



HOSPITAL AUTHORITY

Information Technology Strategy
2022-2027



An Overview



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Introduction

The Hong Kong Hospital Authority (HA) has recognised the importance of digital transformation in enhancing healthcare services and delivery models. The Information Technology and Health Informatics (IT&HI) Division has evolved significantly in 2017-22, transforming from an IT solution delivery centre to a business enabler. That provides the foundation for the HA IT Strategy 2022-27, which focuses on realising HA strategies through its Digital HA initiative, exploring commercial opportunities, and contributing extensively to the digital health ecosystem in the Guangdong-Hong Kong-Macao Greater Bay Area (GBA).



Governance



Talent
development



Technology
and
infrastructure



Data and information
management



Cybersecurity

The Strategy requires effective governance, talent development, technology and infrastructure, data and information management, and cybersecurity as essential building blocks for execution, aiming to enhance patient experience and operational efficiency, improve clinical outcomes and research and enable a connected healthcare ecosystem.

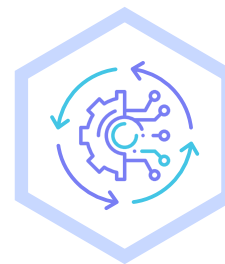


Key Strategic Drivers

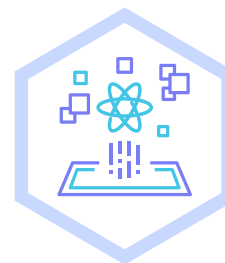
In recent years, there has been a significant increase in the acceptance of real-time and digitally delivered healthcare information services, driving the need to expand and accelerate the development of digital capabilities. The HA IT Strategy is guided by four major forces, including:



The HKSAR Government's vision of developing a global innovation and technology hub and promoting health data research and innovation in Hong Kong and the GBA;



The Strategy alignment with HA's Strategic Plan 2022-27, which emphasises sustainability and transforming services through digital technologies;



Disruptive technologies require IT to invest in next-generation platforms to avoid obsolescence, and



The ongoing IT&HI transformation aims to modernise IT delivery, achieve operational excellence, and innovate HA in the next five years.

Formulation Process

IT&HI Division collaborated with other business stakeholders within HA to develop the IT Strategy, considering leading industry trends and practices, comparable international health IT strategic plans, and the HKSAR Government's vision. The Strategy was presented and discussed with senior executives of HA, as well as in the IT Technical Advisory Sub-Committee (ITTASC) and the IT Services Committee (ITSC). The ITSC endorsed the Strategy in June 2022, indicating that it aligns with the strategic goals of HA and meets the organisation's needs.



THE IT STRATEGY 2022-2027 IS MANIFEST IN THE SIX IT STRATEGIC PORTFOLIOS AS ILLUSTRATED BELOW:

4 Demand portfolios: Transforming HA Service Provision



Digital Hospital beyond HA



Digital Patient Experience



Digital Workplace & Smart Hospital Operation



Innovative & Data-Driven Enterprise

2 Supply portfolios: Uplifting IT Capability



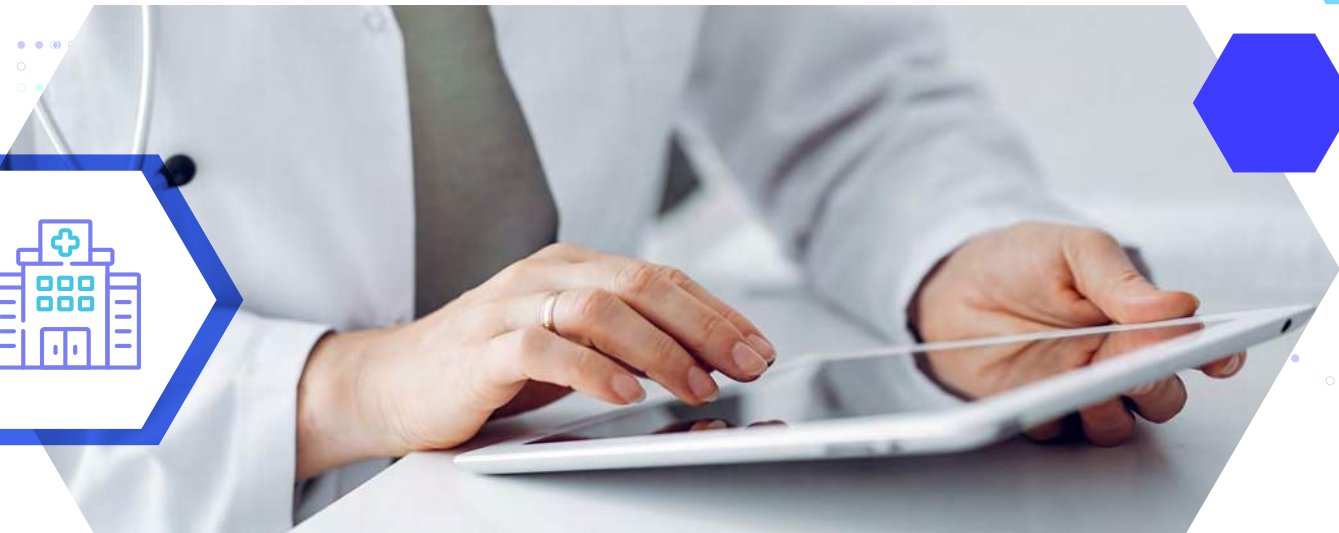
Future Ready Digital Platform



World Class IT Organisation

Portfolio 1

Digital Hospital beyond HA



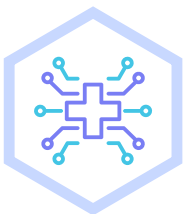
What will we achieve?

The “Digital Hospital beyond HA” portfolio of the HA IT Strategy aims to facilitate the digital transformation of hospital care and external collaborations with community partners. It will support HA in the reinvention of its service models and delivering “Smart Care”, keeping citizens healthy in the community and reducing their need for hospitalisation.



The availability of healthcare services beyond HA hospitals and clinics, supported by an improved Clinical Management System (CMS), will provide patients with greater access to care and resources. In addition, CMS and HA’s flagship app “HA Go” will be the enabling platforms to extend ambulatory care and support programme-based or function-based care.

What will this mean to Hong Kong’s healthcare ecosystem?



The impact of this portfolio on Hong Kong’s healthcare ecosystem will be significant. One of the key benefits will be the delivery of more efficient and higher quality care in HA hospitals and clinics, supported by continually improved IT platforms and the further adoption of artificial intelligence (AI) technology. It will enable healthcare professionals to provide better patient care, enhancing outcomes and improving the overall patient experience.



The advancement of the digital healthcare platform will enable care delivery across the healthcare community through District Health Centres (DHCs) and Public Private Partnerships (PPPs), fostering digital health development in Hong Kong. As a result, it will improve healthcare outcomes for all, ultimately leading to a healthier population and a more efficient healthcare system.

Portfolio 2

Digital Patient Experience



What will we achieve?

IT&HI Division's commitment to supporting HA in providing proactive and personalised care to patients is significant, and patients and their carers will feel its impact in various ways.

What will this mean to HA's service users and their carers?

By constantly improving HA's digital front door, the flagship App "HA Go," patients will have greater access to personalised information and self-help services that will put them at the centre of their care journey. It will enable patients to take a more active role in their healthcare, leading to better health outcomes and a more positive experience overall.

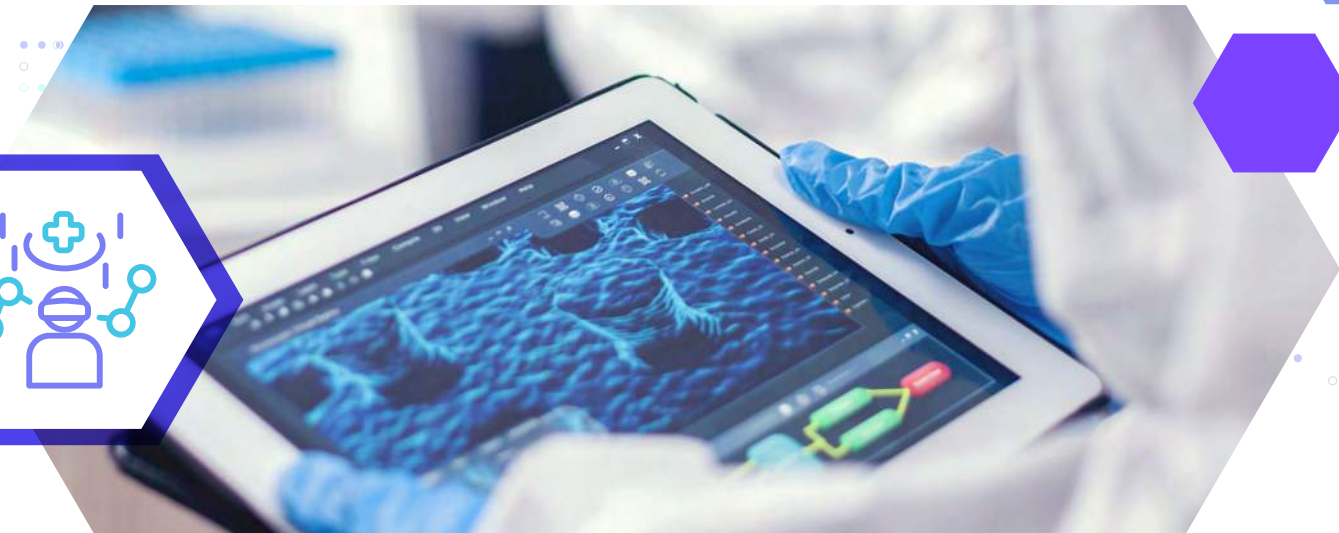


The availability of telehealth programmes, such as remote health monitoring, will also empower patients and their carers. These programmes will provide patients with the tools they need to care for their health at home, reducing the need for frequent hospital visits and enabling them to manage their conditions more effectively. It will improve the quality of life for patients and reduce the burden on carers, who will no longer have to provide as much hands-on care.



