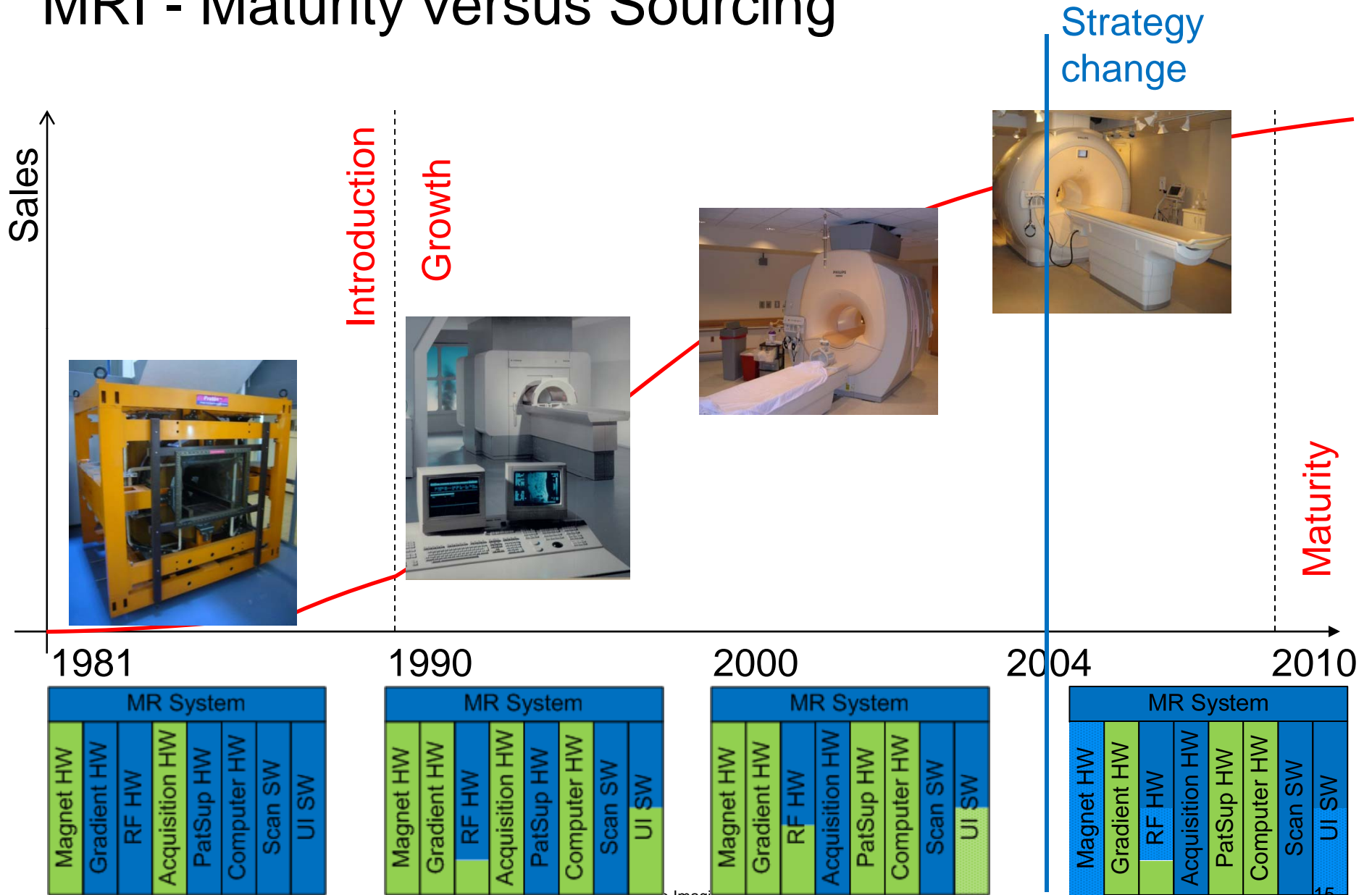
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						UI SW

Philips Healthcare, Magnetic Resonance Imaging, Mark van Heijvoort, Juni 17, 2010

