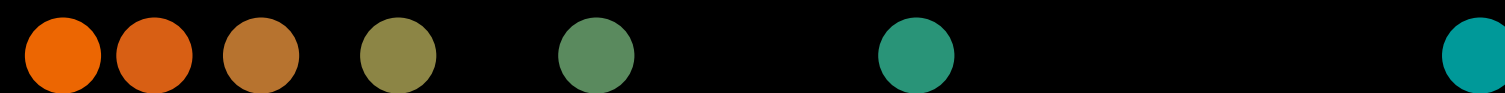


Value Partnerships in Southeast Asia

Innovating care delivery in a diverse region

siemens-healthineers.com/value-partnerships



“Southeast Asia largely represents an emerging and dynamic market with new infrastructure and investors. Health systems in these countries value simplicity, especially with solutions organized through a single point of contact and tailored to the organization – because there is no one-size-fits-all approach.

Our Value Partnerships bring a wealth of expertise to the region to provide access to care with innovative technology, digital health solutions and consulting services. Our partners in the region benefit from our global experience in creating and promoting best practices on both, clinical and operational sides. We are happy to make this knowledge transfer and help our partners reach their goals.”

Fabrice Leguet, Managing Director of Siemens Healthineers Southeast Asia





The Southeast Asia region is made up of 11 countries in varying stages of economic development. Southeast Asia is home to a variety of health systems and opportunities for care innovation. Siemens Healthineers has formed multiple Value Partnerships with healthcare organizations in the region. In the following case studies, we will explore the challenges and opportunities these diverse countries face and profile four innovative institutions:

Each of these providers has leveraged enduring Value Partnerships to improve clinical and financial outcomes and enhance the patient experience – and they have already made progress towards their goals. Value Partnership portfolios deliver healthcare organizations expertise across four key Value Drivers: Technology, Operations, Workforce, and Facility.

These focus on specific domains within healthcare enterprises, while our Excellence Drivers – Strategic Transformation and Digital Innovation – promote holistic, transformative initiatives across the entire enterprise.

Siemens Healthineers works with healthcare organizations to form and develop Value Partnerships based on mutual trust and shared values and objectives – all key elements to productive long-term professional relationships.



The Southeast Asian healthcare landscape

The region Southeast Asia is inhabited by more than 650 million people – approximately 9% of the world's population. With 11 individual countries represented in Southeast Asia, each population faces a variety of mutual and individual challenges.¹

Although many countries in Southeast Asia have public healthcare systems in place, universal access is still in its early stages. Chronic diseases represent about 70% of the disease burden affecting the region's large, aging, and increasingly affluent population, so there is an increased demand for quality care. To meet this demand, private healthcare is on the rise.² Below, we will focus primarily on healthcare in Malaysia, Vietnam, Indonesia, and the Philippines.

Malaysia has the third-highest purchasing power in Southeast Asia. Its healthcare system is split roughly evenly between public and private services. The government recently allocated funds for health and medical development, including new hospitals, medical technology, and public-private partnerships.³

Vietnam's economy is growing, with middle class and affluent populations now making up more than a quarter of its total population.⁴ It has a public-private health system, but most care facilities are public hospitals – many of which face challenges related to capacity and technology.^{4,5} The country requires more accessible facilities, state-of-the-art technology, and expert providers to better serve its population.

With more than 270 million people, Indonesia has the fourth largest population in the world and the largest population in Southeast Asia.^{6,7} The nation supports a growing public healthcare system, but public hospitals lag behind private facilities in terms of staffing, resources, equipment, and laboratory services.^{7,8} Similarly, the Philippines' economy supports a universal healthcare program, PhilHealth, but private insurance is also offered.^{9,10} Like Indonesia, the services offered by private hospitals and large public hospitals in major Filipino cities tend to be more robust than smaller and more rural facilities.⁸

Siemens Healthineers has the expertise and resources to meet the growing needs of the Southeast Asian public and private healthcare markets. By entering into a Value Partnership, healthcare organizations can optimize operations, unlock monetary value, expand capabilities, advance innovation, and ultimately improve patient care. With six offices and about 1,100 employees serving Southeast Asia, Siemens Healthineers is fully prepared to serve these health systems.



Co-creation with a trusted partner

Value Partnerships founded on knowledge and trust

Siemens Healthineers Value Partnerships are long-term, performance-oriented, collaborative relationships, uniquely centered around co-innovation to address specific customer needs. We provide end-to-end solutions tailored to organizational needs, with medical technology expertise from our local and global colleagues and shared insight and capabilities from all parts of the Siemens Healthineers group of companies, including Varian Advanced Oncology Solutions (AOS) and ECG Management Consultants.

Our Value Partnerships bring a combination of clinical insight, medical technology innovation, strategic vision, implementation expertise, and operational excellence to the table. And because we operate within this partnership model, you can trust that we are as invested in your success as you are – because your goals are our goals.

The customers profiled below have a wide variety of goals – streamlining technology management, closing gaps in access to care, improving staff education, expanding service offerings, driving excellence, and improving patient experience – but they are all motivated by the same underlying need to deliver high-quality, financially sustainable care for their patients.



