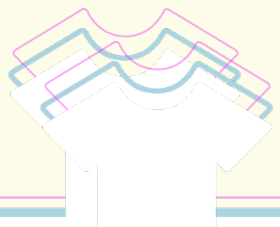
# A Manifesto for Smart, Productive and Sustainable Apparel Manufacturing

International Apparel Federation (IAF)
Business Innovation Committee (June 2026)

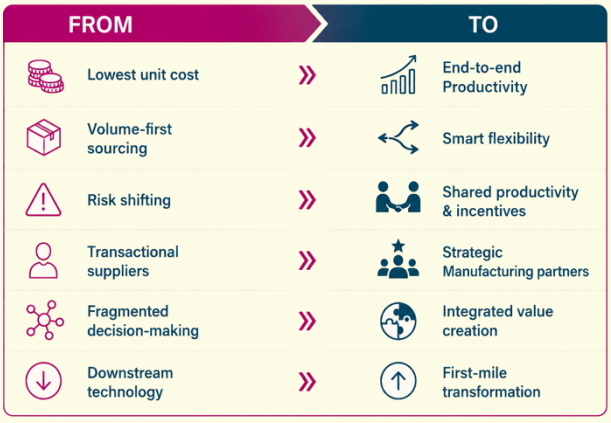


# Manifesto at a Glance

## Why this Manifesto?

The apparel industry's greatest losses occur not primarily in manufacturing cost, but in systemic inefficiency: overproduction, excess inventory, markdown cycles, lost capital and operational friction. For decades, the industry optimized for lowest unit cost — often at the expense of productivity, resilience and long-term value creation. In an environment of digital acceleration, regulatory pressure, climate exposure and volatile demand, incremental change is no longer sufficient.
This Manifesto calls for a transition toward smart, productive and sustainable apparel manufacturing grounded in manufacturing realities.

## The strategic shift




## Key conclusions

- The greatest losses in apparel occur in inventory risk, markdowns, lost sales and trapped capital.
- Manufacturers are strategic orchestrators of flexibility and value creation.
- Smart flexibility aligns production, planning and incentives closer to real demand.
- Technology increasingly moves upstream into planning, forecasting, design, production and decision-making.
- Productivity requires stronger apparel–textile integration.
- Shared risk requires new commercial models, performance metrics and aligned incentives that reward value creation across the supply chain.

## How change happens

The Manifesto follows a practical pathway for transition:

- ***DEFINE:*** Establish shared direction, principles and strategic priorities.
- ***ENABLE:*** Advance transformation clusters, pilots, demonstrations, learning, experimentation and implementation.
- ***STANDARDIZE:*** Build common language, metrics, protocols and scalable industry practices.

> **IAF believes that the future competitiveness of the apparel industry depends on a transition from lowest unit cost toward end-to-end productivity, smart flexibility and shared value creation.**

This Manifesto is an invitation to industry stakeholders to align around a common direction and contribute to practical pathways for implementation.

# 1. Manifesto as vision

This Manifesto articulates the IAF's vision, developed through its Business Innovation Committee, to transform apparel and textile manufacturing through process, data and digital technologies. It is a vision for transition of a fashion system grounded in manufacturing realities.

The manifesto is part of a broader framework for industry change envisioned by the IAF:

- **DEFINE:**
  Establish shared direction and principles (the manifesto).
- **ENABLE:**
  Advance collective learning, action and implementation.
- **STANDARDIZE:**
  Distribute common language for best practices, protocols and metrics that allow alignment and scale.

# 2. Core vision: the need for systemic change and key role for apparel manufacturers

Global apparel is entering a decisive period of challenges. Regulatory tightening, climate exposure, digital acceleration and the rise of new business models are compressing an industry's margin for inefficiency. What once appeared cyclical is increasingly structural.

