

# Progetti Innovativi

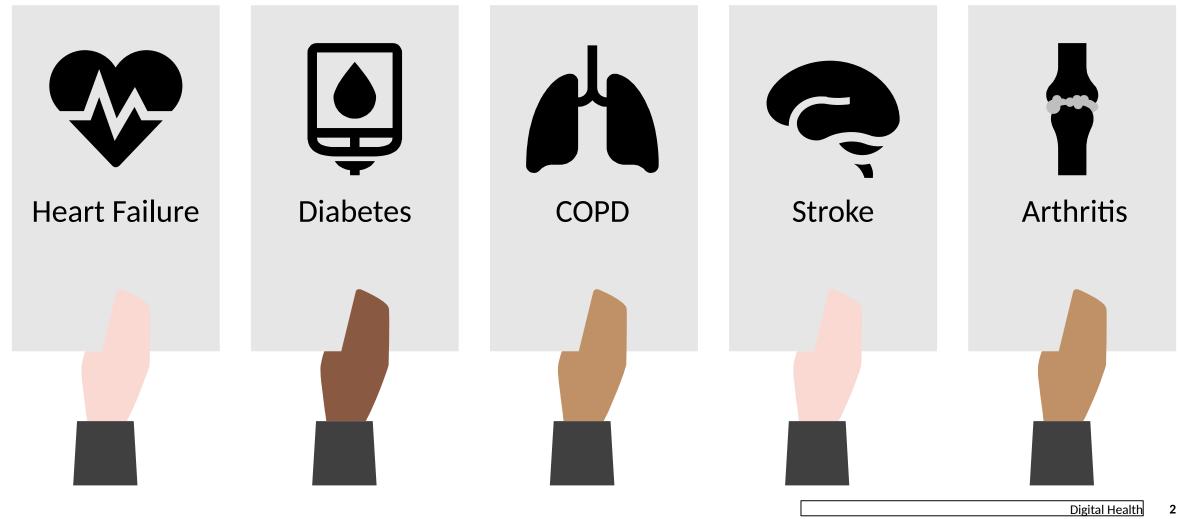
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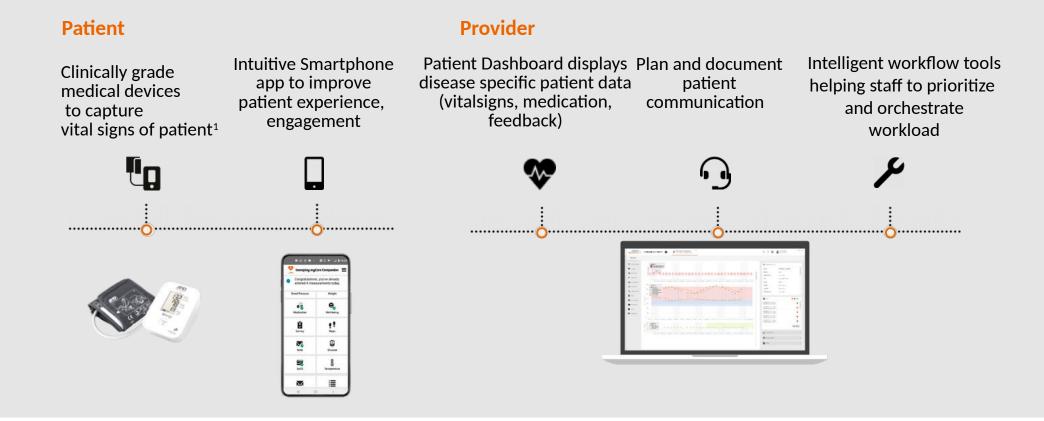
### Progetti innovativi per gestione delle cronicità





# Soluzioni per monitoraggio, assistenza ed engagement dei pazienti





# Progetto di gestione di pazienti con scompenso cardiaco: Bad Oeynhausen (Germany)



#### **Value Partnerships**



Heart and Diabetes Center North Rhine-Westphalia, (HDZ NRW), Bad Oeynhausen, Germany

With 35,000 patients per year, including 14,000 inpatients, HDZ NRW is one of Europe's leading specialist hospitals, and its largest center for heart transplants.

#### Challenge

#### Increase patient satisfaction

Improve care for heart failure patients and reduce hospital stays

#### **Enhance patient outcomes**

Provide continuous remote care to significantly slow the progress of disease

#### Leverage digitalization

Enable patients to manage their own disease via an app for a better quality of life

#### Solution

- The telemedical car program HerzConnect\* as part of a technology partnership is aimed at health insurance companies that want to offer improved care for patients with chronic heart failure
- The contract includes all technical components e.g. mobile measuring devices, like mobile ECG, blood pressure meter, and scales, as well as a specifically developed app and software
- Mobile measuring devices record selected vital signs and parameters around the clock and provide automated feedback to patients, as well as needs-based contact from the medical specialists at HDZ NRW

#### Value contribution

1 Partner













who is responsible for the entire technical component, including logistical aspects

Improve care for heart failure patients and reduce unplanned hospital stays

Engaged patients, faster response times, and care in accordance with guidelines

## Progetti innovativi di Consulting Il nostro team di consulenti dedicati alla Sanità

#### **Value Partners for Healthcare Consulting**



**Globally active on 7 continents** 



> 500 successful projects



>100 consultants worlwide (and growing)

#### **Clinical Operations**

Clinical operations consulting in close collaboration and alignment with **specialists** from the operations field.

