

PHILIPS

Progress in Healthcare IT

Stan Smits

Medical IT

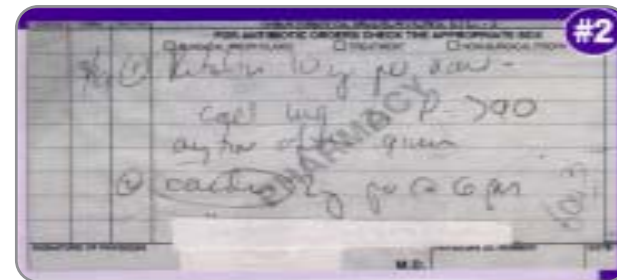
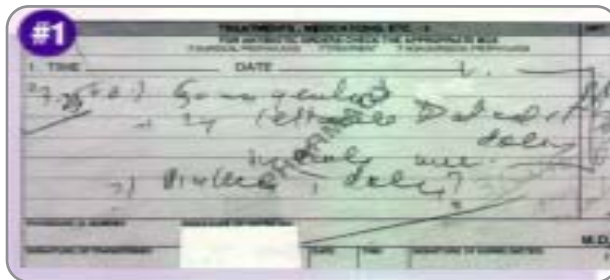
Philips Medical Systems

Agenda

- The Healthcare IT market
- IT embedded in PMS products
- Philips is a leader in PACS
- Alliance with Epic for Enterprise Software



Challenges in Healthcare

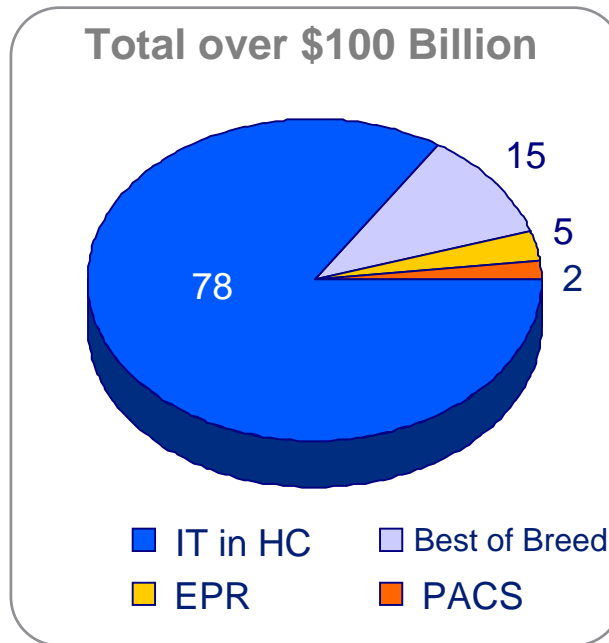


... Drives the need for better IT utilization ...

IT in Healthcare Market 2003

IT in Healthcare:

- Internal IT
- Outsourced IT
- Admin / Office
- Infrastructure
- Healthcare IT



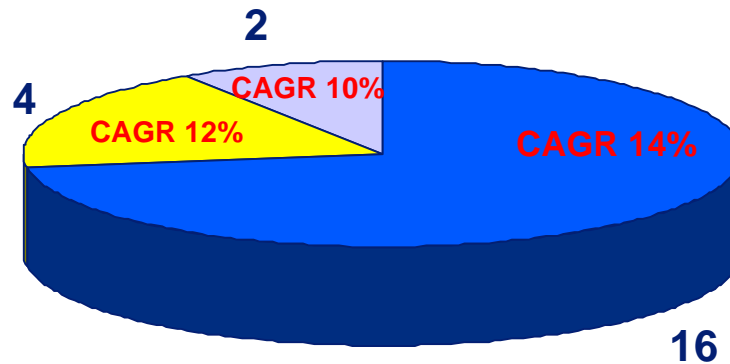
Healthcare IT:

- “Best of breed”: 1200 companies in the US
- Enterprise systems based on EPR
- PACS
- Clinical Applications
- Embedded IT

