Recycled Polyethylene Terephthalate

Patent Landscape Report

Sample

This sample report showcases a landscape of advancements in recycled Polyethylene Terephthalate (rPET) technology by analyzing 4164 patent from 2010 to 2025.

WWW.STIMAnalytics.ai

STIM ANALYTICS

INNOTECH

Table of content

Executive Summary

This sample report showcases a landscape of recycled Polyethylene Terephthalate technology by analyzing 4164 patent from 2010 to 2025. The analysis reveals:

Explosive Growth

The field of rPET technology has seen explosive growth, with patent filings increasing significantly over the last two decades, growing elevenfold in 22 years.

Geographic Dominance

The US leads in patent filings for rPET technology, followed by Europe and China, indicating dominance in these regions, particularly in the areas of innovation and commercial application.

Technology Focus

The primary technologies in rPET revolve around polyester compositions, working of plastics, and recovery processes, with a strong emphasis on environmental sustainability.

Market Potential

rPET has significant market potential, with a growing number of patents suggesting an increasing demand for recycled plastics, especially in industries like textiles and packaging.

Methodology

The methodology employed in this report integrates AI-driven data analytics, machine learning algorithms, and expert human analysis, thereby ensuring a thorough and precise assessment of patent trends within this technology sector.

Data Collection

The analysis initiates with the collection of patent metadata from reputable global patent databases, including:

- WIPO PATENTSCOPE (World Intellectual Property Organization)
- Lens.org
- USPTO (United States Patent and Trademark Office)
- EPO (European Patent Office)
- National Patent Offices

These datasets encompass structured metadata, including patent titles, abstracts, claims, classifications (e.g., IPC, CPC), applicants, publication dates, citations, and legal status.

AI & Machine Learning Analysis

Using proprietary artificial intelligence (AI) and machine learning models developed by STIMAnalytics, the acquired patent data undergoes the following processing stages:

- Text Mining and Natural Language Processing (NLP): Extracting critical technical terms, concepts, and innovation themes from patent documents.
- Clustering and Classification: Categorizing patents into relevant technological groups and subgroups.
- Trend Analysis: Identifying growth trajectories, emerging technologies, and shifts in innovation focus over time.
- Network Analysis: Mapping interrelationships among applicants, technologies, and jurisdictions.
- Predictive Insights: Forecasting future technological advancements and market trends based on historical and contemporary patenting activities.

Reporting Infrastructure

The analytical results are subsequently integrated into a robust reporting infrastructure, which autonomously generates structured reports and interactive dashboards. These outputs are further enriched with:

- Visual Analytics (charts, graphs, maps)
- Strategic Insights
- Technology Roadmaps
- Company and Academic Profiles

Expert Review

Finally, all reports undergo a rigorous quality assurance process conducted by domain experts and technical editors to ensure:

- Accuracy of technical interpretation
- Consistency in terminology and classification
- Relevance of strategic insights
- Professional formatting and readability

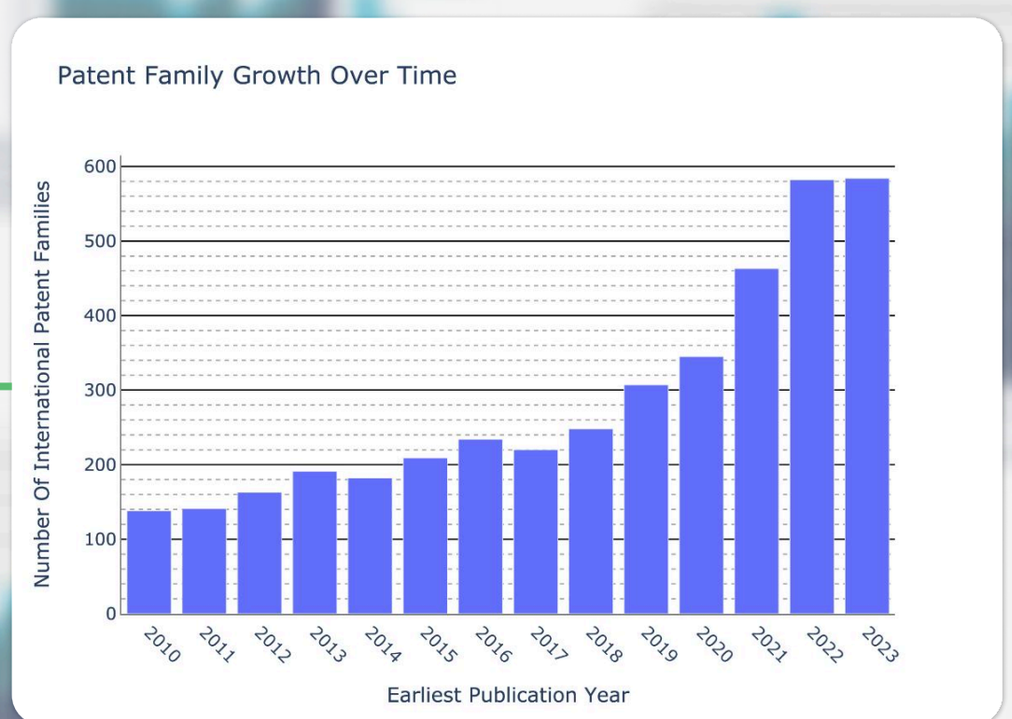
Delivery Formats

The final outputs are delivered in two formats:

- Written Report (PDF): A comprehensive, publication-ready document featuring executive summaries, technology breakdowns, market insights, and key player profiles.
- Interactive Dashboard: A web-based platform enabling users to explore patent trends, filter by technology, applicant, jurisdiction, and time period, and generate customized reports.

