



KEMENTERIAN KESIHATAN
MALAYSIA

PLENARY 2

Sustainable Healthcare Facility Management (HCFM): Malaysia's MoH Journey Towards Resilient, Innovative and Future-Proof Healthcare Facilities

Ir. Ts. HUSZIAN BIN HUSIN

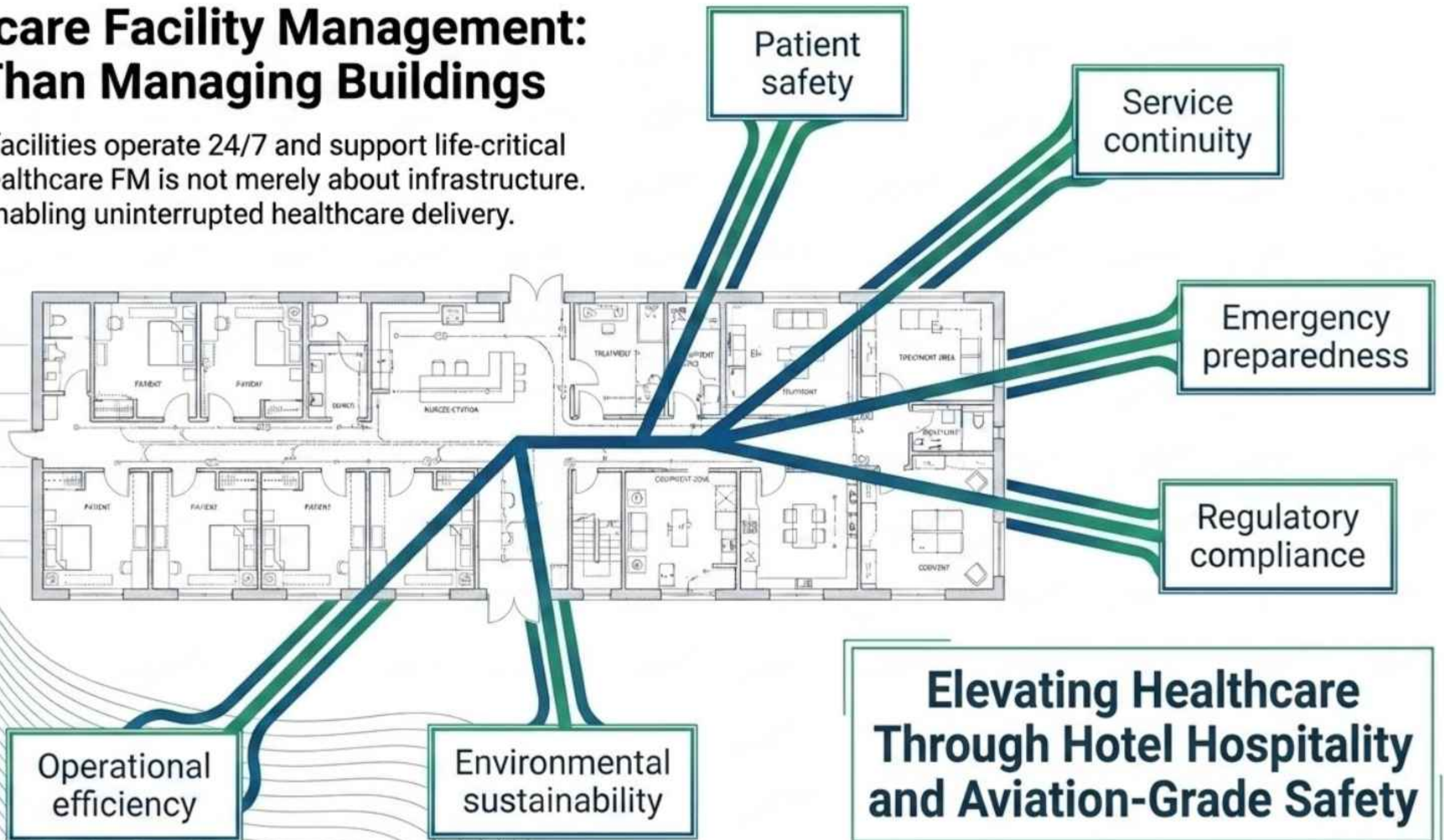
Director

Engineering Services Division

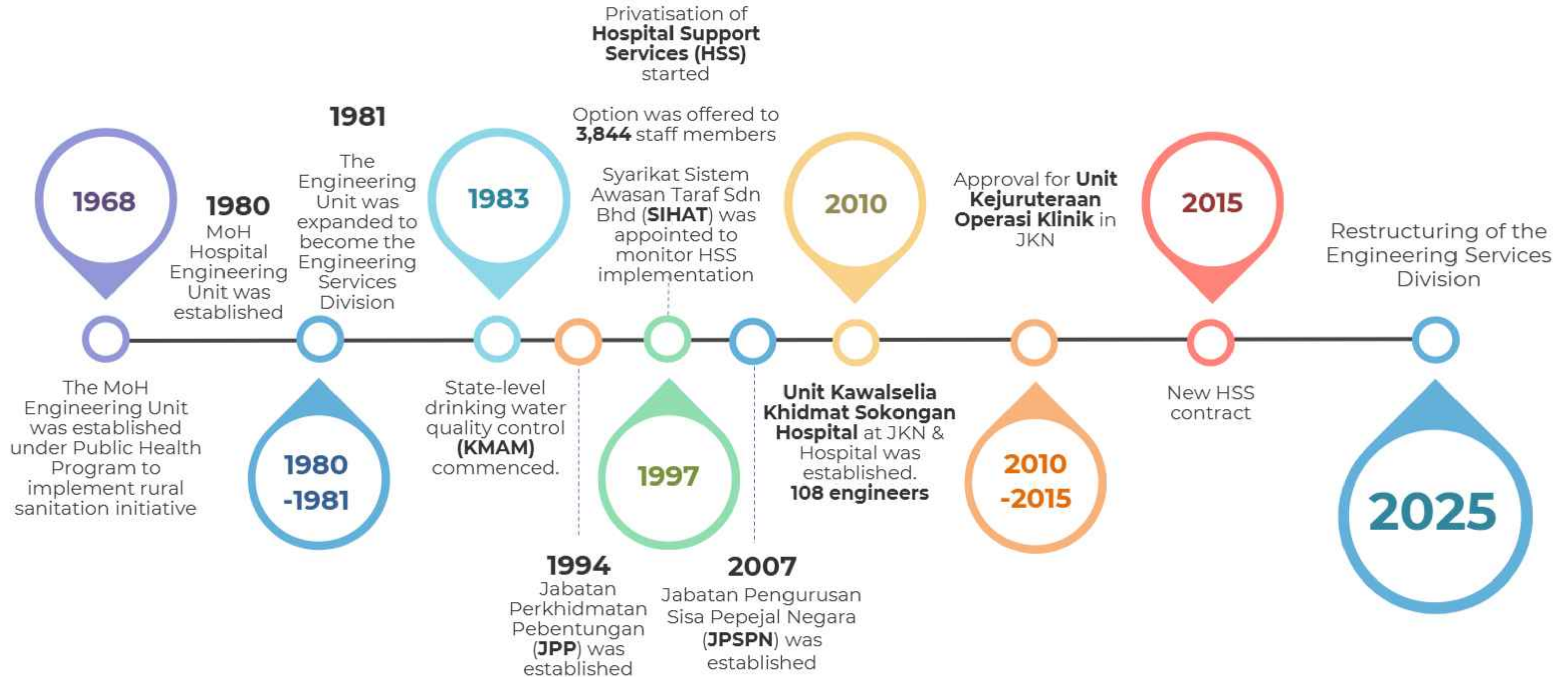
Ministry of Health Malaysia

Healthcare Facility Management: More Than Managing Buildings

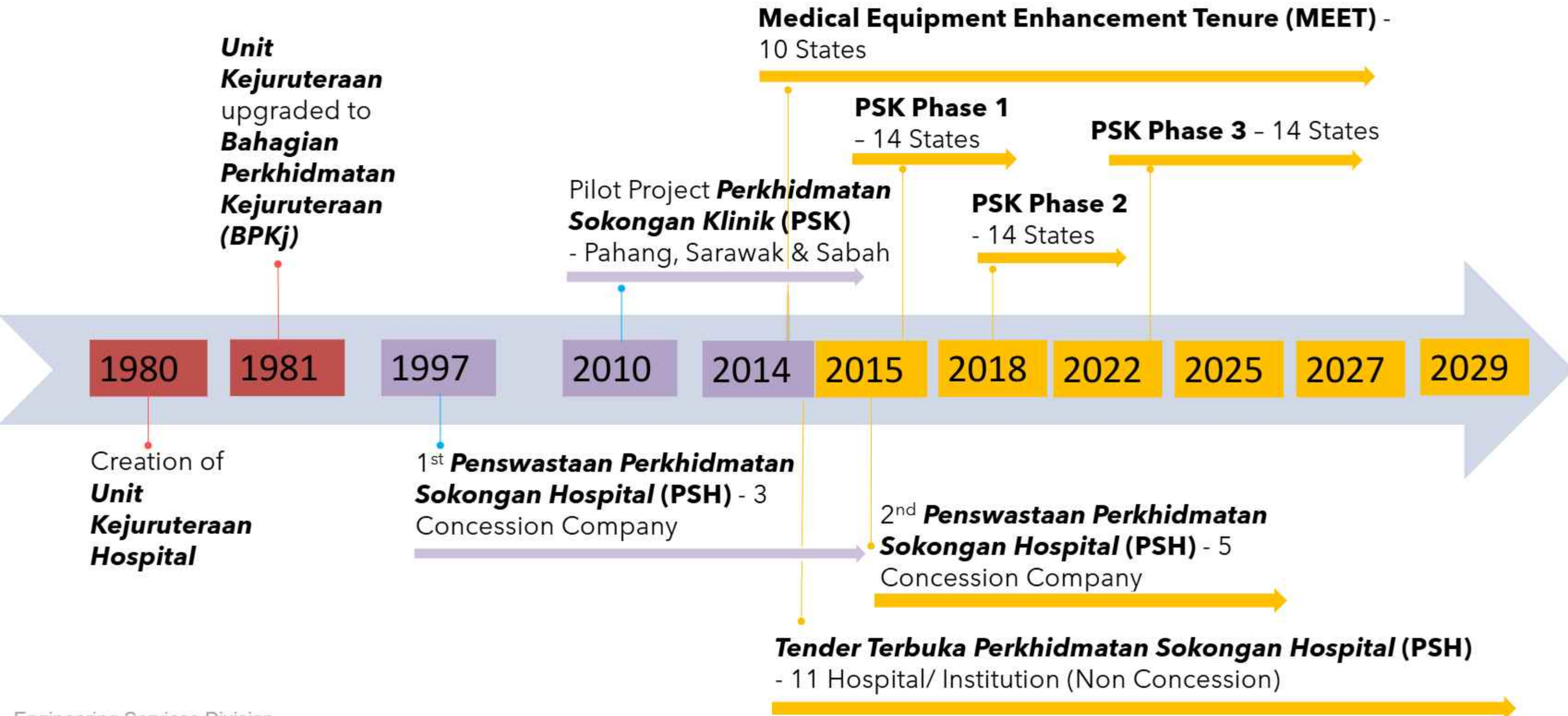
Healthcare facilities operate 24/7 and support life-critical services. Healthcare FM is not merely about infrastructure. It is about enabling uninterrupted healthcare delivery.



History of MoH Engineering Services Division



Evolution of Healthcare Facilities Management



Always Ahead of Time

MOH's HFM Transformation Journey

Operational Foundations & Performance



Integrated FM before it become industry norm

Established early-stage integrated facilities management as a baseline operational standard.



Performance-based service Delivery

Outcome-driven SLA monitoring to verify continuous delivery quality with financial alignments.



Innovative Finance mechanisms

Strategic public-private financial models to share development risk and capitalize engineering upgrades.

Digital Innovation & Sustainability



Sustainability implementation since more than a decade ago

Extensive sustainability programme built directly into facility blueprints over a decade ago.



