PHILIPS
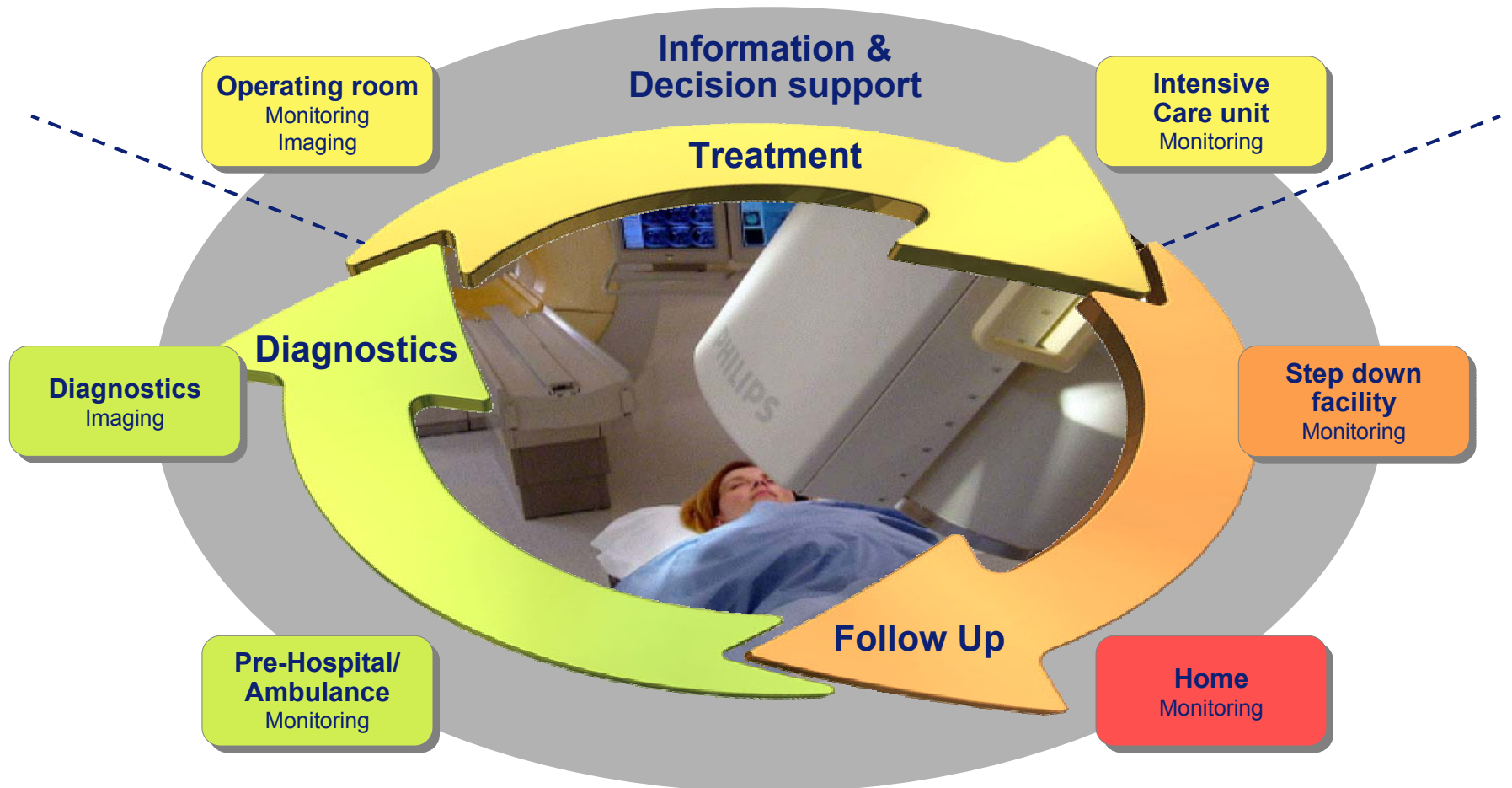
Healthcare IT

Stan Smits

Analysts' Meeting
June 15th, 2005

Healthcare IT is the backbone of the care cycle

Information & Decision support

Treatment

Diagnostics

Follow Up

Operating room
Monitoring
Imaging

Intensive Care unit
Monitoring

Diagnostics
Imaging

Step down facility
Monitoring

Pre-Hospital/ Ambulance
Monitoring

Home
Monitoring

Healthcare IT comprises many different applications

Pharmacy/ Medication Safety

Medication Order Entry	Outpatient Prescriptions	eMAR
Dosing Management	Formulary Management	Substitution/ Cost Management
Barcoding	Drug Interactions	Access to Drug Databases
Robot Interface	Pharmacy Robot	Automated Dispensing

Physician Clinical Practice

Physician Order Entry	Results Review	Order Sets	Ambulatory Practice Management
Provider Documentation	Rounding/ Workflow Tools	Patient History/ Problem Lists	Patient Locator/ Patient Lists
	Pathways	Protocols	

Clinical Documentation

Patient Assessment	I & O Vital Signs	Flowsheets
Kardex	Task Lists	Care Plans
Non-MD Orders	Patient Education	Interfaces to Monitors
Critical Care Specialty Documentation	Non-MD Evidence Based Documentation	

Departmental/Support Services

Lab	Radiology	Cardiology
Pathology	Emergency Department	Surgery
Blood Bank	Other Departmental Systems	Medical Imaging

Core Information Management

User Interface/Portal

Data Aggregation and Reporting Tools

Enterprise Master Person Index (MPI)	Clinical Data Repository	Research Repository	Common Medical Vocabularies
Order Management	Decision Support Repository	Rules Engine	Standard CDM/ Master File
Security Tools	Integration Tools	Response Time	PDA Support
	Document Imaging Single	Document Imaging Batch	

Enterprise Patient Access

Admission/ Registration	Enterprise Scheduling	Eligibility Verification
Request for Authorization	Consumer Portal	Technical Denial Management

Health Information Management

Coding	Abstracting	Coding Support
Chart Tracking /Management	Chart Completion	Electronic Signature
Release of Information	Printing the EMR	Workflow Tools
Transcription/ Dictation	MRN Management and Merge	