For decades, apparel has optimized for lowest unit-cost—often at the expense of productivity, resilience, and long-term value creation. The result has been systemic inefficiency and growing operational **friction**: overproduction, excess inventory, markdown cycles, lost capital and unstable buyer-supplier relationships. To counter inefficiency, initiatives are too often forced flexibility—product responsiveness for one actor is achieved by shifting cost, risk and volatility onto others, particularly manufacturers.

This dynamic to transfer risk has weakened manufacturers' financial resilience, constrained investment capacity and locked many into unprofitable business structures. Incremental change is no longer sufficient. The global system for apparel must be redesigned. This transition requires an **inversion of traditional supply chain logic** — from price extraction toward value creation, and from unilateral risk shifting toward shared productivity.

The central shift of this Manifesto is clear: **from cost to productivity**—from lowest unit cost to highest end-to-end productivity enabled through smarter, more flexible supply chain systems. Value in apparel is created across the full supply chain — not through unit price alone. Achieving this transition requires **smart flexibility** — the capability to align production, planning, information and incentives more closely with real demand. Unprofitable volume serves neither buyer nor supplier.

In fashion, the greatest losses do not occur in making products, but in selling them. Overproduction, excess inventory, and markdown cycles destroy more value than factory costs of goods sold. Capital trapped in unsold goods constrains innovation and resilience. Improving productivity is therefore not only an operational objective, but a capital allocation strategy.

Transformation is collective by definition. Systemic change cannot be driven by any single actor. Brands, retailers,

manufacturers, textile suppliers, technology providers and financial firms each control different levers of impact.

Manufacturers are the operational centre of smart flexibility — not as sole problem-solvers, but as essential partners whose capabilities must correspond to changes in sourcing practices, contracting, planning and investment across the value chain.

## 3. Transition is underway

Transition to smart, productive and sustainable apparel manufacturing is no longer a horizon issue. It is unfolding today across industry, technology ecosystems, and capital markets.

For investors, apparel companies are increasingly evaluated on working capital efficiency, inventory velocity and supply chain agility. Value is shifting from price extraction to capital productivity.

The central goal of this transformation is to re-capture lost capital. Inventory excess and production mismatched to demand derail vast financial value. Unlocking that capital is fashion's most visible and viable opportunity to restore and share both prosperity and purpose. No alternative comes close to its magnitude of benefit.

Technology migration to upstream applications is accelerating. AI-enabled workflows, demand sensing and design-to-production integration improve forecast accuracy, shorten development cycles, and enable postponement at scale. Competitive advantage in process capability is not limited to geography.

## 4. A timeline for structural transition

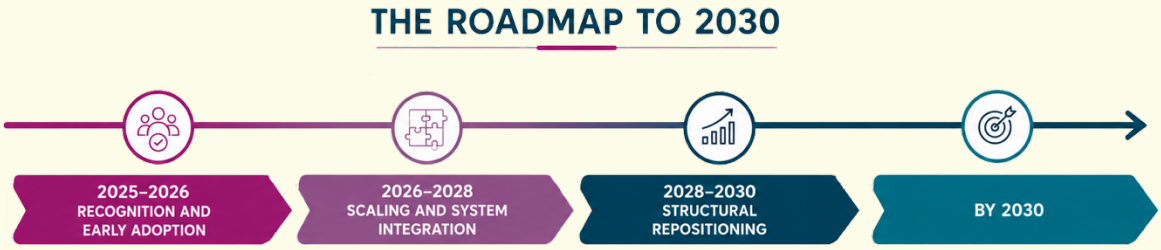
A timeline for transition described in this Manifesto can be considered in phases over the remainder of this decade. Momentum is already evident across leading actors.

**2025–2026: Recognition and Early Adoption**
Industry awareness of limitations in volume-first models is widespread. Early adopters are piloting new AI approaches to align workflows, postpone inventory commitments, and plan for less risk across supply chain tiers. New entrants with automated supply chain networks have proven global demand with rising market shares.