Technology-enabled maintenance systems

Unified computer systems and predictive digital asset management to proactively prevent operational downtime.

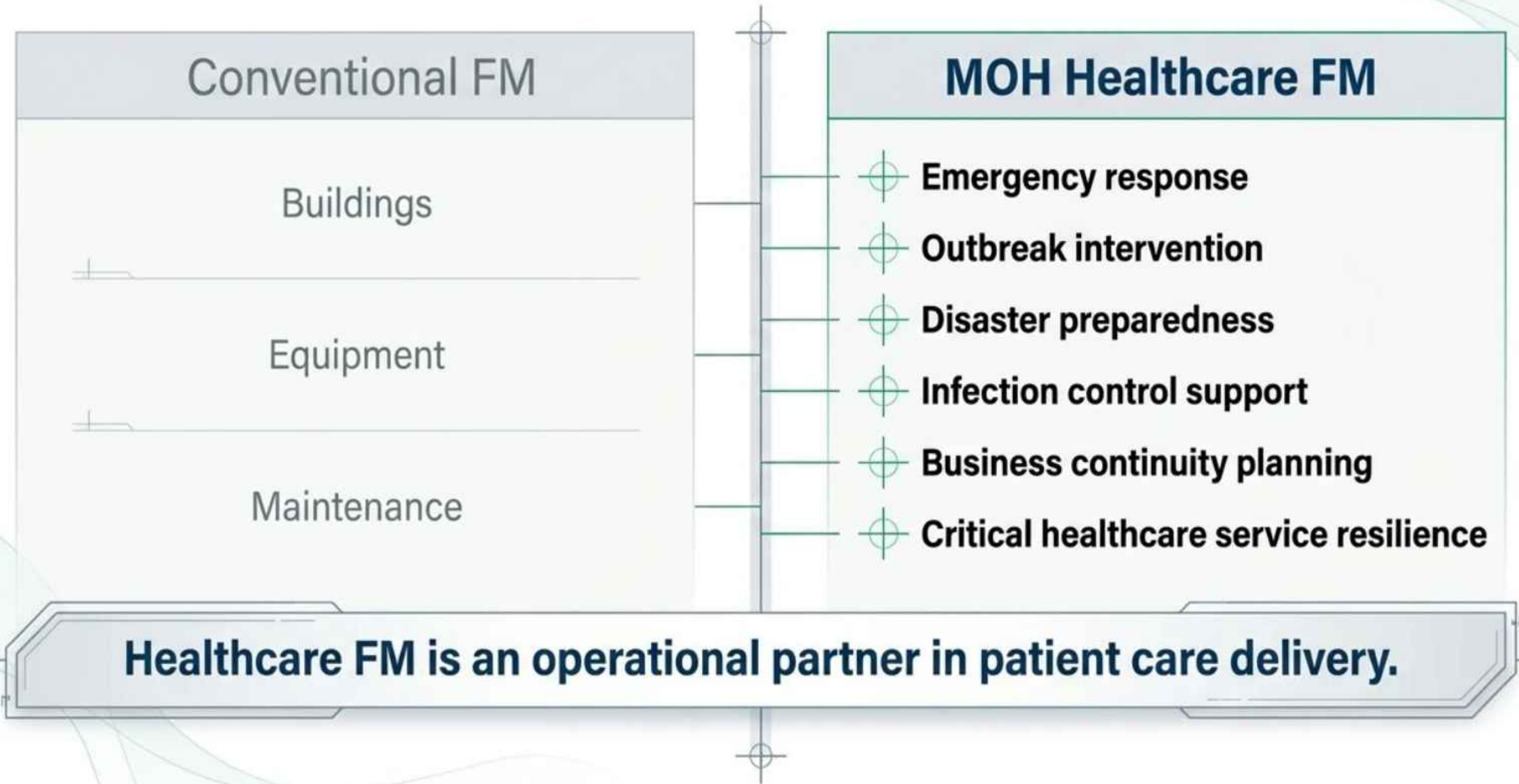


National-scale healthcare asset management

Consolidated data intelligence covering physical lifecycle assessments for all hospital network engineering services.

Innovation has always been embedded within MoH's Healthcare Facility Management Strategy

Beyond Conventional Facility Management

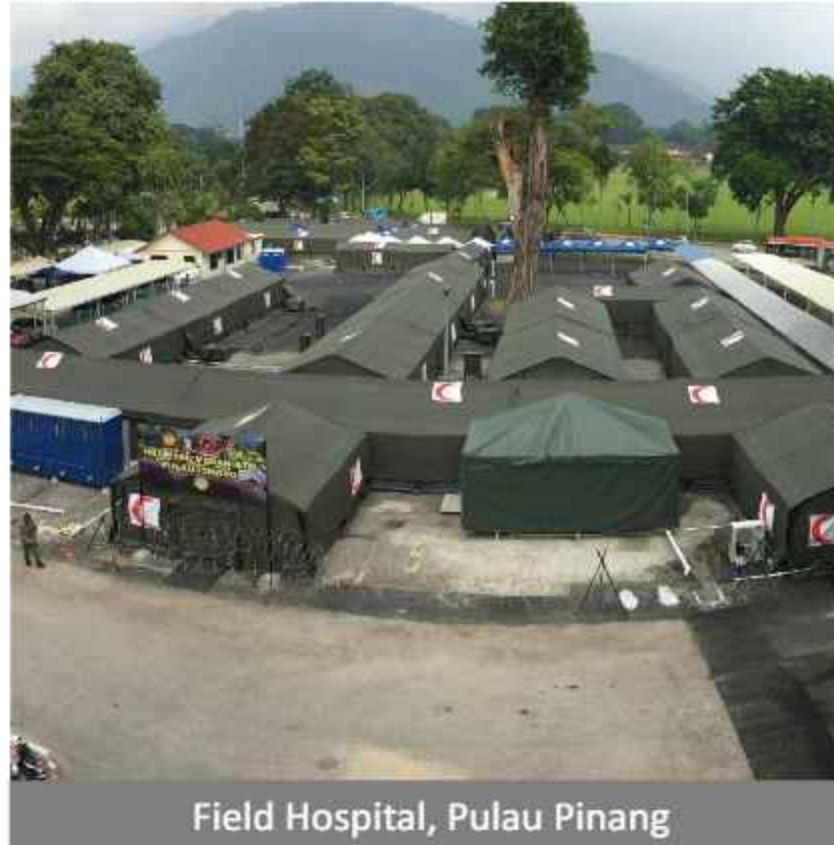




PKRC Setup



Field Hybrid ICU



Field Hospital, Pulau Pinang



Oxygen Microfilling Station

Healthcare Facility Management During National Emergency

Healthcare FM serves as frontline enabler during crises

Faulty power supply forces Sabah's main general hospital to suspend surgeries, urgent ones diverted elsewhere (VIDEO)

