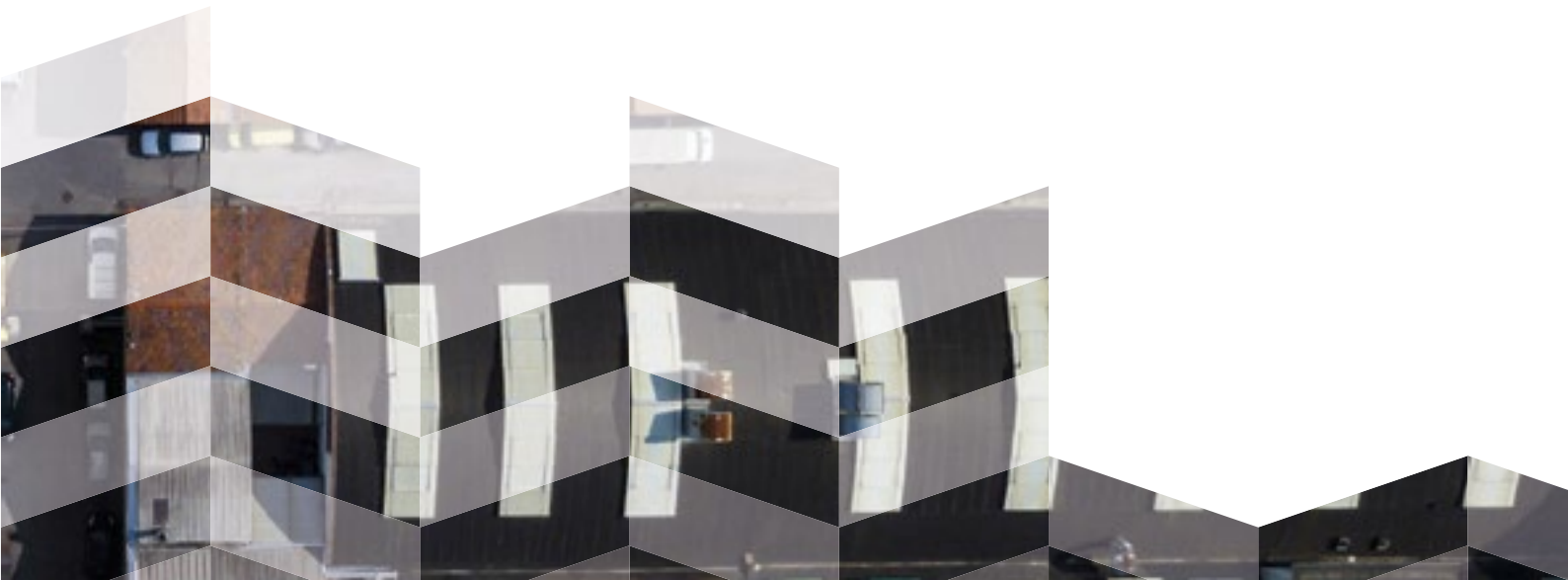
PRATO
TEXTILE
DISTRICT

Circular by Tradition
Innovative by Vision

Prato Textile District
Position Paper



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Position Paper

1. Who We Are: a global city, a circular district

The Prato Textile District is today one of the most important textile and apparel production hubs in Europe and the world. With over **7,000** active companies and nearly **43,000** employees, it represents a deeply rooted, dynamic, and highly integrated industrial ecosystem within the economic and social fabric of the region.

With 198,000 residents, 125 nationalities, and the highest proportion of foreign citizens in Italy, Prato is an open, multicultural city where manufacturing tradition and innovation have coexisted for centuries.

In the textile sector:

- **7,119** active companies
- **2,548** textile businesses
- **4,571** apparel businesses
- **€2.3 billion** in annual exports
- **3%** of total European textile production.

2. From Rag Recycling to Circular Economy

Born in the Middle Ages and fully developed in the post-war period, the Prato textile district has reinvented itself many times, making material regeneration one of its core values. Since the mid-19th century, with the reuse of rags, Prato laid the foundations for a system that is now at the forefront of sustainability and environmental responsibility.

It is a production model built on small specialized enterprises, supply chain collaboration, and flexible organization—a system that has weathered crises and continuously evolved by investing in quality, innovation, circular economy, and social responsibility.

Today, Prato is at the heart of the ecological and digital transition, an active member of the European NetZero Cities program, and a leading laboratory for experimenting with circular economy in the textile sector.

Here, ethical fashion is created, processes are innovated, fibers are recovered, and future skills are developed. Now more than ever, the District stands as a European benchmark for sustainable production and industrial regeneration.

3. Prato Textile District Board

The PratoTextile District Board is a strategic initiative established to support the ecological and digital transition, as well as the innovation of businesses in Prato's textile sector.

Established by a Memorandum of Understanding signed on September 16, 2022, the board brings together the City of Prato, key business associations (Confindustria Toscana Nord, CNA Toscana Centro, Confartigianato Prato), and trade unions (CGIL, CISL, UIL).

Initially, the board was created to ensure the **transparent, efficient, and effective management** and allocation of the una tantum €10 million fund allocated by the italian **government** in 2023.

Over time, it has evolved into a **permanent platform for dialogue and coordination**, embracing a broad and shared vision of the challenges facing the textile sector and the wider Tuscan fashion system. The board now addresses **strategic issues for the future** of the region.

4. Sustainability and Innovation: a district that regenerates

The **Prato Textile District** has been a pioneering model of **circular economy applied to textiles** for decades. Since the mid-19th century, the regeneration of discarded garments has given rise to an entire supply chain dedicated to the production of **recycled wool**–today considered one of the most advanced and sustainable processes in the global textile industry.