**2026–2028: Scaling and system integration**
Leading companies begin to embed smart flexibility into core operations. This includes wider adoption of postponement, integration of upstream AI decision-making, and implementation of shared risk mechanisms in sourcing contracts. The desired shift is from seasonal and transactional relationships toward relational, long-term partnerships.

**2028–2030: Structural repositioning**
Economic advantage belongs to companies capable of high demand accuracy, lower inventory risk and greater capital efficiency. Technology architectures and collaborative frameworks are industry benchmarks rather than exceptions.

By 2030, leading apparel supply chains will be defined not by lowest cost sourcing, but by capability to operate with precision, flexibility and value creation across all tiers. The direction toward structural repositioning is underway.




## 5. From cost minimization to end-to-end productivity through smart flexibility

For decades, the industry has operated on structural imbalance: ***"make 10 to sell 3."*** The sourcing formula for volume sales no longer compensates for high markdowns, uncertainty and discarded goods. The emerging model is to **"make 7 to sell 7"** — aligning production closer to full price demand, at far less inventory risk and capital. This shift to manufacture with precision and less waste restores profitability through productivity.

Aligning production with real demand requires smart flexibility.

Smart flexibility reduces the cost of volatility across the supply chain. It aligns planning incentives and information flows to transform uncertainty to responsiveness with less risk.

Smart flexibility is a supply chain design principle. Postponement is its core mechanism applied to a varying percentage of orders. By delaying commitments as forecasts improve, postponement reduces inventory risk and enhances full-price performance. Postponement shifts key metrics from inbound margin (ex-factory prices) to total profit performance.

This transition also requires new ways of evaluating performance — prioritising indicators such as inventory productivity, forecast accuracy and full-price sell-through over unit cost alone.

Smart flexibility through postponement is operationalised through:

- material hedging and development strategies
- capacity management to allow late-stage configuration
- postponement of key processes such as dyeing, printing or finishing
- synchronised, cross-tier demand and production planning
- deep technical integration between textile and apparel production
- shorter feedback loops between market signals and factory execution

These mechanisms reduce total inventory risk, improve capital efficiency and enable manufacturers to respond to demand without disproportionate volatility. B2B and B2C systems are no longer two separate businesses — they're one "decision factory.

# 6. Manufacturers as value creators, not interchangeable suppliers

Apparel manufacturers orchestrate execution by translating planning and design decisions into responsive production and delivery. They perform what this Manifesto refers to as **Flexcraft** — the orchestration capability that translates market uncertainty into responsive production outcomes.

They can:

- allocate and block capacity while retaining late-stage decision options
- produce smaller, demand-responsive batches
- postpone late-stage dyeing, printing and finishing,
- co-innovate production processes with textile suppliers
- deploy digital tools to shorten costing and development cycles
- co-create adaptive planning processes with clients

**Flexcraft** combines capacity management, postponement, cross-tier coordination, digital planning and adaptive execution. These capabilities position manufacturers as strategic partners in value creation. However, factory-level change alone is insufficient. Manufacturers must be enabled — not constrained — by sourcing models. These models must shift as follows:

- from transactional sourcing to collaborative, relational accountability
- from interchangeable suppliers to integrated manufacturing partners
- from paying only for products to valuing services and flexibility
- from unilateral risk shifting to shared risk and shared returns

As the industry adopts smarter production models, digital tools and collaborative planning, manufacturers deserve to capture a greater share of value they help to create. Systemic redesign may require new commercial mechanisms that recognize and reward flexibility, responsiveness and inventory risk reduction across the supply chain. These may include:

- Capacity reservation fees
- Pay-for-flexibility models
- Gainshare mechanisms (e.g., sharing upside from reduced markdowns)

# 7. Strengthening apparel–textile collaboration

System productivity requires stronger upstream integration between apparel and textile manufacturing. Sector collaboration is fashion's greatest opportunity to overcome its chronic inefficiency.

