

Wohlers Report 2025 **Pre-release Public Webinar**

Mahdi Jamshid, Ph.D.
Director Market Intelligence

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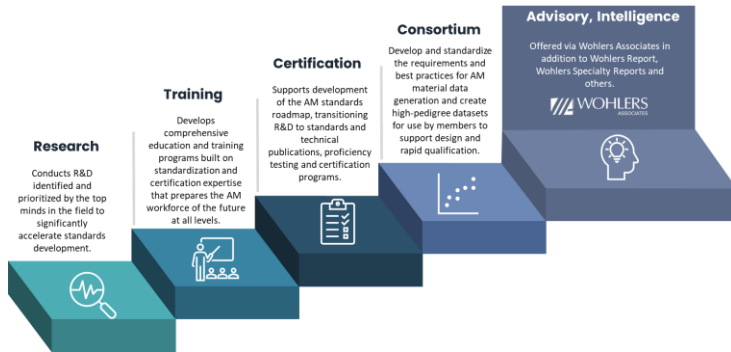
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Objective of this Webinar

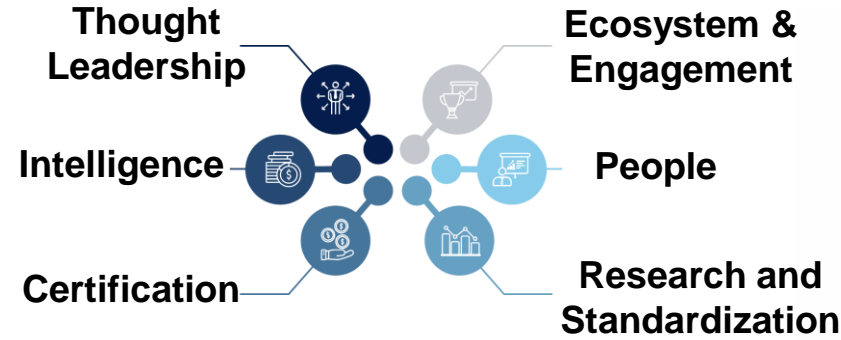
- Proactive Communication
- Maximized Transparency
- First time “truly” powered by ASTM International



5 Pillars



Gold Standard Approach

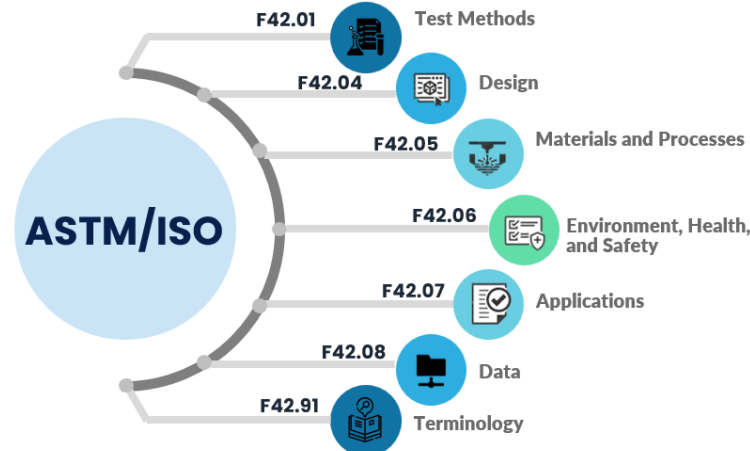


40+ people,

4 continents / 11 time zones



Standardization



Some of our sponsors



The publication of the Wohlers Report 2025 marks the 30th anniversary of this industry-leading report.

In 2024, Wohlers Associates (WA) conducted a comprehensive Voice of the Customer (VoC) study—through online surveys and in-person meetings—to gain deeper insights into the **evolving needs and priorities** of the AM industry. The findings from this study served as the foundation for shaping WA’s strategic vision for ***Wohlers Report 2.0***, ensuring it continues to set the standard for excellence and relevance.

