white cycle

STRATEGIC INTELLIGENCE BULLETIN N°14

Major developments in the recycled polymers market – Argus recycled polymers report

August 2026

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White Cycle project has received funding from the European Union's Horizon 2020 research and innovation program under Grant agreement no.101036908.

News & EU regulations

Refashion – Technologies and Footwear: Sorting Technologies Under the Microscope (July 31, 2026)

Refashion has released an updated state-of-the-art review of European sorting and preparation technologies for textiles and shoes, detailing advances in automated sorting, fiber identification, and pre-processing methods that aim to improve recycling yields and material quality.

More information here

Le Monde – Le Relais (Emmaüs) Scales Back Collections and Cuts 60 Jobs (June 9, 2026)

Le Relais, a major French clothing collector, is cutting textile collection volumes and eliminating 60 insertion jobs, citing soaring operational costs and the surge of fast fashion that has overwhelmed the existing collection and sorting model.

More information here

CORDIS EU – Closing the Loop: A Master Plan for Textile Circularity (2026)

EU-funded research presents a knowledge-based blueprint for textile circularity, outlining tools and strategies to optimize circular textile flows, including digital traceability, improved sorting, and circular business models to scale recycling across Europe.

More information here

Franceinfo – Refashion Fined €170,000 by the French Government (2026)

France's textile eco-organization Refashion has accepted a €170,000 financial penalty announced by the government, following oversight issues in how the sector's extended producer responsibility (EPR) scheme is managed amid a crisis in collection and recycling.

More information here

7 Jours à Clermont – Syntetica Establishes Operations in Cataroux to Recycle Complex Textiles (2026)

Startup Syntetica is setting up a pilot unit at the Cataroux site to develop technology for recycling complex textiles, marking a significant step for the French textile recycling industry in handling hard-to-recycle fabric blends.

More information here

La Nouvelle République – Clothing Collection in France: A Model Worn Thin (2026)

A report on France's clothing collection crisis highlights strained sorting warehouses (e.g., Origin in Vouneuil-sous-Biard), illustrating how massive volumes and limited downstream capacity are pushing the traditional collection model to its limits.

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More information here

IFC / Banque mondiale – Morocco Textile Circularity: Viable Recycling and 30,000 Potential Jobs (June 9, 2026)

Pilot trials in Morocco show textile waste recycling is technically and commercially viable; scaling could attract $1.9B in private investment and create 30,000+ jobs, with recommendations to reclassify factory offcuts, reform customs, and build national tracing and spinning capacity.

More information here

France 3 Grand Est – Circ (start-up US): Green Light Expected in Autumn 2026 for a Chemical Textile Recycling Plant in Moselle (July 1, 2026)

US startup Circ expects environmental approval in autumn 2026 to build a €450M chemical recycling plant in Carling (Moselle) by 2029, designed to recycle poly-cotton blends (77% of global textiles) without Seveso classification and with no wastewater discharge.

More information here

L'Usine Nouvelle – New Refashion Specifications: Over 200,000 Tonnes Recycled Annually Starting in 2031 (July 8, 2026)

The French Ministry of Ecology unveiled Refashion's new EPR specifications, setting binding recycling targets: 55,000 tonnes (open-loop) by 2029, then 165,000 tonnes open-loop and 45,000 tonnes closed-loop by 2031, backed by a €151M investment envelope (2027–2031) for new recycling plants and improved collection.

More information here

C&EN – "Textile recycling tries to gain a second wind" (April 3, 2026)

Chemical recycling has progressed more slowly than early hype suggested, but new EU rules (mandatory separate collection from 2025 and EPR schemes) are reviving investment; several companies are cautiously re-entering the market with more realistic commercialization plans.

More information here

Tech.eu – "Deeptech startup Renasens lands €10M to scale textile recycling in Europe" (March 25, 2026)

Stockholm-based Renasens raised €10 million to scale its CO_2-based textile recycling technology, targeting blended textile waste and aiming to produce reusable fibers to support Europe's circular manufacturing ecosystem.

More information here

IOM3 / BIR & WRAP – "Textiles recycling a priority for 2026" (January 29, 2026)

The Bureau of International Recycling (BIR) is pushing for global trade rules that reflect real-world reuse and recycling markets under new EU Textiles EPR schemes, while UK NGO WRAP published an EPR Blueprint to hold producers accountable for end-of-life textiles.

More information here

White Cycle project has received funding from the European Union's Horizon 2020 research and innovation program under Grant agreement no.101036908.

