IHE – Integrating the Healthcare Enterprise

Our contribution to connectivity across the continuum of care

www.siemens.com/IHE

SIEMENS

What is IHE?

Integrating the Healthcare Enterprise (IHE) is an international organization established in 1997 by the RSNA[1] and HIMSS[2] to improve the workflow and data sharing within and across care sites.

Why is IHE needed?

High-quality patient care and optimal clinical workflow require efficient access to all relevant clinical data across the continuum of care. Exchange of information between modalities and clinical IT systems from a variety of manufacturers is essential to achieve this goal. In spite of integration solutions available from many manufacturers, connecting systems from multiple vendors is a real challenge. IHE provides a common framework for building effective solutions to overcome interoperability problems.

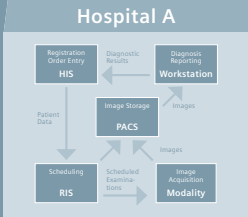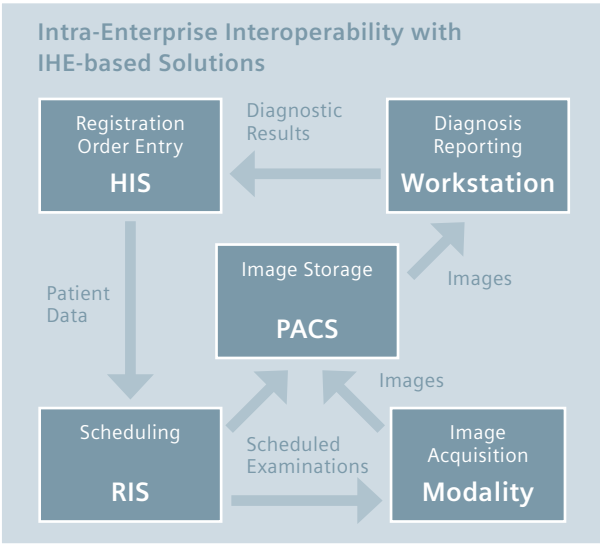## What challenges do hospitals currently face?

- Inadequate access to comprehensive medical information
- Lack of consistency in medical data between departments and institutions
- Errors in transferring medical data between systems from different suppliers
- Risky investments in proprietary solutions instead of expandable open systems
- Insufficient support of clinical processes and workflows
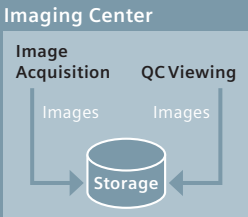
[1] RSNA: Radiological Society of North America
[2] HIMSS: Healthcare Information and Management Systems Society

IHE-enabled Integrated Healthcare
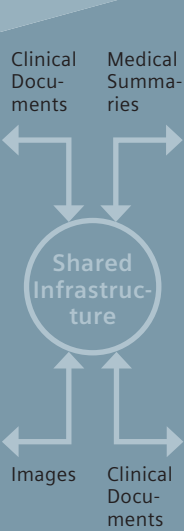
What is the goal of IHE?

IHE is working to refine the standards required to improve the exchange of data within hospitals and across a community of care, even in multi-vendor environments.
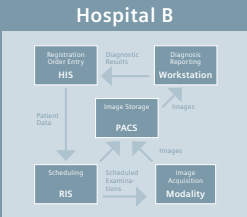
Intra-Enterprise Interoperability with IHE-based Solutions

Registration Order Entry **HIS**	Diagnostic Results	Diagnosis Reporting **Workstation**

Image Storage **PACS** — Images

Patient Data

Scheduling **RIS**	Scheduled Examinations	Image Acquisition **Modality**

Images

Hospital A

Registration Order Entry **HIS** — Diagnostic Results — Diagnosis Reporting **Workstation**

Patient Data — Image Storage **PACS** — Images

Scheduling **RIS** — Scheduled Examinations — Image Acquisition **Modality**

Intra-Enterprise Interoperability with IHE-based Solutions

Clinical Documents

Medical Summaries

Physician Practice

Access to patient information within a healthcare network

Imaging Center

Image Acquisition　　**QC Viewing**

Images　　Images

Storage

IHE-enabled Systems

Shared Infrastructure

Images

Clinical Documents

Hospital B

Registration Order Entry **HIS** — Diagnostic Results — Diagnosis Reporting **Workstation**

Patient Data — Image Storage **PACS** — Images

Scheduling **RIS** — Scheduled Examinations — Image Acquisition **Modality**

Intra-Enterprise Interoperability with IHE-based Solutions

How does IHE achieve its goal?