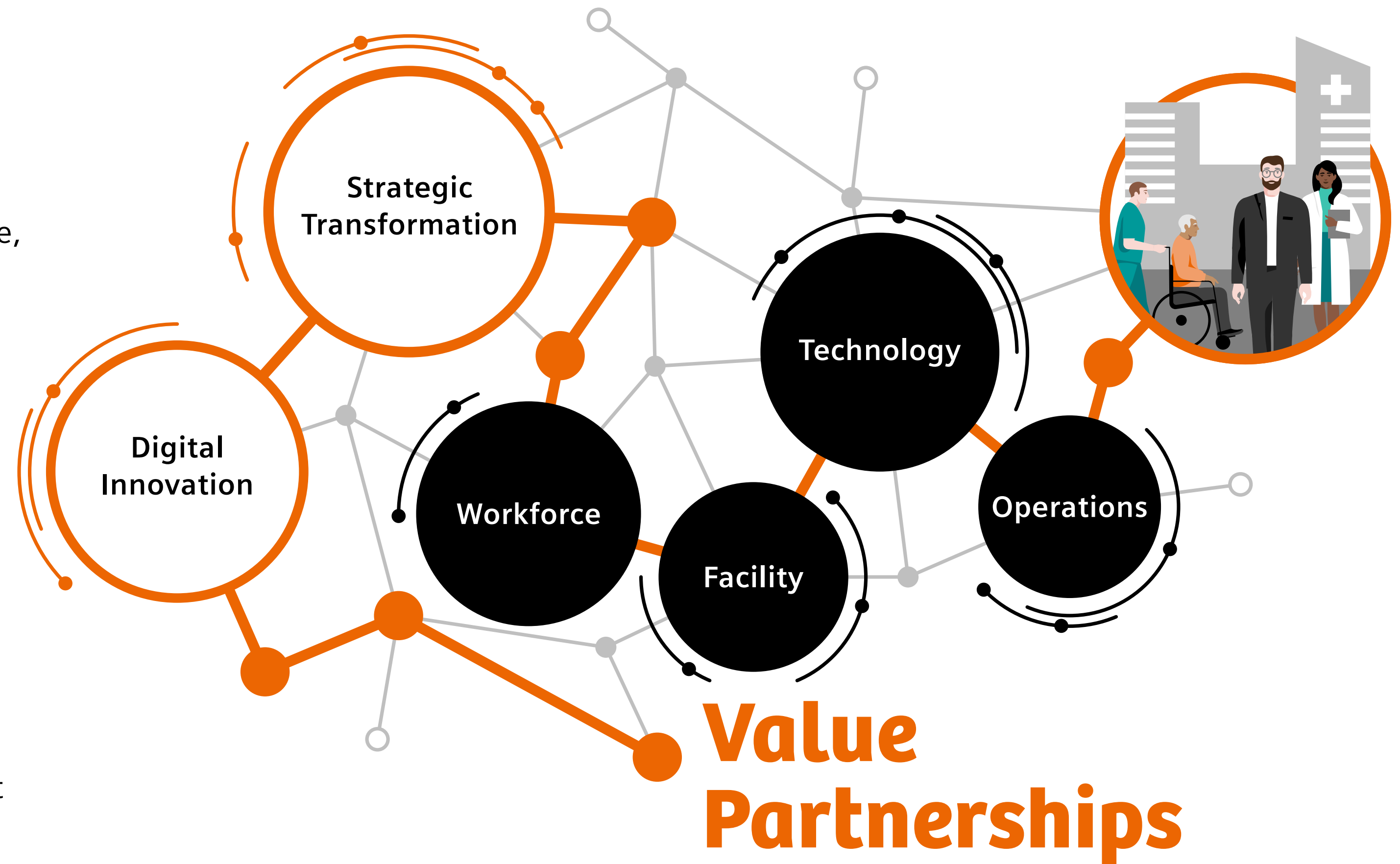
Siemens Healthineers has a robust portfolio of services available under the Value Partnerships umbrella. Value Partnerships use four Value Drivers, which focus on specific domains within healthcare enterprises, to drive performance, efficiency, and innovation:

- Technology
- Operations
- Workforce and
- Facility

Value Partnerships also leverage two Excellence Drivers, which are holistic, transformative initiatives that can apply across multiple domains:

- Strategic Transformation and
- Digital Innovation

Always with you, your patients and community at the heart of everything we do.