Extremely fragmented market

Healthcare IT – double digit growth

Healthcare IT \$B



■ NA ■ Europe ■ Asia

Large geographical differences

Healthcare IT market trends

North America

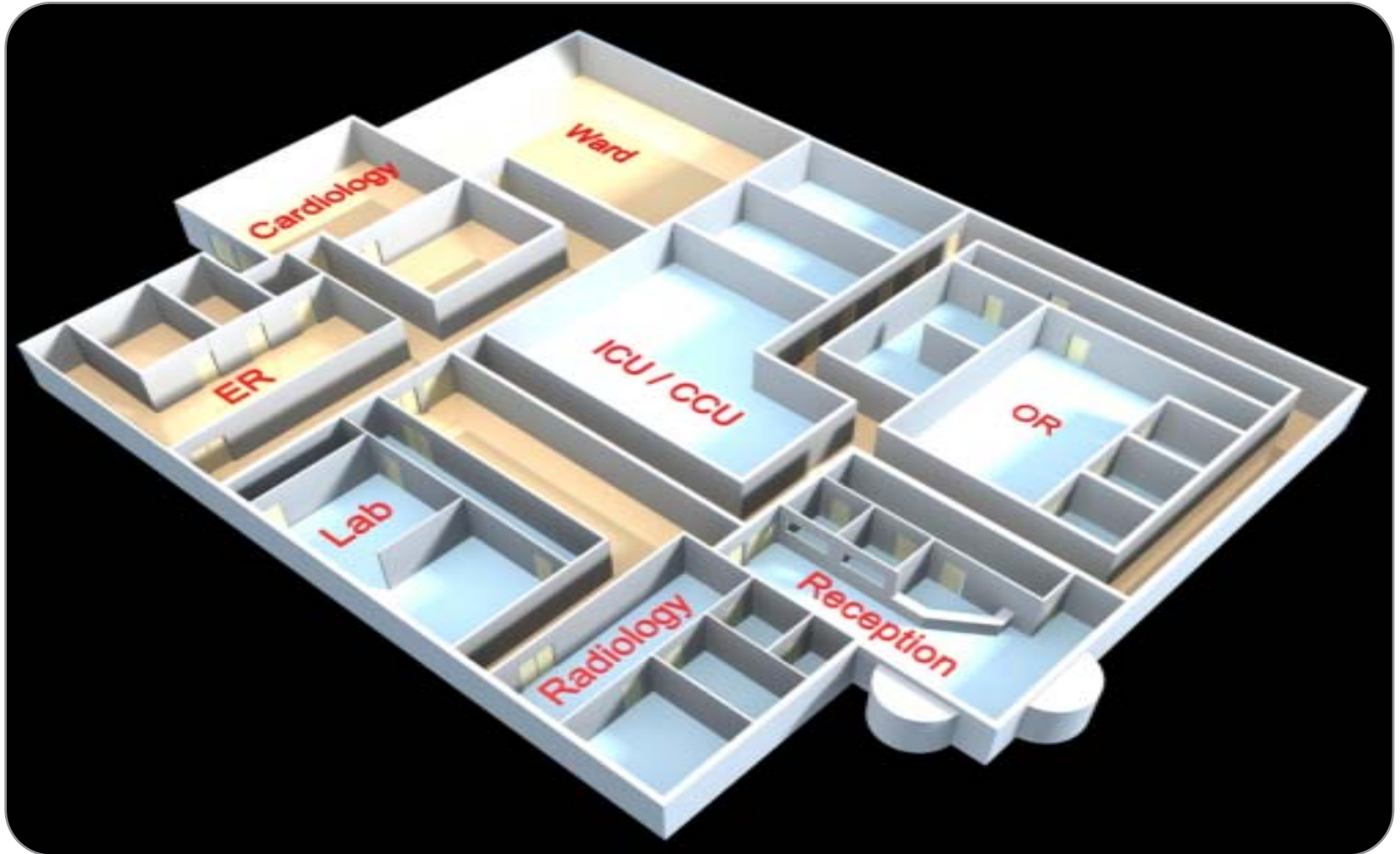
- PACS market continues to growth, but at a slower rate (6%)
- Enterprise Healthcare IT market continues to grow double digit
 - Expansion of market
 - Move to integrated systems
- Electronic Patient Record is required to improve quality of Healthcare

Europe and Japan

- PACS market growth slowed to 4% in Europe, remains high at 7% in Japan
- Enterprise Healthcare IT market lagging behind North America and country specific
- Political awareness for need of Electronic Patient Record growing
- Aggressive approach to modernize Healthcare IT in the UK

Healthcare IT is mature technology
in an immature market

Healthcare IT throughout the enterprise



Philips' commitment to Healthcare IT

Vequion is Philips' next generation family of Healthcare IT products, solutions and professional services.

Vequion competent products are:

- **Customizable**
so there are no boundaries to how you configure your virtual work environment to meet your needs
- **Fluid**
so there are no boundaries to the locations from which you can access your information – within a secure environment
- **Open and standards-based**
so there are no boundaries to the equipment you can integrate – including legacy systems
- **Future-safe**
so there are no boundaries to growth

Vequion is a commitment for the future



Vequion stands for

Products across PMS have a Consistent User Interface Standard:

- To enhance ease of use
- Reduce training

Re-use of software components, resulting in

- A more transparent product portfolio
- Higher quality products
- Easier to solve technical problems



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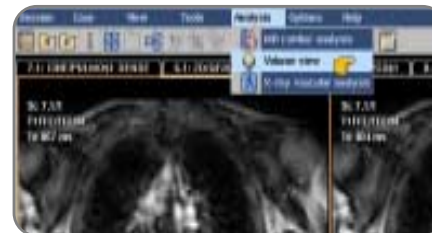
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Organized for reuse

Common Architecture & Software Components:

- **Already before the acquisitions various product groups in Medical Systems were duplicating effort on generic functionality in each product**
 - In 1998 a program was started to stimulate reuse and lower costs
 - Initial focus on creating the architecture that enables reuse
 - Create generic software component once, reuse in all products
- **Organic and focused growth from a core team of 25 in 1998 to the current dedicated team of 100+ professionals in Netherlands and India**
- **Interoperability and UI Harmonization Services support across Medical Systems**