Care Management

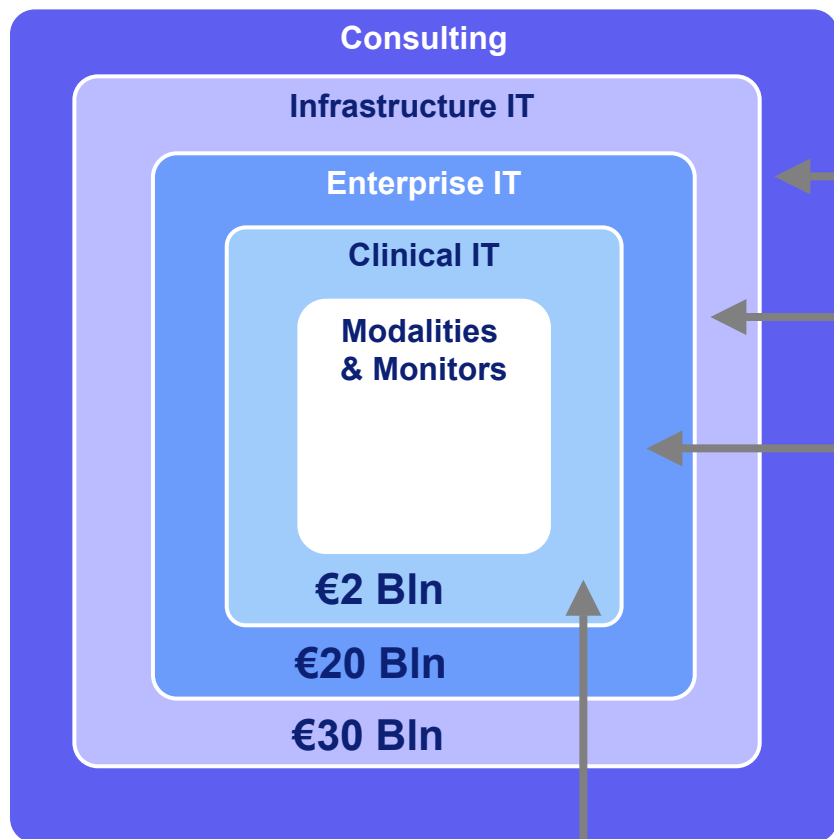|		
Precertification Authorization	Initial & Concurrent Review	Discharge Planning
Clinical Denial Management	Payor Communication and Notes	InterQual Support for LOC
Pathways (LOS)	Post Acute Placement	Disease Management

Clinical Decision Support

Data Warehouse	Severity Adjustment	Report Writer	Comparative Database Access
Outcomes Measurement	Resource Utilization	Provider Profiling	Credentialing

Philips Medical Systems

Healthcare IT Market

Consulting

Infrastructure IT

Enterprise IT

Clinical IT

Modalities & Monitors

€2 Bln

€20 Bln

€30 Bln

Source: CapGemini U.S., DeLoitte, Gartner

IT in Healthcare = Infrastructure IT + Healthcare IT
Healthcare IT = Enterprise IT + Clinical IT

Healthcare IT is:

- very fragmented (1200+ companies)
- a € 22 Bln market (USA 70%)
- with an average growth 11%/year

Consulting: Business Processing Re-engineering (BPR), Institutional Transformation: Alliance Programs

Infrastructure IT: IT Hardware, Op. Systems, Networks, Office Desktop. Outsourced infrastructure: Reseller agreements

Enterprise IT: Clinical Data Repository, CPOE, EMR and Departmental IT: RIS, CVIS, etc.: Philips Xtenity powered by Epic

Clinical IT: PACS, Workstations, Clinical Applications, Decision Support, Monitoring related IT products: Many Philips Medical Systems products
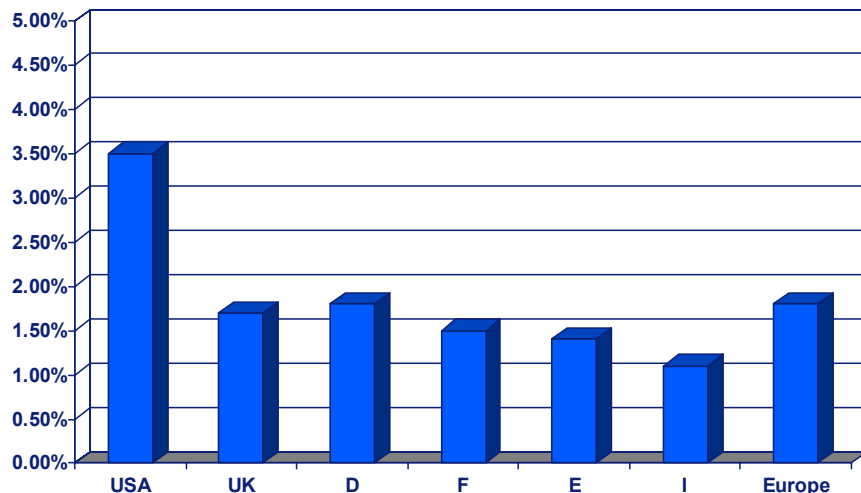
Total IT in Healthcare €52 Bln (USA 50%) in 2004

Healthcare IT market remains very regional
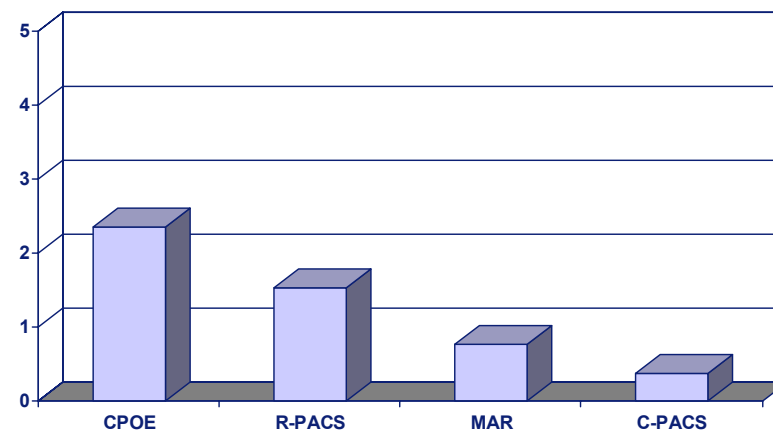
- **CPOE** (Computerized Physician Order Entry) and MAR (Medication Administration Record) in USA justified by avoidance of medical errors
- **PACS** (Picture Archiving and Communication System) both for Cardiology and Radiology remains an important growth market
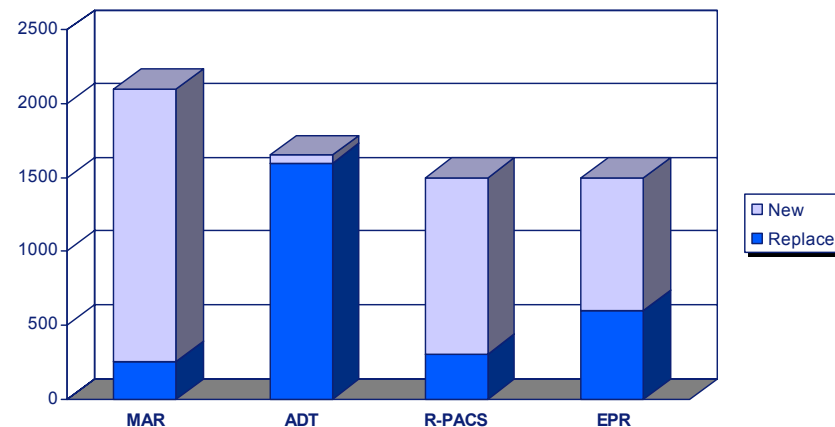- **ADT** (Admission, Discharge, Transfer) in Europe is a replacement market