Everest Group – "Textile recycling reaches its scale-up moment: field notes from Brussels" (July 8, 2026

The revised EU Waste Framework Directive (in force Oct 2025) mandates EPR for textiles and footwear; member states must transpose rules by mid-2027, and from 2027 a Digital Product Passport will carry composition and recyclability data at product level, accelerating infrastructure planning.

More information here

The Trade Hub – "Challenges and Limits of Recycling in 2026" (May 3, 2026)

Despite policy momentum, global textile-to-textile recycling remains under 1% of fiber supply (Fashion for Good, April 2026), underscoring structural bottlenecks in collection, sorting, and downstream capacity even as regulations tighten.

More information here

TexData International – "Networking Day 2026: Industry stakeholders unite around textile recycling" (July 30, 2026)

Key 2026 milestones include: the EU ban on destruction of unsold clothing (in force July 19, 2026 for large firms), Circ's first commercial H&M denim using TENCEL™ | Circ® with REFIBRA™, ReSpin joining Sweden's TMAS with its mechanical fiber tech, and EU/NL/ES officials visiting Recover™'s Bangladesh plant to assess future supply chains.

More information here

EcoFashionHub – "Textile-to-Textile Recycling: 2026 Innovations & Future" (April 23, 2026)

AI-powered automated sorting (NIR, hyperspectral imaging, ML) is maturing rapidly, while 2026 also sees the rise of decentralized "microfactories" and local recycling hubs complementing large industrial facilities.

More information here

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Focus of the startegic bulletin n°14: Major developments in the recycled polymers market – Argus recycled polymers report

The Argus Recycled Polymers report of 17 April 2026 highlights the major developments in the recycled polymers market, which has been heavily influenced by geopolitical conditions, supply chain disruptions, and rising virgin polymer prices.

The key takeaways are as follows:

1. Supply shortages and price surge (middle east impact)

Logistics disruptions: Disruptions affecting the Strait of Gibraltar/Middle East shipping routes, combined with limited naphtha availability, have led to significant increases in monomer costs (ethylene (C2) and propylene (C3)).

Higher virgin polymer prices: Prices for polyethylene (PE) and polypropylene (PP) have risen sharply—by more than €1,000/t in some cases since the beginning of the year—prompting converters to seek alternative materials.

2. Impact on recycled polymers (r-PE and r-PP)

Shift toward recycled materials: As virgin resins became scarcer and more expensive, demand for recycled polymers increased significantly.

Higher recycled polymer prices:

- Prices for r-LDPE and r-LLDPE recorded substantial increases, ranging from €200/t to more than €400/t for premium grades capable of substituting virgin material.
- r-HDPE and r-PP also experienced sustained price increases, driven by strong demand for high-quality grades, including food-contact compliant materials and grades suitable as direct replacements for virgin plastics.

Feedstock (bale) costs: Recyclers are facing significantly higher costs for sorted plastic waste bales, with prices for the highest-quality feedstock sometimes exceeding £1,000/t.

3. Technology and regulatory developments

Chemical recycling projects: The report includes a tracker of chemical recycling initiatives and production capacities, highlighting chemical recycling as a strategic growth area for the future of the industry.

European regulatory framework: Market participants are closely monitoring the development of EU circular economy policies, including the proposed Circular Economy Act, harmonised End-of-Waste criteria, and recycled content requirements, particularly those stemming from the Single-Use Plastics (SUP) Directive.

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Price benchmark for vPET, mechanically recycled rPET, and chemically recycled rPET across major global regions.

Grade	Benchmark price seen in sources	Notes
vPET, Europe	€1,470–1,600/t spot	Argus reported current European vPET spot prices in April 2026.
Mechanical rPET flake, Europe	€1,180–1,300/t NWE delivered	Clear flake colourless delivered Northwest Europe.
Mechanical rPET food-grade pellet, Europe	€1,480–1,690/t delivered	Food-grade pellet delivered NWE/S. Europe/CEE.
Mechanical rPET pellet, US West Coast	$1,455–1,587/t	Monthly market prices for April 2026.
Mechanical rPET flakes, US West Coast	$992–1,102/t	Monthly market prices for April 2026.
Mechanical rPET food-grade pellet, NE Asia	$1,350–1,450/t FOB	100% recycled food-grade pellet.
Mechanical rPET 25% recycled pellet, NE Asia	$1,260–1,320/t FOB	Lower recycled-content pellet benchmark.
Chemical recycling feedstock / PPO proxy	€1,050–1,300/t for refinery-grade PPO in Europe	Not rPET resin, but a key benchmark for chemical recycling feedstock economics.