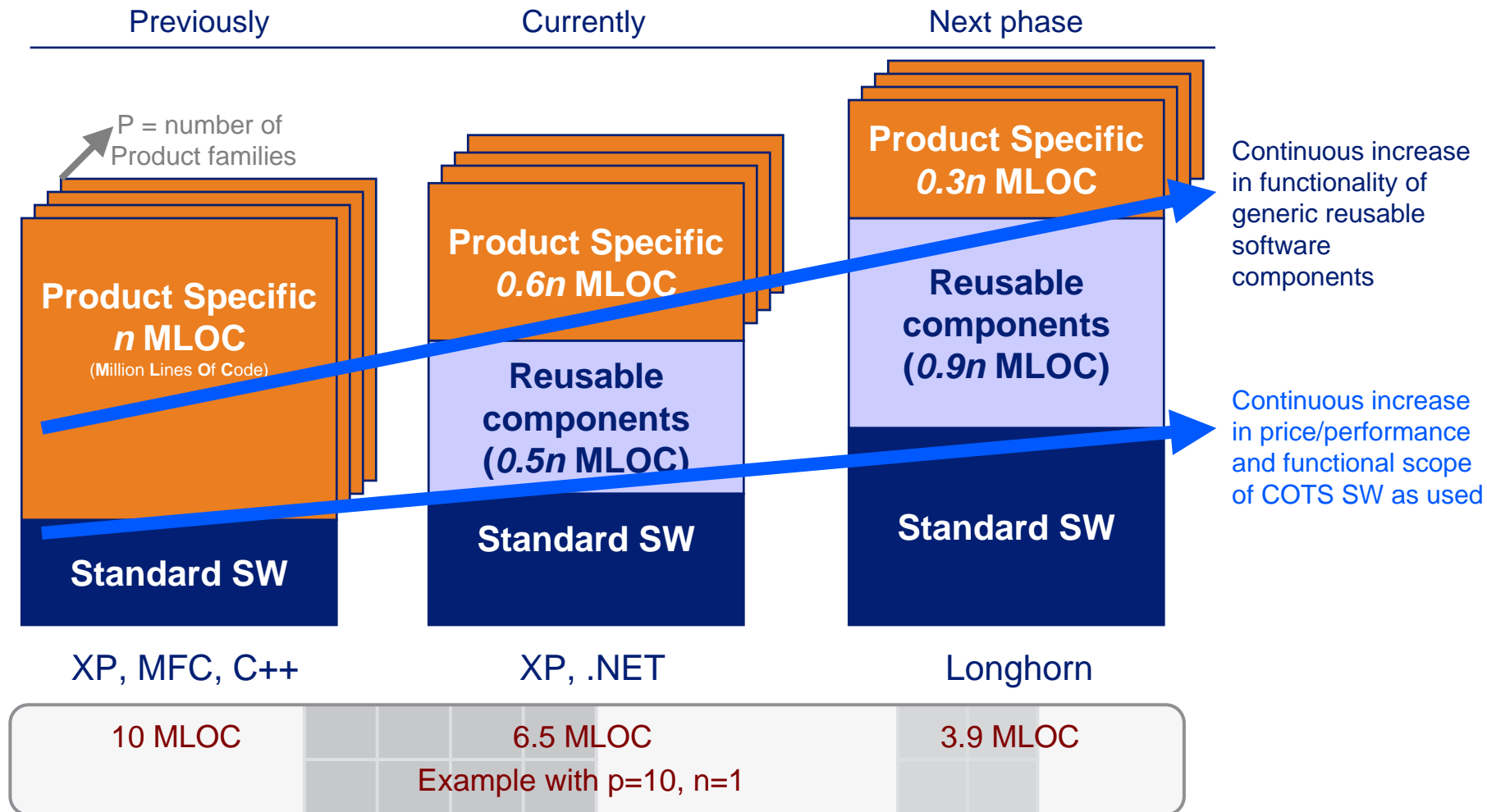


Architecture & Software Components

- **Benefits**
 - Reduce risk: common architecture, higher volume
 - Reduce cost: developed only once, with more product quality
 - Better training and support: similarity in GUI, common remote service, etc
 - Better Time-to-market: due to shorter testing period, proven interoperability
- **Current state**
 - Since 2001 first modalities released based on components
 - In 2005 60% of all new products using standard components, 100% in 2007

Our approach: open architecture, systems composed of common components, organic growth and driven by business needs

Reuse: reduces lines of code by 60%



Paradigm shift: InnerSource

Extending the Software Component program in 2004:

- InnerSource (Open Source community within Medical Systems)
 - Natural next step for the Software Component model
 - Leverages the enormous experience in the complete PMS software developers community worldwide, with extensions to 3rd parties (research, institutions)
 - Allows redistribution of core-competences over all groups, integrating the company even further in the important domain of software engineering
- Benefits
 - Further efficiency improvements
 - Faster TTM

Creating a global community of clinical- and software professionals, working seamlessly together