Julia Chan
Wed, 20 April 2022 at 8:53 pm MYT
2 min read

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Elective surgeries scheduled to take place at QEH1 had to be postponed while other emergency surgeries have been diverted to the Queen Elizabeth 2 Hospital and the Women and Children Hospital in Likas for the time being. — Picta. [More](#)

KOTA KINABALU, April 20 — The operating theatre at the Queen Elizabeth Hospital 1 (QEH1) here has been forced closed till tomorrow until its electricity supply is stable again.

Sabah Health director Dr Rose Nani Mudin said that 28 elective surgeries scheduled to take place at QEH1 had to be postponed while other emergency surgeries have been diverted to the Queen Elizabeth 2 Hospital and the Women and Children Hospital in Likas for the time being.

"The temporary closure of the operating theatre is to ensure the electricity supply from the generators are sufficient to supply the wards and ensure the Intensive Care Unit is stable," she said.

Utility Disruption

Six hospitals affected by floods in Kelantan, Pahang still operating

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Monday, 29 Dec 2014 11:25 PM MYT

KUALA LUMPUR, Dec 28 — Four hospitals in Kelantan and two more in Pahang that were affected by the floods, are still functioning, said Director-General of Health Datuk Dr Noor Hisham Abdullah.

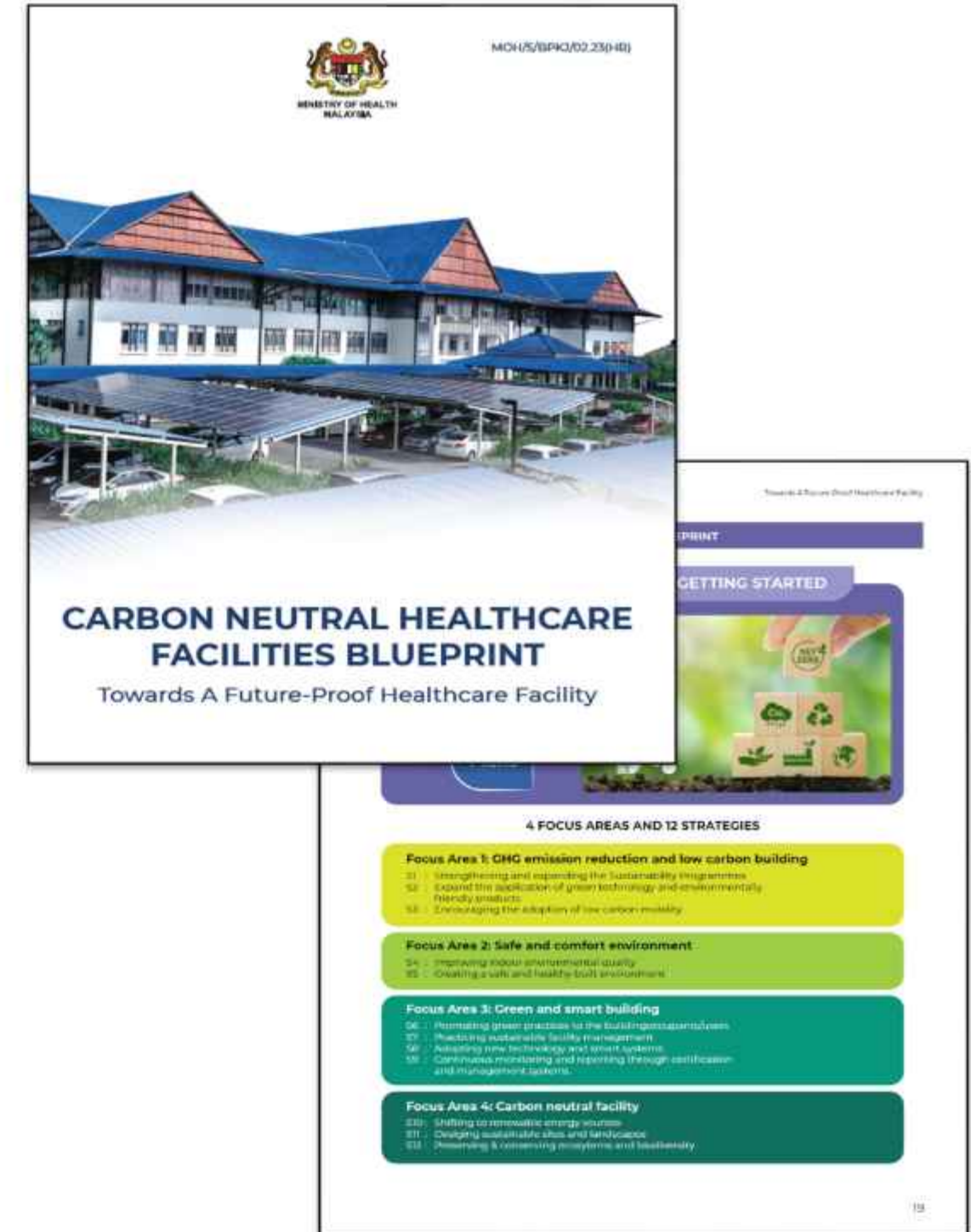
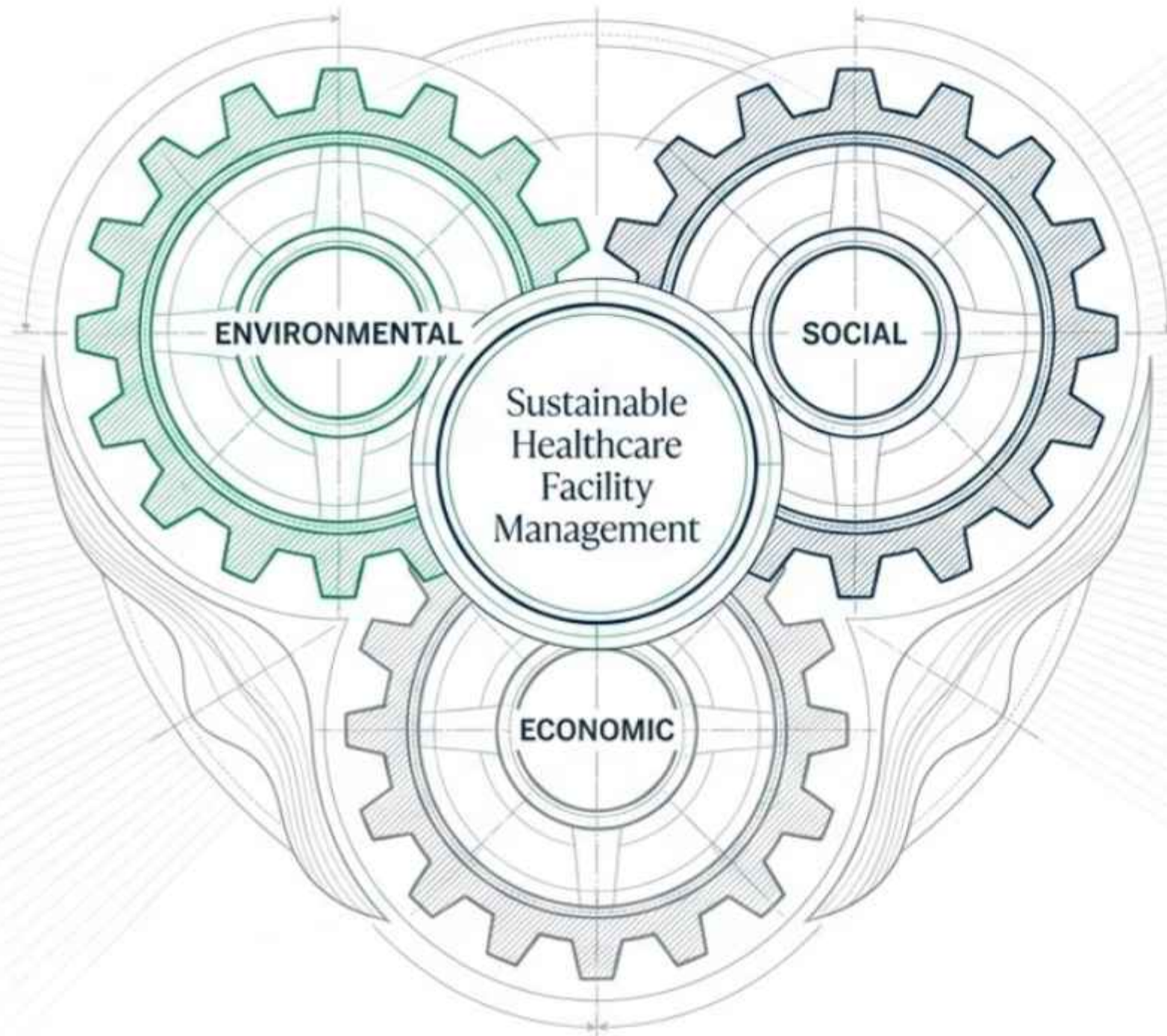
He said floods that hit Johor, Terengganu, Pahang, Kelantan, Perak and Selangor had affected 102 health facilities, 38 of which were still operating.