Portfolio 3

Digital Workplace & Smart Hospital Operation



What will we achieve?

IT&HI Division will leverage advanced technology to support the development of “Smart Hospitals” and help equip HA staff with the tools and platforms to become a “Smart Workforce”, crucial to the successful transformation to “Smart Care” with innovative, effective and efficient healthcare services.

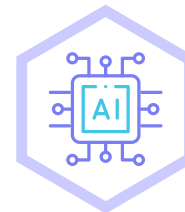


In addition to the digital workplace, IT&HI Division will also provide Smart Hospital Management solutions to all HA hospitals to gain operational intelligence and optimise resource utilisation. As a result, it will help improve efficiency and reduce waste, leading to better patient outcomes and higher satisfaction levels.

What will this mean to HA’s management and staff?



The digital workplace will be designed to meet staff needs, providing them with the tools and resources they need to do their jobs effectively. It will empower staff with self-help services and easily accessible information and allow them to collaborate more efficiently, increasing productivity and improving job satisfaction.



Smart Hospital Support solutions will leverage innovation and technologies like AI and robotics to improve operational efficiency. These solutions can automate processes, reduce human errors and enhance communication and coordination among healthcare professionals. In addition, by streamlining workflows and providing real-time data analytics, Smart Hospital Support solutions will optimise resource utilisation, reduce costs and improve the overall quality of healthcare services.

Portfolio 4

Innovative & Data-Driven Enterprise



What will we achieve?

IT&HI Division fosters healthcare technology innovation and advances data-driven care by partnering with world-class healthcare organisations and enhancing technology research. This strategic portfolio will enable HA to leverage cutting-edge technologies and best practices in healthcare. As a result, the HA can be at the forefront of innovation and sustain high-quality services.

What will this mean to HA's service users and their carers?



This portfolio aims to create a digital health ecosystem to catalyse innovation and position HA as an innovation hub in Hong Kong. This ecosystem will include global product incubation and collaboration with the local healthcare technology community. By working with these partners, HA will have access to cutting-edge technologies and evolve the best practices in healthcare, enabling it to provide high-quality services that meet the changing needs of patients and healthcare professionals.



IT&HI Division will also collaborate with world-class biotechnology organisations to facilitate innovation pilots and improve the usability of HA patient data. These acts will support healthcare and biotech initiatives in the Greater Bay Area development, driving progress and innovation in the region.



Moreover, IT&HI Division will continue to promote data-driven care, enhancing clinical decision-making across various areas, including triage, diagnostics, treatment decision support, and chronic disease management. By applying AI-enabled tools to HA datasets, data-driven care will improve treatment outcomes and the patient experience, ultimately leading to better healthcare services for all stakeholders. These efforts will further strengthen HA's reputation as a leader in healthcare innovation, ultimately leading to a healthier population and a more efficient healthcare system.

Portfolio 5

Future Ready Digital Platform



The modernisation of technology platforms and digital transformation go hand in hand. IT&HI Division will leverage AI and other advanced tools to transform the technology operation into a highly automated, secure and robust platform, enabling healthcare information and services to be accessible by stakeholders anywhere at any time.

The implementation of advanced infrastructure will support the growth and upgrades of HA healthcare and accelerate the Smart Hospital initiatives, from handling internal operations to building patient-facing digital channels. By prioritising these initiatives, IT&HI Division can provide high-quality services that meet the evolving needs of patients and the organisation.



Portfolio 6

World Class IT Organisation



IT&HI Division prioritises building effective practices for faster transformation, including product-centricity, a patient journey mindset, value streams, persistent teams, and vendor relationships. Additionally, the Division aims to engage with leading institutions and organisations to foster partnerships and collaboration.

To support these initiatives, IT&HI Division will continue to invest in IT workforce development by creating an engineering-driven culture, cross-functional job rotation efforts, and various leadership training programmes. Furthermore, the Division will support and encourage an innovative and continuous learning environment to drive outcome-based alignment across clinical groups and maximise business benefits.



Execution Approach

IT&HI Division has devised 16 strategic objectives and more than 50 IT strategic programmes as pragmatic building blocks to execute the IT Strategy and achieve its vision. The Division will work with users to identify goals and targets that emphasise business outcomes. The Strategy execution will continue to focus on improving digital transformation, emphasising business enablement, change management, enhanced digital skills, and patient service outcomes.



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