Our team members bring their specific clinical and operational expertise, especially paired with medical background (physicians, nurses, etc.)

#### **Project focus:**

- **Process consulting** in clinical specialties and competencies
- Lean Transformation
- Operational efficiency in provision of medical services
- Workflow simulation
- Layout optimization
- Support in implementation of medical strategies

#### **Strategy & Finance**

**Strategy consulting** in close collaboration with the hierarchies:

- Management
- Department
- Procurement

Our team of **economists and digital experts** is equipped with a profound consulting knowledge from projects in the healthcare sector

#### **Project focus:**

- Consulting (business and medical strategy)
- Digital strategy
- Master planning and reorganization of hospitals
- Market, asset and capacity & demand analysis
- Creation of business cases

#### **Digital & Transformation**

- Siemens Healthineers, esp. Medical systems
- Siemens Healthineers Enterprise Services
- Siemens Financial Services

- Siemens Digital Health & Healthcare IT
- External partners from the industry
- External partners for research

- Customers of Value Partners
- Customer ofs Siemens Healthineers, esp. Hospitals,
   Medical Service Centers, Lab providers, etc.



# Progettare una struttura sanitaria richiede attente valutazioni di facility design, procurement, staffing e management













#### **1** Project Baselining

### 2 Architectural Design

- 3 Staff Requirements
- 4 Equipment Planning

# 5 Activation Management

- Aims & vision
- Site evaluation
- Local requirements and legal framework
- Budget constraints
- Points of contact
- Functional program
  - Levels of care
  - Supporting functions covered
- Administration
- IT concept

- Functional diagram
- Infection prevention and control measures
- Architectural layout
- Workflow visualizations
- Interaction with EPC for module design (container, tents)
- 3D visualization

- Organizational structure
- Medical staff per function
- Support staff
- Shift schedule
- Communication map

- Medical equipment recommendations
- COVID-19 specific consideration on consumables and medication
- List of quantities
- Specifications
- Prioritization
- Monitoring recommendations

- Project management and coordination
- Implementation plan
- Activation core team and command center
- Key communications
- Facility activation oversight tools

**Clinical concept** 

**Layout drawings** 

**Staffing structure** 

**Procurement list** 

**Implementation** 

# Digitalizing healthcare: Optimizing operations through digital modeling



#### **Consulting & Transformation | Design Planning**



#### Mater Private Hospital, Dublin, Ireland

"It was amazing watching our 2D plans transform into 3D and then 4D reality. Thanks to our digital twin, we now have the best possible configuration for our department."

Assoc. Prof Paddy Gilligan, Chief Physicist & Registered Radiation Protection Advisor

#### **Challenge**

#### Increase efficiency

Optimize workflows while accommodating growing patient demand

#### **Ensure high-quality care**

Implement modern equipment due to rapid advances in medical technology

#### Improve patient experience

Reduce rising waiting times, interruptions and delays

#### Solution

- Workflow Simulation and Digital Workflow improvement delivered by our Value Partners for Healthcare Consulting: Layout re-design, process analysis and on-site assessment were combined to build this 3D computer model of the radiology department
- Various scenarios and modifications were simulated to identify the best configuration based on selected performance indicators, predicted outcomes and customer strategic focus
- With those insights we supported the customer to shape its future operations in the most efficient way

#### Value contribution









**+32%** MRI usage

-50 min

Less MRI staff overtime/day, representing potential annual cost savings of €9,500\*

-34 min

Lower MRI patient turnaround time (arrival to departure)

# Transforming care delivery: Upgrading technology affordably and profitably



#### **Value Partnerships**



#### VieCuri Medical Center, Venlo and Venray, Netherlands

"Having Siemens Healthineers as a strategic partner gives significant advantages to our technology fleet regarding innovation and user experience. In addition, the immediate availability of the on-site technician is adding a lot of value to the workflow of healthcare delivery."

Dr. G. A. Hoffland, Radiology Department, VieCuri Medical Center









#### Challenge

#### Increase efficiency

Increase productivity in the delivery of high quality patient care

#### Standardize care

Continuously monitor performance, and provide transparency and reporting

#### Improve quality of care

Maintain innovative technology fleet and optimize patient safety

#### **Solution**

- The 10-year Value Partnership includes: Provision, maintenance, upgrade, and replacement of 40 innovative medical systems for radiology, nuclear medicine and cardiology while ensuring predictability of technology investment cycles
- On-site technical management, leading to more efficient workflows and increased workforce productivity
- Management solutions to improve operations: Financial and performance reporting, tailored education programs, introduction of an technology utilization management system

#### Value contribution

+100

Additional MRI exams per month due to effective allocation of capacities

\$1.7 M

Total savings on operational costs expected over partnership lifetime



Radiation dose reduction in abdominal scans by process & protocol improvements

# Transforming care delivery: Increasing competitiveness and boosting capacity



#### **Value Partnerships**



#### Zaans Medisch Centrum (ZMC), Amsterdam, Netherlands

"The Value Partnership provides us with important benefits. The educational program is a highly valuable aspect. The on-site manager, utilization management and project management systems have also increased workforce productivity."