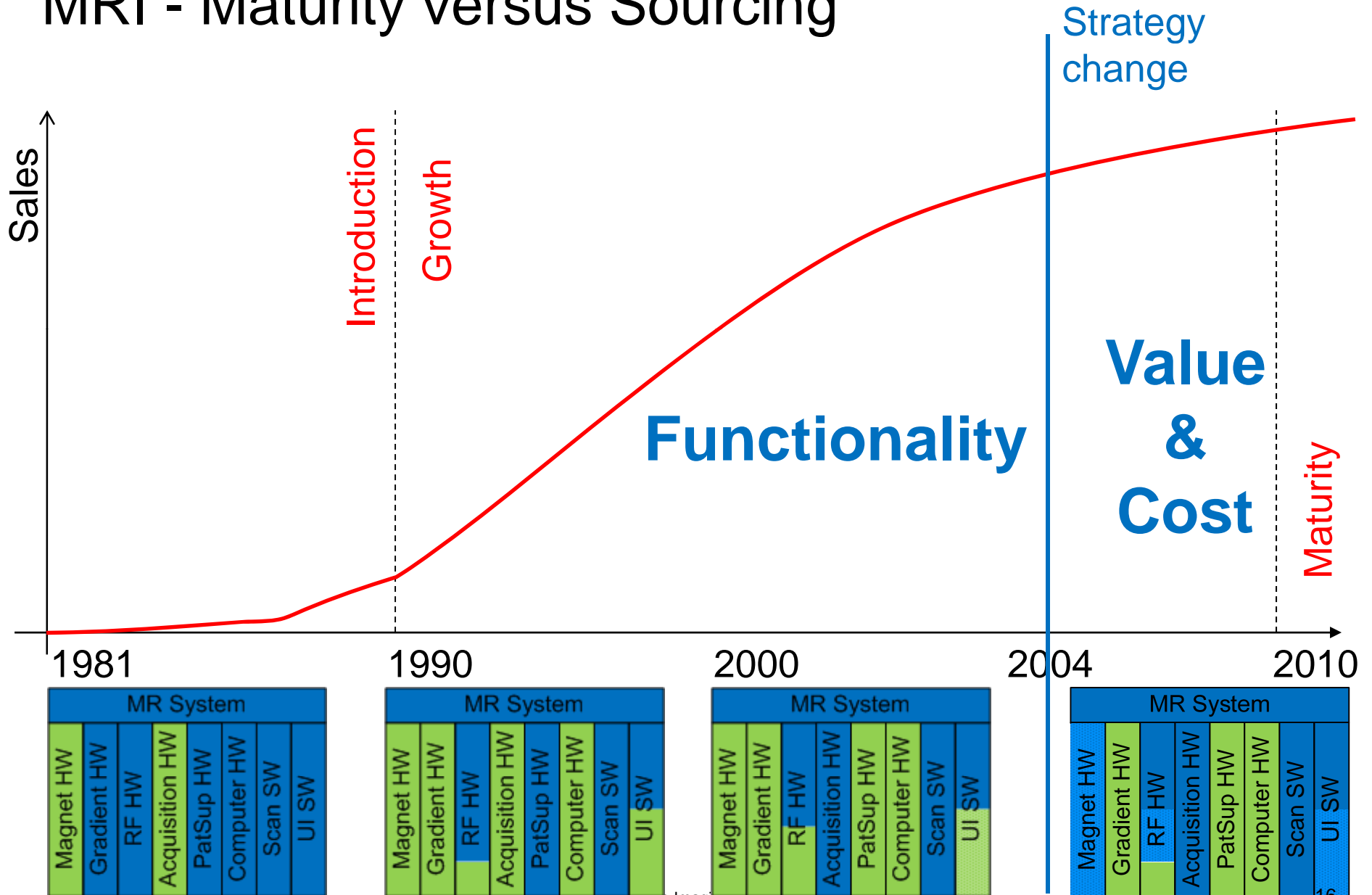
MRI - Maturity versus Sourcing



MRI - Maturity versus Sourcing



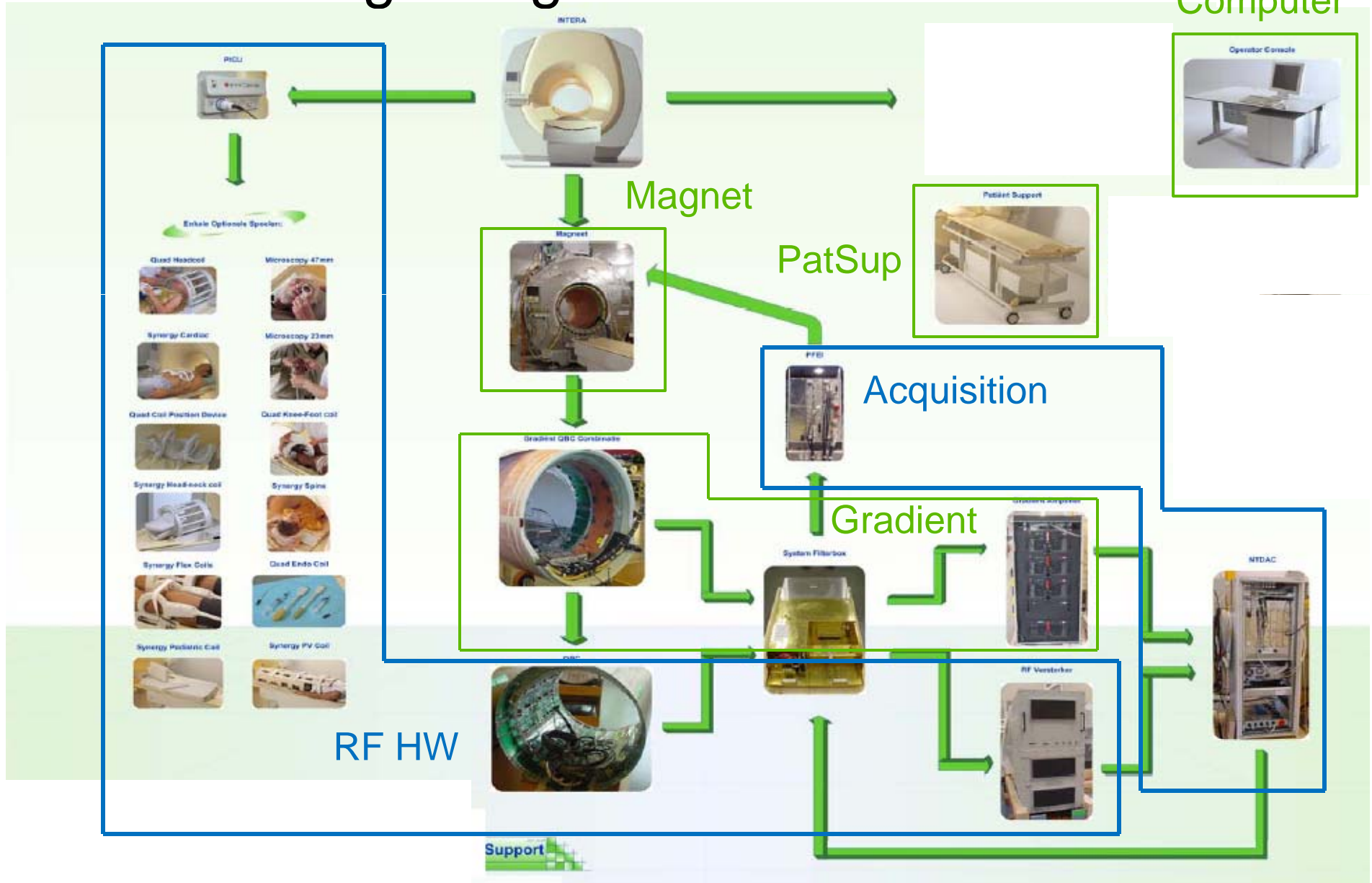
MRI - Maturity versus Sourcing



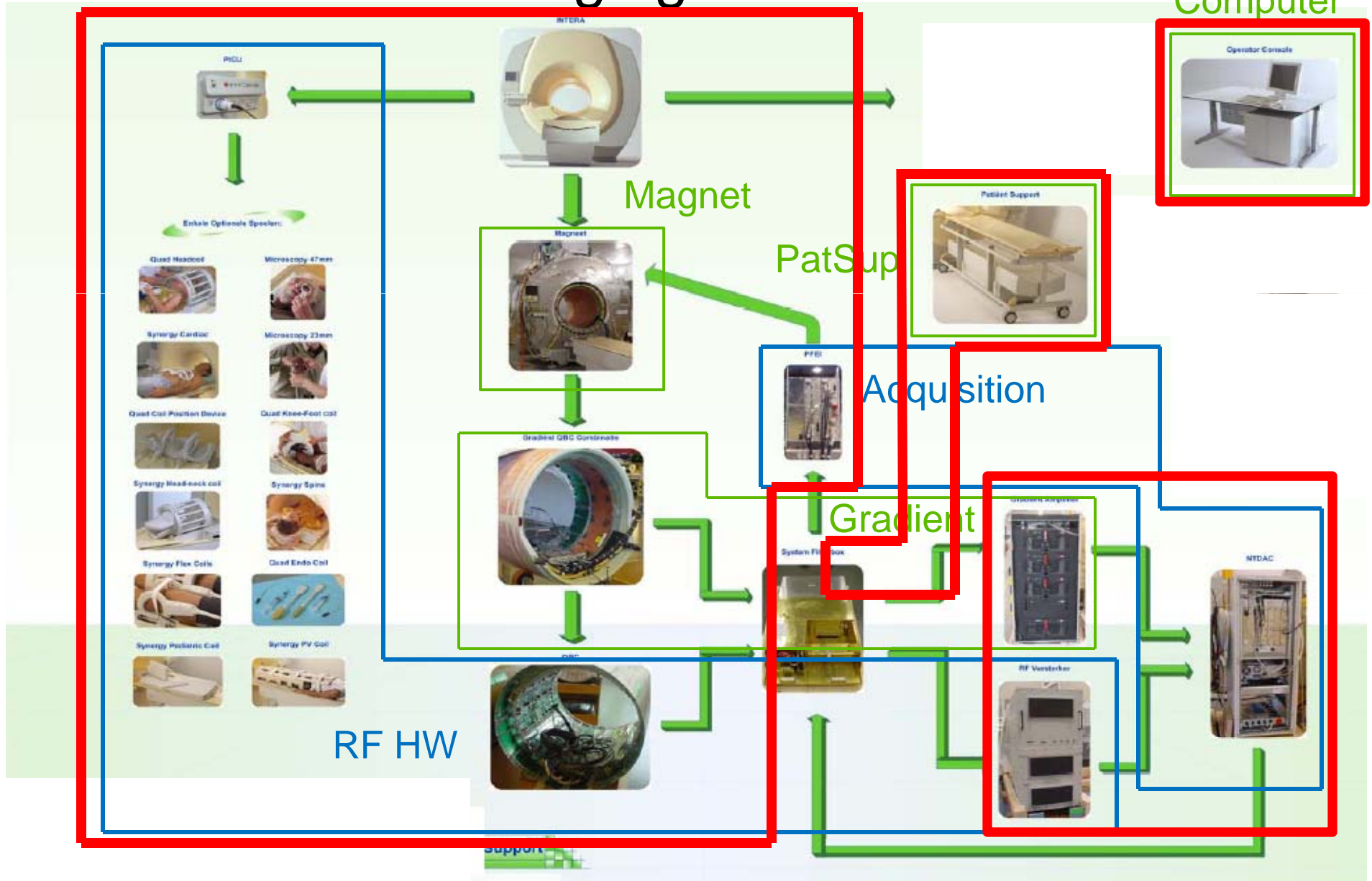
MRI - Maturity versus Sourcing

- Functionality
 - Optimize for rapid implementation of increased functionality