USA Healthcare IT Application Ranking by Attractiveness

Source: CapGemini

Hospital IT spend as % revenue

Source: DeLoitte

European Healthcare IT Application Ranking by Attractiveness

Source: DeLoitte

Philips offers a consistent experience
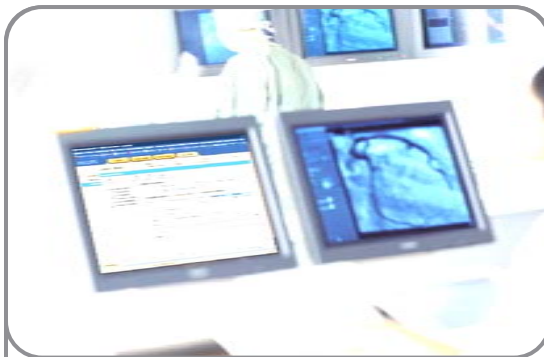
Imaging Modalities & Monitoring
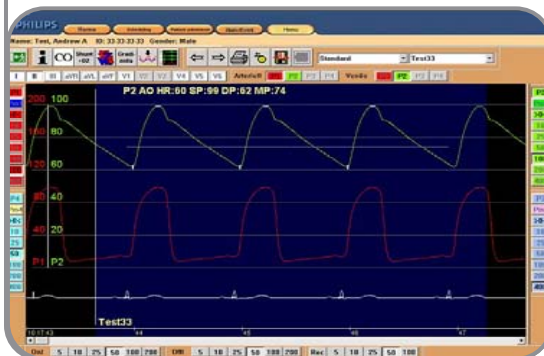
Clinical Specialty Solutions
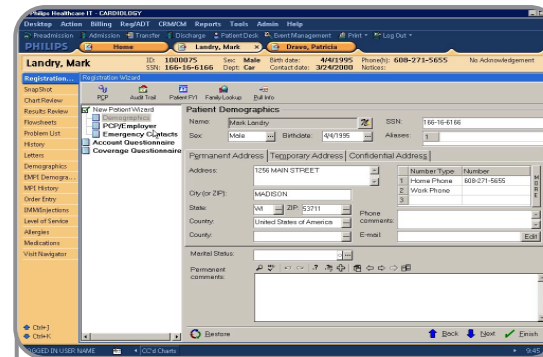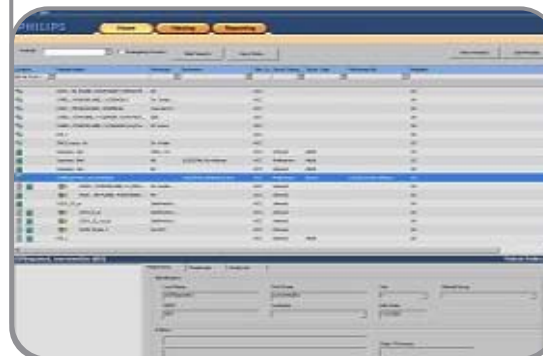
Enterprise Solutions

November 2003: Philips announced alliance for Enterprise IT with Epic

Epic Company Profile:

- Founded in 1979
- Based in Madison, Wisconsin, US
- 1,600 Employees
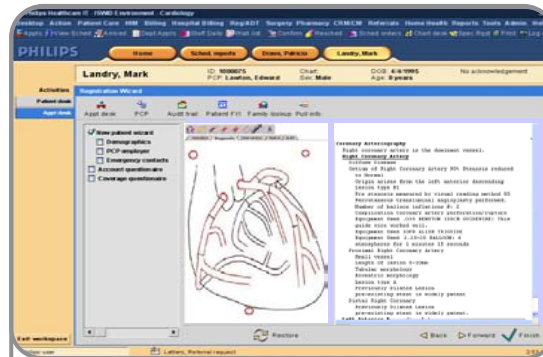- Privately owned HealthCare IT company
- Growth approximately 30% per year
- Website: www.epicsystems.com
- Epic has a complete Integrated Enterprise Healthcare IT system
- Received again (10th time in a row), the #1 customer satisfaction ranking by KLAS
- 42 M Patient Records in use in the US

HealthCare's premium award winning technology vendor

We are on-track…

June 9th 2004

Vequion
No boundaries
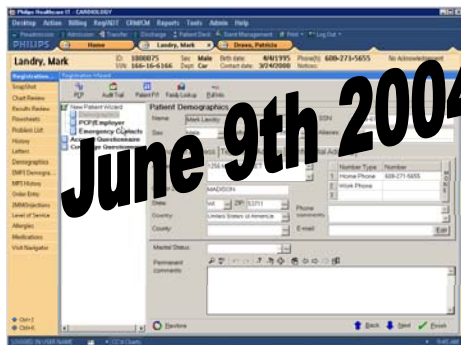
- World-wide announcement previous analyst meeting November 4th
- Partnership introduction for Cardiologists (AHA) and Radiologists (RSNA) in November 2003
- Major launch at major US Healthcare IT event (HIMSS) in February 2004
  Training and roll-out during 2004

- **Highly qualified Philips Healthcare IT team (50 by year-end) being trained by Epic**
- **This will allow Philips also to use the award winning Epic processes**
- **Philips selected as Vendor of Choice in first project**
- **Major announcements planned for RSNA 2004 and HIMSS 2005**
- **By mid 2005 fully operational Healthcare IT practice in North America**

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We remain on-track…

Alliance benefits:

- Fully Integrated Enterprise IT portfolio
- Staff trained by KLAS #1 vendor
- Scaleable in deployment
- Tight integration with modalities, PACS and monitoring equipment

- Metro Health, Grand Rapids, Mi, has selected Xtenity
- **Second half 2005 operational Enterprise IT practice in North America**

