

HealthTech NETZERO Case Study

Digistain - Carbon Footprint Savings Enabled by Tumour Profiling Test to Guide Adjuvant Breast Cancer Therapy Choice



The Changing Landscape

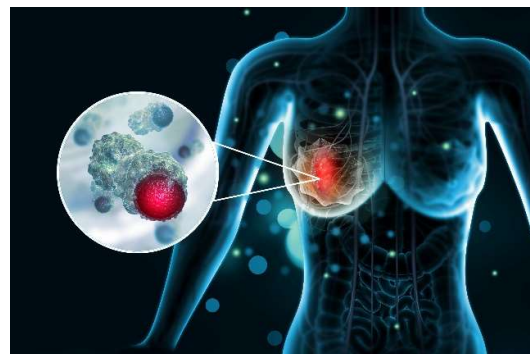
As a result of 60+ countries globally pledging to create sustainable, low-carbon, or NetZero carbon healthcare systems by 2050, organisations are increasingly required to articulate the environmental impact of the technologies they supply to customers and healthcare systems.

The Challenge

Our client developed an innovative tumour-grading technology that enables the stratification of patients based on their risk of cancer recurrence, guiding the use of chemotherapy. The client sought to understand the quantitative evidence on the reduction of carbon footprint resulting from decreased patient travel and improved logistics.

Our Approach

An NIHR Patient Travel analysis, identified through the literature review, allowed us to quantify average CO₂ emissions from a patient's travel to the hospital. Our team constructed a CO₂ Emission Saving model based on the original Budget Impact Analysis of the innovation. In this model, we assigned specific levels of CO₂ emissions to each health state represented in the Markov



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Model, accounting for the number of hospital appointments required for each state. Furthermore, the evaluation considered the CO₂ emissions associated with the logistics, transportation, and storage conditions of tumour samples for the tumour profiling testing. We quantified the cumulative CO₂ emissions savings over a 5-year period.

Outcome

CO₂ Emission Saving Analysis forecasts statistically significant potential CO₂ savings cumulative over 5 years once the innovation is implemented as a substitute to the current care. A fully interactive model allowed the innovator to explore the results from different scenarios. We formulated recommendations for future studies on the data collection and verification of current assumptions.



"This modelling work completed by Health Tech Enterprise has helped us show the positive impact our innovation has in supporting the NHS Net Zero commitments." Hemmel Amrania, CEO of Digistain

About Health Tech Enterprise

Our business and innovation management services support healthcare innovators throughout the product development journey, from concept to commercialisation and final roll-out.

We offer healthcare market and health economics insights and evaluation, as well as regulatory, business and IP advice and management. We also advise on strategic market access, support with securing funding and deliver training and entrepreneurship services.

Our experienced team has partnered with more than 180 technology companies from around the world, to successfully develop, commercialise and market their health technology products for the UK and international healthcare systems.