 - Implementation equals functional decomposition
 - Sourcing from domain experts
(RF amp, gradient amp, mechatronics-PatSup, ..)

Outsourcing along functional axis



Cost down via merging functions



MRI - Maturity versus Sourcing

- Focus on cost and value
 - Merge functions in implementation
 - One-on-one relation between function and implementation lost
 - Market trend – not Philips specific

Functional decomposition

Integration view

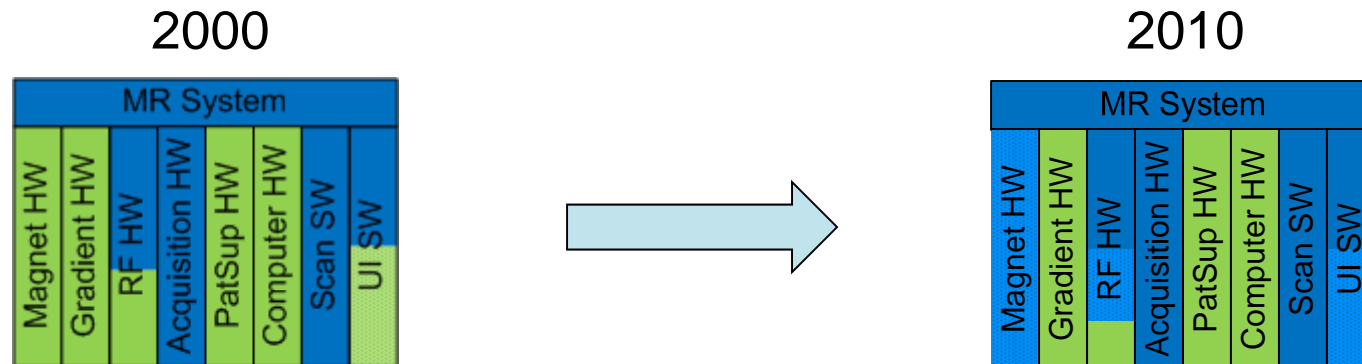
		MR System							
		Magnet HW	Gradient HW	RF HW	Acquisition HW	PatSup HW	Computer HW	Scan SW	UI SW
Integration view	Patsup			X		X			
	Magnet	X	X	X	X				
	TechRoom	X	X	X	X		X		