A Historic Specialization

Prato is the **world leader** in the production of **carded wool fabrics**, thanks to a long-standing tradition dating back to the 1800s. Its system is based on **recycling production waste, garment offcuts, and used clothing**–a true **circular economy model before the term existed**. This approach has positioned the district at the forefront of sustainability, contributing significantly to **waste reduction** and minimizing the **environmental impact** of one of the world's most polluting industries: fashion.

Global Export Leadership

- Italy accounts for **50.5% of the global export value** of carded wool fabrics.
- Over **90% of Italy's exports** in this sector come from the **Prato district**.
- As a result, **nearly half of the global exports** of carded wool fabrics are produced in Prato.

Annual Production of Carded Yarns

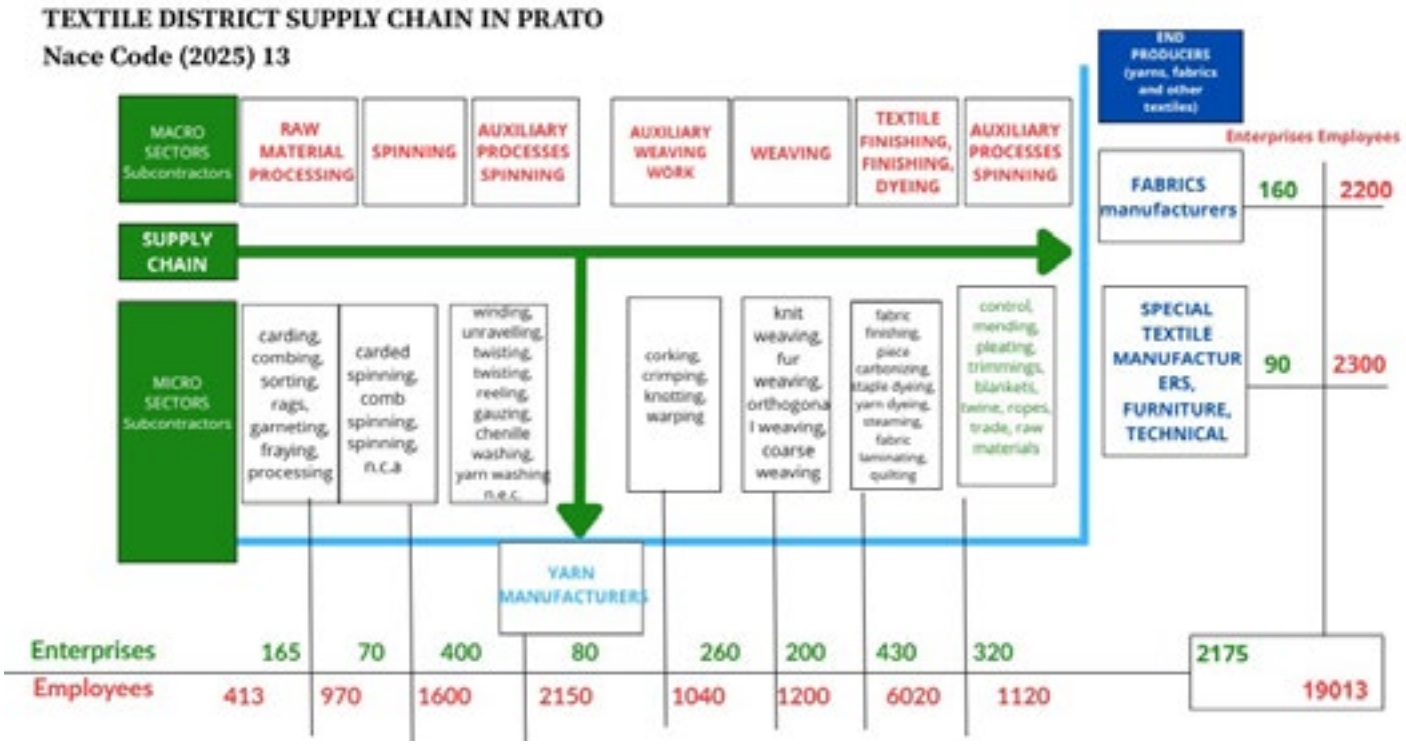
- Between **35,000 and 40,000 tons** of carded yarns processed annually.
- Around **100 million square meters of fabric** produced each year.
- Approximately **28,000 tons per year** of yarns come from **regenerated fibers**, recovered from pre- and post-consumer textile waste.
- This represents about **80% by weight** of the fabrics produced in the district.

