

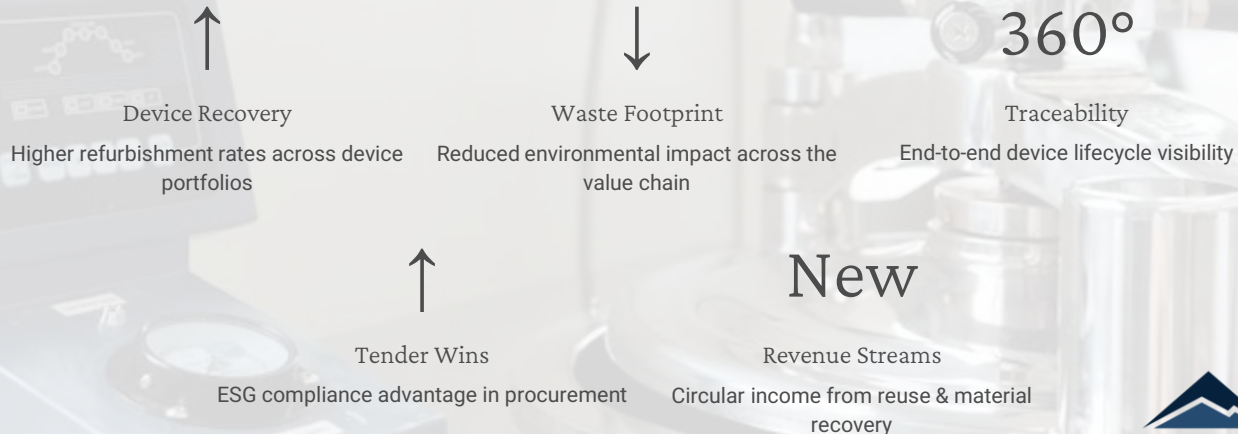
# Circularity & the "Green MedTech" Mandate

## PHARMACEUTICAL & MEDICAL DEVICES INDUSTRY

The medical technology sector is entering a new regulatory and competitive era, where sustainability is no longer a compliance exercise—but a core determinant of market access and profitability. Emerging global frameworks, such as advanced eco design and product lifecycle regulations, are forcing a fundamental rethink of how medical devices are designed, used, recovered, and reintroduced into the value chain.

At the same time, hospitals and procurement authorities are embedding mandatory ESG and environmental performance metrics into tender processes—making "Green MedTech" a decisive factor in vendor selection. For leading MedTech players, the challenge is clear: **How do you transition from single-use, linear models to circular, traceable, and value-generating systems—without compromising safety or compliance?**

Turning sustainability into a traceable, regulated, and monetizable system — Fortis & Peak



# The Strategic Challenge: Breaking the Linear Model

## The Linear Trap

The traditional "produce–use–dispose" device lifecycle creates systemic vulnerabilities that are no longer commercially or regulatorily viable. Organizations manufacturing high-quality devices could not extend their value beyond first use or prove sustainability performance.

Without circular design principles or post-use visibility, MedTech companies face mounting regulatory exposure, lost tender opportunities, and an inability to quantify environmental impact.

## Critical Gaps Identified

- Linear Lifecycle
  - No mechanism to recover, refurbish, or reintroduce devices after first use
- Zero Post-Use Visibility
  - Limited control or tracking of devices once they leave the point of care
- Regulatory Pressure
  - Growing global mandates on waste, sustainability, and eco design compliance
- No Circular Design
  - Absence of modularity, disassembly planning, or recyclability in product architecture



The organization could manufacture high-quality devices—but could not extend their value beyond first use or prove sustainability performance to procurement authorities.

# Transformation Powered by 3D&S + NEXORA™

Fortis & Peak deployed its proprietary **3D&S execution framework** and **NEXORA™ intelligence platform** to architect a fully circular MedTech value chain—moving clients from linear product lifecycles to closed-loop, traceable, and compliant systems.

1

## DEFINE

Using NEXORA™, created full lifecycle transparency: assessed product design for circularity (modularity, materials, reuse potential), mapped device lifecycle from production through disposal, analyzed hospital workflows and waste handling, identified gaps in traceability and reverse logistics, and evaluated ESG risks and regulatory exposure.