Dr Noor Hisham said 5 kilo Volt Ampere (kVA) capacity generators were sent to locations including the Kuala Krai Hospital, Tanah Merah Hospital and Pasir Mas Hospital and this enabled operations in the hospitals to be functional since yesterday.

Flood

Sustainable Healthcare Facility Management Framework

Supporting healthcare delivery while creating long-term value



A Decade of Progress

ENERGY EFFICIENCY INITIATIVES



Retrofitting of Chiller with Magnetic Chiller



RENEWABLE ENERGY



Installation of PV Solar for self consumption



GREEN MOBILITY INITIATIVES



Provision of EV parking Facilities



WATER CONSERVATION



Reuse of rainwater for irrigation, general wash and flushing



WASTE MINIMIZATION



Food waste management using a composter machine



GREEN HEALTHCARE FACILITIES



Green Building Certification for all hospitals

"Sustainability is no longer optional, it is operational necessity"

Success Driven by People



ENVIRONMENTAL SUCCESS STORIES

- Sustainability Programme 2015-2025 -



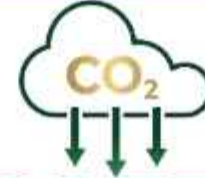
1,203 GWh

Energy Savings



RM505 mills

Cost Savings



890,770

tan CO₂ eq.

Carbon reduction



RM8.2 mills

3R revenue

* Cumulative saving up to 2025 with baseline from 2015/2016

ACHIEVEMENTS



LEED

PLATINUM – 5 Hospitals

GOLD - 14 Hospitals

SILVER - 2 Hospital



MyCREST

110 hospitals



pHJKR

16 Hospitals



ENERGY MANAGEMENT

GOLD STANDARD (3 Star)