In the European spot market, mechanically recycled rPET flake was about €300/t cheaper than virgin PET, while food-grade pellet was roughly at parity to a small premium over vPET depending on grade and timing. Argus also noted that the pellet premium to vPET had narrowed to about €0–50/t in mid-April 2026.

For mechanically recycled rPET, the value ladder is fairly consistent:

- Bale is lowest.
- Flake sits below vPET.
- Food-grade pellet usually tracks closest to vPET and can briefly exceed it when supply is tight or certification/quality is strong.

Chemical rPET benchmark

For chemically recycled rPET, public market pricing is much less transparent than for mechanically recycled rPET. In the Argus recycled polymers coverage, the closest explicit benchmark I found is plastic-derived pyrolysis oil / refinery-grade PPO at €1,050–1,300/t in Europe, which is a feedstock benchmark, not a finished rPET resin price.

So, if you want a true apples-to-apples price for chemical rPET resin, the market is generally benchmarked more through:

- virgin PET parity,
- mass-balance credit premiums,

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- and feedstock economics for depolymerization / pyrolysis routes,

rather than a single widely published spot resin index. ICIS also describes itself as a benchmark source for recycled polymers, including R-PET, but its public page does not expose the underlying prices.

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Scientific publications

A Technical Feasibility Assessment of Chemically Recycling PET Fibers Through Glycolysis to Produce Functional Oligoesters, Meireless Senra et al. (2026) – MDPI – Recycling

Keywords: chemical recycling; glycolysis; mooring ropes; textile-grade polyester; oligoesters; lithium octoate; zinc acetate; PET

Abstract:
This study investigated the chemical recycling of poly(ethylene terephthalate) (PET) fiber residues from two sources—high-molar mass mooring ropes and low-molar mass textile-grade fibers—to produce functional oligomers. Glycolysis was carried out using polyethylene glycol (PEG400) as the depolymerizing agent, and two catalysts were assessed, zinc acetate and lithium octoate, with the latter reported on for the first time in this application. Reactions were performed for 180 min under mechanical stirring, inert atmosphere, reflux, and controlled heating. The resulting oligomers were characterized by Fourier-transform infrared spectroscopy (FTIR), hydroxyl and acidity indices, and thermogravimetric analysis (TGA). Both PET feedstocks showed high reactivity toward glycolysis. Monitoring the reactions by acidity index indicated that conversion reached equilibrium at approximately 120 min. ATR-FTIR confirmed the formation of ester and hydroxyl groups, consistent with oligomer structures. Glycolysis of PET derived from mooring ropes produced oligoesters with hydroxyl values of 228 and 242 mgKOH/g for zinc acetate and lithium octoate, respectively, and molar masses of 1296 and 1338 g/mol for zinc acetate and lithium octoate, respectively. These values are suitable for subsequent syntheses such as polyester polyol production.

More information here.

Toward Circularity in Blended Polyester-Based Textile Waste: Microfiber Pollution, Recycling Technologies, and Implementation Challenges, Maria Rapa et al. (2026) – MDPI - Microplastics

Keywords: textile waste; polyester; polycotton; microfibers; circular economy

Abstract:
Blended polyester (PET)-based textiles comprise a significant portion of post-consumer waste, posing substantial challenges to circular economy initiatives while contributing to microfiber (MF) pollution. Despite the considerable recycling potential of PET textiles, no commercially viable technologies currently exist that can efficiently separate and recycle blended PET-based textile waste on an industrial scale. This review provides a comprehensive analysis of recycling strategies for post-consumer blended PET-based textiles and their subsequent valorization pathways. Mechanical, chemical, and biological recycling processes are mostly not yet market-ready, although chemical approaches are considered particularly promising. The findings highlight a critical need for advanced sorting technologies, enhanced material traceability, and robust MF mitigation strategies to foster circularity and contribute to the United Nations Sustainable Development Goals (SDGs). The results further indicate that mechanical recycling of blended PET textiles leads to significant MF release due

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to fiber fragmentation, whereas chemical recycling offers the potential for improved material recovery, but remains limited by high energy demand and solvent-related challenges. While closed-loop approaches support true circularity by maintaining textile-to-textile material flows, open-loop pathways repurpose textile waste for high-value non-textile applications.

More information here.

Dye removal from polyester fibres unlocks textile recycling, Nat Sustain et al. (2026) – Nature sutainability

Keywords: Dyes, upstream platform, textiles, biologically derived solvents

Abstract:
Dyes in textile waste streams pose a major barrier to textile-to-textile recycling. Our research has developed an upstream platform that effectively removes dyes from polyester and other textiles using sustainable, biologically derived solvents, and enables the recycling of both fibres and dyes.