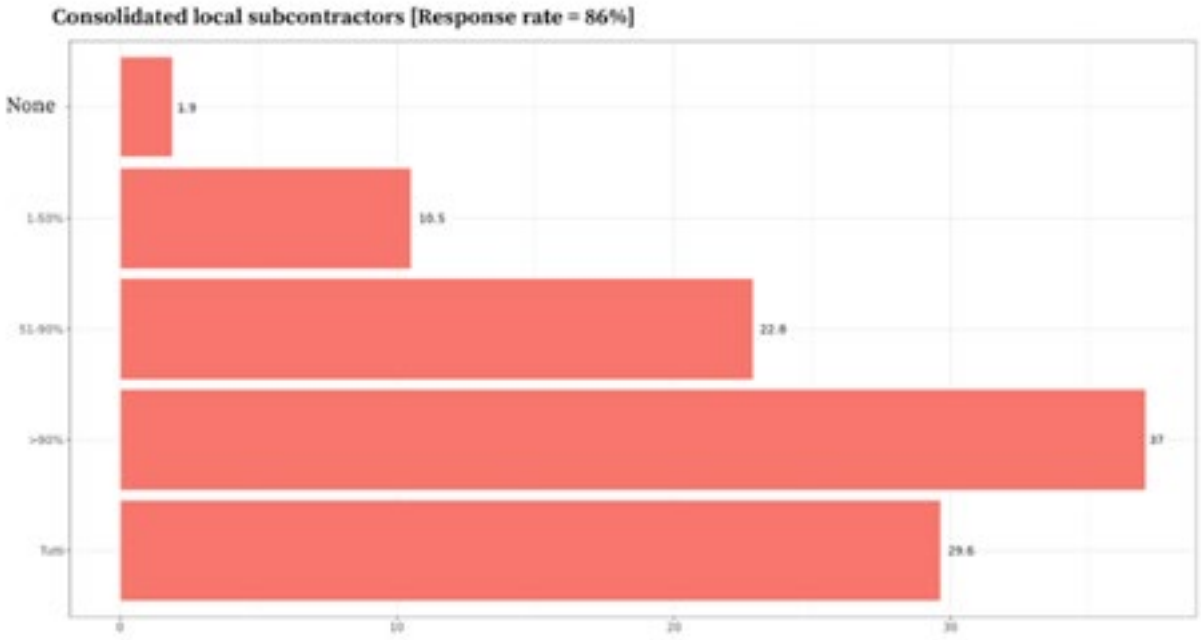
The Process: From Rags to High-Quality Fabrics

It all begins with the **"cenciaioli"**—skilled workers who manually sort textile rags by color and fiber composition. This initiates a **highly specialized process**, including:

- Washing and drying of rags
- Mechanical tearing and shredding
- Carbonizing to remove non-textile residues
- Carded spinning and weaving
- Dyeing and finishing

This system enables effective **upcycling**, turning old clothes into **high-quality yarns and fabrics**.





Industrial Organization

Prato is the **Italian province with the highest concentration of companies in a single sector–textile and fashion**, which accounts for over **80% of local manufacturing activity**. The textile industry developed with the typical characteristics of a **district-based structure**, featuring **vertical specialization** of enterprises by production phase.

Final product manufacturers (yarns and fabrics) handle **product design**, **commercial development**, and **raw material procurement**, while **processing operations** are largely outsourced to **highly specialized subcontractors** located within the district.

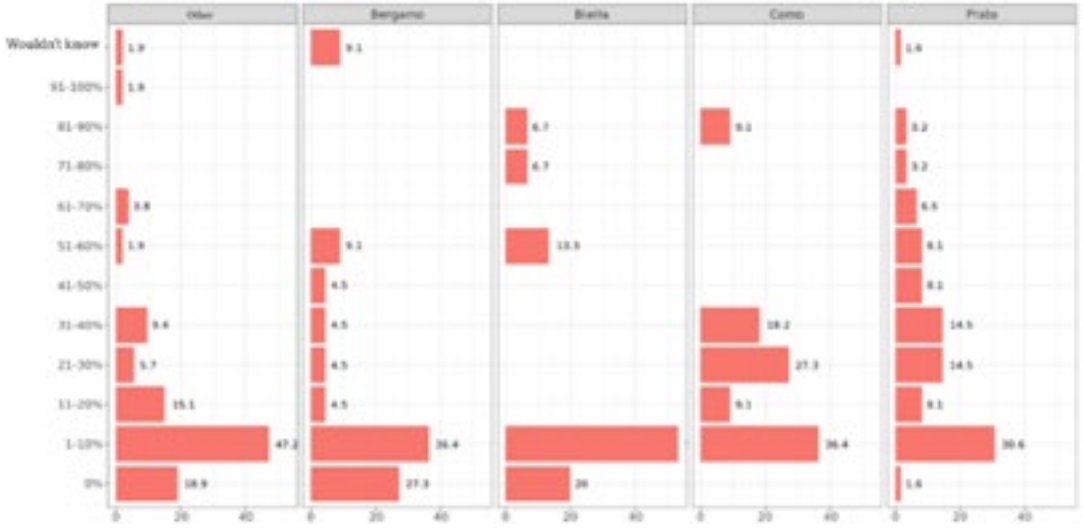
Percentage share of local subcontractors in the textile production of the Prato district

Source: Prof. Filippo Visintin, RESTART MICS - Made in Italy Circular and Sustainable Survey, Extended Partnership funded by the Ministry of University and Research with PNRR resources