147 Hospitals



NATIONAL ENERGY

AWARDS

29 Hospitals



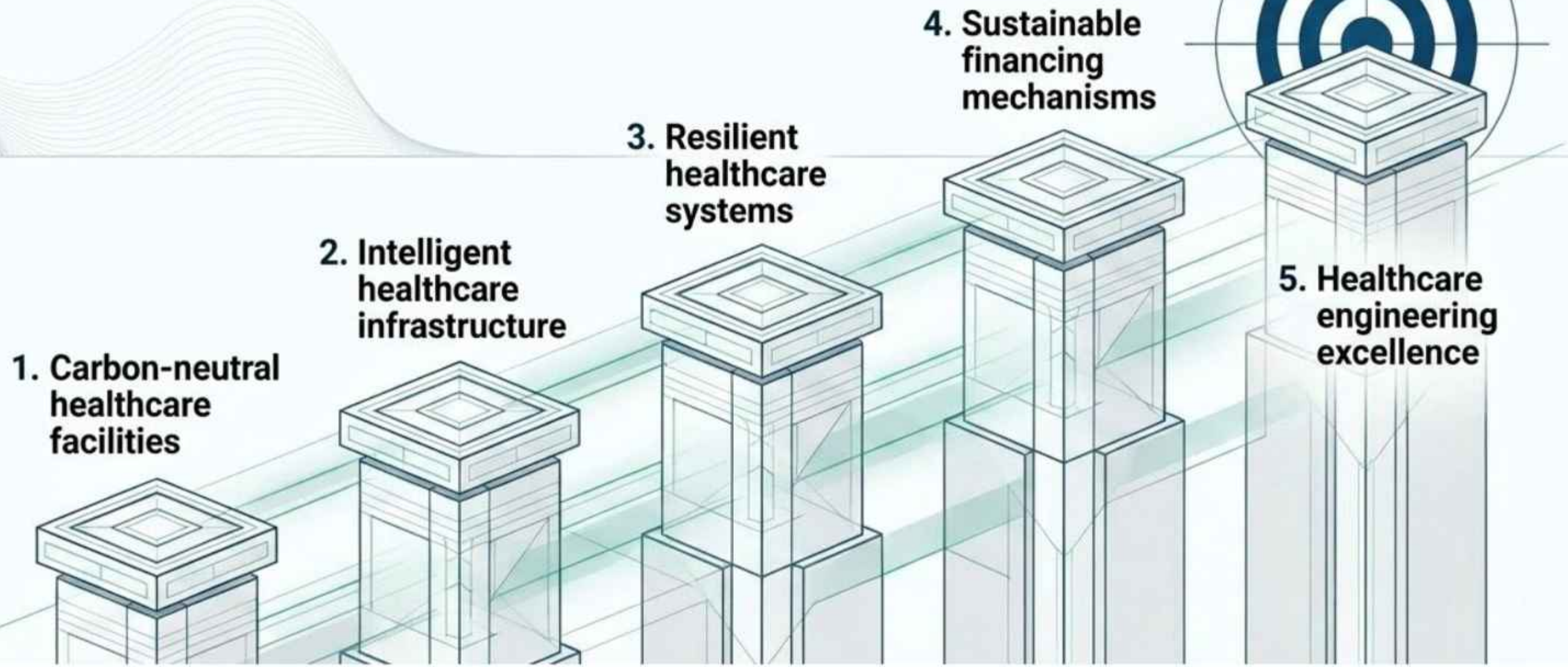
ASEAN ENERGY

AWARDS

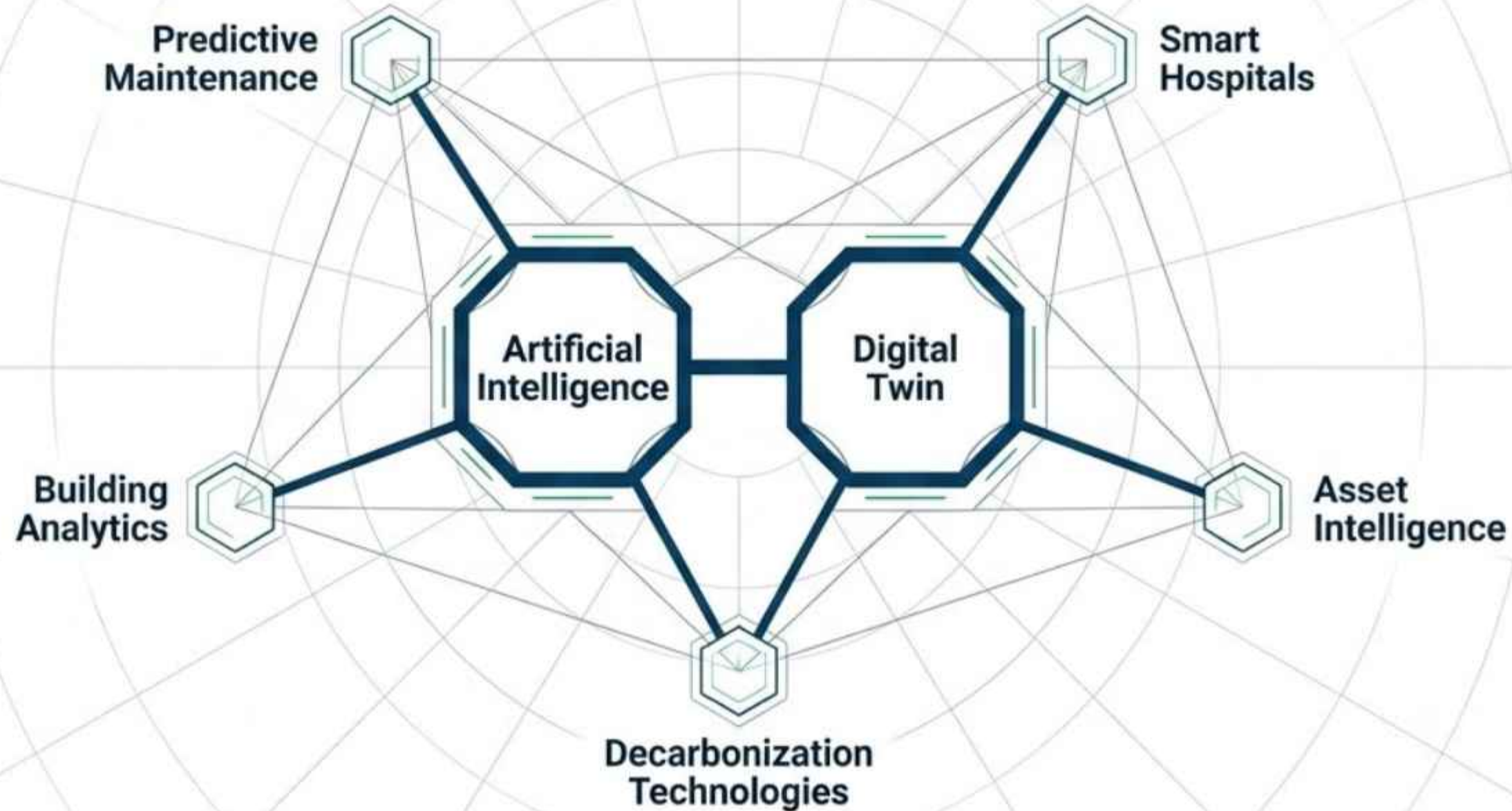
8 Hospitals

Looking Ahead: The Next Decade of Sustainable HFM

Vision:
**From Facility Management
to Healthcare Value
Management.**

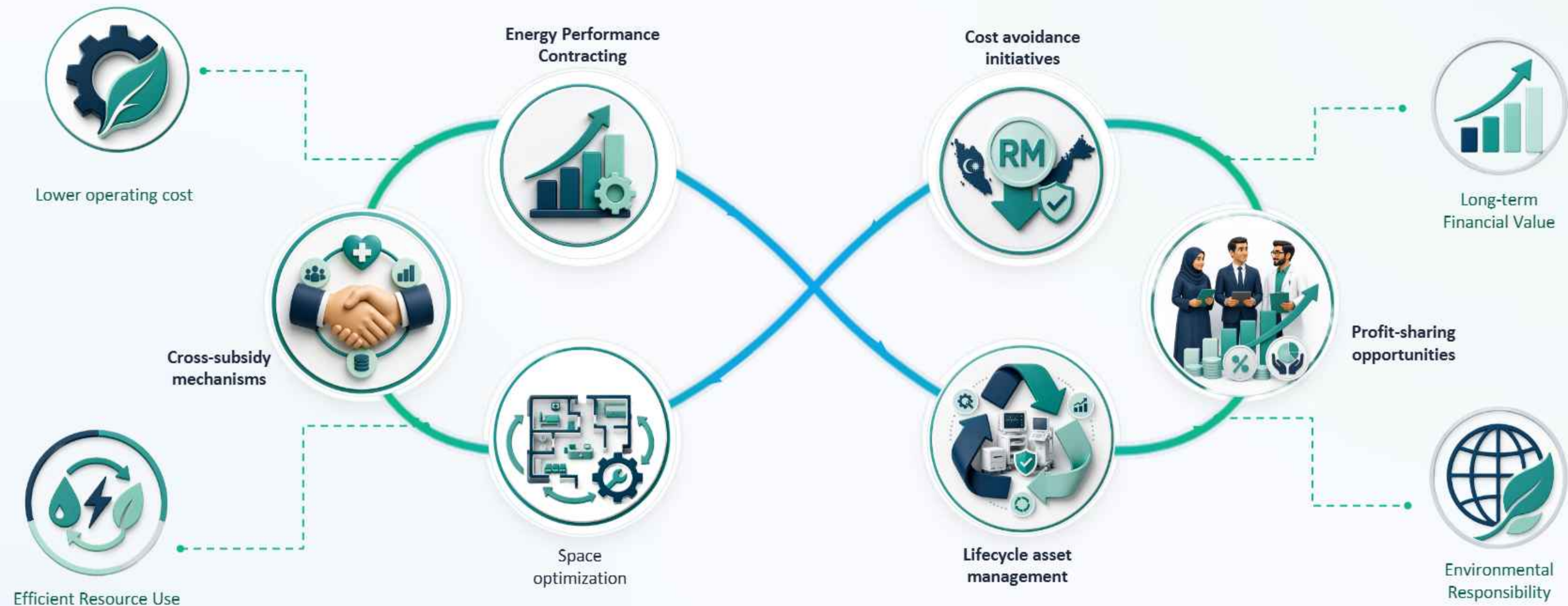


Innovation Driving Future Healthcare Facilities



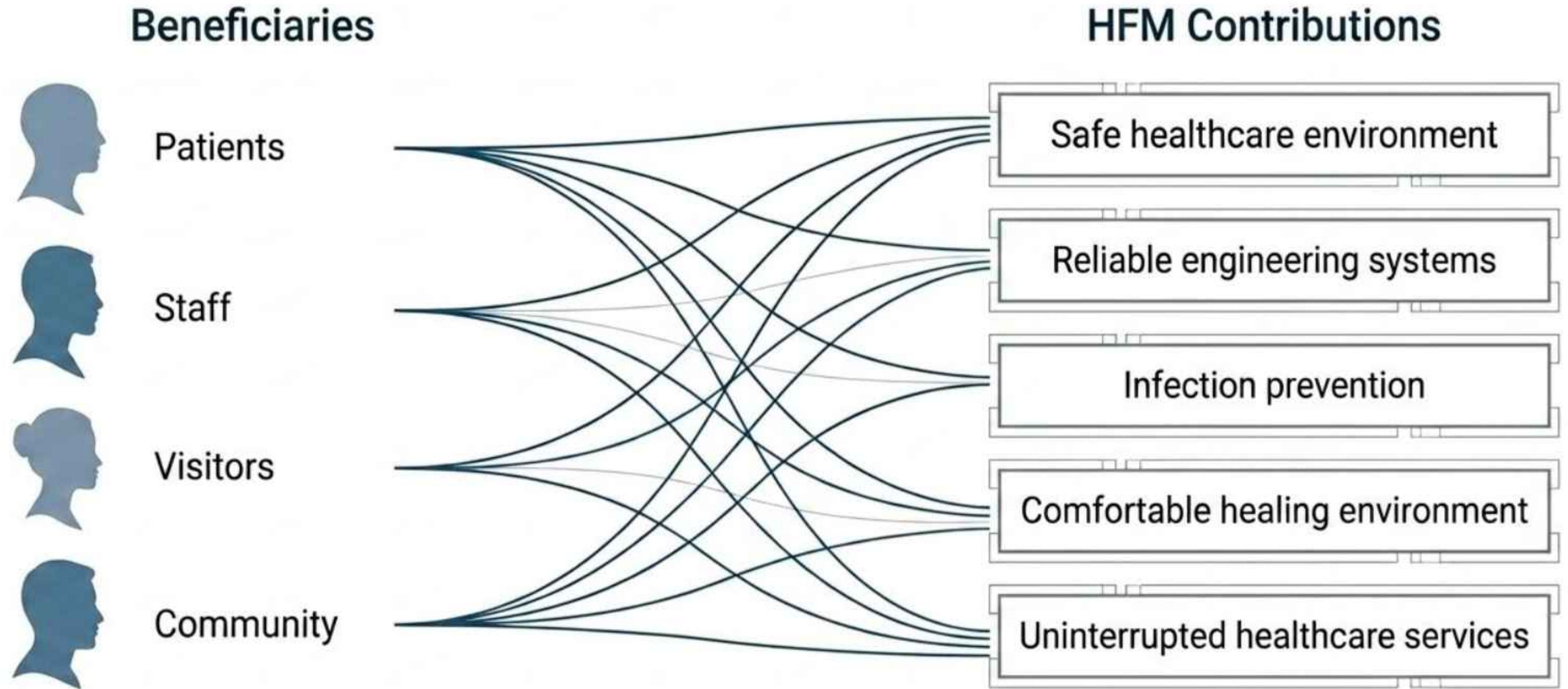
The future belongs to intelligent and connected healthcare facilities.

