

# 3D Printing

## Patent Landscape Report

This sample report showcases a landscape of advancements in 3D printing technology by analyzing 589000 patent from 2010 to 2025.

[WWW.STIMAnalytics.ai](http://WWW.STIMAnalytics.ai)

Sample

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## Executive Summary

This sample report showcases a landscape of advancements in 3D printing technology by analyzing 589000 patent from 2010 to 2025. The analysis reveals:

### Explosive Growth

Since 2010, patent filings have experienced a substantial increase, rising by a factor of nine. In 2024, a total of 8,682 new patents were filed, while 19,977 applications remain pending at present.

### Geographic Dominance

The United States leads the global patent landscape, accounting for 45,219 patents, representing 76.7% of the total. It is followed by Europe, with 6,792 patents, and China, ranking subsequently.

### Technology Focus

Prominent sectors of innovation encompass additive manufacturing processes (B29C64), advancements in material technologies, and the development of precision control systems.

### Market Potential

The 3D printing industry is forecasted to attain a market value ranging from \$37.4 billion to \$149.4 billion by 2030, with a compound annual growth rate (CAGR) between 16.4% and 20.5%.



# 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 the 3D printing 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:

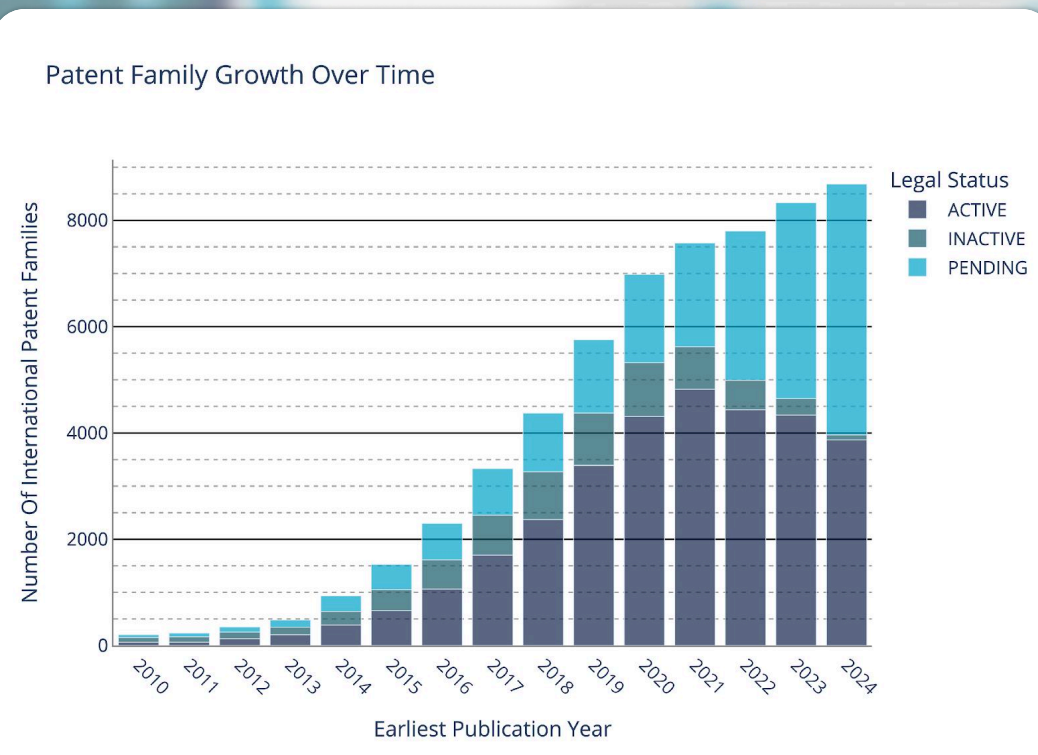
- Accuracy of technical interpretation
- Consistency in terminology and classification
- Relevance of strategic insights
- Professional formatting and readability

## Delivery Formats

The final outputs are delivered in two formats:

