

Philips and County Durham NHS Trust Partner to Reduce Carbon Emissions and Waste



Royal Philips, a global leader in health technology and County Durham and Darlington NHS Foundation Trust (CDDFT), one of the largest integrated care providers in England, today announced the results of a comprehensive 360 sustainability analysis. The program identified key opportunities to reduce the carbon footprint and waste material within the intensive care unit (ICU) at Darlington Memorial Hospital. Understood to be the first sustainability collaboration of its kind within the NHS, the program illustrates the growing demand for 'greener' services in the healthcare sector and showcases the potential for health systems around the world to transform critical care pathways and embed sustainability within their operations.

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Dr. Richard Hixson

Consultant in Anesthesia and Critical Care Medicine at CDDFT

“Philips took time to undertake quantitative analysis which validated our suspicions and provided outputs we could present back to the wider Trust. The quality of care we provide on the unit has gone up because of the work, as well as through the direct way we serve certain groups of patients,” said Dr. Richard Hixson, Consultant in Anesthesia and Critical Care Medicine at CDDFT. “For example, by looking at patient flow and de-medicalization of patients, we are helping to ease demand on critical care by adjusting medication, removing monitoring that is no longer required and moving patients onto new pathways, in a positive way.”

ICUs are at the center of diverse clinical practices and in the UK, represent a significant portion of the carbon footprint, while also being one of the most expensive types of care. The analysis, developed as part of the existing 14-year strategic agreement between Philips and the Trust, supports its aims to become a leading example for environmental sustainability in human healthcare.

A team of nine clinical and environmental specialists from Philips worked with the Trust over six months to identify efficiency improvements, with the potential to reduce the carbon footprint of a critical care department. The team analyzed data, interviewed clinical staff including physicians and nurses and undertook shadowing and observation sessions. These focused on clinical workflow, supply chain and procurement, medical technology, and staff and patient experience. The results form a blueprint to drive further change and improvement across the Trust, in line with the NHS's overall target of being the world's first net zero national health service by 2040.

The key areas highlighted by the team for enhancing sustainable care were:

- **Optimizing ICU capacity** for earlier patient discharge, freeing up resources, improving health outcomes, and reducing the carbon footprint
- **Reducing supply chain waste**, including high CO2 impact single-use items, and promoting cost savings and eco-friendly alternatives
- **Cultivating a sustainable staff culture** through training, identifying ambassadors, idea sharing, success measurement, and staff recognition
- **Efficient management of medical technology** to conserve power, reduce waste, and minimize disruptive noise from patient alarms
- **Strategically refurbishing** existing buildings to cut costs and CO2 emissions by extending their lifespan



Following the analysis, the Trust has implemented a number of recommended initiatives. For more information, read the [full case study](#) “Working Together to Green Critical Care”.

Mark Leftwich, Managing Director at Philips UK&I: “Healthcare providers have a responsibility to safeguard both our well-being and our environment, with climate change and human health working hand in hand. This first of kind partnership between Philips and County Durham and Darlington NHS Foundation Trust is an important milestone in the race to reach net zero and provide more sustainable care. As the first 360 sustainability assessment for the NHS, this collaboration shows the potential of finding solutions that care for patients, our health workforce, and the planet all at once, helping to create more resilient health systems for the future.”

This program with CDDFT follows similar analyses conducted by Philips at [Tampere Heart Hospital](#) (Tampere, Finland), [Vanderbilt University Medical Center](#) (Nashville, USA) and [Champalimaud Foundation](#) (Lisbon, Portugal).

Philips has operated globally carbon-neutral since 2020, embedding EcoDesign principles and circular business models into [its innovation processes and ways of working](#). The company offers a range of health technologies and innovations that help reduce healthcare providers’ impact on the environment. For example, its [Philips Spectral CT 7500](#) uses 62.5% less energy [1], and the [Philips MR – Ingenia Ambition 1.5T](#), which uses a breakthrough design where the magnetic components are completely sealed and only need seven liters of helium over its lifetime compared to roughly 1,500 liters with other Philips systems [2]. Additionally, with [Philips MR SmartSpeed](#), the Ingenia Ambition 1.5T uses up to 53% less power per patient scan [2].

Source: [Philips](#)

Reference:

[1] When compared to an equivalent CT model of one of the industry leaders

[2] Applicable to Ambition S. Philips SmartSpeed power consumption versus Philips SENSE-based scanning. Based on COCIR and an in-house simulated environment. Results can vary based on site conditions.

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