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Philips Xtenity Enterprise

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Let's zoom into Cardiology

Clinical Documentation

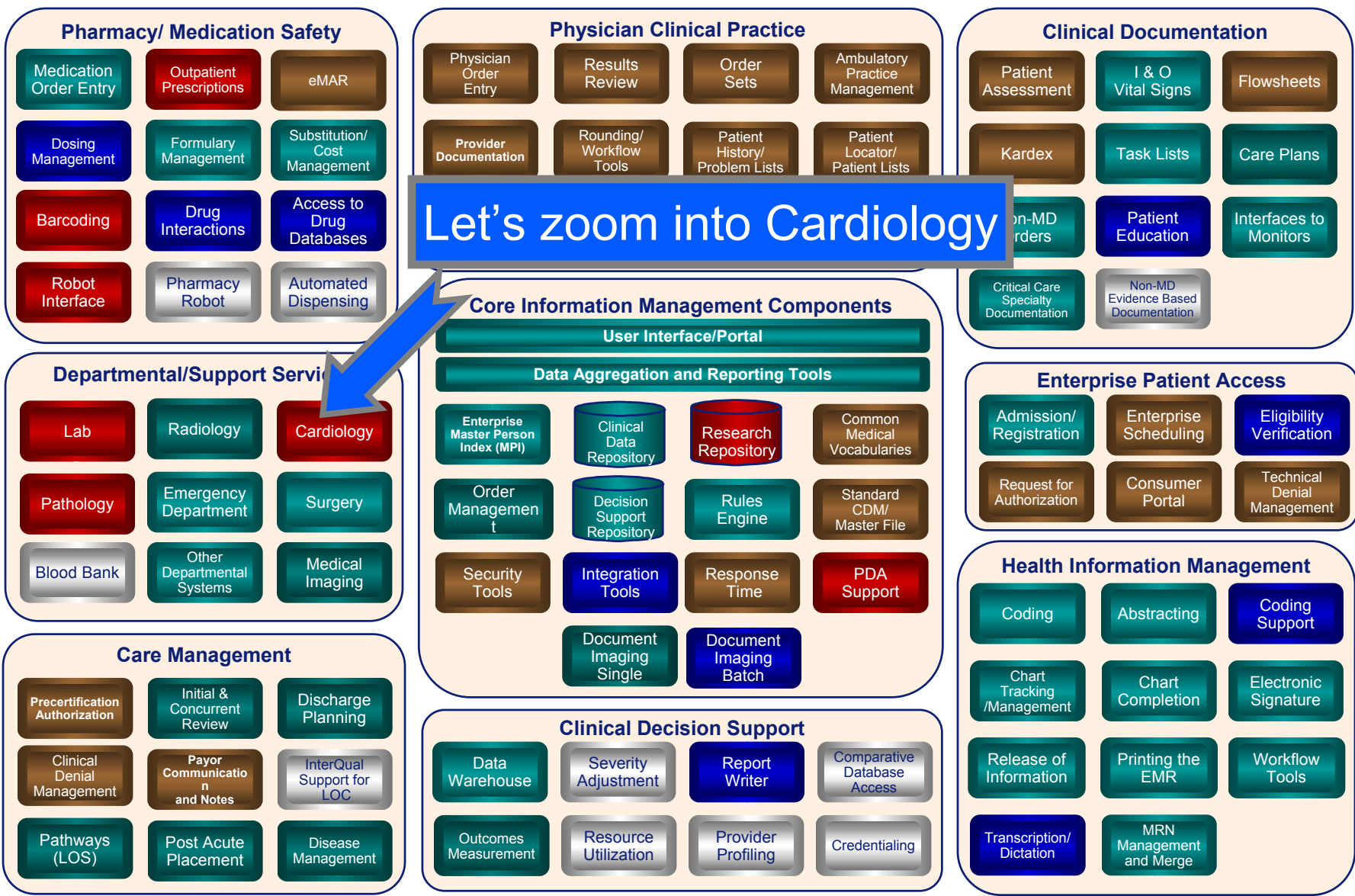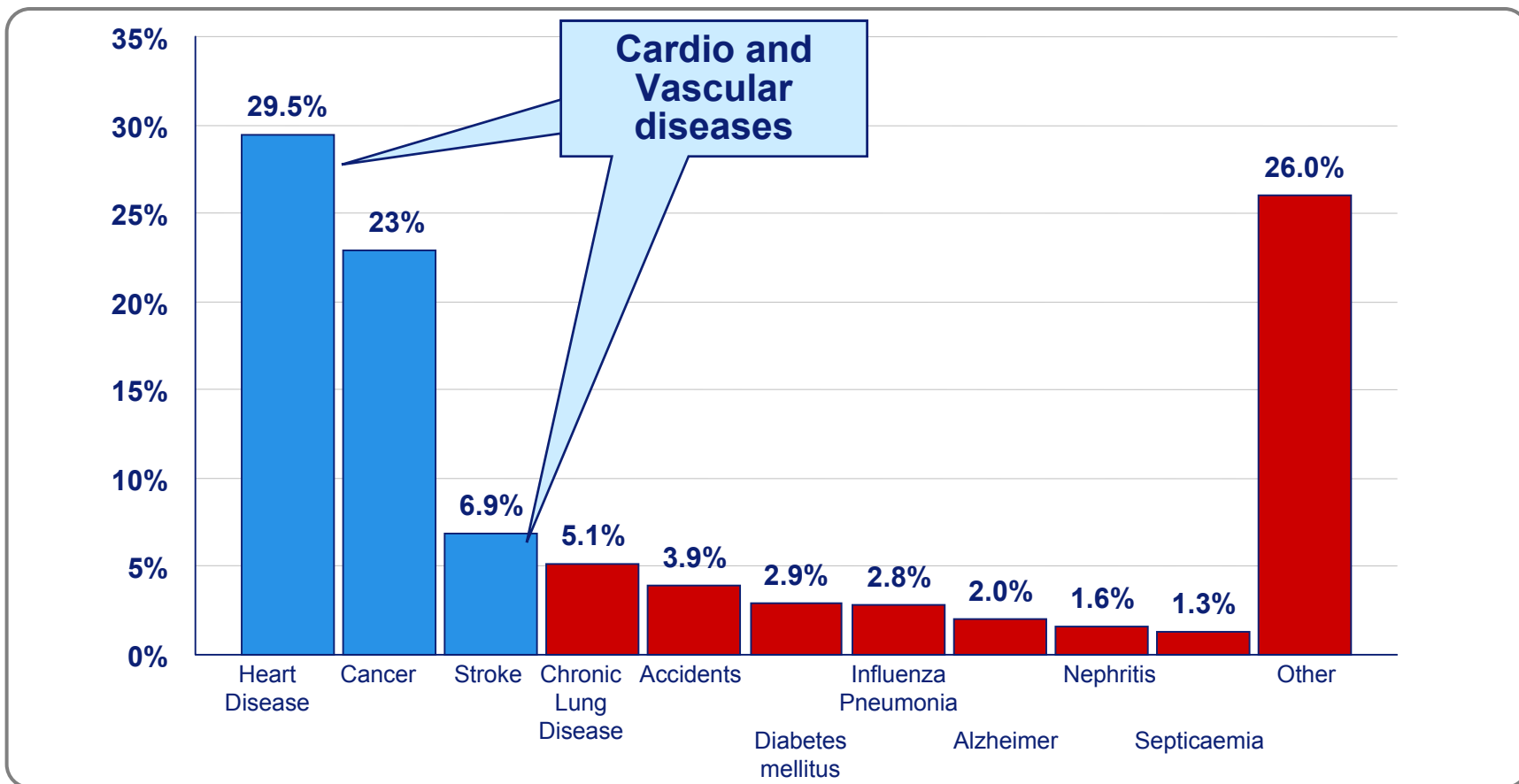|		
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Clinical Decision Support