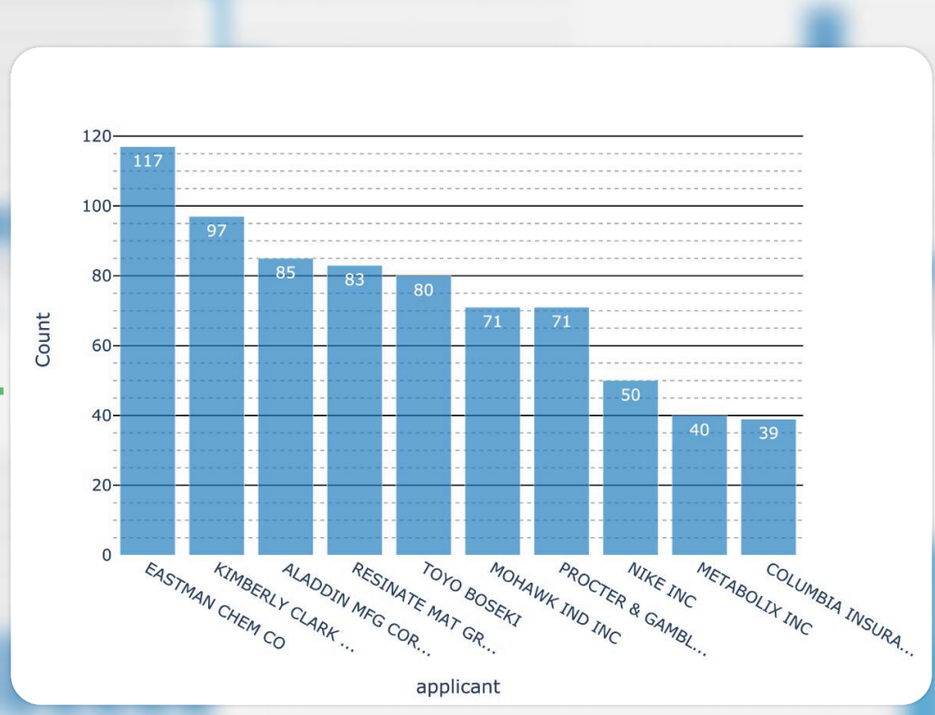
Technology Trends

Patent Landscape Overview



Patent filings grew steadily from 2010 to 2018, then accelerated rapidly, more than doubling between 2020 and 2023, indicating a sharp rise in innovation intensity in the most recent four-year period.

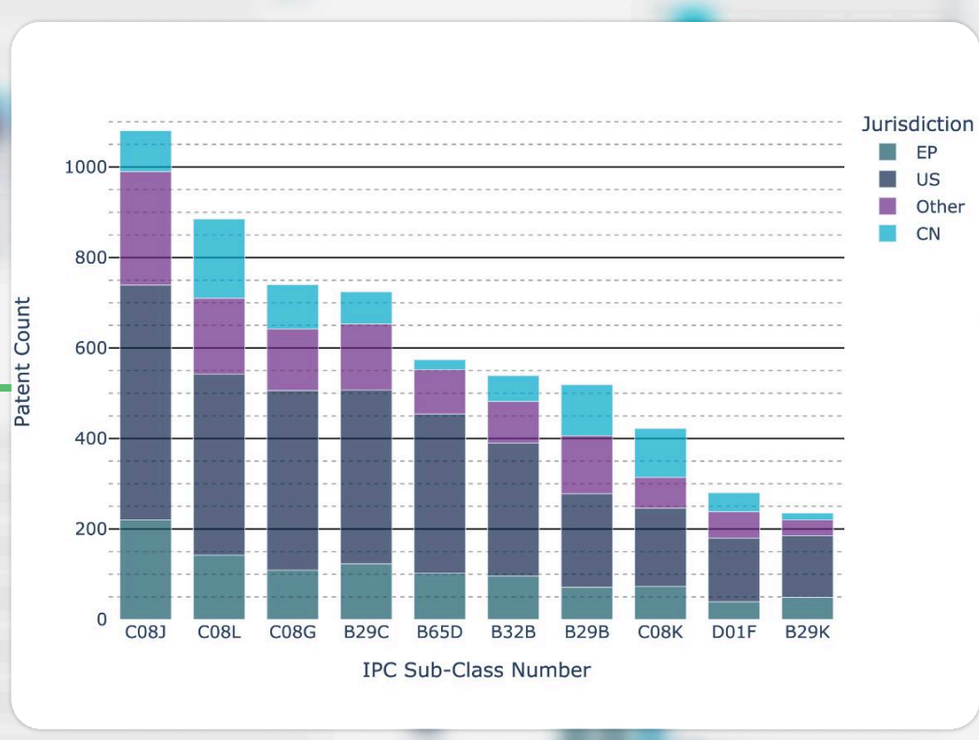
Top Patent Applicants



Eastman Chem leads in patent filings, followed by Kimberly Clark and Aladdin MFG. Diverse applicants reflect innovation in materials and manufacturing, highlighting competitive activity in advanced textiles, polymers, and sustainable technologies.