Natascha Drent, Head of Radiology, ZMC









#### Challenge

#### Increase efficiency

Realize holistic workflow improvements and optimize care delivery

#### Improve profitability

Take suitable measures to meet the intensive cost pressure in healthcare

#### **Extend clinical capabilities**

Empower clinicians to deliver excellent patient care by providing latest technology

#### **Solution**

- 13-year Value Partnership for Technology Management: provision of state-of-the-art medical technology as well as maintenance services, upgrades, replacements and on-site operational management
- Optimization of clinical operations through co-design of the new hospital building, implementation of an tailored education program, and a contractual basis for financing the new building
- Introduction of IT process to improve process management (incl. technology utilization and dose monitoring)
   as well as Consulting & Transformation to improve the patient throughput

#### Value contribution

100%

Achievement of committed uptime for technology

-\$150k

Decrease of annual spendings due to a profitable annual pricing fee

+25%

Increase of CTs/month based on the insights of the utilization management

# Improving patient experience: Designing a hospital around the people it serves



#### **Value Partnerships**



### Helse Stavanger University Hospital - New hospital "SUS2023", Stavanger, Norway

"We had the feeling that the proposed reduction of the radiology floor space would cause major operational problems. Siemens Healthineers provided us with the right arguments to enforce the required layout adjustments. We are well prepared for the future."

Hans Tore Frydnes, Head of Diagnostics, Helse Stavanger









#### Challenge

#### **Expand clinical capabilities**

Create pathway-oriented layout and locate all department facilities under one roof

#### Increase staff satisfaction

Close involvement of the users to reflect their requirements regarding the environment best

#### Assure future viability

Establish a forward-looking facility with room to grow that fits today and tomorrow

#### Solution

- One-year Operational Performance engagement with our Value Partners for Healthcare Consulting
- Redesigning of the diagnostic radiology, interventional radiology and nuclear medicine layout in close collaboration with the Helse Stavanger staff based on process mapping, market development study, stakeholder interviews, and iterative layout review
- Development of optimized layout with the final recommendation to significantly extend the building in order to enable future growth

#### Value contribution



Revised design will accommodate projected future need for expansion



Improved staff satisfaction through engagement in the design creation process



Optimized layout optimizes workflows, processes and patient experience

# Transforming care delivery: Entering into a new era for managing patient relationship



#### **Value Partnerships**



#### Red Cross Hospital, Lisbon, Portugal

"The focus will be on clinical results that are relevant to each patient, so that a great experience is guaranteed, sustained by the humanism that characterizes the Red Cross brand." Siemens Healthineers will help "in the path of excellence and high technology".

Teresa Magalhães, Chairwoman of Executive Committee









#### Challenge

#### **Increase patient satisfaction**

Deliver great patient experience by improving relevant clinical results.

#### Leverage digitalization

Provide innovative services to increase clinical quality and proximity to the patient.

#### Improve patient outcomes

Focus on patient follow-ups to prevent the growing risk of cardiovascular diseases.

#### **Solution**

- 10-year Value Partnership for technical design, implementation and operation of the new heart center
- Solution includes advanced imaging and interventional technology, healthcare IT solutions as well as maintenance and technology evolution plans. Transformation & advisory services and a change management program are further covered
- Focus is set on clinical and value-driven innovations, e.g. digital solutions for telemonitoring

#### Value contribution

### 10 Years

Value Partnership focusing primarily on patient satisfaction

### Health 4.0

Optimized care and personalized treatments through telemonitoring

### Care continuum

eHealth solution enables precise follow-ups and full transparency for patients

# Transforming care delivery: Leveraging holistic Technology Management and Performance Improvement



#### **Value Partnerships**



### Kingston Hospital NHS Foundation Trust, Surrey, South West London, United Kingdom

"This Value Partnership is the best thing that has ever happened to this radiology department bar nothing."

James Weir, Radiology Manager, Kingston Hospital NHS Trust

#### Challenge

#### Improve profitability

Overcome the growing budget deficit and restrictions on capital projects

#### **Optimize efficiency**

Create transparency on performance and provide appropriate IT-solutions

#### **Enhance patient care**

Meet technology standards & safety issues by implementing an equipment roadmap

#### Solution

- Value Partnership for Technology management at the radiology department with an embedded radiology Performance Improvement program, including the installation of a monitoring dashboard
- The contract covers procurement and provision of high quality imaging technology, optimized maintenance and service delivery
- Optimization of radiology department design to improve workflows and enhance patient experience
- Performance Optimization to increase efficiency of diagnostic processes, e.g. "referral-to-report" process

#### Value contribution









-63%

Booking time dropped from of 22 days to 6 days

-97%

Staff sick days decreased and retention increased

Zero

PALS\* complaints

### **Contatto**



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