Agenda

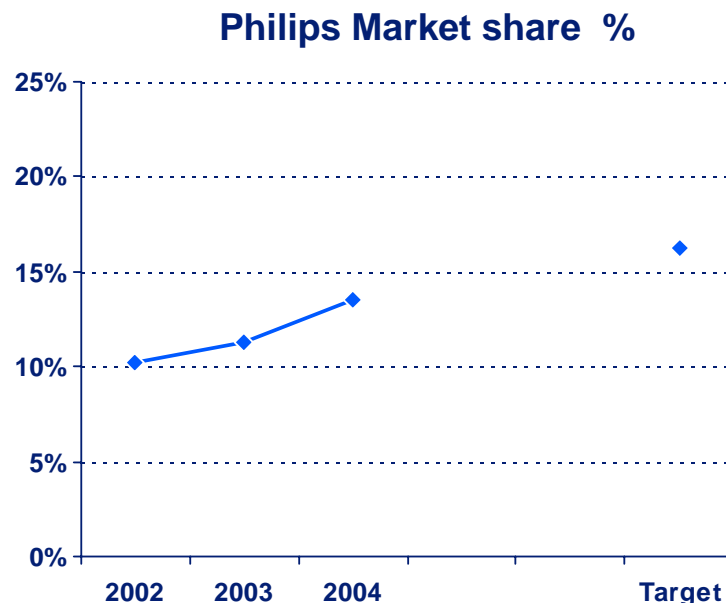
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Healthcare IT in Radiology/Cardiology



PACS Market and Market Share Evolution



Market for PACS

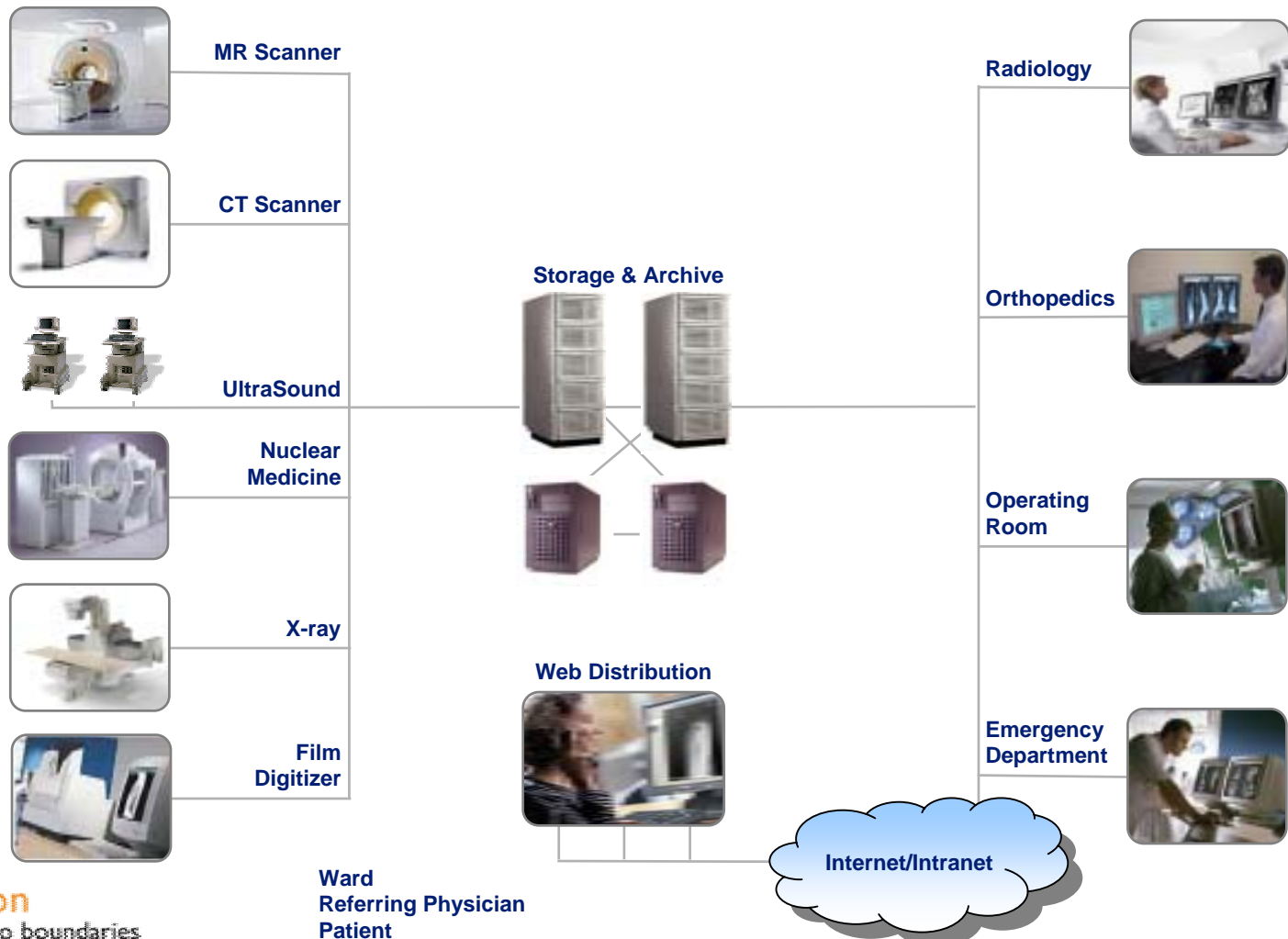
- Modality Vendors
- Healthcare IT vendors
- Niche vendors