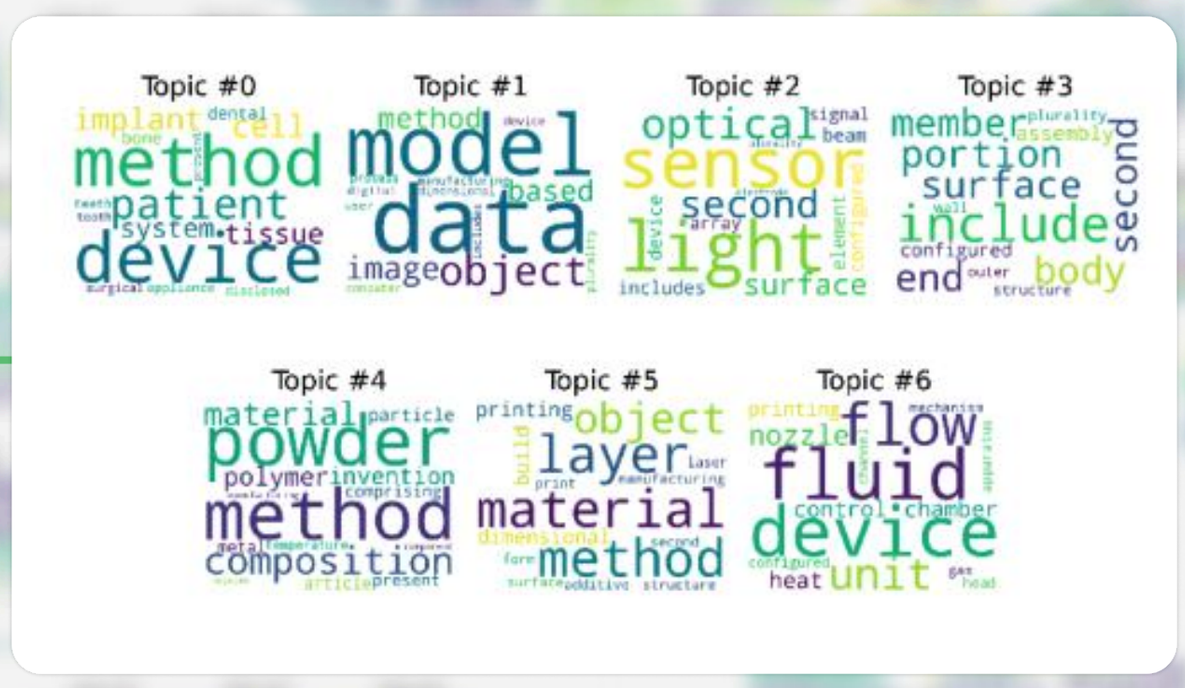
Technology Trends

Top Technologies by Sub-Class



Polymer and plastic-related IPC classes—especially C08J and C08L—dominate filings. China and the U.S. lead jurisdictionally. Activity indicates sustained innovation in composite materials, polymer chemistry, and advanced manufacturing applications.

Key Patent Themes



Strategic Recommendations:

Policy Makers

1. Focus on fostering innovation in high-growth sectors.
2. Encourage investments in sustainable technologies.
3. Support industry-specific research and development initiatives.

Investors

1. Prioritize companies with strong intellectual property in emerging technologies.
2. Monitor the latest advancements in new industrial applications and sectors.

Manufacturers

1. Embrace new technology adoption to improve operational efficiency.
2. Invest in scalable solutions for long-term growth.
3. Focus on sustainability and circular economy practices.

Our Industrial Expertise

Energy

Exploring innovations in the oil, gas, electricity, and renewable energy sectors.

Chemical

Advancing chemical processes, products, and catalysts for industrial applications.

Health and Pharma

Analyzing new pharmaceutical products, health services, and medical technologies.

ICT & Software

Examining trends in information and communication technology, software, and hardware.

Mining Industry

Investigating improvements in iron, steel, aluminum, copper, and other related industries.

New Materials

Researching advancements in advanced materials, nanotechnology, and their applications.

Our Global Allies

recycled Polyethylene Terephthalate

Patent Landscape Report

Buy Now

www.STIMAnalytics.ai

sale@stimanalytics.ai

Dubai, UAE +971557797834

INNOTECH STIM ANALYTICS