**Value Partnerships encompass consulting services,
to achieve excellence along your entire enterprise life cycle**



Value Creation

Assisting you in creation of value by supporting you in M&A advisory, greenfield planning projects and activation consulting

Clinical Centers of Excellence

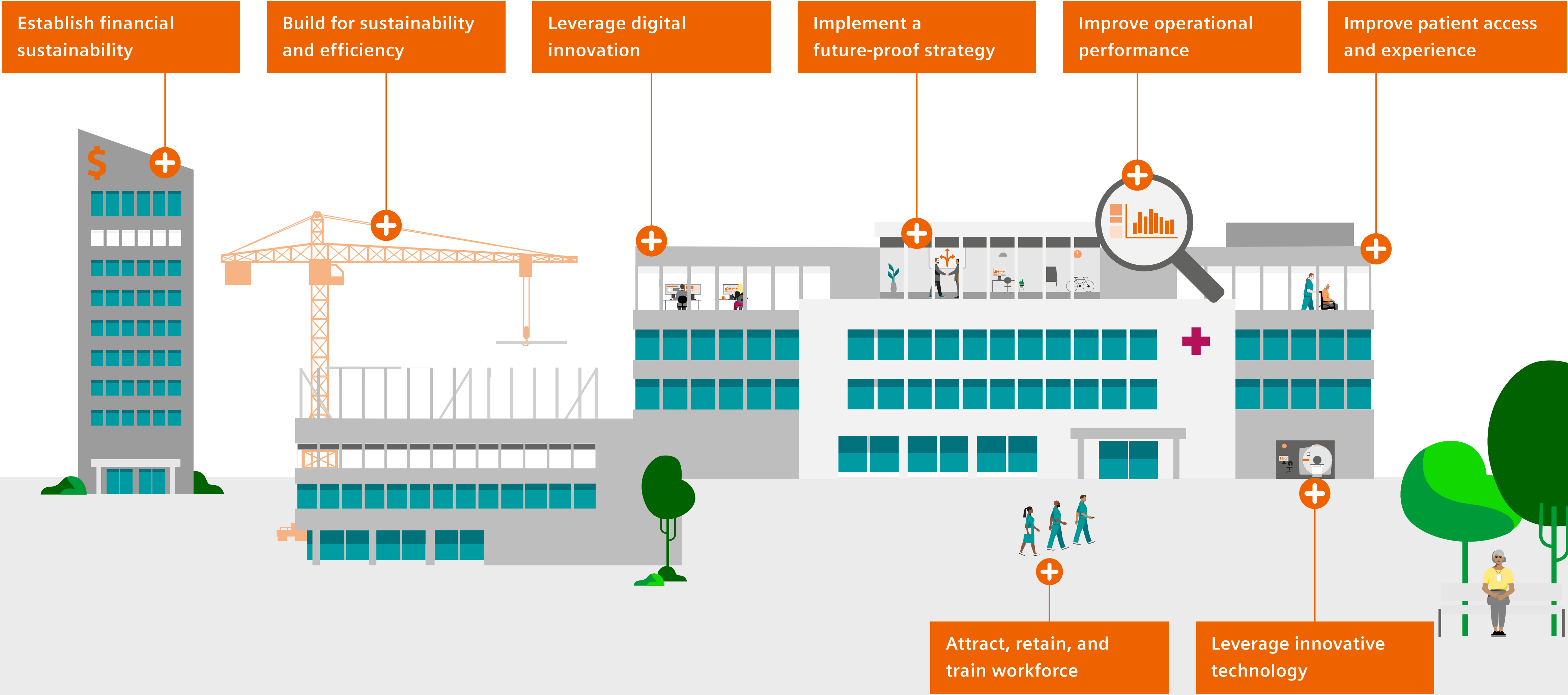
Enabling enhancement of healthcare delivery at selected departments and forming centers of excellence with an extended catchment area

Operations Consulting

Supporting optimization of medical technology and performance improvement of selected service lines through asset planning, lean-based processes, pathway streamlining, and workforce management

Digital Transformation & Implementation

Supporting digitalization of healthcare and implementation of digital solutions with comprehensive IT management consulting and process mining



Value Partnerships success stories

Excellence in action

- HMI Group, Malaysia and Singapore
- Stroke International Services, Vietnam
- Jakarta Heart Center, Indonesia
- AC Health, Philippines



HMI Group

Driving excellence in oncology,
cardiovascular diseases and neuroscience



Value Partnership summary

HMI Group, Malaysia and Singapore

Public/private:

Private

Value Partnership start

2021

Duration of Value Partnership

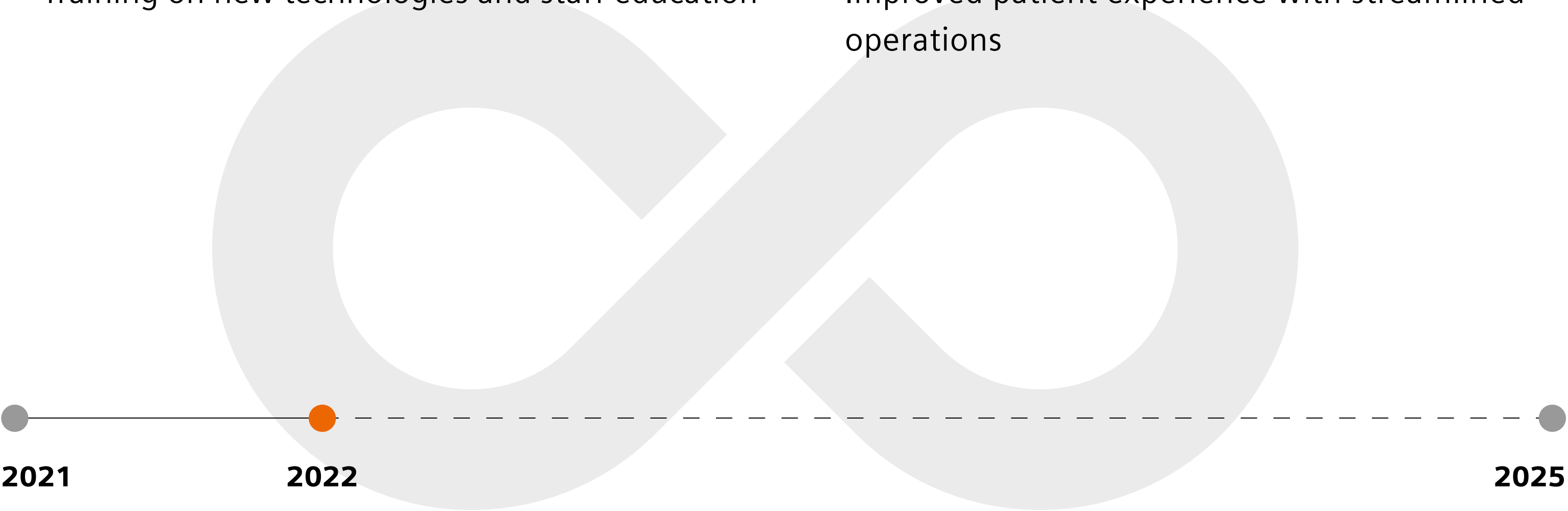
5 years

Key services

- Patient experience and care delivery improvement
- Guided development of the oncology, cardiovascular and neuroscience Centers of Excellence
- Equipment replacement and technology management for improved utilization
- Training on new technologies and staff education

Expected benefits

- Optimized workflows and equipment utilization to increase patient capacity
- Further establishment of oncology, cardiovascular and neuroscience Centers of Excellence
- Enhanced patient outcomes with comprehensive clinical capabilities
- Improved patient experience with streamlined operations



By 2030, Asia will also host 60% of adults over 65 years old in the world.¹¹ In Southeast Asia, non-communicable diseases like cancers are responsible for 62% of all deaths.¹² The need for efficient and effective healthcare solutions in the region for oncology, cardiovascular diseases, and neuroscience is unprecedented.

HMI Group is a private regional healthcare provider with locations in Singapore, Malaysia, and Indonesia. The organization recently entered a 5-year Value Partnership, which includes the further development of oncology, cardiovascular, and neuroscience Centers of Excellence. The united expertise of Siemens Healthineers, Varian, and ECG Management Consultants has helped to support this collaboration. Siemens Healthineers offers HMI a wealth of experience with diagnostic technology, innovation capabilities, strategic and operational consulting, project management, and guidance in further developing Centers of Excellence.

The HMI Value Partnership includes technology for diagnosis and treatment, such as imaging and radiation therapy, as well as marketing support and staff education. Additionally, a capacity optimization program powered by teamplay performance management applications provides a clear overview of clinical and operational performance data.¹³ Teamplay allows for optimized equipment utilization and patient workflows.¹⁴

As part of HMI Group, Mahkota Medical Centre and Regency Hospital in Malaysia are prioritizing patient experience with high-quality care in oncology, cardiovascular, and neuroscience specialties. With this performance-oriented partnership, HMI group aims to further enhance its reputation and increase access to quality patient care. The HMI care facilities have expanded their catchment areas, upgraded to more state-of-the-art medical technology, significantly enhanced their oncology Center of Excellence and are now in the process of further developing the neuroscience one.¹⁵



“Our vision is to be a leading healthcare group in Asia committed to providing excellence in medical care and healthcare education. As we grow, building trusted partnerships is important. We are pleased to work with Siemens Healthineers as part of our vision to drive patient centered innovation and care.”

Chin Wei Jia, Group CEO of HMI Group



Improved access to care based on trust and partnership

Siemens Healthineers worked side-by-side with HMI Group in a trusted partnership to develop Centers of Excellence around the oncology, cardiovascular and neuroscience programs. In addition to improved patient experience and outcomes, technology management, and staff education services, this Value Partnership fosters innovation within the hospital group and helps attract patients from across the Southeast Asian region.

Stroke International Services

Accessing care when
time is critical



Value Partnership summary

Stroke International Services, Vietnam

Public/private:

Private

Value Partnership start

2021

Duration of Value Partnership

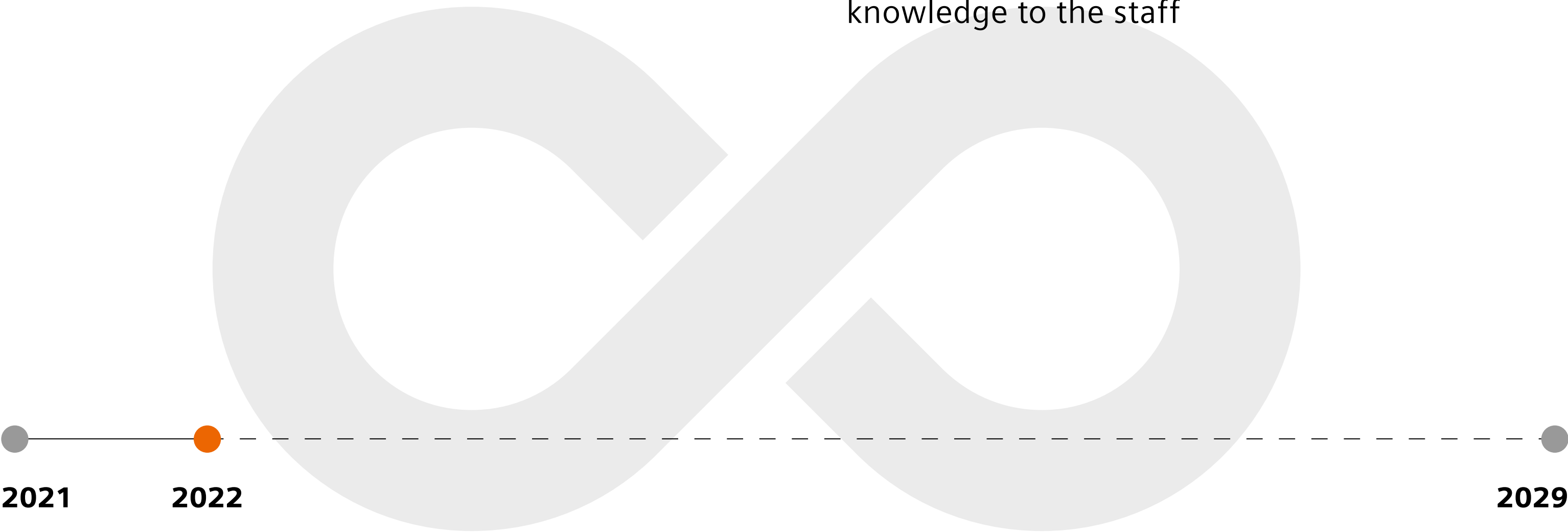
8 years

Key services

- State-of-the-art technology installation and management for enhanced diagnostic capabilities
- Continuous care innovations, including robotic-assisted intervention, and artificial intelligence systems
- Staff education for improved and more timely care

Expected benefits

- Expanded access to stroke care in the region
- Educated providers and specialists to improve patient outcomes
- Establishment of a comprehensive stroke and cardiac center with additional sites to come
- Education program to bring international knowledge to the staff



When it comes to stroke care, the time it takes to reach and receive treatment directly impacts the patient outcome.¹⁶ The window for optimal treatment is sixty minutes, often referred to as the golden hour.

Receiving care within this window is a challenge in treating any stroke. This is especially true in areas like the Mekong Delta at the southern tip of Vietnam, where impoverished communities face both environmental and infrastructure challenges that reduce access to specialized care, including limited transportation and high rates of flooding.^{17,18}

As of 2020, there were approximately 200,000 stroke cases a year in Vietnam. Prior to 2019, only 10% of patients reached a stroke center in less than 6 hours. Now, at least 23% of patients reach the hospital within 6 hours. A modern stroke center was critical to serve the needs of the people in this region.¹⁹

With approximately 17 million people in the Mekong Delta, expanding access to quality stroke care is crucial. Led by Cuong Tran Chi, MD, a local visionary seeking to improve access to stroke care, Stroke International Services (SIS) became the region's first healthcare network focused on stroke care in 2019.²⁰ Dedicated to providing one of the best stroke and cardiac treatment available, SIS served 65,000 patients in 2020 alone, with >80% being stroke and cardio-

vascular cases.¹⁹ Although this Value Partnership started in 2021, the collaboration began years ago with the development of SIS General Hospital as a regional center for stroke and cardiac treatment.¹⁹

Through this Value Partnership, Siemens Healthineers offers technology installation and management, including computed tomography (CT) scanners, ultrasound equipment, angiography devices, and software for imaging.¹⁹ The agreement also includes digital solutions for artificial intelligence and data connectivity, as well as the 2022 acquisition of a Corindus system for robotic-assisted cardiac interventions.²¹ SIS has collaborated with the organizational committee at the Inselspital Bern in Switzerland to develop the Asian Stroke Summer school, enabling clinicians and technologists direct access to leading international clinicians.²²

With help from Siemens Healthineers, SIS will continue to expand its clinical capabilities and make Dr. Cuong's vision a reality with multiple sites for stroke and cardiac care. As a first achievement, SIS was awarded with the Diamond Status for its stroke treatment by the World Stroke Organization in 2022. In addition to its clinical offering, the organization is also working to establish and expand international training opportunities in stroke care.¹⁹





“I am proud to say that we are one of the best centers for stroke treatment in the region. At SIS, we can now provide our patients with treatment that is equal with what they would receive in Europe or in the USA.”