MRI - Maturity versus Sourcing

- Focus on cost and value
 - Merge functions in implementation
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- Sourcing scenarios
 1. In-house, in-sourcing and off-shoring
 2. Domain experts become multi-domain experts
 3. Competence oriented outsourcing:
Design house and contract manufacturer

1. In-house, in-sourcing and off-shoring

- Typically not preferred
 - System Design and Integration is core
- Key value drivers
 - UI SW (outsourcing -> off-shoring)
 - RF Coils (2006: Invivo)
- Key cost drivers
 - Magnet (2006: IGC)



2. Domain experts become multi-domain experts

- Advantage
 - One stop shop
 - Reduced supply base
- Disadvantage
 - High mutual dependence / very small potential supply base
 - Global footprint? Design and manufacturing?
 - Potential loss of synergies with other industries
- Examples
 - Merger Analogic and Copley
 - Integration physio and power in PatSup



"Can anyone remember what our core business is?"

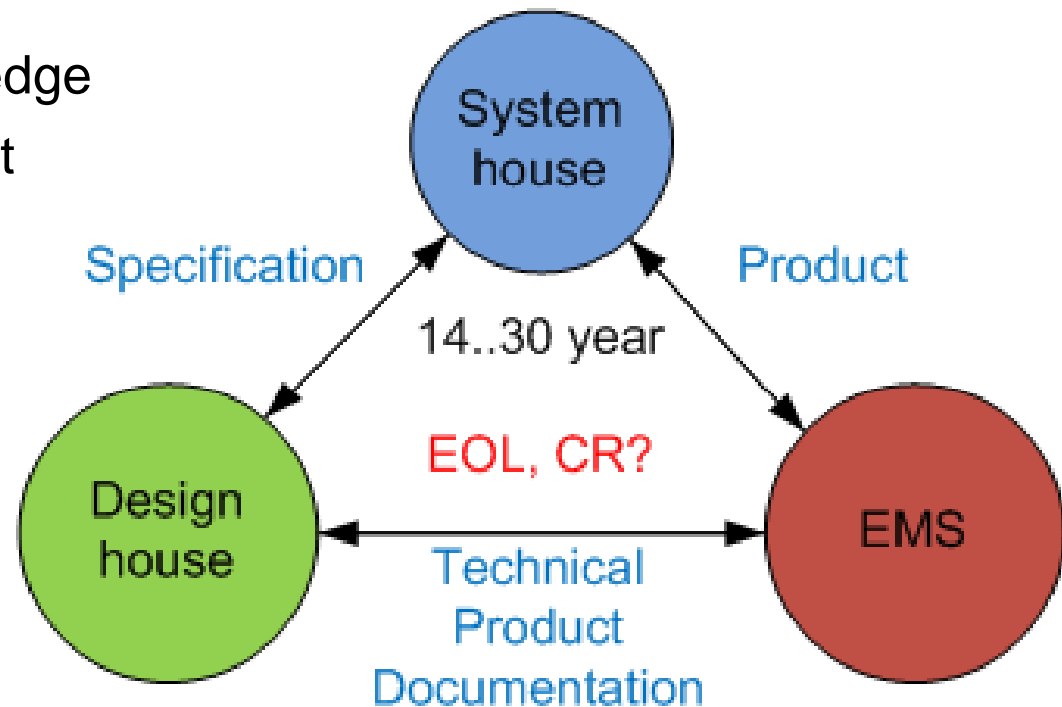
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"Can anyone remember what our core business is?"

3. Competence oriented outsourcing

- Advantage
 - Design Anywhere, Build Anywhere
 - Optimize supplier selection on competence
- Disadvantage
 - Lack of system knowledge
 - Life cycle management
- Examples
 - Layouting
 - Audio system



Conclusion

- Not a single strategy is optimal for merging functionality
 - Supply risk based selection
 - Focus on high level assemblies
 - Outsource competence for low level assemblies
- Issues to consider
 - Development versus Manufacturing capabilities
 - Global footprint, local eco-system
 - Lifecycle management
 - Mutual dependency

Acknowledgement

- Literature
 - Hein Diebels, “25 Years Changing How The Worlds Looks at MR”
- Collective memory
 - Jan den Boef
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- Inputs & review
 - Erik Heerkens
 - Wim Evers
 - Jan Verhoeven