- Philips in solid third place, growing 12%/year
- Hardly regional differences in PACS requirements
- PACS Integration with Modalities and Healthcare IT solutions will become key driver
- Typical PACS project:
 - 35% HW
 - 35% SW
 - 30% Professional Services

PACS: *Picture Archiving and Communication System*

Multi-vendor, multi-department

Modalities



Viewing & distribution

Workflow in a Digital Radiology Department

Registration



Scheduling



Image acquisition



Quality control



Diagnose



Report creation

Digital Radiology



Archiving



Image distribution



Viewing

PACS makes radiology filmless

Films need to be:



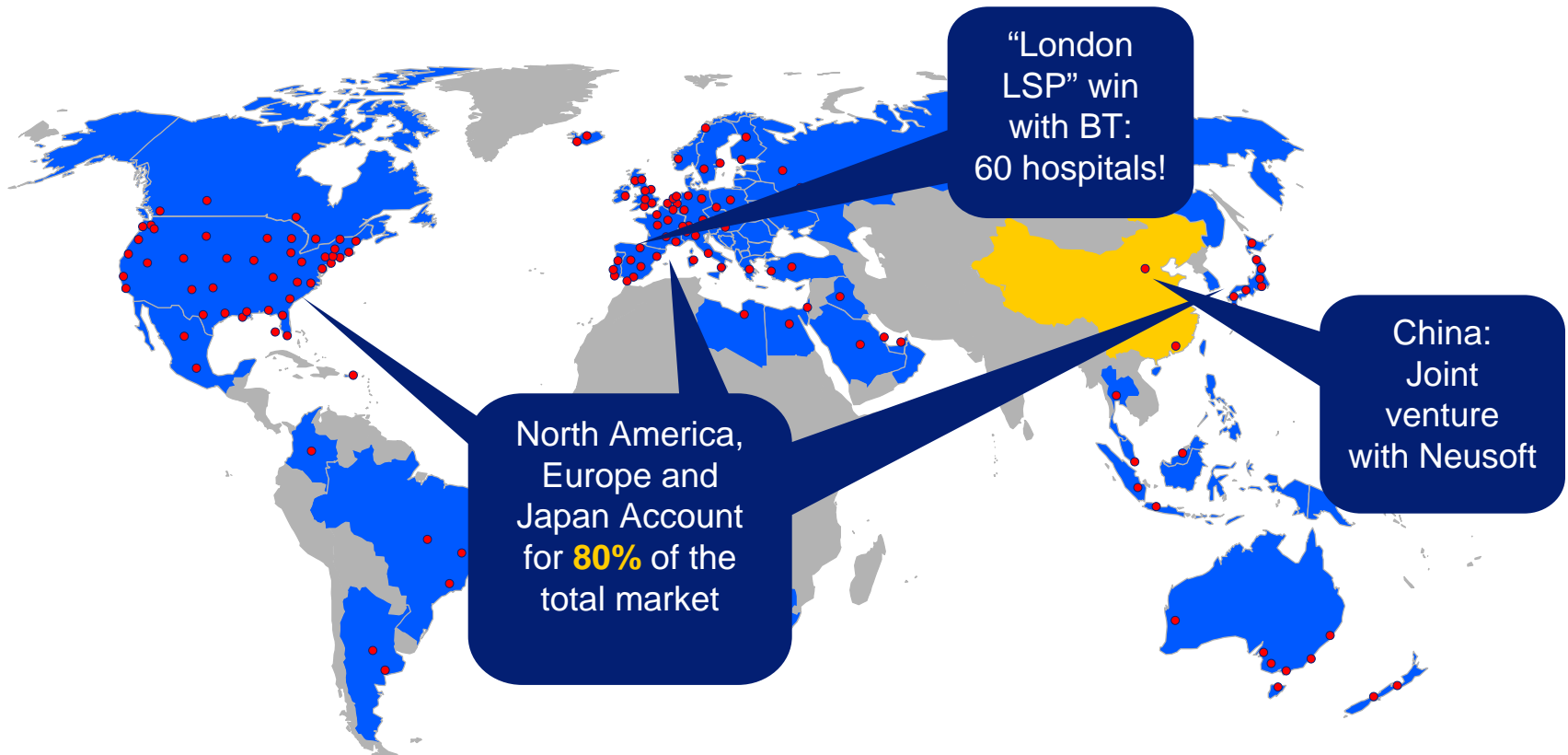
- Printed
 - requires film and chemicals
- Archived
 - requires space and logistics
- Viewed
 - requires light box and manual hanging
- Distributed
 - Physical delivery
 - copies required for referring physicians