Data Warehouse	Severity Adjustment	Report Writer	Comparative Database Access
Outcomes Measurement	Resource Utilization	Provider Profiling	Credentialing

Legend:

Color	Meaning
Brown	Available key strength
Teal	Available
Blue	Third party
Tan	Evolved/acquired from third party system
Red	In Development
White	Unavailable

Relevance for Philips' focus on clinical segments

Cardio and Vascular diseases

Chart data (percentage of US Deaths):
- Heart Disease: 29.5%
- Cancer: 23%
- Stroke: 6.9%
- Chronic Lung Disease: 5.1%
- Accidents: 3.9%
- Diabetes mellitus: 2.9%
- Influenza Pneumonia: 2.8%
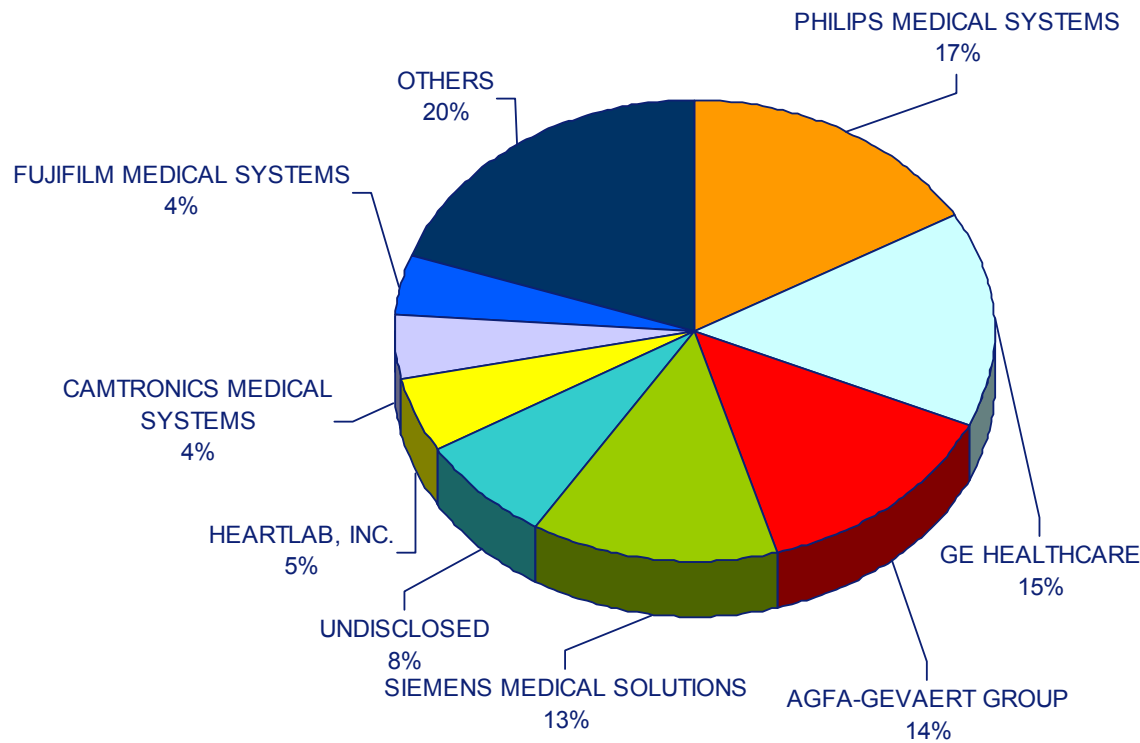- Alzheimer: 2.0%
- Nephritis: 1.6%
- Septicaemia: 1.3%
- Other: 26.0%

Cardio and Vascular Diseases and Cancer responsible for ~60% of US Deaths.

Source: CDC, National Vital Statistics, 2001

Philips position in the Cardiology PACS market

North American Cardiology PACS Vendor Market Share, by Facility Appearance, 2004

- PHILIPS MEDICAL SYSTEMS 17%
- OTHERS 20%
- FUJIFILM MEDICAL SYSTEMS 4%
- CAMTRONICS MEDICAL SYSTEMS 4%
- HEARTLAB, INC. 5%
- UNDISCLOSED 8%
- SIEMENS MEDICAL SOLUTIONS 13%
- AGFA-GEVAERT GROUP 14%
- GE HEALTHCARE 15%