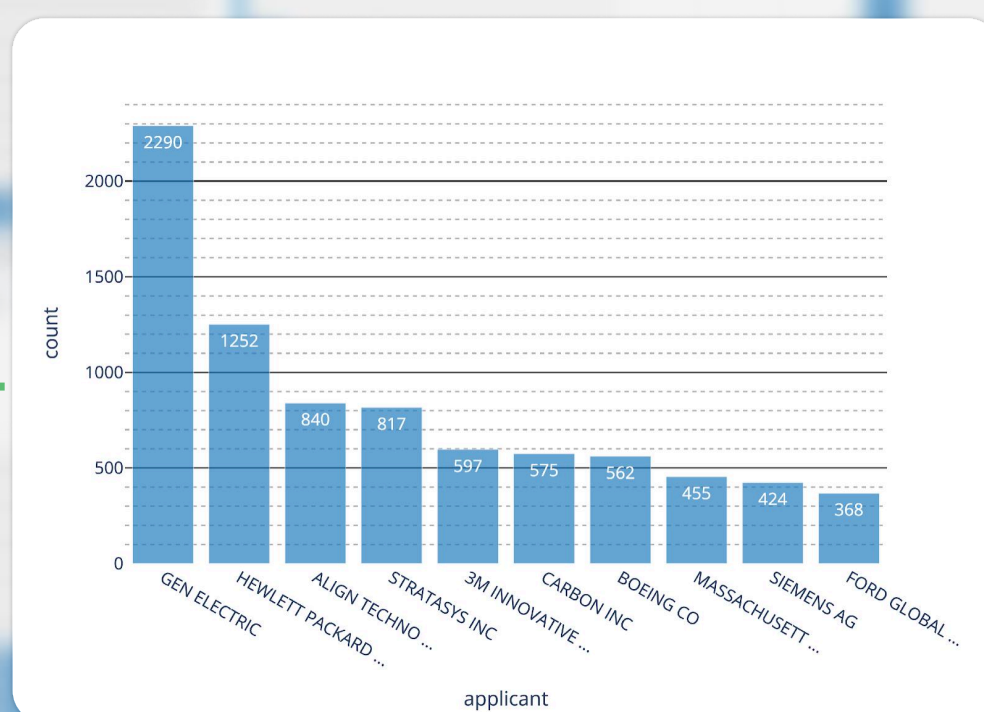
- Written Report (PDF): A comprehensive, publication-ready document featuring executive summaries, technology breakdowns, market insights, and key player profiles.
- Interactive Dashboard: A web-based platform enabling users to explore patent trends, filter by technology, applicant, jurisdiction, and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

## Patent Landscape Overview



The sharp rise in total patent families since 2017, driven by a surge in pending filings, indicates a sustained acceleration in innovation activity, with 2024 reaching the highest volume of new technological developments.

## Top Patent Applicants

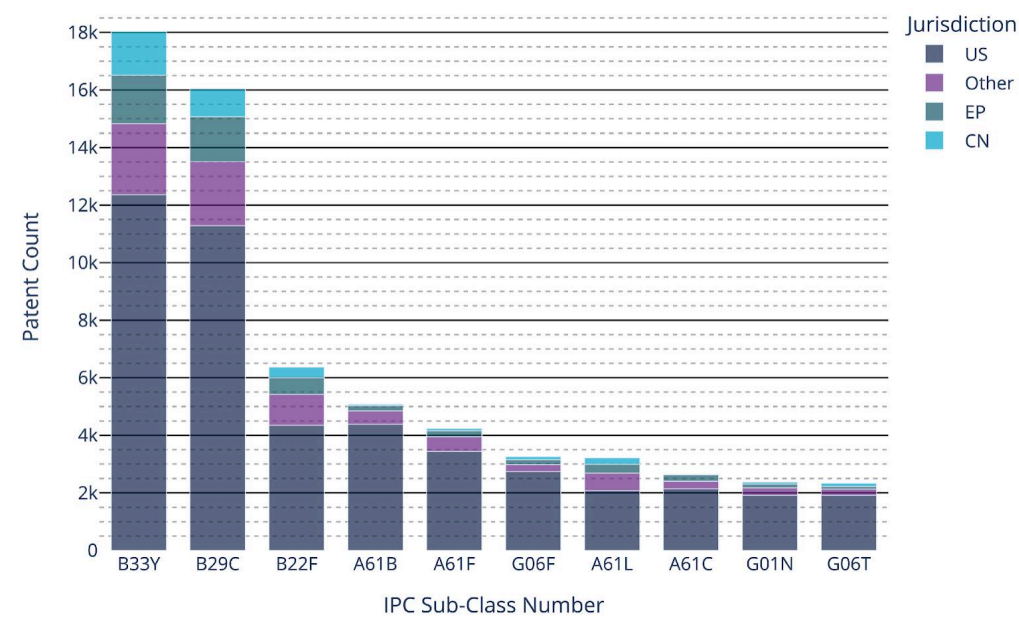


General Electric leads innovation intensity with 2290 filings—over 80% more than the second-highest applicant—indicating a dominant role in patent-driven R&D compared to peers in the advanced manufacturing and tech sectors.



