



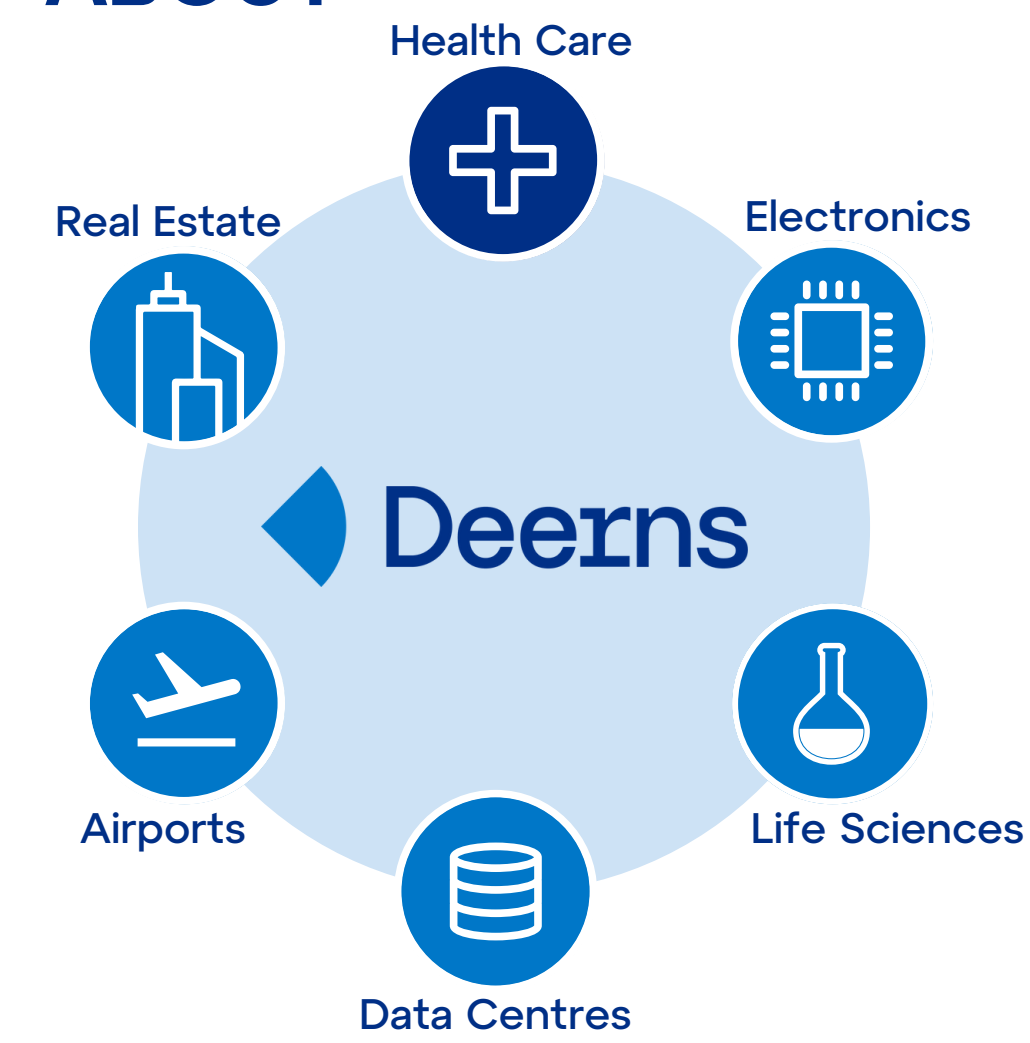
Blue Hospital Design[©]



**Here's where
integrated
design makes a
difference**

Sector Director Health Care
Eduard Boonstra
eduard.boonstra@deerns.com
+31620494448

ABOUT



- Health Care** Leading position in the market
- 100 +** Major projects globally
- Smart** Digitally enabled future-ready designs.
- Sustainable** Zero-energy and green hospitals.
- End-to-end** Medical planning & concept design to detailed design, testing and commissioning.

BLUE HOSPITAL DESIGN®

The "Blue Hospital" concept is a design approach, unique to Deerns, for creating future-ready hospitals in a dynamic and fast-paced world. This approach aims to create smarter, more flexible, sustainable and cost-effective healthcare facilities.

Why? To optimize hospital performance.

How? By combining an innovative and integrated design process.

Global Trends

The global trend towards smaller, resource-efficient hospitals is driven by innovative eHealth systems and environmental regulations. This shift poses a challenge in building cost-effective facilities, ready to meet future demands while accommodating advances in medical care.

A NEW COMPASS FOR HIGH VALUE CARE

Whereas Quadruple Aim is a widely used compass for the delivery of high value care with four key performance indicators (KPIs). From a design standpoint, there are two additional KPIs – sustainability and smart hospital design - which are enablers of the quadruple aim. Blue Hospital design aims to optimize hospital performance across all six KPIs:

- patient centricity
- employee well-being
- improved health outcomes
- lower cost
- +
- sustainable design
- smart hospital design

The interdependencies among all six factors are likened to the complex dynamics of a Rubik's cube. Blue hospital design is an innovative response to address and understand the complexities of hospital design to deliver a balanced solution.



The 6 Performance Indicators

Patient centrality <p>A hospital's success hinges on quality care and fostering a positive recovery environment. Empowering patients to control aspects like bed positions, lighting, and temperature enhances their comfort and well-being.</p>	Employee Well-being <p>Well-being is essential in people-oriented buildings like hospitals. Biophilic design and restorative spaces, such as wellness rooms, along with individual control over indoor climate, improve users' wellness.</p>	High value Health Care <p>Building performance influences healthcare. A healthy environment reduces infections. Daylight level and acoustics impact recovery. Ventilation and low CO₂ prevent disease spread. Smart systems streamline medical processes, improving staff coordination and emergency response.</p>
Sustainability <p>Sustainable buildings, key to the healthcare sector's carbon reduction goals, are resource-efficient and environmentally friendly. Material choices, design, and operational policies are vital in mitigating hospitals' significant carbon footprint.</p>	Smart Buildings <p>A smart hospital prioritizes user-centric experiences by integrating data, allowing customization of indoor environments. This approach emphasizes human well-being, resource efficiency, and data-driven decision-making for a more adaptable healthcare environment.</p>	Total Cost of Ownership <p>Clients and investors assess the financial impact of design measures. Sustainable, health-focused, and smart building solutions may involve higher initial costs. However, evaluating from a total cost of ownership (TCO) perspective reveals long-term profitability.</p>

Interactive Workshop

Deerns invites hospital stakeholders to explore user journeys within the hospital related to the Blue Hospital performance indicators. In an interactive workshop players map their steps together, spotting challenges and proposing effective solutions to optimize hospital performance and deliver high value care.



Outcome

Blue Hospital functionality example:

HVAC monitoring and control

By introducing an HVAC control system, multiple benefits are achieved across all six performance indicators. This example of HVAC optimisation highlights the importance of using the Blue Hospital design approach.

Allowing patients to control / adjust indoor room climate.	Improving well-being of medical staff.	Increasing user well-being and creating healthier spaces by indoor climate control
Regulating energy consumption through HVAC control.	Collecting data relevant to energy and space utilization by connecting the HVAC & BMS systems.	Maximizing return on investment by reducing energy consumption and improving productivity.