INDEX™26: Engineering the Future of Nonwovens Through Circular Innovation and Smart Technologies

The global nonwovens industry is entering a defining era of transformation—and **INDEX™26** emerges as the epicentre of this shift. As the world's leading nonwovens exhibition, the 2026 edition in Geneva brings together advanced material science, intelligent manufacturing, and sustainability-led innovation, positioning nonwovens at the heart of next-generation industrial solutions.



Nonwovens as High-Performance Engineered Materials

At INDEX™26, nonwovens are clearly established as **engineered materials with multifunctional capabilities**, driving performance across diverse sectors:

- **Filtration:** High-efficiency media with optimised fibre structures
- **Mobility & Automotive:** Lightweight, acoustic, and thermal solutions
- **Geotextiles & Construction:** Durable materials for infrastructure and civil engineering
- **Medical & Hygiene:** Advanced barrier fabrics ensuring safety and comfort
- **Packaging & Industrial Uses:** Functional, recyclable, and cost-efficient solutions

This broad application spectrum highlights a structural shift—**nonwovens are no longer substitutes but primary materials in high-value applications.**

Sustainability as a Core Design Principle

A central narrative at INDEX™26 is the **fusion of sustainability with high-performance engineering**. The industry is moving decisively beyond compliance, embedding sustainability into the very DNA of product development.

Key innovations include:

- **PFAS-free protective nonwovens** aligned with tightening regulations
- **Bio-based and biodegradable polymers** reducing environmental impact
- **Low-carbon fibre and pulp solutions** enhancing resource efficiency
- **Circular bonding and adhesive technologies** enabling recyclability

This evolution reflects a paradigm where **environmental responsibility is a driver of innovation, not a constraint.**



Smart Manufacturing: Digitalisation Driving Efficiency

INDEX™26 showcases how **digital transformation is reshaping nonwoven production ecosystems**:

- **Digital Twin technologies** enabling predictive design and optimisation
- **AI-driven operational efficiency (OEE improvements)** for higher productivity
- **Advanced processing systems** reducing water, energy, and chemical consumption
- **Precision mapping technologies** ensuring consistent product performance

These advancements are paving the way for **data-driven, resource-efficient manufacturing models** that balance productivity with sustainability.

Material Science Breakthroughs Redefining Performance

Material innovation remains the cornerstone of progress in nonwovens, with INDEX™26 highlighting:

- **Nanocellulose-based biopolymers** for enhanced functionality
- **High-performance polymer systems** improving elasticity, strength, and durability
- **Advanced spunlace and meltblown technologies** boosting filtration efficiency
- **Smart chemistry solutions**, including "debond-on-demand" for improved recyclability

Additionally, developments in **microfibres, rheology modifiers, and sustainable coatings** are enabling manufacturers to achieve **higher performance benchmarks with reduced environmental impact.**

Circular Value Chains: From Concept to Reality

A standout insight from INDEX™26 is the **transition toward fully integrated circular value chains**:

- Designing products for recyclability and reuse
- Incorporating renewable and bio-based raw materials
- Minimising waste through process innovation
- Strengthening collaboration across suppliers, manufacturers, and end-users

This systemic approach signals that **future-ready nonwovens will be defined by lifecycle thinking and collaborative innovation.**

Strategic Knowledge and Industry Alignment

The exhibition's seminar programme acts as a **strategic intelligence hub**, addressing:

- Evolving global regulations
- Access to public funding and investment frameworks
- Market trends in filtration, mobility, and geosynthetics
- Transition strategies toward circular economy models

Combined with immersive experiences and networking platforms, INDEX™26 offers a **holistic ecosystem for innovation, collaboration, and business growth.**

Conclusion: A New Industrial Blueprint for Nonwovens

INDEX™26 marks a pivotal moment for the nonwovens industry. The convergence of **advanced material science, digital manufacturing, and circular design principles** is redefining how nonwovens are conceptualised, produced, and applied.

The industry's trajectory is unmistakable:

- **Sustainability and performance are now inseparable**
- **Digitalisation is accelerating innovation and efficiency**
- **Collaboration across the value chain is essential for scale and impact**

As global industries demand smarter, safer, and more sustainable materials, nonwovens are emerging as a **critical foundation of modern industrial ecosystems**.

INDEX™26 does not simply showcase innovation—it establishes a forward-looking blueprint for a resilient, intelligent, and circular nonwovens industry.