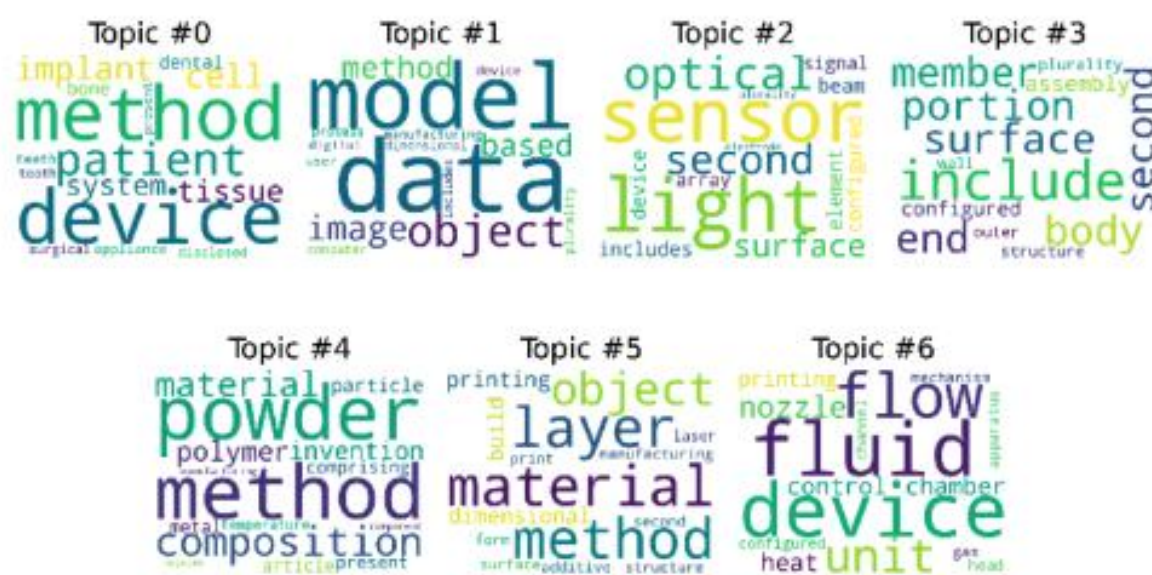
# Technology Trends

## Top Technologies by Sub-Class



The top two technologies by patent volume are additive manufacturing (3D printing) and plastic molding/shaping techniques, indicating these are the most actively innovated areas globally, especially in the United States.

## Key Patent Themes





## Strategic Recommendations:



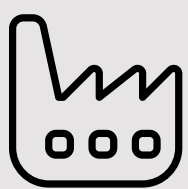
### Policy Makers

1. Focus on metal additive manufacturing for aerospace and medical applications.
2. Invest in multi-material capabilities.
3. Develop industry-specific solutions (e.g., dental aligners).



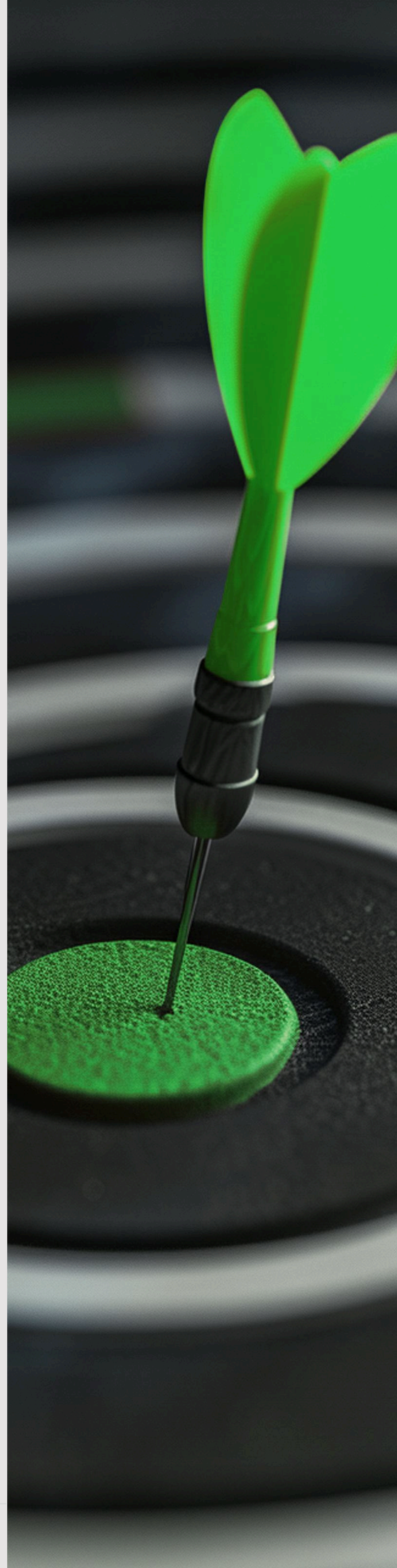
### Investors

1. Prioritize companies with strong intellectual property in:
  1. Process control systems
  2. Novel materials
  3. AI-driven optimization
2. Monitor emerging applications in construction and bioprinting.



### Manufacturers

1. Support standardization efforts.
2. Fund academic-industry collaborations.
3. Develop recycling protocols for 3D printing materials.

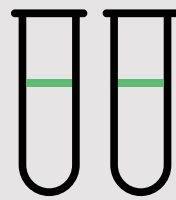


## Our Industrial Expertise



### 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





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