COzPro

The Compliant Pathway to Sustainable IT

CASE STUDY

Driving Sustainable IT Outcomes with Integrated Carbon Intelligence

The Imperative: Actionable Sustainability in IT Operations

In an era where environmental responsibility is paramount, IT organisations face increasing pressure to not only manage their vast asset estates efficiently but also to precisely measure and reduce their carbon footprint. This challenge is compounded by disparate data sources, the complexity of lifecycle emissions, and evolving regulatory demands, such as the NHS England mandate requiring asset-level carbon data from vendors by 2028. Many organisations struggle to move beyond basic reporting to achieve meaningful, measurable outcomes that impact the "triple bottom line": Waste, Cost, and Carbon. The insights from this pilot and its findings have significantly contributed to the **Future NHS Smarter, Greener, Digital Blueprint.**

The Pilot: Unlocking the Art of the Possible

To address these critical challenges, a comprehensive pilot program was initiated, focusing on a large-scale IT estate. The pilot's core objectives were to:

- **Benchmark CO2e Metrics:** Compare asset model CO2e metrics against government STAR reporting standards.
- **Assess Triple Bottom Line Potential:** Understand the "art of the possible" in achieving waste, cost, and carbon reductions by consolidating disparate data from various internal and external sources.
- **Translate Metrics to Action:** Develop a clear understanding of how to transform complex sustainability metrics into meaningful, actionable, and measurable outcomes.

Client Perspective: A Partnership in Action

Using KA2's expertise and methodology, we were also able to consider the potential impact of digitally enabled healthcare assets – something that has previously not been estimated! The team at KA2 demonstrated their expertise and passion for delivering sustainable IT at every meeting, and we were so pleased to collaborate with them."

Amy Twyman, Digital Lead for North East Lincolnshire Health and Care Partnership, leading on behalf of the HNY ICB

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Key Findings and Actionable Outcomes:

The pilot, supported by KA2's COzPro platform, yielded profound insights, demonstrating the significant potential for impact through data-driven sustainable IT strategies:

- **Establishing a Critical Baseline for Action**: A foundational outcome of the pilot was the ability to establish a comprehensive baseline CO2e footprint for the entire IT estate. This initial snapshot, derived from existing asset data, proved invaluable. It provided a clear, quantifiable starting point against which all future carbon reduction efforts could be measured, making progress tangible and demonstrating ROI on sustainability initiatives. Without this baseline, understanding the true scale of the challenge and the effectiveness of interventions would have been impossible.
- **Targeted Carbon Reduction:** Analysis revealed that just five asset types accounted for approximately 80% of both the total asset volume and the CO2e emissions across the entire estate. Strategic model-level and asset-level refresh programs were identified as capable of reducing the estate's CO2e by ~25% in the short to mid-term. This can be achieved by:
  - Transitioning from high-impact asset types to lower-impact alternatives.
  - Procuring fewer, more standardised asset types.
  - Prioritising new assets with lower Scope 3 (embodied carbon) content and more energy-efficient Scope 2 (in-use energy) profiles.
- **The Dominance of Scope 3:** A critical finding was that over 60% of the total carbon footprint resided in Scope 3 of the asset lifecycle. This unequivocally demonstrated that relying solely on in-life Scope 2 CO2e metrics is insufficient. A full lifecycle CO2e approach must be adopted immediately to accurately assess and manage environmental impact.

24,000 Digital Assets Managed
COzPro mapped and tracked 24,000 IT assets across the NEL health estate to enable precise carbon insights.

2,158,970 kg CO_2e Reduction Identified
Switching from desktops to laptops could cut over 2.1 million kg of CO_2e, representing 16% of the estate's footprint, in just one asset category.

£500,000 Cost Savings Found
Avoiding 2,033 monitors delivers £500,000 in hardware and support savings alongside carbon cuts.

80% Emissions from 5 Asset Types
Analysis revealed just five asset types produce ~80% of total IT estate CO_2e, guiding focused reduction efforts.

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- **Triple Bottom Line Realisation through Standardisation:** Analysing the estate's CO2e highlighted a direct path to realising the Triple Bottom Line. Standardising on fewer manufacturers and asset models not only optimises the total cost of acquisition through leveraged buying power but also significantly reduces the cost of ownership by streamlining support overheads.

- **Waste Reduction Opportunities:** Beyond procurement, tangible waste reductions were identified through operational changes. Examples included migrating from traditional desk phones to softphones, limiting individual desk printers in favour of centralised workgroup printers, and strategically reviewing the deployment of laptops versus desktops based on usage patterns and lifecycle impact.

- **Embracing Progress Over Perfection: The Iterative Approach to Data Quality.** The pilot showed that starting with the data you have is crucial, rather than waiting for perfectly complete datasets. Even with varied data quality, from "Gold Standard" external provider data to internal inconsistencies and significant gaps for many asset types (e.g., zero published EPDs for 626 medical devices), the platform successfully established a foundational carbon baseline. COzPro immediately illuminated these data gaps, providing clear pathways for incremental improvement. This also highlighted the need for ongoing vendor engagement to secure asset-level environmental data in future procurement contracts, as well as for internal efforts to standardise ITAM reporting. The journey to a comprehensive and accurate carbon footprint begins with a practical start and continuous refinement.

- **The Power of Real-time Reporting and Analysis:** The pilot demonstrated that real-time reporting and analysis are critical to supporting optimal carbon impact reduction outcomes. Periodic, static reports only add to expense, time, and effort, severely limiting the effective delivery of a truly sustainable operating model. Continuous, dynamic insights are essential for agile decision-making and continuous improvement in reducing waste, cost, and carbon across the IT estate.

Client Perspective:
A Partnership in Action

"We worked with KA2 to explore management of digital assets across different healthcare providers. KA2's platform, COzPro, supported management of 24,000 assets, allocating assets a carbon profile, helping providers to understand the carbon footprint of individual assets and support informed decision-making.

Using the COzPro modelling functionality we learnt that by replacing workstations at term with laptops without the need for a monitor we could reduce the CO2e in just one category of our digital asset by 2,158,970 of CO2e (a reduction of over 16% of the NEL Digital estate CO2e) and save the costs of buying and supporting 2,033 monitors by an estimated £500,000.