Siemens Healthineers
Press Conference

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Global healthcare systems are mainly influenced by demographic shift and growing chronic disease burden.

Life expectancy¹ worldwide

- **69 years**
  - people born 2005 - 2010
- **76 years**
  - people born 2045 - 2050
- **83 years**
  - people born 2045 - 2050
- **75 years**
  - people born 2045 - 2050

Emerging countries:
- **76 years**
  - people born 2045 - 2050
- **83 years**
  - people born 2045 - 2050

Contribution of chronic disease to global burden³

- **46%**
  - 2001
- **57%**
  - 2020

People killed p.a. by chronic diseases³

- **38 mio**
  - 2012
- **52 mio**
  - 2030

Major chronic diseases²:
- Cardiovascular, Cancers, Respiratory, Diabetes

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1. United Nations, Department of Economic and Social Affairs, Population Division, 2013
Global dynamics in Healthcare

Healthcare Trends
- Consumerism
- Demographic shift
- Population growth
- Rapid scientific progress
- Staff shortage
- Shift to value-based reimbursement
- Growing chronic disease burden
- Increasing cost pressure

Transformation of Healthcare Providers

Consolidation
Building the critical mass

Industrialization
Doing more with less

Managing Health
Value-based healthcare
Trends of consolidation, industrialization and managing health also accelerate in Europe and in Middle East

**Germany / Spain:** Helios acquires Quiron Salud building largest hospital network in Europe

**UK:** Cleveland Clinic plans to build hospital in London following up on Abu Dhabi

**Turkey:** Acibadem running > 20 hospitals, expanding on Balkan

**Turkey:** Driving private invests in up to 30 PPP hospitals with renewal of over 30.000 beds

**South Africa / UK:** Life Healthcare takes over Europe/UK Radiology provider Alliance Medical

**Germany:** Sonic Healthcare buys German lab networks Staber and Med Labor Bremen

**Europe:** affidea acquires over 50 imaging centers in Romania & Spain, now operating nearly 250 centers

**UAE:** MoH driving outsourcing of Radiology and Lab services and standardization of IT landscape

**UAE / South Africa:** Mediclinic acquires majority stake in Life Path Health after acquiring Al Noor hospitals

**Saudi Arabia:** Announces Vision 2030, National Transformation Plan and details concept for private sector participation in healthcare
In a transforming environment, Healthcare providers expect us to evolve from a product vendor to a trusted partner.
Innovations transforming departments and healthcare pathways across the hospital network

- Diagnostic confidence at the point of care
- Highest diagnostic quality and efficiency
- Fast triaging
- Clinical and workflow excellence in the lab
- Efficient monitoring of chronic diseases
- Customized care for specific patients & disease
- Safe and effective min. invasive therapies
- Precise state-of-the-art radiation therapy
Imaging and in-vitro testing aims to identify disease early, to guide therapy and to reduce cost of healthcare delivery.
Medical evidence and clinical value proposition drive technology innovation, e.g. Cardiac CT

Invention

2002: 16-Slice Cardiac CT: 15-20s, 5-10 mSv

2015: Dual Source Cardiac CT in Chest Pain Unit: < 1 s, < 1 mSv
Medical evidence and clinical value proposition drive technology innovation, e.g. 3T Brain Diffusion MRI

- Randomized clinical trials
- Prospective controlled studies
- Retrospective controlled studies
- Case Series and Other
- Case Report / Expert Opinion

Invention

2005: Slice-by-slice 3T Diffusion MRI for research in healthy volunteers

2017: 3T whole-brain Diffusion MRI < 2 min in clinical practice

EVIDENCE FOR VALUE

Technical Efficacy
Diagnostic Accuracy
Diagnostic Efficacy
Therapeutic Efficacy
Outcome Efficacy
Societal Efficacy
MEDICAL VALUE

S10(k) pending. The product is still under development and not commercially available yet. Its future availability cannot be ensured.
Innovating clinical pathways means optimizing processes and outcomes with Radiology as the navigator.

- **Early and personalized diagnosis**
- **Diagnosis & prognosis**
- **Monitoring**
- **Therapy decision**
  - Planning
  - Simulation
- **Radiology – the navigator**
- **Therapy guidance**
Radiology to become a centerpiece of data-driven health management. Make big data to smart data – with teamplay.
Partnerships with clinical research institutes are key to translate technology innovations into clinical value

**DKFZ Heidelberg**
- Personalized Oncological imaging and diagnosis
- MR/PET and PET/CT with specific tracers (e.g. Ga-PSMA)
- MR-image guided ablation with focused Ultrasound

**Med Univ. Vienna**
- Clinical translation of 7 Tesla MRI
- MR/PET for Oncological staging
- Cardiovascular CT imaging and data management

**Univ. / MPI Tübingen**
- R&D collaboration on MRI, CT and PET technology, incl. pre-clinical imaging
- MR/PET for Oncological staging and Cardiac disease
- Cardiovascular CT imaging and data management

**Univ. Spital Basel**
- CT dose and MR protocol management (teamplay)
- Departmental CO-2 and energy saving
- Structured reporting, and imaging data analytics

**Univ. MC Groningen**
- 15 year partnership for state-of-the-art imaging equipment
- Outcome research on lung cancer screening and CHD risk factors
- Data analytics for imaging and lab data
A world-leading MR partnership since 1985: University Hospital Tübingen and Siemens Healthineers

Worlds’ first whole-body TIM MR (MAGNETOM Avanto)

Worlds’ first clinical brain PET/MR

Worlds’ first simultaneous whole body MR/PET (biograph mMR)

Worlds’ first Biomatrix MR (MAGNETOM Vida')

R&D Collaboration Frame Agreement (> 150 individual Project Agreements)

Service Frame Agreement

Technology Frame Agreement

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Now’s time to inspire the future of healthcare