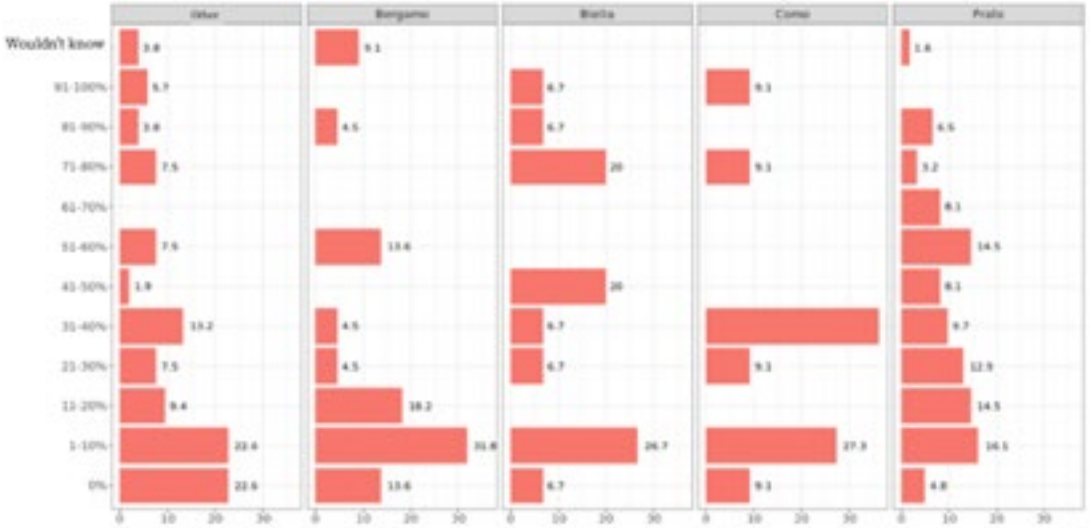
Services to businesses, transportation, schools, professionals, banks, and other manufacturing sectors such as textile machinery and chemicals are almost entirely functional to the core sector, which is textile and fashion.

It is therefore evident that the strong interconnections between companies in different phases within a self-contained territorial system make the entire district potentially vulnerable to changes affecting even a single component.

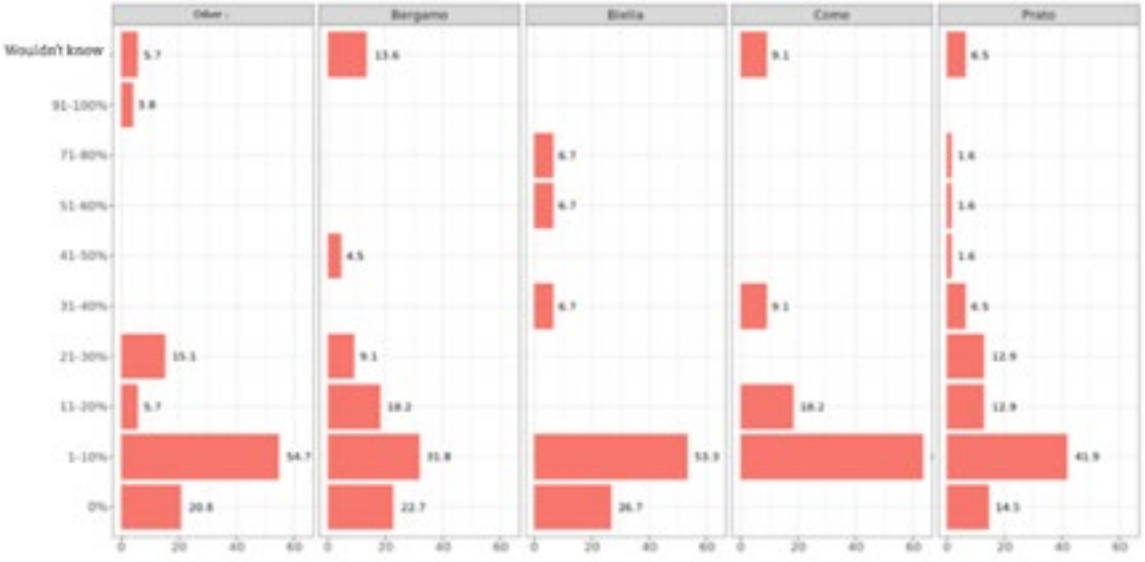
% recycled textile raw materials on total purchased textile raw materials (in value) [Response rate = 97.8%]



% certified textile raw materials on total purchased textile raw materials (in value) [Response rate = 98.7%]



% by-products on total textile raw materials used (in mass) [Response rate = 97.8]



Sustainable fashion, conscious design:

In Prato, sustainability is also linked to **eco-design**: creating durable garments that are easy to disassemble, made with recyclable and separable fibers, and have a low energy footprint. This is the direction the district is moving towards, driven by a new generation of companies, designers, and workers.

Compared to other Italian textile districts, companies in the Prato textile district use a **higher percentage of recycled and certified textile raw materials and by-products**. Moreover, the share of revenue from recycled products is greater than in other districts.

These are the findings of the **RESTART project**, which is part of the **MICS - Made in Italy Circular and Sustainable** initiative, an extended partnership funded by the Ministry of University and Research, supported by **PNRR resources**.

A future to build:

Today, the district needs new skills and specialization, in a production context increasingly open to women and young people. Sustainability is an ongoing challenge that combines technological innovation, social responsibility, and a culture of craftsmanship.

The district's companies therefore share the sustainability and circularity goals set by Europe for the textile sector and trust that the measures under development will enhance the awareness and expertise cultivated locally.

However, there are potential critical issues which, if not addressed, could have very negative effects on the European and especially the Italian manufacturing system. It is our intention to contribute to pursuing these objectives by promoting sustainable development within the business system, while safeguarding companies from risks that we briefly outline below.

5. An Integrated Circular System: G.I.D.A, the Industrial Sewer System and the Textile Hub

G.I.D.A

In Prato, sustainability is not just about materials – it extends to water, a vital and often overlooked resource in textile production. Since the 1990s, the district has been home to G.I.D.A., the largest industrial wastewater treatment and recycling plant in Europe. Thanks to this facility, over 350 companies in the textile sector are able to reuse recycled and treated water instead of drawing from potable sources, effectively safeguarding the region's groundwater.

G.I.D.A. is recognized internationally as a best practice in industrial water management. Operating in one of Europe's most energy- and water-intensive industrial districts, the plant enables full water reuse within the production cycle, ensuring that textile manufacturing in Prato does not deplete natural water resources.