Benefits of filmless



- Save costs, be faster:
 - No film or chemicals
 - Images instantly available
- Better use of image data
 - Integrate with speech recognition
 - Increase diagnosis quality
 - Reduce medical errors
 - Integrate with clinical applications
- Instant available:
 - Referring physicians, patients
 - At any location (no physical limitation to one location)
 - At any time
 - Images never get lost

PACS worldwide presence and installed base



Over 1300 PACS systems for Radiology and/or Cardiology installed worldwide!
 Dots give indication of installation of one or more Radio and/or Cardio PACS system

Hospitals require integrated solutions

- Market trend towards advanced and seamless integration of **Hospital Information Systems** with PACS and **advanced (3D/4D) viewing and clinical applications**
- Clinical advanced use of data requires portability from modality to PACS to workstation: **Philips Medical Systems can provide the whole image acquisition, distribution and advanced applications chain**

Hospital Information Systems



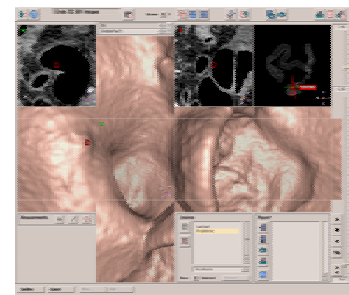
PACS



Image distribution

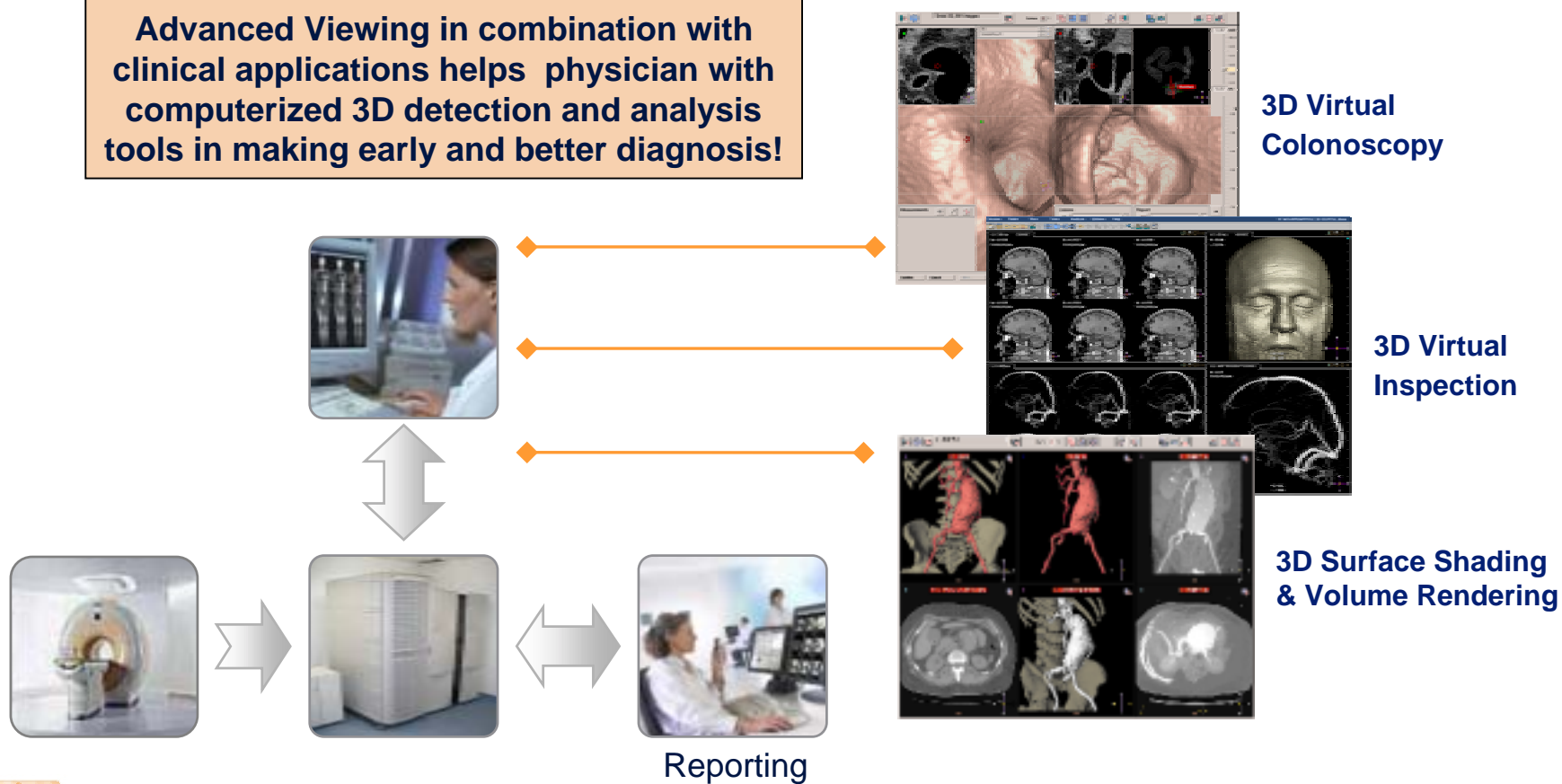


Advanced Viewing in combination with clinical applications: e.g. 3D Colonoscopy



Empowers the Physician with Advanced 3D Viewing and Clinical Solutions

Advanced Viewing in combination with clinical applications helps physician with computerized 3D detection and analysis tools in making early and better diagnosis!



