



Mapping Scalable Precision in Apparel

A Structural Transformation Through Programmable Fit, Longevity, and Circularity

SLIDE 1: Perfect Fit— Mechanical Foundation

At the core of the invention is a **mechanical movement principle** that leverages the interaction between reinforcement structures and dynamic panel movements—transforming the garment into a self-adjusting, adaptive construction.

SLIDE 2: A Scalable Mass-market Solution

Perfectly fitting garments can now be produced at mass-market prices. The system merges the precision and stability of woven tailoring with the scalability of high-tech knitwear—delivering perfectly fitting garments to scale without fittings, 3D body scans, fasteners or seams. Core principles:

- **Panel interaction:** Adapts dynamically to body movement while shaping in real time.
- **Structured balance:** Flexible zones maintain tailored form.
- **Advanced programming:** Enables structural adaptability beyond standard logic.
- **Scalable precision:** Fully programmed to provide repeatable accuracy on any scale.

SLIDE 3: Optimised Approach to Apparel Design

Fit, materials, and timing are **defined in a modular development flow**—ensuring precision down to the millimetre. Each stage is perfected before the next allowing problems to be identified early and waste to be reduced. The streamlined, digitally controlled process ensures consistent, high-quality output with minimal external dependency.

SLIDE 4: Instant Global Scaling via Digital Fit Transfer

Modular architecture delivers **precisely engineered, perfect fit and quality at any scale**—instantly and consistently—via digital file transfer to any compatible facility worldwide.

SLIDE 5: Apparel Industry Inefficiencies Solved

The system resolves four of the industry's most persistent challenges:

- **Inconsistent Fit and high Waste in Woven apparel.**
- **Instability and Deformation in Knitwear apparel.**

The patented correlation of movement and reinforcement **enables one** garment to cover **up to four sizes**—dramatically reducing unsold inventory and returns. Through seamless mono-material construction and zero-waste production, the system redefines fit, longevity and sustainability at scale.

SLIDE 6: Reduced Sizing and Inventory

With dynamic, self-adjusting garments, **only three sizes** are needed to replace eight fixed sizes—reducing returns **by 71.4%** and unsold inventory **by up to 78.6%**.

In the photos: One garment, one size, worn by two customers with over 20 cm height difference—standard sizes 38IT and 42IT.

SLIDE 7: Profit and Sustainability Aligned

The restructured production model:

- Net profit ↑ **up to 240%**
- Production cost ↓ **by 73.7%**
- Material waste ↓ **by 84.9%**
- CO₂ emissions ↓ **by 72%**
- Production time ↓ **by 84.0%**
- Skilled Labour ↓ **by 99.9%**

Luxury-level garments can now be delivered at scale without compromising on fit, quality, or environmental standards.

SLIDE 8: Programmed Results

Fit and behaviour are pre-engineered into the garment. Programmes require only standard software knowledge—no specialised skills—regardless of production scale.

SLIDE 9: Built-In Structural Intelligence

Reinforcement and adaptability are embedded directly into the engineering design, eliminating the need for external mapping software. The system ensures long-lasting fit and performance across all programmable platforms.

SLIDE 10: Ultimate Circularity

Mono-material construction enables potentially **up to 91.2%** luxury fibre recovery while preserving premium fibre quality across multiple lifecycles. Blockchain integration—if incorporated into the garment's structure—**supporting scalable circular systems**—and **redefining fibre longevity** in apparel.