Delivering Value for Money



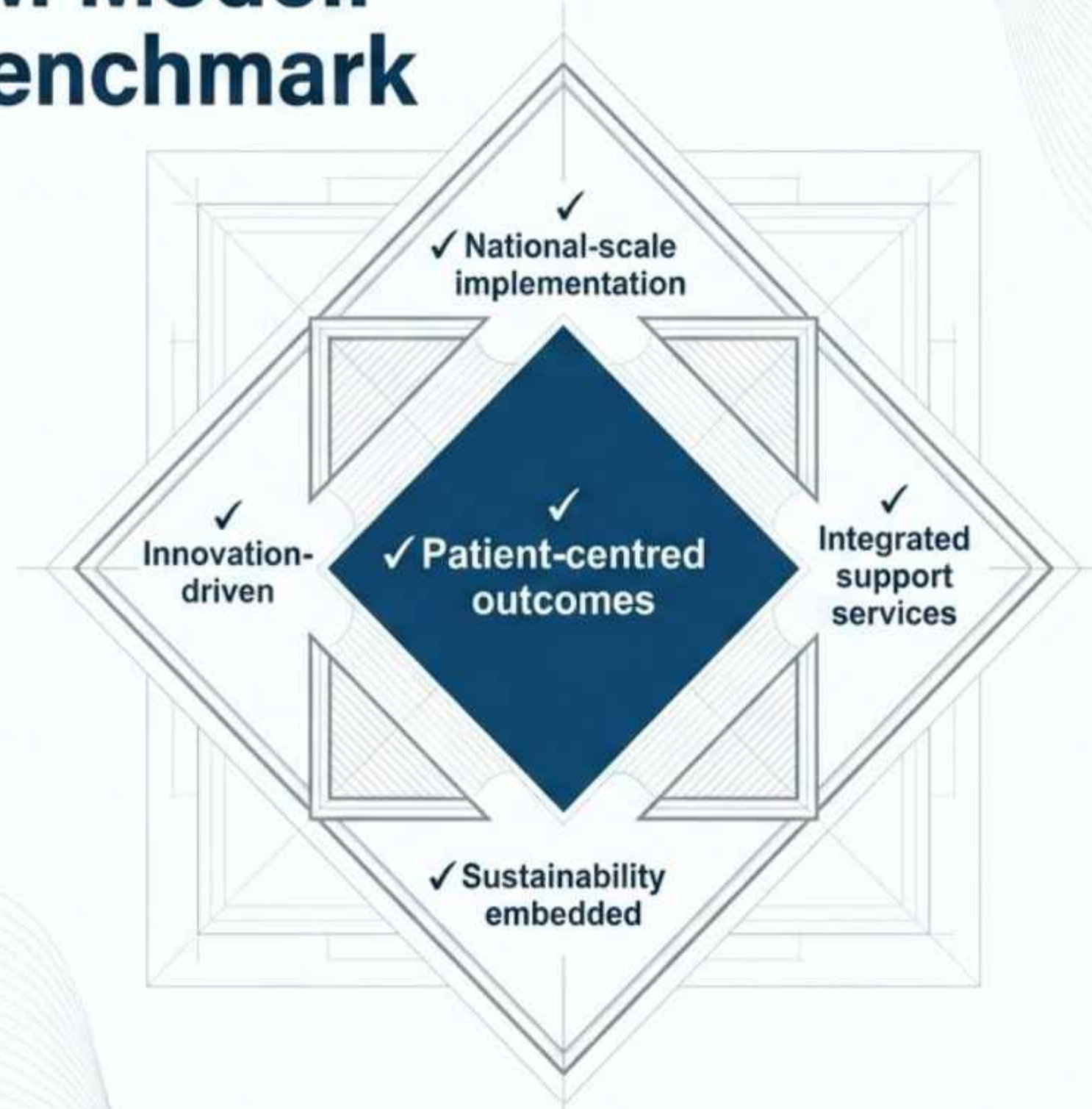
“Sustainability and affordability can coexist.”

Social Sustainability: People-Centred Healthcare FM



The ultimate stakeholder of HFM is the patient.

The MOH HFM Model: A Regional Benchmark



A model developed specifically to support healthcare transformation.

Conclusion

Healthcare Facility Management is no longer a support function. It is a strategic enabler of:

- Healthcare quality
- Sustainability
- Resilience
- Innovation
- National healthcare transformation

**Healthcare never stops. Neither should the facilities that support it.
From Managing Facilities to Enabling Healthcare Transformation
Resilient. Sustainable. Innovative. Future-Ready.**



"The best healthcare facilities are those patients never have to think about—but always depend upon."