Why customers buy PACS?



Management of radiology:

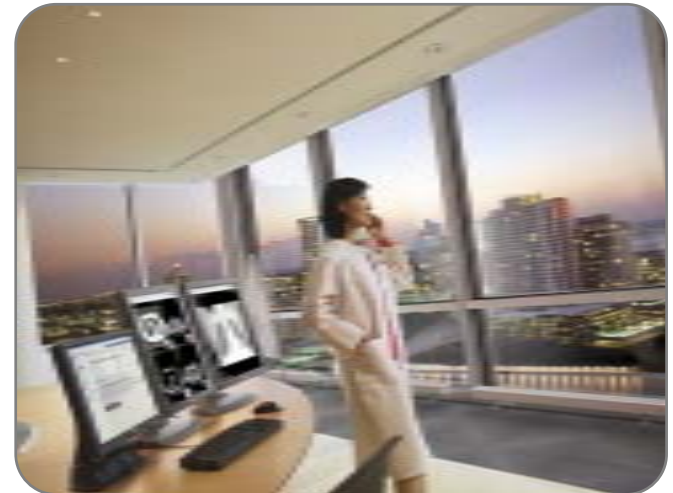
- Cost reduction
- More examinations per modality
- Better service to referring physicians
- Standardization of work processes
- Control of workflow
- Automated billing
- Management information

Radiologist:

- Increase productivity
- More accurate diagnostics
- Less disturbance by referring physicians
- Handling of MR and CT examinations
- Tele-consult colleagues
- Work from home

Why customers choose Philips for PACS?

- **Most scalable and customizable PACS solutions in the market**
- Integration with modalities and Hospital Information Systems
- Partnership approach focused on business result
- Radiology, Cardiology and PACS Experience
 - 75 years Radiology, 15 years in PACS
 - 1300 PACS installed world wide
- World wide Service Support Organization
- Commitment to industry Standards



Philips is committed to the success of our customers!

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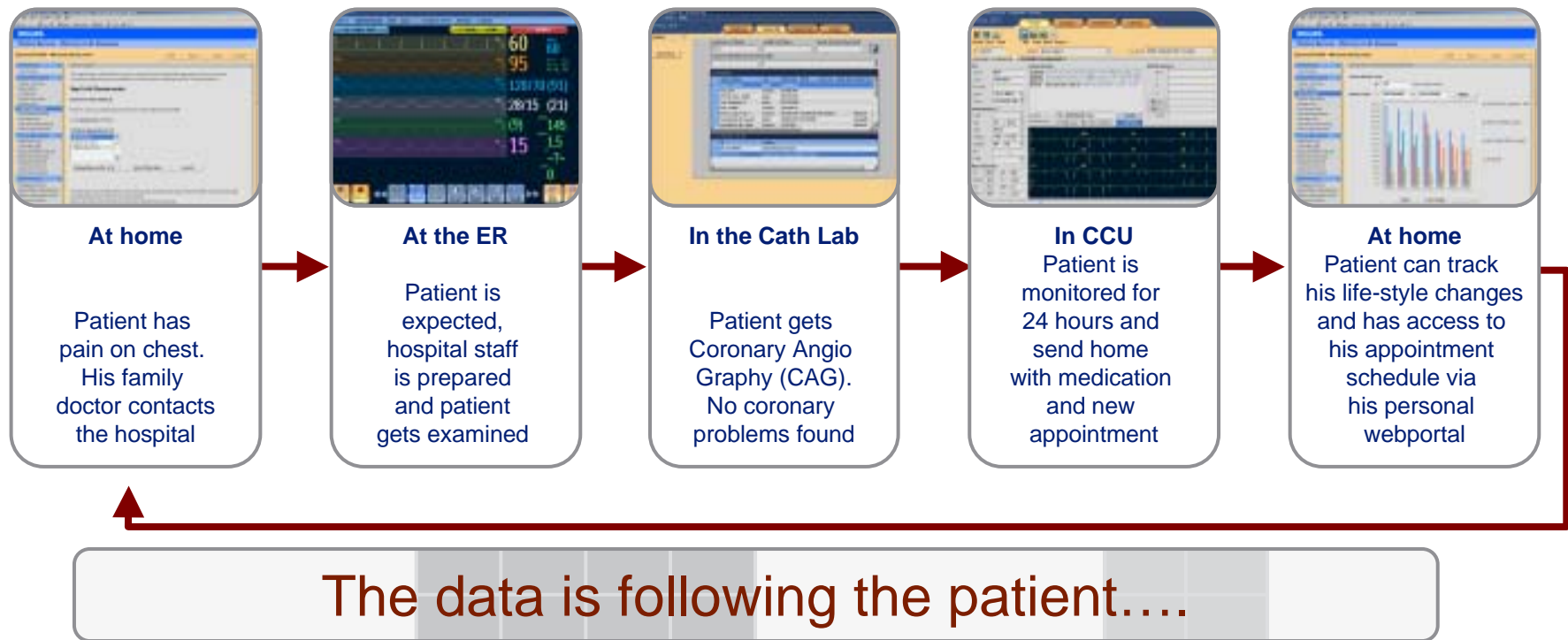


Healthcare IT throughout the enterprise



Why Philips entered the Healthcare IT market?