Established in the 1990s as a joint-stock company with both public and private capital, G.I.D.A. is owned by three partners: the Municipality of Prato, Confindustria Toscana Nord (representing the provinces of Lucca, Pistoia, and Prato), and the CONSIAG Group. Since its inception, the company has achieved remarkable purification results, to the point that its treated water could also be used in other industrial sectors beyond textiles.

The foundation for this achievement was laid in the early 1980s, when Italy's Merli Law introduced comprehensive wastewater treatment regulations. The textile companies of Prato quickly recognized that a collective approach would be far more efficient and economically sustainable than individual compliance. Given the sector's heavy reliance on water and the complexity of treating dye-laden effluents, the district invested early and significantly in cutting-edge purification technologies.

As a result, Prato became a pioneer in water circularity. Today, the district is almost entirely self-sufficient in terms of water use, with industrial processes powered by fully recycled water. This closed-loop model has provided a significant competitive advantage over time – a true case of circular economy in action. It is no exaggeration to say that "textiles made in Prato have no impact on primary water resources."

Prato Industrial Sewer System - Progress and Strategic Relevance

Context and Objectives

The Prato industrial sewer system is a strategic infrastructure promoted by Consorzio Progetto Acqua, a consortium of over 200 textile companies in the Prato district. The project aims to:

- Integrate and reduce pressure on the existing civil sewer network
- Provide a structural solution to long-standing environmental and hydraulic issues (identified over 20 years ago)
- Improve management of industrial discharges, especially during intense weather events
- Protect surface water bodies and strengthen the hydrogeological safety of the area

Strategic Value

- A best practice of business-led action on a matter of public interest
- A key enabler for the sustainability and competitiveness of the local textile district
- Demonstrates the industrial sector's capacity to invest in long-term environmental solutions, even in challenging economic conditions

Work Progress

- Phase 1 (Macrolotto 1): Completed in 2021
- Phase 2 (Macrolotto 2): Under construction, with approx. 6 km of new pipeline

Investment and Funding

- Total projected investment: approx. €48 million
- Phase 2 investment: €8 million (in addition to €5.3 million from Phase 1)

Funding sources:

- Internal funds from Consorzio Progetto Acqua
- Grants from AIT - Autorità Idrica Toscana and Publiacqua
- Bank financing from Banco BPM

Institutional Framework

- Project included in the Program Agreement promoted by Confindustria Toscana Nord, signed in 2015 and renewed in 2023 with:
  - Tuscany Region
  - Municipality of Prato
  - Other local institutions

Implementation responsibilities:

- Consorzio Progetto Acqua → Areas of Prato and Montemurlo
- Publiacqua → Val di Bisenzio

Next Phases

- Next construction phase: Expansion from Calice toward Agliana and Galciana, leading to Montemurlo
- Final phase under design: Over 12 km of network from Baciacavallo to Santa Lucia, covering Macrolotto 0

The Prato Textile Hub

The Prato textile district is also preparing to take a major step forward in sustainability with the construction of an innovative facility for the **sorting and treatment of textile waste**, designed to promote material reuse and recycling, consolidating the city's role as a circular economy model in the textile sector.

A significant **Textile Hub** is currently under development. The main planned interventions in the project include:

- Functional recovery of the area where the former municipal wastewater treatment plant was located
- Construction of a facility for sorting and treating waste, aimed at the subsequent reuse and recycling of textile materials
- Processing capacity of approximately **33,000 tons/year**, including:
  - **20,000** tons/year from the post-consumer circuit (covering the entire regional basin)
  - **13,000** tons/year from the pre-consumer circuit (about 50% of the district's production)
- Estimated investment costs of approximately **€21 million**

The plant is designed to perform:

- Automated and semi-automated sorting based on fiber type (wool, cotton, silk, viscose, etc.) and color using near-infrared (NIR) sensors and shredding line

6. Regulations

Regulations at the District Board

The Prato Textile District is committed to actively monitoring and influencing the development of certain Italian and European regulations to ensure they are compatible with the local specificities and the needs of local businesses. Collaboration between institutions, trade associations, and companies is essential to address challenges and seize the opportunities offered by the transition towards a circular and sustainable economy.

1. ECODESIGN REGULATION

What it is:

The new Ecodesign Regulation came into force on July 18, 2024, and will establish specific operational rules for product categories by 2025. It sets minimum sustainability requirements for all products placed on the European market, promoting durability, reparability, recyclability, and the use of recycled materials. For textile products, a ban on the destruction of certain unsold items will apply from July 19, 2026, with exemptions for micro and small enterprises.

Companies in Prato have expressed concerns about the strong emphasis on product durability, suggesting that circularity and responsible production with specific criteria should also be considered. It is recommended that delegated acts maintain a balance among these aspects, avoiding favoring one over the others.

The “Preparatory study on textiles for product policy instruments - 2nd milestone,” prepared by the JRC and preliminary to the specific act for textile ecodesign, introduces further critical issues that could penalize typical productions of the Prato textile district and beyond:

- It envisions excluding waste generated along the textile production chain (Post Industrial) from those usable for recycled textile product manufacturing. The reasoning is that including such waste would incentivize its production. However, this decision would penalize the virtuous reuse of by-products and waste in the production chain, which are thus valorized, and consequently increase landfill waste.
- A scenario is outlined that prevents industrial symbiosis and thus recycling textile waste in sectors other than pure textiles. In our view, there is no reason to limit the use of recycled textile fibers only to textile products, as considering various sectors for potential use is fundamental to increasing the percentage of waste reused. The main goal must be to maximize the amount of textile waste recycled.