Approximately 32,000 Facilities were surveyed

Source: CapGemini

PHILIPS

Integrated Cardiology IT

Enterprise

ADT, Clinical Reports, Billing

Allura Xper

series

SONOS / iE33

series

Cath Lab Management

Image Management

Echo Lab Management

Results Distribution

Exam Worklist

Exposure data

Exam

Exam Worklist

Exam

Demographics

Results data

Images & Reports

Images & Reports Enterprise Distribution

HaemoSphere

Xcelera

WebForum
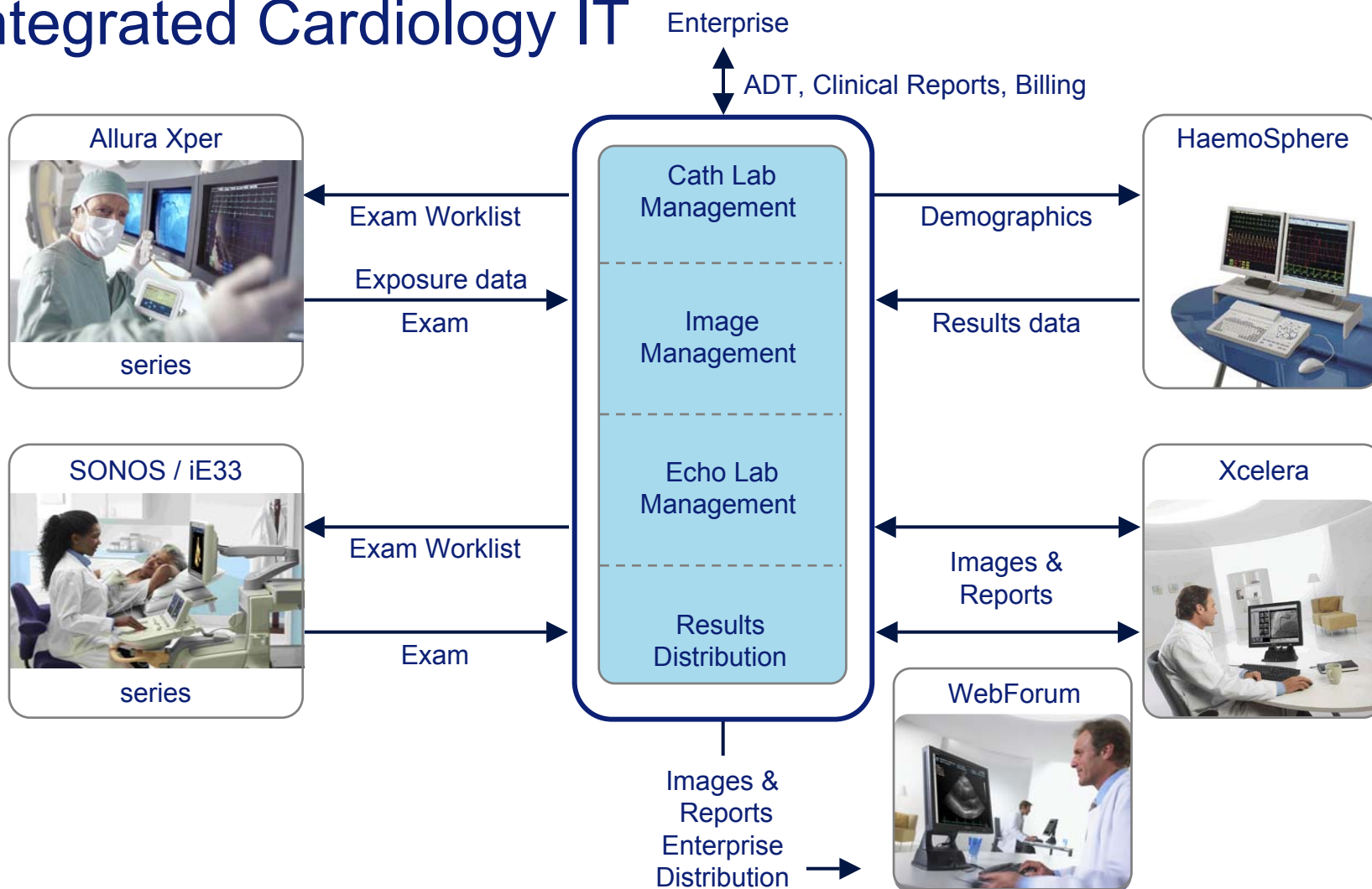
Optimizing the workflow of the digital cardiology department.

Xcelera Echo Lab Management

Integrated workflow is more than the sum of the components….

iE33
Ultrasound
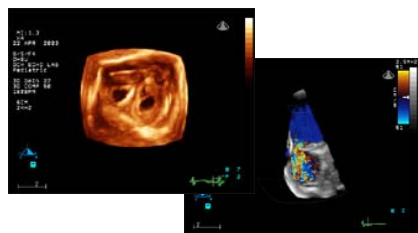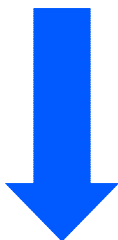
Xcelera
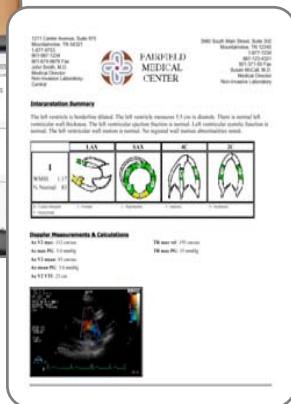
☑ Personalized Echo Reporting Workflow

☑ Automated labeled measurements transfer from the iE33 cart to the Xcelera database and to the report

☑ iE33 and Xcelera support for Live 3D and quantification system management is unique in the world
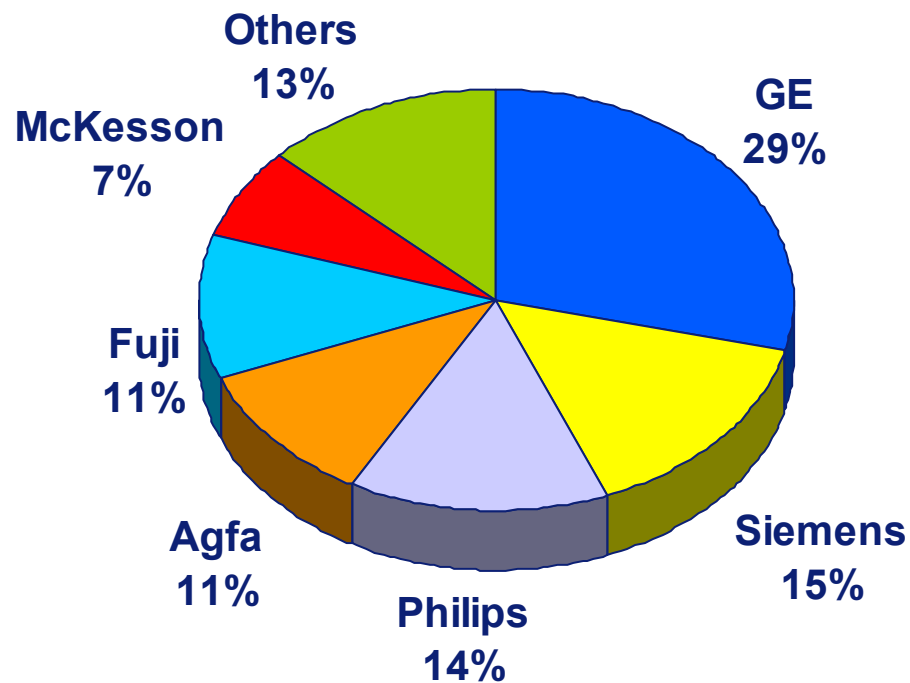
Xcelera Cath Lab Management
Integrated workflow is more than the sum of the components…