**Outcome:** A quantified view of waste leakage, recovery potential, and compliance gaps.

2

## DESIGN

Engineered a Circular Device Value Chain: applied circular design principles (design-for-disassembly, modular components), architected Digital Product Passports (DPP) for each device, built traceability systems across the full lifecycle, aligned refurbishment workflows with clinical standards, and established a reverse logistics network.

**Outcome:** Transition from linear product lifecycle to closed-loop value system.

3

## DELIVER

Leveraging NEXORA™ as the intelligence backbone: deployed Digital Product Passports across device portfolios, activated real-time lifecycle tracking from production to post-use recovery, integrated with hospital systems for device tracking and return, and launched dashboards monitoring recovery rates, reuse cycles, and ESG metrics.

**Outcome:** A fully operational, traceable, circular MedTech ecosystem.

4

## SUSTAIN

Circularity became a continuous value driver: optimized recovery, reuse, and recycling rates; drove continuous improvement of product design for circularity; aligned with evolving ESG and regulatory standards; and built organizational capability in circular operations and lifecycle management.

**Outcome:** A self-reinforcing circular business model with measurable ROI.

# Core Platforms in Action

The transformation is powered by two proprietary Fortis & Peak assets working in concert: **NEXORA™**, the circular intelligence and traceability engine, and **3D&S**, the structured execution framework. Together they convert sustainability ambition into auditable, monetizable operational reality.

## NEXORA™ — Circular Intelligence Engine

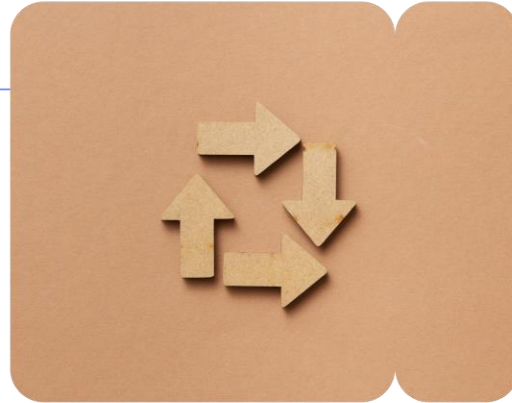
Enables Digital Product Passports (DPP) for full lifecycle visibility across every device in the portfolio. Tracks materials, usage patterns, and recovery status in real time. Transforms sustainability commitments into measurable, auditable performance data that satisfies regulatory and procurement requirements.

## 3D&S — The Execution Framework

A four-phase methodology that operationalizes circularity end-to-end: **Define** lifecycle gaps and circularity potential; **Design** circular product and supply chain systems; **Deliver** traceability, recovery, and reuse capabilities; **Sustain** continuous optimization of environmental and financial outcomes.

### Traditional Model

Production → Use  
→ Disposal; no  
recovery or visibility



### Circular Model

Design → Use →  
Track → Recover →  
Refurbish → Reuse  
powered by  
NEXORA™

The intelligence layer—NEXORA™—sits across the entire circular model, converting device data into lifecycle tracking, ESG metrics, and continuous optimization signals. The 3D&S execution layer ensures these insights translate into operational change at every stage of the value chain.

# Measurable Impact & Strategic Positioning



## Waste Reduction

Significant reduction in medical device waste across the portfolio, with increased recovery and reuse of high-value components that previously entered the waste stream after single use.



## New Revenue Streams

New income generated from refurbishment services and circular business models, converting what was previously a cost center—end-of-life device management—into a monetizable capability.



## Regulatory Compliance

Enhanced compliance with evolving sustainability regulations and stronger positioning in ESG-driven procurement and tender processes, directly improving win rates with hospital and public sector buyers.

Circularity in MedTech is not a sustainability initiative—it is a data-driven system that transforms waste into measurable economic value.

## Strategic Positioning: Fortis & Peak

### NEXORA™ Creator

Proprietary circular intelligence and traceability platform purpose-built for regulated MedTech environments

### 3D&S Owner

Execution-driven transformation methodology that embeds circularity into operations, not just strategy

### System Architect

Transforms sustainability into a regulated, monetizable, and data-driven MedTech ecosystem

### Circular Leader

Enabling compliant, circular, and data-driven MedTech value chains at enterprise scale

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