- The durability criteria appear too generic and do not take into account fundamental aspects such as fiber composition and the intended use of the garment.
- Among recognized methodologies for calculating recycled content, it is important to also recognize the widely used international technical standard in the production system, the GRS (Global Recycled Standard), including it in the European accreditation system under Regulation (EC) No 765/2008. This would encourage the adoption of products made with recycled materials and guarantee transparency and sustainability of the supply chain.

Main objectives:

- Greater durability and reparability of products;
- Reduction of hazardous substances;
- Presence of recycled fibers;
- Improved recyclability;
- Ban on destruction of unsold textile products (from 2026 for large companies, 2030 for medium-sized).

Prato district position:

- Promote balance between durability, circularity, and responsible production;
- Avoid excessive emphasis on performance that penalizes recycled materials;
- Adapt performance specifications to the intended use of the fabric and textile material composition;
- Continue and increase recycling of textile waste generated during production phases and avoid penalizing it;
- Find outlets in various sectors (industrial symbiosis) for textile waste that cannot be recycled via upcycling;
- Recognize the GRS (Global Recycled Standard) among the methodologies accepted for recycled content calculation.

Current status: Under discussion

2. EXTENDED PRODUCER RESPONSIBILITY (EPR)

What it is:

The EPR system assigns the “producer” financial and organizational responsibility for the product’s end of life.

The Italian Ministry of the Environment is currently working on a decree to implement EPR for textile products. However, in the Prato district, most SMEs operate in the production of semi-

finished goods – such as yarns and fabrics – and thus do not fall under the current definition of "producer," understood as the entity that places the finished product on the market.

It is important to emphasize that textile manufacturing companies upstream in the supply chain hold the expertise, technology, and investments essential to determine the sustainability level of a textile product. Therefore, it is essential to guarantee:

- The right to actively participate in the governance of waste management consortia;
- Differentiation of eco-contributions between recycled and non-recycled products, with clear consumer communication;
- Transparency on the destination of secondary materials for reuse;
- Adequate funding from the eco-contribution for research and development;
- Rules that recognize and valorize territorial specializations in recycling flow management.

Main objectives:

- Encourage collection, reuse, and recycling of textiles;
- Finance innovation and sustainable infrastructure.

District requests:

- Active role also for companies along the textile supply chain, not only brands;
- Differentiated eco-contributions for recycled and non-recycled materials;
- Greater transparency on the destination of secondary raw materials.

Current status: The national Ministerial Decree has just emerged from a consultation phase with stakeholders. At the European level, the amendment to the Waste Framework Directive introducing textile EPR has already passed the trilogue.

3. DIGITAL PRODUCT PASSPORT (DPP)

What it is:

A "digital passport" that accompanies the product and contains information on traceability, sustainability, materials, etc.

This tool aims to provide detailed information on product sustainability, such as composition, origin, and environmental impact. However, it is essential that the organizational and financial burden does not fall excessively on SMEs. It is important to include representative information such as the country of manufacture and the amount of environmental contribution under the EPR.

Main objectives:

- Improve transparency and inform consumers;
- Encourage sustainable purchasing choices.

District requests:

- No excessive burdens for SMEs;
- Value traceability information with truly useful data like the country of manufacture and the EPR contribution.

Current status: Under discussion

4. VAT REDUCTION FOR REGENERATED MATERIALS

What it is:

Proposal to reduce VAT to 5% on products made with certified recycled materials.

To encourage the purchase of products made with regenerated materials certified through specific labels or collective marks, a reduction of the VAT rate to 5% is proposed. This measure should be accompanied by strengthening Green Public Procurement (GPP) and increasing the adoption of green purchases by public administrations. Additionally, incentives for SMEs that, while not directly subject to the new EFRAG/CSRD regulations, are part of supply chains of companies obliged to comply, would be helpful.

Main objectives:

- Encourage sustainable purchases;
- Strengthen Green Public Procurement in public administration;
- Support SMEs in the CSRD transition even if not obligated.

Current status: Under discussion

5. END OF WASTE (TEXTILES)

What it is:

Regulation defining when a waste ceases to be waste and becomes secondary raw material. Besides the moment, it should define which processes/operations must be completed and which characteristics the material must have to be considered secondary raw material and no longer waste.

The Prato district, with its long-standing experience in textile material regeneration and considering the dimensional characteristics of (micro and small) highly specialized enterprises in individual work phases, aims to promote reuse, regeneration, and industrial recycling of textiles by clearly defining when waste ceases to be such and becomes secondary material.

It is believed that the recovery phase should be as close as possible to the initial selection of textile waste to avoid excessive administrative burdens for micro-enterprises specialized in the recovery chain. Excessive extension of processes included in waste management could compromise the competitiveness and economic sustainability of the sector. The interpretation promoted by JRC – considering post-consumer textile material waste until mechanically reduced to fiber – is therefore considered critical and harmful.

Globally, hundreds of thousands of tons of selected textile materials – from post-consumer waste, separately collected, free of non-textile components, cut and classified by fiber and color – are traded as raw materials, not waste. These materials are often purchased by textile raw material traders who send them to shredding plants based on customer or market requests. After shredding, they are combined with other fibers, virgin and recycled, to produce customized batches.