☑ Instant report generation from all data entered during cardio procedure

☑ Insert Xcelera image(s) from procedure for further quantification and processing

☑ Physician findings and conclusions can be added where required

☑ Create management reports,
- Supply usage, performed procedures
- Analyze workload
- Billing & inventory reports
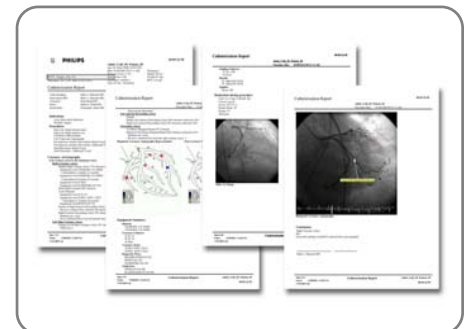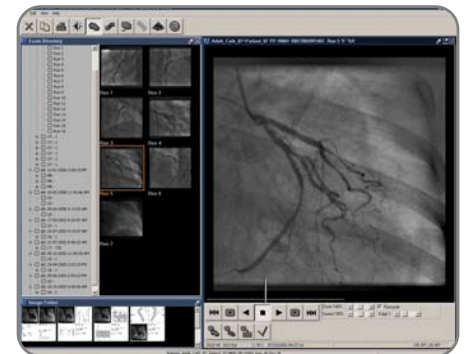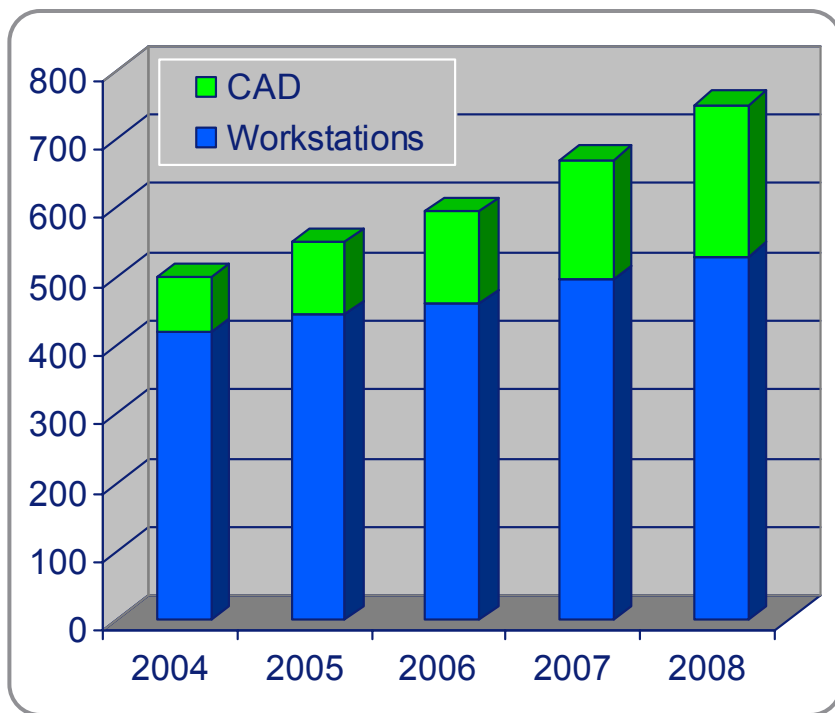
Radiology and Cardiology PACS market

Global PACS market 2004E: € 1.5 Bln
Global PACS market share, 2004E
Growth 9% per year

Pie chart — Global PACS market share, 2004E:
- GE 29%
- Siemens 15%
- Philips 14%
- Agfa 11%
- Fuji 11%
- McKesson 7%
- Others 13%

Legend: ■ GE ■ Siemens ■ Philips ■ Agfa ■ Fuji ■ McKesson ■ Others

Source: DrKW Equity Research
2005, Frost & Sullivan 2004

PHILIPS

# Clinical Image Processing Applications

Global Market (€ Mln.)

- Clinical image processing applications historically used close to the imaging equipment
- Multi modality applications requiring image fusion
- Trend to move applications towards PACS workstations
- Enlarged market: new applications for referring physicians
- Computer Aided Detection is a new class of applications:
  – Mammography: Breast Lesions
  – Lung Imaging: Nodules
  – Virtual Colonoscopy: Polyps

- 2004 Market: around € 500 Mln.
- Growing 11% during 2005-2008
- Philips market share ~ 10-15%

Legs osteotomy simulation

- Legs osteotomy: to change the orientation of the leg bones in such a way that the weight-bearing axis and the joint lines return to 'normal' positions

- The application allows to measure bone angles, plan the intervention and simulate the result