- Our customers are asking for total integration
- EPR-based systems need clinical information
- Clinical equipment need access to patient information



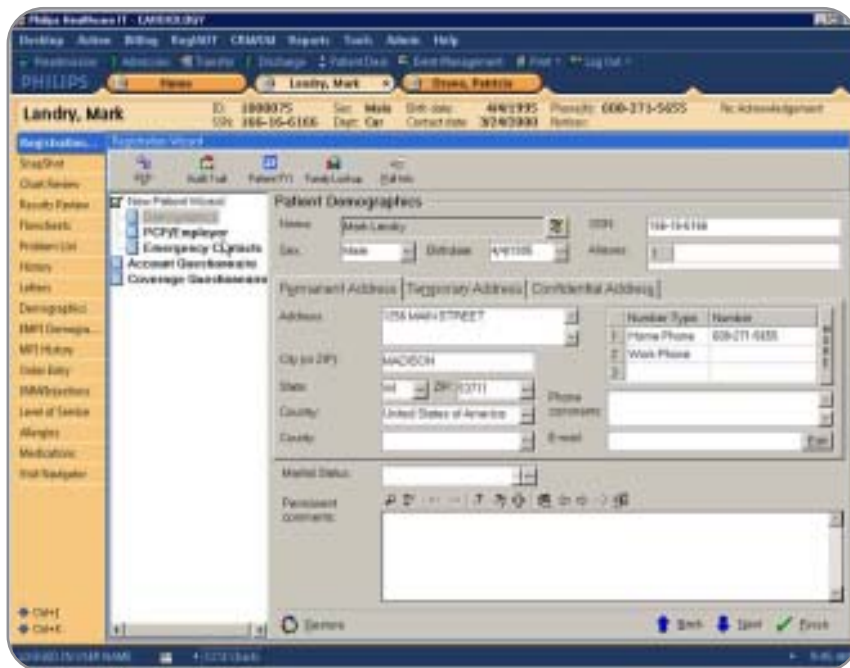
November 2004: Philips announced alliance in the Healthcare IT domain with Epic

- Founded in 1979
- Based in Madison, Wisconsin, US
- 1,200 Employees
- Privately owned HealthCare IT company
- Growth approximately 30% per year
- Website: www.epicsystems.com
- Epic has a complete Integrated Enterprise Healthcare IT system
- Received again (**9th time in a row**), the #1 customer satisfaction ranking by KLAS
- 28 M Patient Records in use in the US



HealthCare's premium award winning technology vendor

We are on-track...



- World-wide announcement previous analyst meeting November 4th
- Partnership introduction for Cardiologists (AHA) and Radiologists (RSNA) in November 2003
- Major launch at major US Healthcare IT event (HIMSS) in February 2004
- Highly qualified Philips Healthcare IT team currently being trained by Epic
- This will allow Philips also to benefit from the award winning Epic processes
- Philips selected as Vendor of Choice for first project
- Major announcements planned for RSNA 2004 and HIMSS 2005
- By mid 2005 fully operational Healthcare IT practice in North America

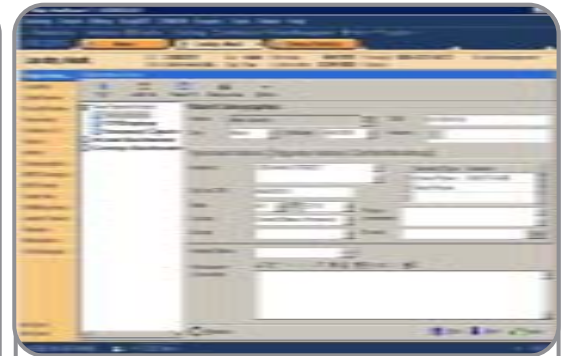
...to offer a complete portfolio



Imaging Modalities,
Monitoring



Departmental
Solutions



Enterprise IT
“Powered by Epic”

Vequion

Guaranteeing a consistent UI and full interoperability

Martin Harris, CIO Cleveland Clinic Foundation

“ The partnership between Epic and Philips really brings an opportunity to improve the overall quality in the practice of medicine by delivering information to clinicians when they need it and where they need it. That ability will connect the clinical specialty departments with their colleagues across the institution,” said Martin Harris, CIO, Cleveland Clinic Foundation



Cleveland Clinic is #1 cardiovascular Hospital

Summary

- On-track in aggressively gaining market share in PACS and establishing Medical Systems as a Healthcare IT total solution provider
- Common architecture, uniform user experience and embedded software components in modalities, monitors and PACS products
- Further partnerships and/or acquisitions to strengthen the overall IT offering are being investigated