Cuong Tran Chi, MD, Director of Stroke International Services General Hospital, Can Tho city, Vietnam



Improved access to care based on trust and partnership

Siemens Healthineers first earned the trust of Dr. Cuong through a peer-to-peer exchange on neurology. Since then, the partnership has helped SIS to develop the new hospital in the rural Mekong Delta. Dedicated to pioneering breakthroughs in healthcare with staff education, innovative technology management, and access to expertise in stroke care, Siemens Healthineers will serve as a key partner to SIS for their expansion strategy.

Jakarta Heart Center

The first Value Partnership in Indonesia



Value Partnership summary

Jakarta Heart Center, Indonesia

Public/private:

Private

Value Partnership start

2022

Duration of Value Partnership

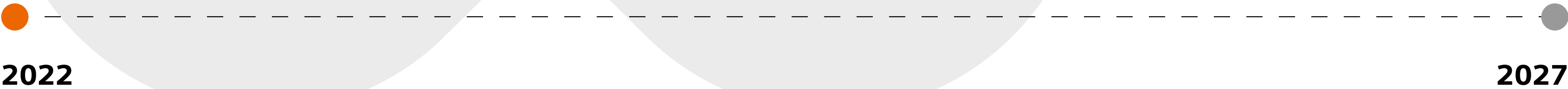
5 years

Key services

- New hospital planned to create quality cardiology services and healthcare outside Jakarta
- Turnkey technology supply, maintenance, and installation
- Provision of building technologies via Siemens Smart Infrastructure and local partners
- Comprehensive staff training and education
- Established an innovative payment model

Expected benefits

- Innovative payment model for optimized hospital cashflow management
- Reliable equipment and technology infrastructure
- Improved access to high-quality cardiac care



In 2021, a 5-year Value Partnership was signed with Jakarta Heart Center, focusing on technology, education, and infrastructure needs at a second location currently under construction in Tasikmalaya, West Jakarta, Indonesia. As part of this collaboration, Siemens Healthineers also developed and structured an innovative payment model for the customer.

Jakarta Heart Center's Value Partnership includes delivery and maintenance of clinical technology, as well as staff training for the hospital's new branch in West Java. The Value Partnership includes medical technology for the cath lab, computed tomography, ultrasound systems, fixed and mobile x-ray systems, medical pumps, surgical tools and patient monitors for the new site. To assist with the hospital's infrastructure needs, building technologies from Siemens Smart Infrastructure, such as fire alarms, fire suppression systems, building automation system (BAS) and access control system are also implemented at the hospital. The partnership also demonstrates the commitment of Siemens Healthineers in creating access to high quality care even outside of urban cities, with a unique payment model that was structured for Jakarta Heart Center. This project marks the hospital's first expansion outside of its main branch in Jakarta.



“We are proud to create access to quality cardiology services and healthcare for the people of Tasikmalaya and surrounding area with this Value Partnership.”

Dr. Jusuf Rachmat, Sp. B, Sp.BTKV(K), MARS, President Director of Jakarta Heart Centre



Improved access to care based on trust and partnership

This 5-year collaboration between Siemens Healthineers and Jakarta Heart center was geared toward expanding access to care.

AC Health

Developing the Philippines' first
comprehensive cancer center of excellence



Value Partnership summary

AC Health, Philippines

Public/private:

Private

Value Partnership start

2020

Duration of Value Partnership

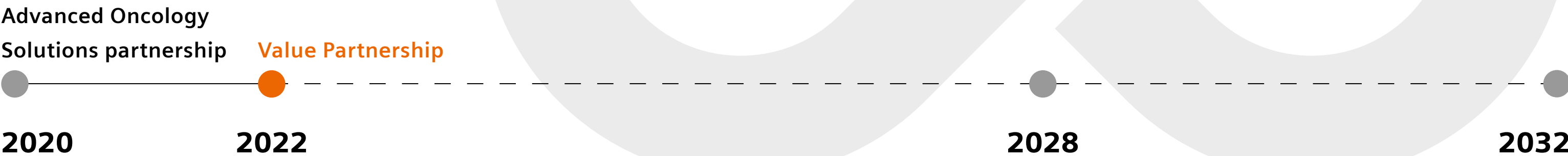
8 years Advanced Oncology Solutions partnership and 10 years Value Partnership

Key services

- Oncology Center of Excellence development, implementation, and operations
- Remote and on-site clinical support with medical physics, treatment planning, and decision support
- Organization of primary care checkpoints throughout the community for screening and survivorship
- Provision of imaging and radiation technology

Expected benefits

- Introducing the first comprehensive cancer center in the Philippines
- Equipment monitoring and utilization improvement
- Standardizing daily operational and clinical workflows
- Increasing staff satisfaction and improved training



In 2022, AC Health (Ayala Healthcare Holdings, Inc.) entered a 10-year Value Partnership centered on comprehensive cancer care to advance the country's first dedicated specialty cancer hospital from early detection, treatment and therapy, and all the way to monitoring and follow-up.¹⁴ As part of this partnership, Siemens Healthineers will provide its broad oncology focused innovative medical imaging, radiation therapy and digital healthcare solutions together with clinical and technical expertise across the cancer care continuum, as well as operational efficiency services.¹⁴

This new Value Partnership adds to the 8-year Advanced Oncology Solutions partnership agreement signed in 2020 between AC Health and the Multi-Disciplinary Oncology division of Varian, a Siemens Healthineers company. This partnership includes provision of remote and on-site clinical care support with medical physics, treatment planning, and decision support.