IHE promotes the coordinated use of established communication standards, such as DICOM and HL7, and bridges the information exchange between information systems and imaging systems. IHE describes clinical usage scenarios (IHE Integration Profiles) for a wide range of clinical specialties: radiology, cardiology, laboratory, radiation oncology, and more.
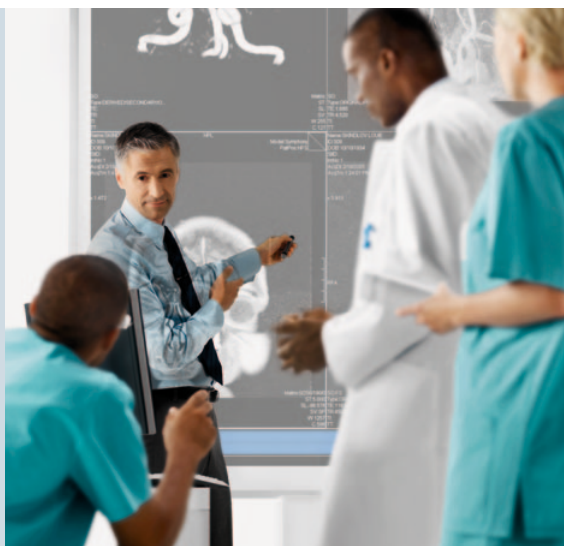
IHE provides additionally a platform for interoperability testing. These so called "Connectathons" allow vendors to validate interoperability of their systems.

What benefits does IHE provide?

• Provides the framework for building interoperable systems
• Reduced costs for systems integration and deployment
• Efficient exchange of patient data
• Optimized workflow processes
• Improved quality of patient care

Who supports the IHE initiative?

Clinical users, administrators, IT specialists, standards development organizations and the healthcare industry – including Siemens – all contribute to IHE.
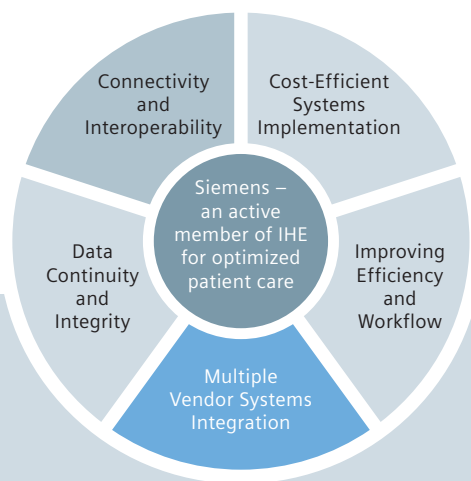
Regional IHE initiatives

Many countries have joined the IHE international organiza-
tion to promote the deployment of its global integration
framework in clinical practice. Among them: USA, Canada,
Germany, France, Italy, Great Britain, Scandinavia, Japan, and
many others. Additional countries are joining every year.
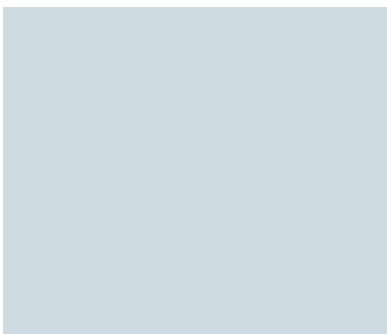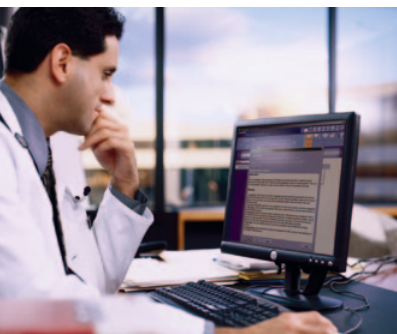
Siemens – a driving force behind IHE

Siemens has co-founded IHE and actively promotes interoper-
ability of modalities, imaging and information systems across
our solution portfolio. Siemens plays a key role in developing
and advancing IHE and the relevant healthcare standards.
Many experienced representatives are active members in IHE
committees and working groups.

IHE functionally in solutions from Siemens

Siemens is committed to implement IHE in products and
solutions and make interoperability a reality in hospitals
worldwide.

Up-to-date information about IHE functionality of our prod-
ucts and solutions can be obtained from
www.siemens.com/IHE

IHE interoperability in practice

Solutions from Siemens with IHE functionality have proven to be successful in daily clinical routine. Users are increasingly becoming aware of the benefits of IHE, and are making purchasing decisions accordingly. The best evidence can be found in the IHE user success stories.

IHE user success stories

Users around the world have presented in detail how they benefit from a smooth integration using products and systems from Siemens based on IHE.

USA
- IHC McKay-Dee Hospital, Ogden, UT
- VA Puget Sound Health Care System, Seattle, WA
- Cleveland Clinic Foundation, Cleveland, OH
- Bethesda Healthcare Systems, Boynton Beach, FL
- Warren Hospital, Phillipsburg, NJ
- St. Vincent Hospital, Indianapolis, IN
- Mayo Clinic Jacksonville, FL

Germany
- Klinikum Nürnberg-Nord, Nürnberg
- Klinikum der Johannes Gutenberg-Universität, Mainz
- Städtisches Klinikum, Görlitz

France
- Centre d'Imagerie Médicale de l'Ouest Parisien, Val d'Or
- Centre Hospitalier d'Arras

Italy
- University of Pisa, Pisa

IHE information on the internet

Find out more about IHE, user success stories
and Siemens Healthcare at:
www.siemens.com/IHE

IHE contact at Siemens:
ihe.healthcare@siemens.com

Visit the web sites of the IHE organization:
IHE (www.ihe.net)
IHE Europe (www.IHE-Europe.org)

Live demonstrations of IHE

You can experience IHE first-hand at trade shows and
annual meetings like the RSNA, HIMSS or ACC, where
Siemens provides hands-on information and demonstra-
tions of IHE. For up-to-date information on these events,
check the above links.

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