Flexibility downstream begins upstream — through material readiness, process innovation, integrated planning, and mutual accountability across tiers. It is structured collaboration between brands, apparel manufacturers and textile suppliers, particularly where brands nominate fabric sources. The result is reduced demand volatility and improved total system productivity.

A more responsive production process from fibre to shelf may be created through changes in product design and development. Apparel manufacturers and textile manufacturers may take the initiative to jointly set up flexible production systems. Machine and software suppliers

understand the need for systems integration across the supply chain.

## 8. First mile transformation: technology moves upstream

Digital (AI) technologies are not peripheral or additive tools. Increasingly, competitive advantage begins in the **first mile** of the supply chain. They reshape upstream decision architecture from order management, cost and compliance to value creation.

The decisive shift is migration of technology to the first mile of the supply chain. AI-native tools collapse pre-production, energize economic development and encourage creative entrepreneurs in fashion.

Therefore access to technology must remain inclusive. Innovation concentrated only in highly capitalised factories may reinforce structural imbalances. Collective platforms and shared diffusion in learning and adoption are essential to SME participation.

costing and sampling cycles from months to hours, integrating product design and development. Digital platforms for production planning and control further enable flexcraft. Technology diffusion determines whether postponement becomes exception or norm in aligning contracts, incentives, governance and data flows across brands and manufacturers. Technology skillsets are a crucial strategic lever to enable productivity gains,

Unlocking the value creation associated with the deployment of technology in the 'first mile' requires a behavourial shift. Manufacturers cannot sufficiently invest in technology in the context of a sourcing model that is based predominantly on lowest unit cost rather than highest end-to-end productivity.

## 9. SMEs as engines of innovation

Small and medium-sized enterprises are central to global apparel ecosystems. They are sources of entrepreneurship, employment, specialised knowledge, flexibility and experimentation.

This Manifesto calls for SME access to capital, digital capabilities and scale efficiencies, such as:

- shared service centres
- collective infrastructure
- collaborative innovation platforms

Supporting SMEs is not only an equity issue. It is a strategic necessity for economies dependent on textiles, or seeking greater participation in global apparel value chains.

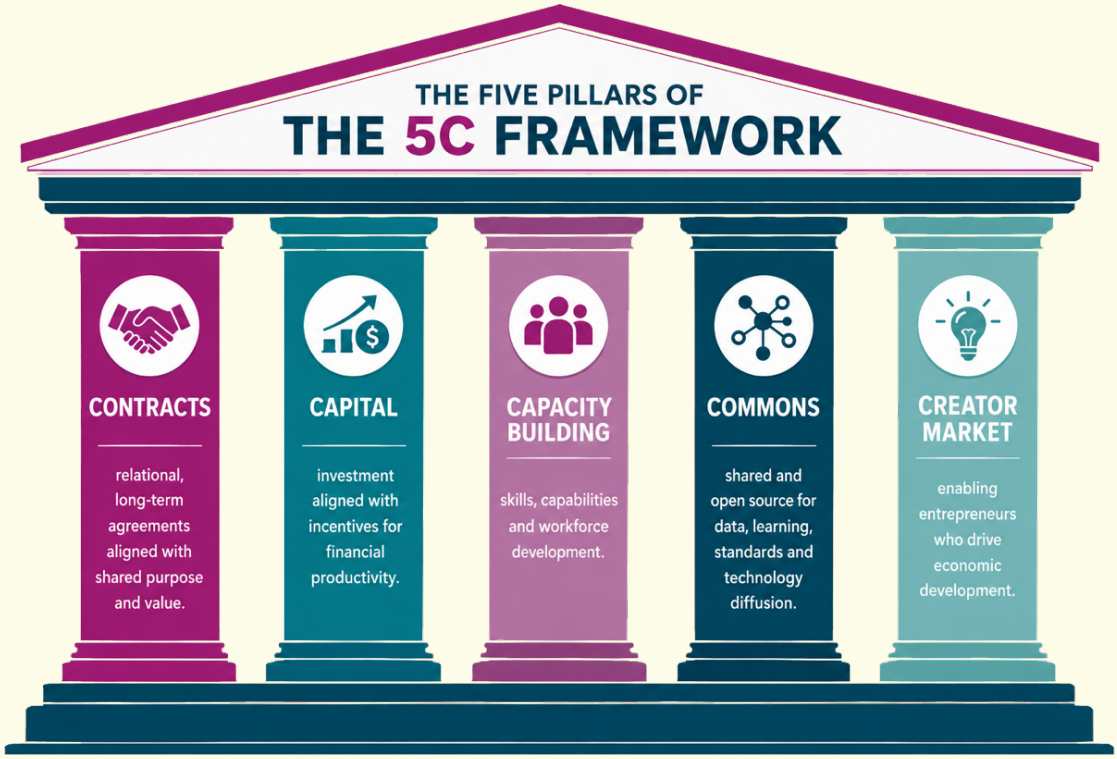
# 10. A collective framework for enabling change