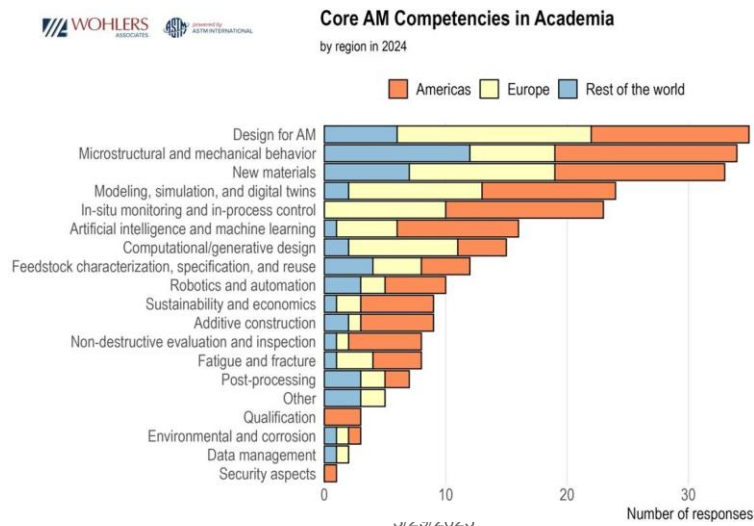
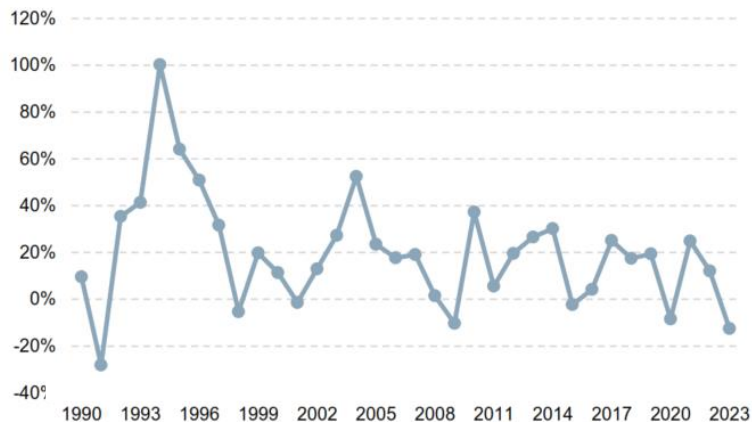
The Wohlers Report 2025 is a first step towards Wohlers Report 2.0.



Changes in Wohlers Report 2025

As part of Phase I, we implemented significant enhancements in Wohlers Report 2025, including:

- Expanded data sources
- Breakdown by subcategories
- Addition of Software (new subcategory)
- Forecast range
- Technology-specific data
- Modernized visualizations
- Tripling the number of expert contributors
- High-quality, downloadable images and tables
- An accessible, structured datapack
- Flexible licensing models



Also, as part of Phase I, several new sections were included in Wohlers Report 2025, including:

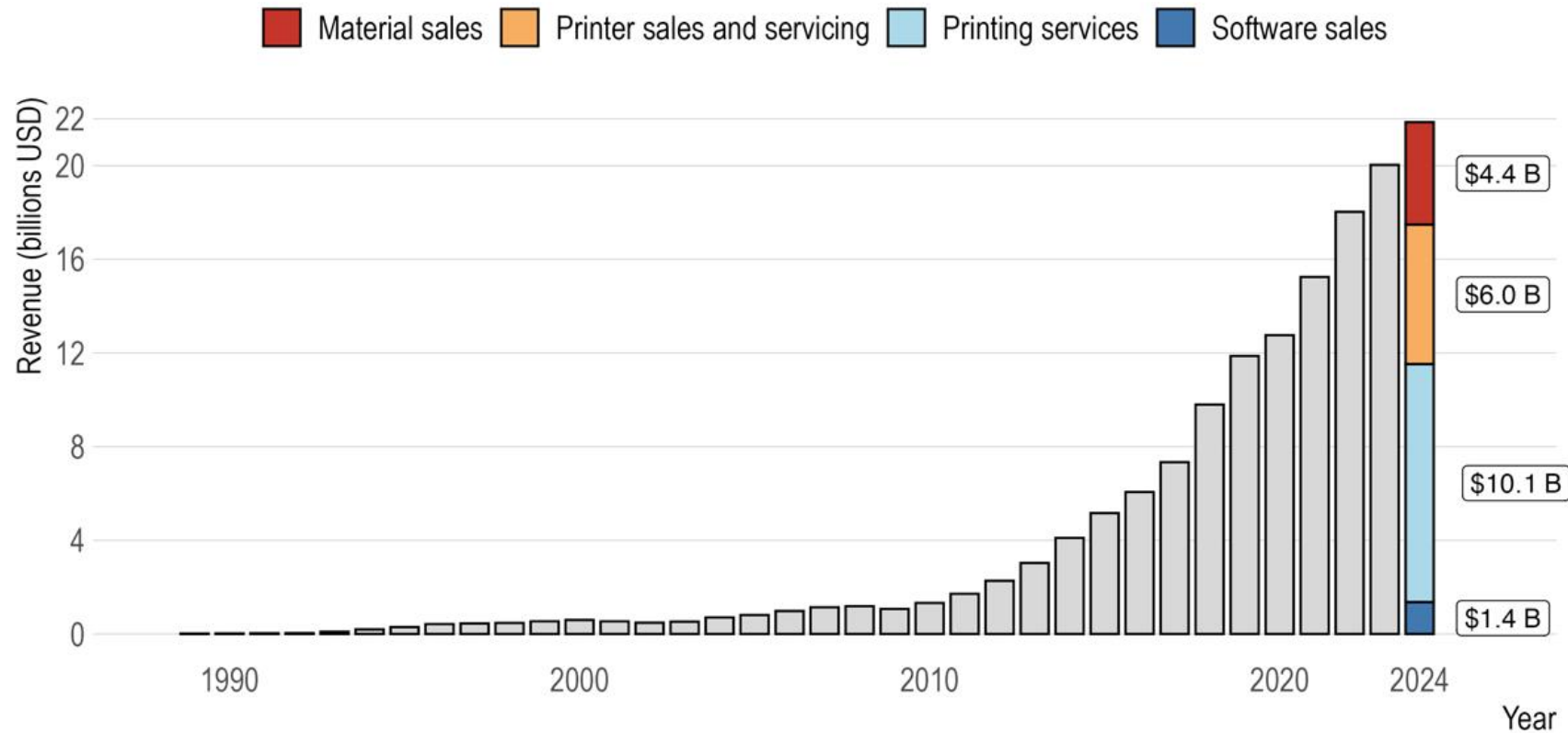
- Qualification and certification
- AM marketplaces
- AM business cases
- AM security
- Space
- UK Defence Force
- U.S. Army
- Metal binder jetting for high-volume production
- Ceramic and ceramic composites
- Polymer and continuous fiber composites
- Robotics and automation
- Data management
- Mexico
- India

The Wohlers Report 2025 is a first step towards Wohlers Report 2.0.

Worldwide revenues from AM: \$21.9 billion in 2024 (an increase of 9.1% from \$20.0 billion in 2023)

AM market revenue

per year, segmented by revenue type



Note: This growth value is calculated based on data received from the industry survey, financial statements from public companies, and interviews performed by Wohlers Associates.