If JRC continues to classify clean, selected, and cut textile materials as waste before fiber reduction, many legally operating companies would suddenly become non-compliant. Transitioning to waste management, especially for mostly small European companies, would be economically prohibitive. Consequently, with no tangible environmental benefit, we risk losing companies, jobs, specialized skills, and crucial segments of the European textile manufacturing supply chain. We ask that these concerns be taken into utmost consideration.

Also: We recognize the importance of ensuring recycled materials do not pose health and environmental risks (as well outlined by JRC). However, we consider it essential to adopt a risk-based approach to assess hazardous substances in textile products, particularly for reuse and recycling. It is fundamental that restrictions on hazardous substances be implemented based on risk assessment that considers necessary adaptation times.

Testing every single incoming batch for all possible hazardous substances is technically impossible. Therefore, a risk-based approach is not only preferable but the only viable way to effectively manage the issue. This way, risks can be managed, and the use of recycled materials (as well as reuse of second-hand garments) can be safely allowed.

A regulation not considering this difference, if strictly applied, could compromise sectors such as mechanical textile recycling, especially for post-consumer materials. While safeguarding health and environment remains a priority, not differentiating hazardous substance limits between virgin and recycled material – without considering overall environmental impacts – could sometimes hinder material recovery. This might leave landfill disposal or energy recovery (if calorific value allows) as the only viable options. However, these solutions would undermine sustainability and circularity goals and contradict the waste hierarchy established by Europe, which prioritizes recycling and recovery over energy recovery and landfill, the latter to be limited due to its high environmental impact.

Furthermore, regarding compliance of materials for reuse (and similarly recycling) with REACH and/or POP regulations, it is crucial to recognize the impracticality of chemical analysis on every single item. Random sampling would yield inconclusive results due to material heterogeneity. However, any textile waste showing visible stains or contamination detectable by sight or smell is removed during sorting.

Therefore, we support a balanced approach that ensures safety without excessively penalizing reuse and mechanical recycling, fundamental to promoting circular economy in textiles. We propose that risk assessment, given the technical impossibility of exhaustive testing, be the core of restriction implementation, paying particular attention to necessary industry adaptation times.

Critical issues for the district:

- Waste management (End of Waste) should conclude after selection, sanitization, and cutting, not after shredding;
- Overly restrictive rules would jeopardize thousands of micro and small enterprises;
- A realistic End of Waste definition is needed to protect widespread industrial recycling;
- Hazardous substance management in textiles should follow a differentiated risk evaluation to avoid major penalties on reuse and mechanical recycling of historic textiles.

Current status: Preliminary study is in its final phase at the Joint Research Centre (JRC), the European Commission's research center.

6. REACH AND RECYCLED TEXTILES

What it is:

European regulation for chemical safety and management in Europe.

REACH is the reference for chemical safety of products and chemical management in textile products and beyond. It is necessary that textile material restrictions consider the material life cycle in the case of recycled textiles, avoiding that undifferentiated REACH restrictions hinder material recovery. Undifferentiated application of restrictions could limit mechanical textile recycling, especially post-consumer materials, and lead to ineffective waste management.

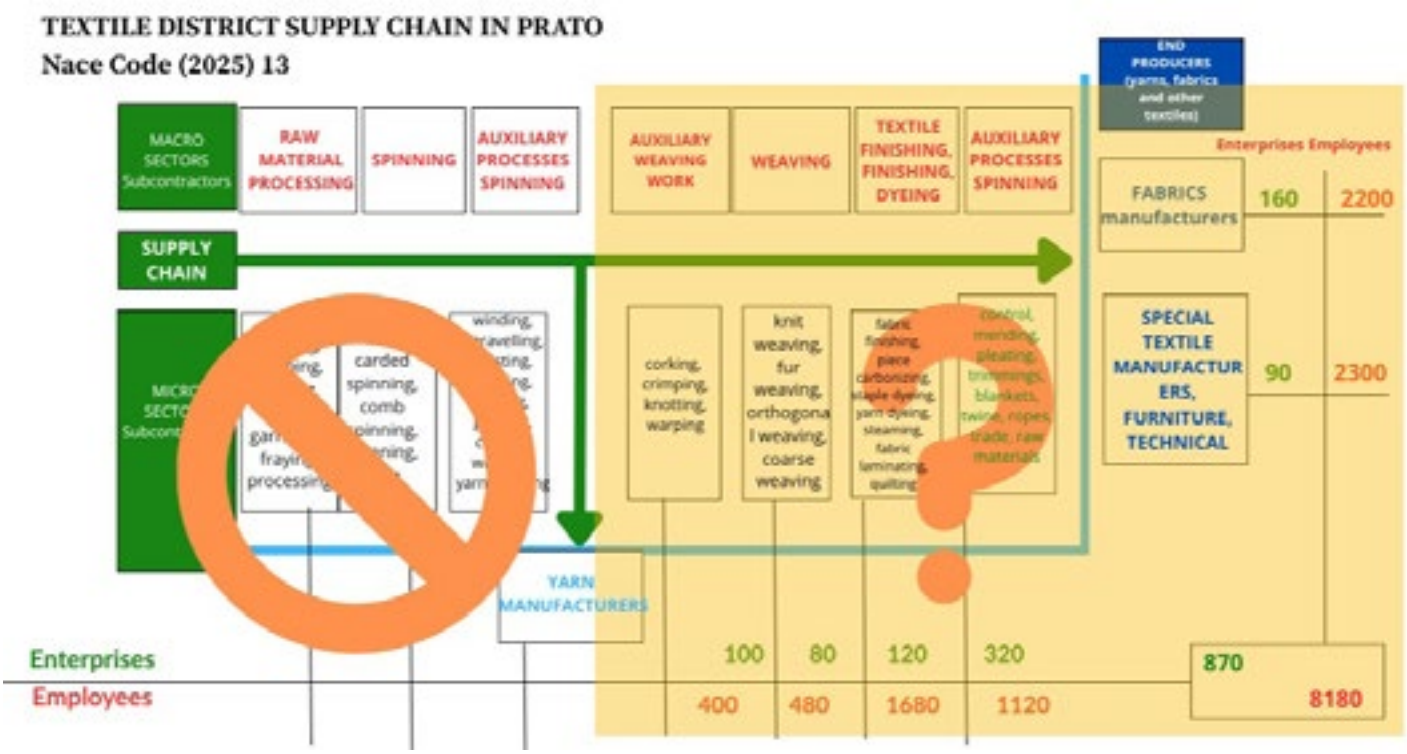
Challenge for recyclates:

- Undifferentiated application of restrictions (no distinction between virgin and recycled fibers) hinders use of post-consumer recycled materials;
- Too strict REACH enforcement (not based on differentiated risk assessment) would heavily penalize reuse and mechanical recycling of historic textiles;
- Balance between environmental protection and industrial feasibility is needed.

Current status:
In force since June 1, 2007
Status: Active

7. MARKET SURVEILLANCE

With increasing demands from EU regulations, it is necessary to ensure that textile products imported into Europe comply with the new laws. Therefore, we request serious investment in market surveillance. It is important that, with new regulations introduced, enforcement and applicability by Italian and European manufacturing companies are guaranteed, but also that a control system is organized for imported textile products to ensure a level playing field for European companies.

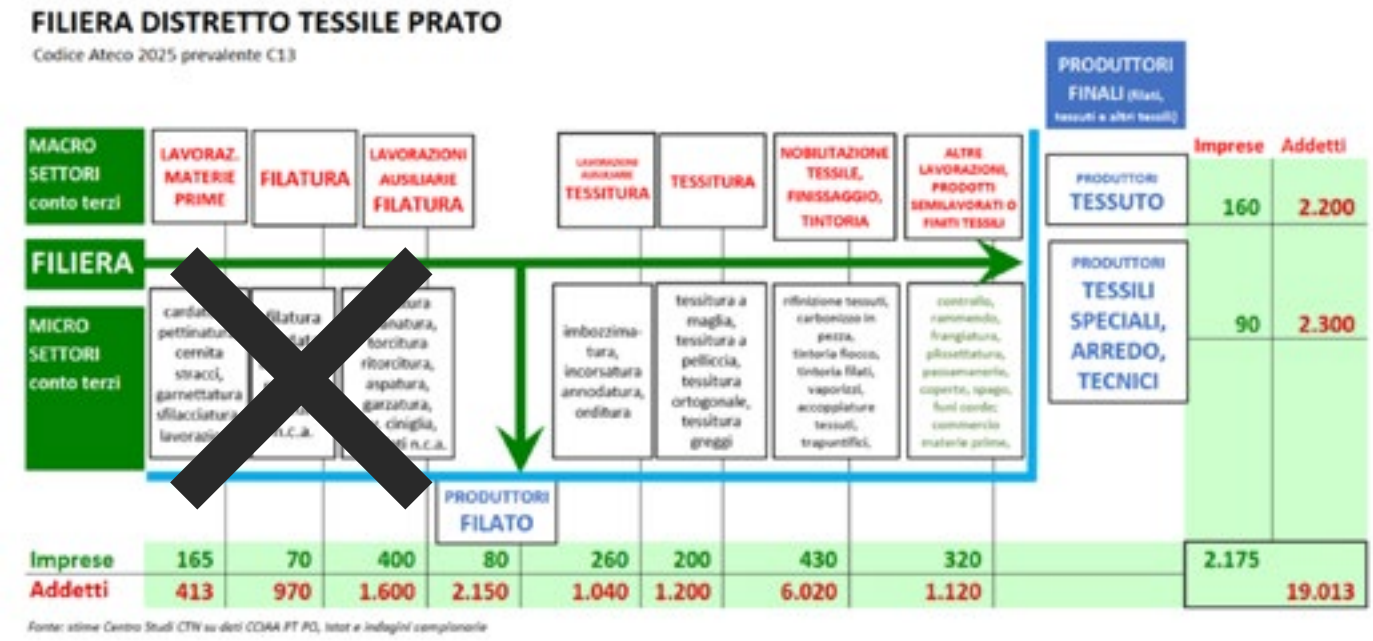


IN CONCLUSION

The textile district's businesses are strongly committed to sustainability and ready to further improve their performance. However, the current regulatory developments risk disproportionately impacting the upstream segments of the supply chain, with severe economic and employment consequences.

These critical issues are expected to affect, first and foremost, the most vulnerable actors at the beginning of the value chain – approximately 1,500 companies and 10,000 workers – who may not be able to absorb the impact of the new measures, potentially leading to significant difficulties and closures.

Given the highly interconnected nature of production within industrial districts, downstream activities would also suffer substantial consequences, putting the resilience of the entire textile ecosystem at risk.



In conclusion, the Prato Textile District Board recommends:

- **Establishing a clear and applicable regulatory framework** that fully recognises the strategic value of mechanical recycling and the key role of industrial districts as drivers of the national and European circular economy.
- **Ensuring regulatory sustainability is aligned with economic and social sustainability**, so that environmental objectives can be achieved without compromising the competitiveness of businesses or the socio-economic resilience of local territories.

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Toscana Centro

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