AC Health currently has a portfolio of pharma businesses promoting expanded access to generic medicines, a digital health superapp delivering medicines and services where patients need them, and an integrated network of multispecialty centers, an ambulatory

surgical center, and four community-based hospitals. The multi-disciplinary Value Partnership with Siemens Healthineers will leverage the AC Health footprint and its provider networks to create an integrated cancer program with affordable services across the entire continuum from screening, prevention, and care delivery all the way to survivorship. The 100-bed Healthway Cancer Care Hospital broke ground in July 2021 and is anticipated to open for patient care in 2023.

The Value Partnership is focused on developing and implementing a cancer care road map with local providers to expand access to high quality care. Siemens Healthineers has also leveraged the experience and expertise of providers from the American Oncology Institute (AOI) in India for clinical and operational planning. The Healthway Cancer Care Hospital will have a full range of capabilities, including multi-disciplinary oncology solutions, cloud-based treatment planning services, and the latest medical imaging and radiation therapy technology, as well as equipment monitoring and utilization improvement for enhanced workflows.²³





“The gaps in the Philippines healthcare system, especially on cancer, are fundamental and primarily revolve around accessibility and affordability. At AC Health, we believe we could address these gaps through a more integrated ecosystem of services that spans the entire continuum of care. With our Healthway Cancer Care Hospital, we envision the same by establishing a comprehensive facility offering end-to-end services, led by a strong multidisciplinary team of oncologists and healthcare professionals, and with the support of like-minded partners like Siemens Healthineers.”

Paolo Borromeo, President and CEO of AC Health



Improving access to care based on trust and partnership

With many patients facing barriers to healthcare services in the Philippines, AC Health is building the country’s first stand-alone comprehensive cancer care hospital: Healthway Cancer Care Hospital. A Value Partnership with Siemens Healthineers is helping to establish and implement best practices at the facility. Additionally, the partnership is allowing the organization to potentially expand to other specialties.

Voices of Value Partnerships

Our partners speak about how Value Partnerships are built on trust and create new value





“With Siemens Healthineers global expertise, combining strategic and operational insights, we will work together to design new patient journeys and drive high quality and personalized care pathways, starting with our Oncology Center of Excellence.”

Chin Wei Jia, Group CEO of HMI Group

“Our purpose is to bring stroke treatment of international standard to local people at affordable cost and to train more stroke treatment experts in Vietnam and neighboring countries. We want to achieve this by means of strong partnerships with medtech companies, healthcare providers or universities from overseas. The Value Partnership with Siemens Healthineers will greatly contribute to the realization of our goal.”

Cuong Tran Chi, MD, Director of Stroke International Services General Hospital,
Can Tho city, Vietnam





“Redefining the oncology landscape through better patient care is a common vision between AC Health and Siemens Healthineers, and we are proud to partner with them in realizing this vision.”

Paolo Borromeo, President and CEO of AC Health

Explore more Value Partnerships around the world

To learn more about Value Partnerships and explore their potential for helping you meet your needs and achieve your objectives, please contact a Siemens Healthineers representative today!

We also encourage you to explore our content on Value Partnerships:

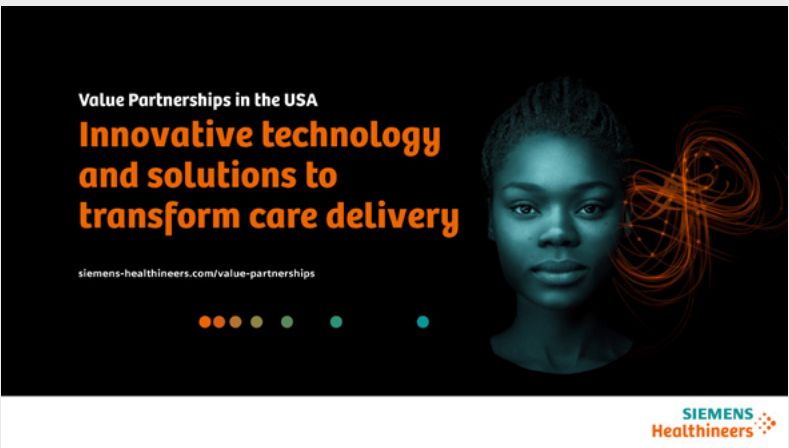
Explore all our case studies:

[➤ Value Partnerships case studies](#)