Transforming the apparel system requires more than operational adjustments. It requires shared governance, language and incentives. This Manifesto focuses on collaborative action required to support manufacturers in performance and potential for total system productivity.

The Business Innovation Committee explicitly adopts the 5C framework of the IAF–ITC study ***Under the Banyan Tree: Buyers and Suppliers in Fashion*** as a reference lens for collective action.

The five pillars of the 5C framework are:

- **Contracts**
- **Capital**
- **Capacity Building**
- **Commons**
- **Creator Market**




In the *Enable* and *Standardise* phases, the BIC will propose collective actions for each of the 5Cs, led by manufacturers and their associations. It will strive to create global (knowledge) projects and to advise national associations. The BIC will seek partners to support and execute these actions at both global and national levels. In several areas, the relevant partnerships already exist within the IAF ecosystem. For instance, on the closely related topic of purchasing practices, the IAF co-governs the Sustainable Terms of Trade Initiative (STTI) program. Similarly, stronger collaboration between the apparel and textile industries is facilitated by IAF's structural partnership with the International Textile Manufacturers Federation (ITMF) including joint initiatives such as the Apparel and Textile Transformation Initiative (ATTI).

These collaborations provide a foundation for aligning initiatives and scaling impact across the value chain.

# 11. Market activation: from framework to adoption

Translation to practice requires visible adoption, shared accountability and measurable progress across the industry. The BIC will serve as a platform to support and accelerate this transition through demonstration in the industry, including:

- documenting upstream technology applications
- operationalise pilots for shared risk and postponement
- quantify end-to-end metrics for productivity and capital efficiency
- structure knowledge-sharing and peer exchange
- transformation clusters, collaborative experimentation ecosystems, and scalable sourcing and operational models.

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# Main conclusions

- The apparel industry's greatest losses are in systemic inefficiency: overproduction, markdowns, inventory risk, lost sales and trapped capital.
- The apparel industry must transition from lowest unit cost toward end-to-end productivity, capital efficiency and resilience.
- Total system productivity means production closer to demand — in timing and, where relevant, geography — with significantly lower inventory risk and stronger capital generation. Smart flexibility is production precision that restores profitability through improving forecast responsiveness over time.
- Manufacturers are orchestrators of flexibility, productivity and value creation.
- Technology for smart flexibility increasingly moves upstream, embedding higher productivity across supply chain partners through stronger planning, forecasting and operational coordination.
- Small and medium-sized manufacturers are essential to industrial capability, innovation, entrepreneurship and inclusive transformation.
- Industry productivity requires stronger integration between apparel and textile manufacturing sectors. Downstream prosperity begins upstream — through aligned goals, integrated planning and shared purpose.
- IAF will advance this industry agenda through its committees, partnerships and initiatives, guided by the 5C framework for collective learning and adoption.