More information here.

Transforming Waste to Wealth: Leveraging Recycled PET Yarn for Sustainable Textile Business in Bangla-desh, MdNasrul (2026)

Keywords: Dyes, upstream platform, textiles, biologically derived solvents

Abstract:
A growing demand for sustainable products in the global clothing and textile sector has generated more attention to recycling and the use of recycled products. In this context, recycled PET (rPET) yarn was examined as an alternative & sustainable raw material in the textile industry of Bangladesh. Environmental sustainability and export demand trends play a significant role in this industry.

The purpose of the study was to explore the economic, social, and environmental advantages of rPET yarn in textile manufacturing and to point out the main factors that affect its application in industry practice.

A qualitative research approach was used. Data were collected through semi-structured interviews with crucial stakeholders from production, supply chain, marketing, and end-user roles in the textile industry of Bangladesh. Secondary information from industry reports, Policy documents and sustainability reports was also used to strengthen the analysis. The data were analyzed through thematic analysis guided by the Triple Bottom Line framework and Stakeholder Theory.

The findings revealed that rPET yarn contributes to lower long-term production costs by more effective resource use and building strong relationships with buyers. It also promotes more efficient working practices through improving employee skills and awareness. In addition, it cuts down plastic waste and lessens reliance on virgin polyester. However, the extent of environmental benefit varies with technology adoption and supply chain performances.

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The study concluded that the benefits of rPET yarn are the result of a combination of economic, social, and environmental aspects. These positive outcomes are affected by company preparedness, buyer requirements, and regulatory supports rather than a single factor.

The results also highlight that expanding the application of rPET yarn in Bangladesh will need continuous improvements in recycling facilities, developed infrastructure, supportive government policies, and stronger collaboration among different stakeholders within the textile sector. With growing international emphasis on sustainability, rPET yarn can play a significant role in advancing circular economy approaches and enhancing the long-term competitiveness of Bangladesh's textile industry in the international market.

More information here.

A review of various recycling methods of PET waste: an avenue to circularity, Sayak Nandi et al. (2026) – Polymer plastics technologu and materials, volume 62,2023

Keywords: circular economy, recycling, UNSD, r-PET, 5R

Abstract:
The rising significance of the circular economy as a strategy for sustainable growth in the synthetic polymer sector has led researchers to suggest several blue ocean techniques to create new demand. Polyethylene terephthalate, a promising synthetic polymer used in textiles and packaging, contributes to unmanageable amounts of post-consumer trash. The ban on single-use plastics (SUP) forced researchers to find the best "circularity" path using the 5 R framework. By analyzing multiple recycling methods it is inferred hat recycling of the post-consumer polyester waste is the best option to achieve sustainability based on United Nation's Sustainable Development Programme.

More information here.

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Events

Global Fiber Congress - 16/17 September 2026 – Dornbirn Austria

The Dornbirn GFC sees itself as an innovation platform for the global fiber, textile, nonwovens, finishing, and mechanical engineering industries and aims to function as a generator of ideas and networks. This is evident not only in the increasing number of participants but also, and perhaps more importantly, in their international origin.

More information here

14th ICSD, 09/10 September 2026, Rome ITALY

The International Conference on Sustainable Development is organized by the European Center of Sustainable Development in collaboration with CIT University.

The 14th ICSD 2026 draws inspiration from the pressing challenges of environmental, economic, and socio-cultural sustainability, addressing the needs of present and future generations within a global-scale context.

More information here

Circular Economy Hotspot Budapest - 5-6 October 2026, Budapest Hongrie

The European Circular Economy Hotspot is an annual event, which has grown from a gathering first held in the Netherlands in 2016. It is held in a different location every year, with each host region chosen for demonstrating international best practice and innovation in the development of a circular economy. Previous European hosts have included: Dublin, Bottrop, Catalonia, Belgium, Scotland, Luxembourg and Wales. Collaboration lies at the core of these Hotspot events, offering a unique opportunity to build and strengthen partnerships both within Hungary and internationally—with other nations and regions.
In 2026, the Business Council for Sustainable Development in Hungary (BCSDH) and the Hungarian Circular Economy Platform was pleased to host the 2026 European Circular Economy Hotspot.

More information here

Advanced Recycling Conference - 17-18 November 2026 Cologne Germany

The unique concept of presenting all advanced recycling solutions and related topics at one event will guarantee a comprehensive and exciting conference experience, including technologies such as extrusion, dissolution, solvolysis, enzymolysis, pyrolysis, thermal depolymerisation, gasification, and incineration with Carbon Capture and Utilisation (CCU).

More information here

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