Manifesto

Embracing a holistic approach to medical technology sustainability evaluation

Our manifesto proposes a holistic and data-driven approach to assessing sustainability in medical technologies, integrating environmental, human and economic considerations, ensuring patient centricity and prioritising health outcomes.

Strengthening healthcare systems, enhancing access to quality care, and ensuring patient-centric healthcare delivery are key goals in the EU's efforts to build the European Health Union and support the resilience of healthcare systems. We believe that an essential part of the solution lies in fostering a deeper shared understanding of sustainable healthcare and shaping the pathways to achieve it.

As a European Medtech company with a global presence, we see firsthand our sector's crucial role in making healthcare systems more resilient and sustainable in the EU and around the world. We are also convinced that the medical technology sector plays a vital role in bridging the innovation gaps highlighted in the Draghi's report on the future of European competitiveness. This is why we are committed to contributing to frameworks that prioritise patient-centric care, address environmental challenges and foster innovation across the EU.

Regrettably, emerging trends in sustainability evaluation of medical technology within the healthcare sector are highly concerning. These evaluations rely on insufficient data, focusing solely on greenhouse gas emissions of individual devices while overlooking broader environmental, human, and economic considerations. In a healthcare setting, this narrow focus poses risks to the health and well-being of both patients and healthcare practitioners, while potentially contributing to emerging health threats such as antimicrobial resistance (AMR) and long-term challenges like water scarcity.

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Challenge

As a result of efforts to improve environmental footprint, healthcare providers are facing increasing pressures to reduce their greenhouse gas emissions and waste. In some cases, this may lead to decisions that compromise both environmental impact and the safety of staff and patients. One misconception is that reprocessing devices is always a more sustainable choice than single-use alternatives, despite the lack of evidence supporting the potential of reprocessing and reuse to reduce the overall environmental impact.

While reducing greenhouse gas emissions can be linked to circularity in healthcare, several published life cycle assessments do not consider all relevant environmental impacts, particularly those related to device reprocessing and reuse, such as pollution, water and chemical use and wastewater contamination. In addition, human and economic impacts – such as patient safety risks, staff exposure to hazardous substances, device maintenance and replacement costs - are often overlooked.

There are no harmonised frameworks, tools or metrics to accurately assess the total environmental, economic and human impacts of medical technologies, leading to inconsistent evaluations and selective interpretation. This prevents evidence-based decision making and, as a result, obstructs progress toward sustainable healthcare.

To fully assess the sustainability impacts of medical technologies, a consensus is needed on criteria that holistically consider environmental, human, and economic impacts.

Environmental

- Greenhouse gas emissions
- Waste (solid and liquid) and pollution of wastewater
- Material, water and chemical use

Human

- Risks to staff and patients (cross-contamination, and exposure to hazardous substances, pathogens and biological materials)
- Working conditions and the well-being of patients and healthcare practitioners
- Role in the development of antimicrobial resistance[1]

Economic

- Costs of device purchase
- Costs of device reprocessing and end-of-life treatment
- Costs associated with adverse events (patient and staff safety)

Recommendations

We believe that policymakers, healthcare providers and the industry share responsibility for shaping sustainable healthcare that prioritises patient and staff well-being, enhances the resilience of healthcare systems and reduces the long-term environmental impact.

To achieve sustainable healthcare, we must move beyond fragmented decision-making in medical technology evaluation and embrace a holistic approach that considers all aspects of sustainability.

We call for

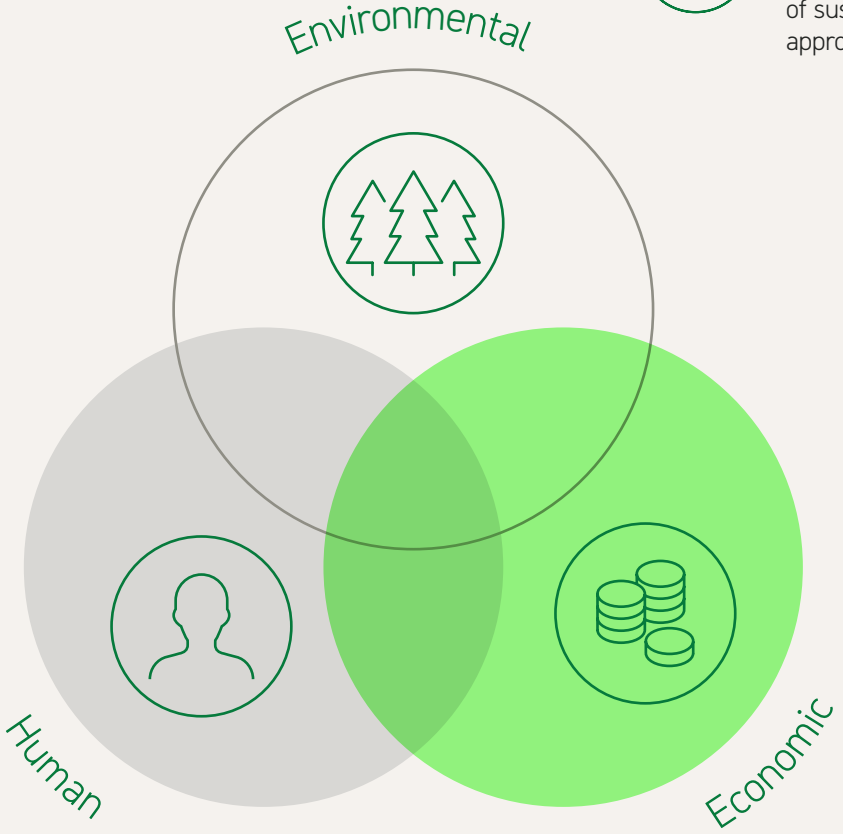
Establishing a **common framework** for the sustainability assessment of medical technologies—applying harmonised criteria and parameters consistently—while considering all relevant environmental, human, and economic impacts.

Developing collaboration mechanisms that enable and encourage stakeholders to contribute data to ensure an **evidence-based understanding** of the environmental, social, and economic impacts of each medical technology throughout its life cycle.

Providing training and sharing best practices to help procurement professionals and hospital managers in **adopting holistic evaluation methods.**

Recognising the **well-being, working conditions, and retention** of healthcare practitioners as fundamental to the resilience of healthcare systems and promoting best practices to meet their needs.

Promoting the transition from traditional price-based purchasing and tendering models to **value-based healthcare as a key enabler** of sustainable healthcare, ensuring clinically appropriate and patient-centred outcomes.



1. Hassoun-Kheir, N. et al. (2020) 'Comparison of antibiotic-resistant bacteria and antibiotic resistance genes abundance in hospital and community wastewater: A systematic review', Science of The Total Environment, volume 743. doi:10.1016/j.scitotenv.2020.140804. **2.** MacNeill, A.J., Lillywhite, R. and Brown, C.J. (2017) 'The impact of surgery on global climate: A carbon footprinting study of operating theatres in Three Health Systems', The Lancet Planetary Health, 1(9). doi:10.1016/s2542-5196(17)30162-6.