Data Acquisition

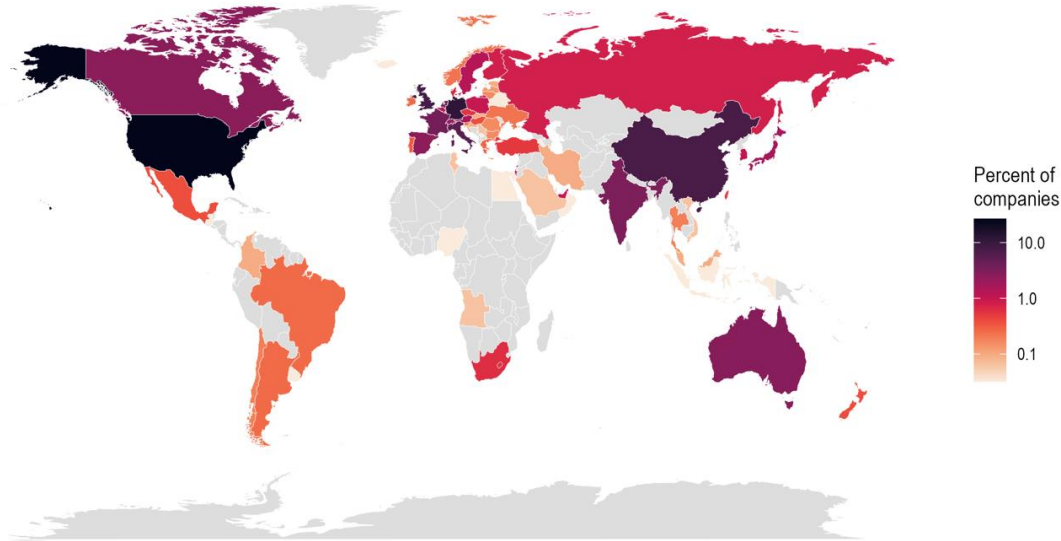
Do we have enough data?

Wohlers Associates has identified more than 3,000 companies in 70 countries in the AM market.

- Sample size: over 10%

Location of companies' AM headquarters

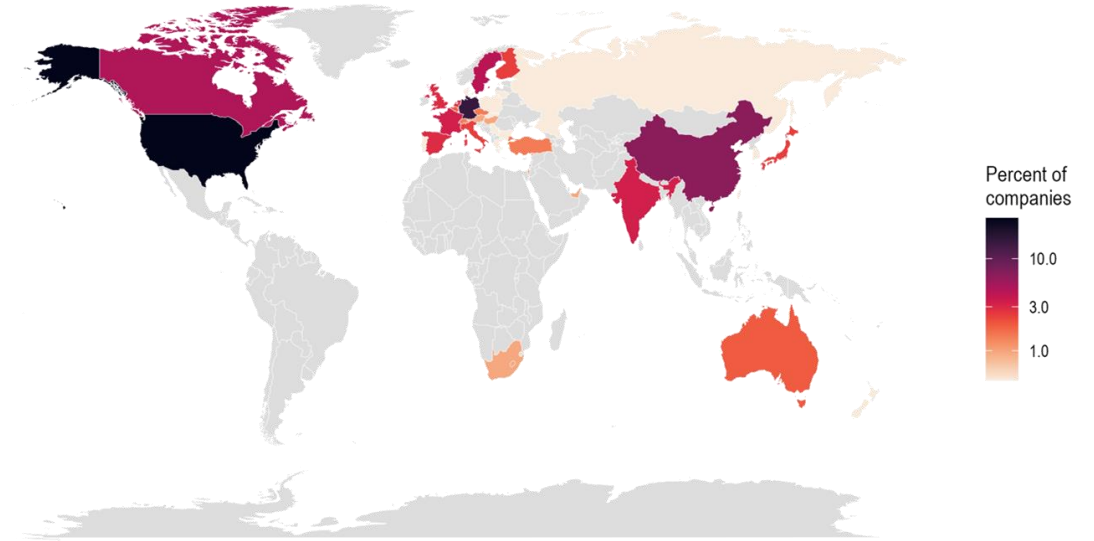
for AM companies known to Wohlers Associates in 2024



Full list of AM market: ~3000

Location of company headquarters

for AM companies contributing 2024 data



Category responses: 356

Minimize “Sampling” error!

Note: map of companies' AM-specific headquarters (which may differ from the headquarters of their parent company for large multi-national organizations. For example, Nikon SLM Solutions is considered Germany rather than Japan).