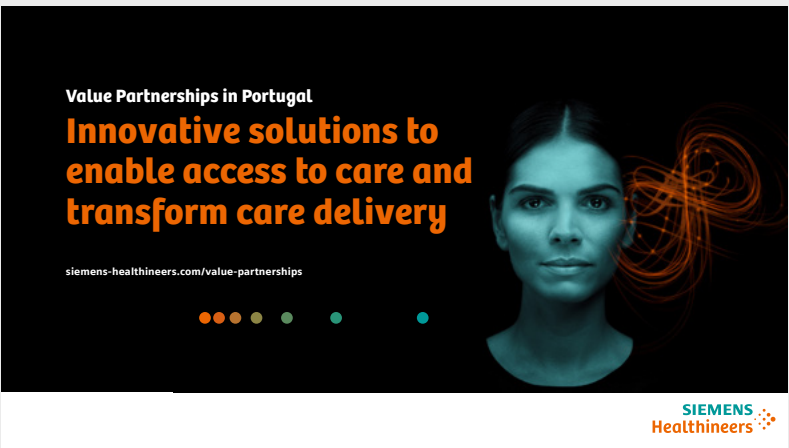
Hear first-hand about the experiences of our Value Partnerships customers:

[➤ Value Partnerships videos](#)

Selected Highlights



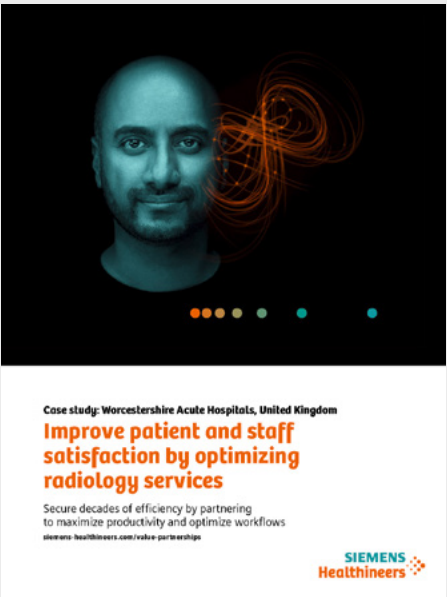
USA, selected highlights



Portugal, selected highlights



Kantonsspital
Baden, Switzerland



Worcestershire
Acute Hospital,
United Kingdom



Alb Fils Kliniken,
Germany



Admiraal De Ruyter
Ziekenhuis,
Netherlands

The products/features and/or service offerings (here mentioned) are not commercially available in all countries and/or for all modalities. If the services are not marketed in countries due to regulatory or other reasons, the service offering cannot be guaranteed. Please contact your local Siemens Healthineers organization for more details.

The results described herein by customers of Siemens Healthineers were achieved in the customer’s unique setting. Since there is no “typical” hospital and many variables exist (e.g., hospital size, case mix, level of IT adoption), there can be no guarantee that other customers will achieve the same results.

The scientific overlay on the title is not that of the individual pictured and is not from a device of Siemens Healthineers. It is modified for better visualization.

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¹ <https://www.worldatlas.com/articles/which-countries-are-considered-to-be-southeast-asia.html>
² https://www.lek.com/sites/default/files/insights/pdf-attachments/1834_Private_Healthcare_Growth_In_Southeast_Asia.pdf
³ <https://www.trade.gov/country-commercial-guides/malaysia-healthcare>
⁴ <https://www.trade.gov/country-commercial-guides/vietnam-healthcare>
⁵ <https://www.healthaffairs.org/doi/10.1377/hlthaff.2014.11141>
⁶ <https://worldpopulationreview.com/countries/indonesia-population>
⁷ <https://apps.who.int/iris/bitstream/handle/10665/254716/9789290225164-eng.pdf>
⁸ <https://www.internationalinsurance.com/health/systems/indonesia.php>
⁹ <https://www.worldbank.org/en/country/philippines/overview#1>
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¹¹ <https://www.biospectrumasia.com/opinion/30/18568/siemens-healthineershmi-to-jointly-steer-healthcare-delivery-across-sea.html>
¹² https://www.theedgesingapore.com/digitaledge/digital-economy/using-techdeliver-quality-and-affordable-healthcare-asia?__cf_chl_managed_tk__=pm%20%20d_7YZcqybb36BRF9jGMkXNF2Fz7GVBy7WlvN_N6vCSrag-1633010202-0-%20%20gqNtZGzNA2WjcnBszQq9
¹³ <https://www.siemens-healthineers.com/en-us/digital-health-solutions/digital-solutions-overview/service-line-managment-solutions/teamplay>
¹⁴ <https://www.achealth.com.ph/news/ac-health-ctsi-varian-partner-to-develop-and-operate-the-countrys-first-cancer-specialty-hospital-in-taguig-city>
¹⁵ <https://www.siemens-healthineers.com/perspectives/value-partnership-hmi>
¹⁶ <https://med.uky.edu/news/when-it-comes-strokes-timing-everything>
¹⁷ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5664805/>
¹⁸ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5924496/>
¹⁹ <https://www.siemens-healthineers.com/perspectives/stroke-care-vietnam>
²⁰ <https://www.siemens-healthineers.com/vn/press-room/press-releases/en-sis-strategic-partnership>
²¹ <https://www.corindus.com/>
²² <http://stroke-summer-school.com/index.php>
²³ <https://www.varian.com/products/software/information-systems/aria-oncology-information-system>