- The application also brings the results directly to the report
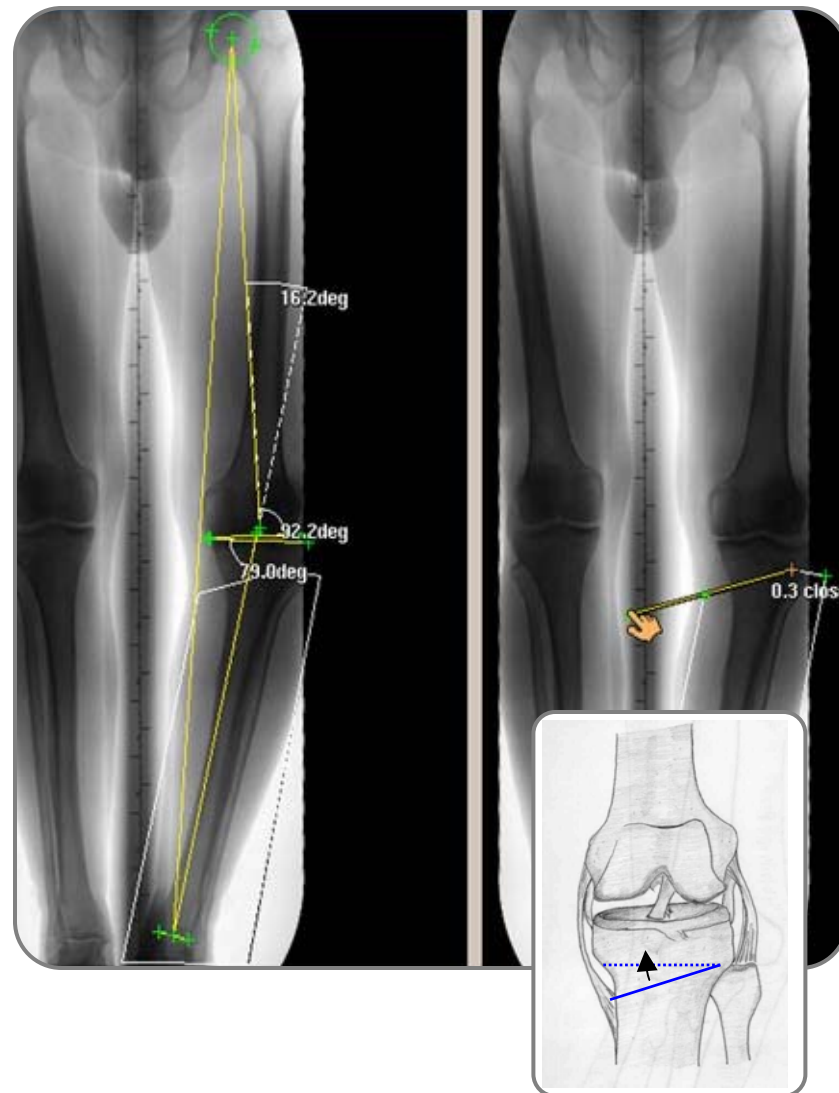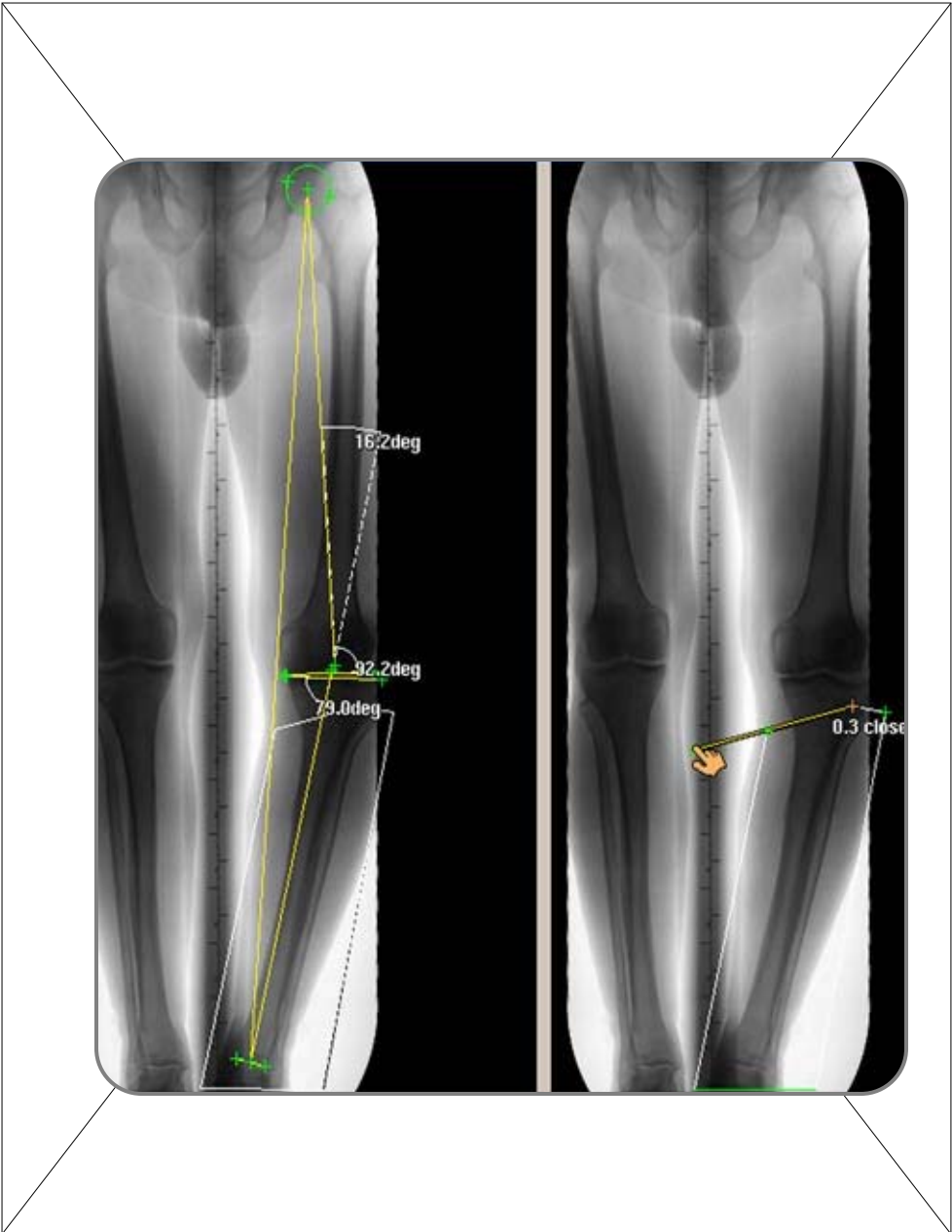
Leg Osteotomy Pre-Surgical Evaluation
Philips Orthopaedic Applications

PHILIPS

Patient name:	Legs 5	Medical record number:	...
Patient ID:	Legs 5	Referring physician:	-
Sex:	U	Study:	LEGS
Date of birth:	-	Study date:	7/18/2002

Analysis:

	Pre-operative measurements		Planned result measurements	
Angle (in deg.)	Right leg	Left leg	Right leg	Left leg
mTFA	8.0	-	1.4	-
mLDFA	83 (L)	-	83 (L)	-
mMPTA	-	-	-	-
Length (in mm)	Right leg	Left leg	Right leg	Left leg
WBA	1663	-	1669	-
mTA	-	-	-	-
mFA	903	-	903	-

Planned osteotomy on the right leg

	Wedge angle (in deg.)	Wedge base length (in mm)
-	8 (Open)	16.7
-	-	-

8° Open
16.7 mm

Planned surgical approach

Pre-surgical overview

Patient name: Legs 5   Patient ID: Legs 5

Planned surgical outcome simulation

Planned surgical overview

Conclusion:

Document approval:

Hospital name, department
Postal address
Phone/ Fax number   - page 1/2 -

Hospital name, department
Postal address
Phone/ Fax number   - page 2/2 -

Philips Medical Systems

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Healthcare IT: integrated, comprehensive and proven

Thank you for your attention!