Data Acquisition

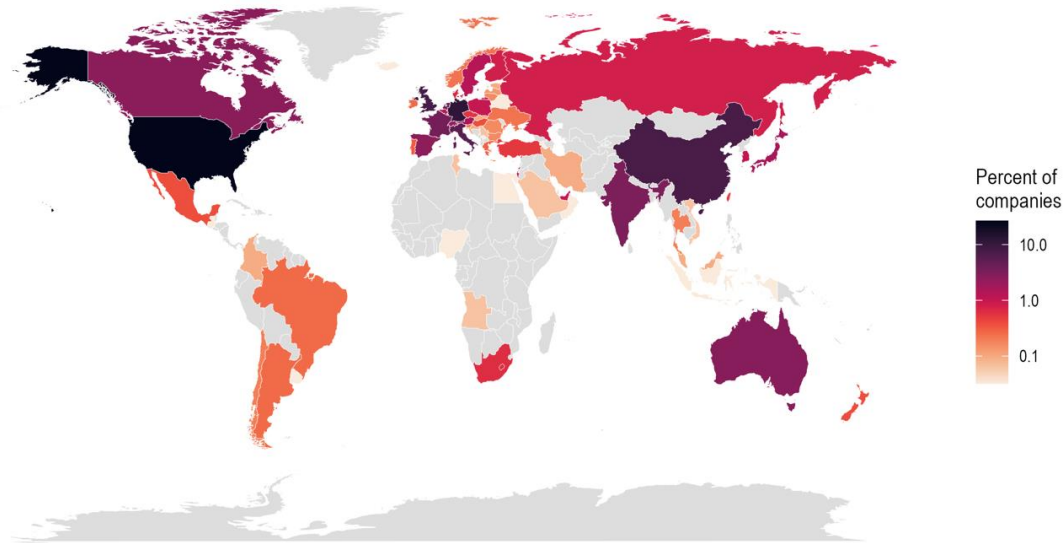
Is the data representative?

Wohlers Associates has identified more than 3,000 companies in 70 countries in the AM market.

- Discrepancies within $\pm 1\%$ (#responses vs #AM companies per each country)

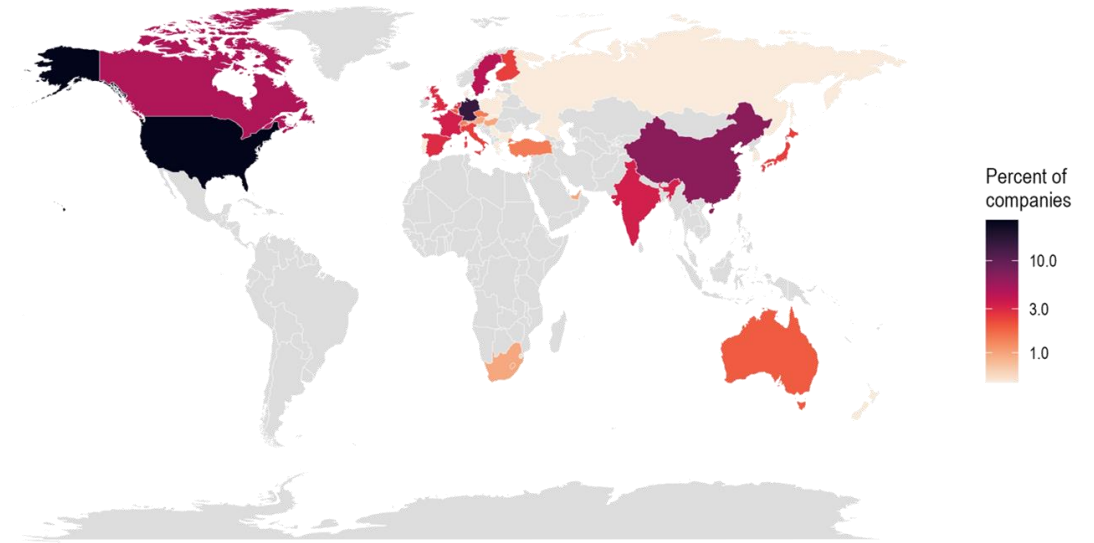
Location of companies' AM headquarters

for AM companies known to Wohlers Associates in 2024



Location of company headquarters

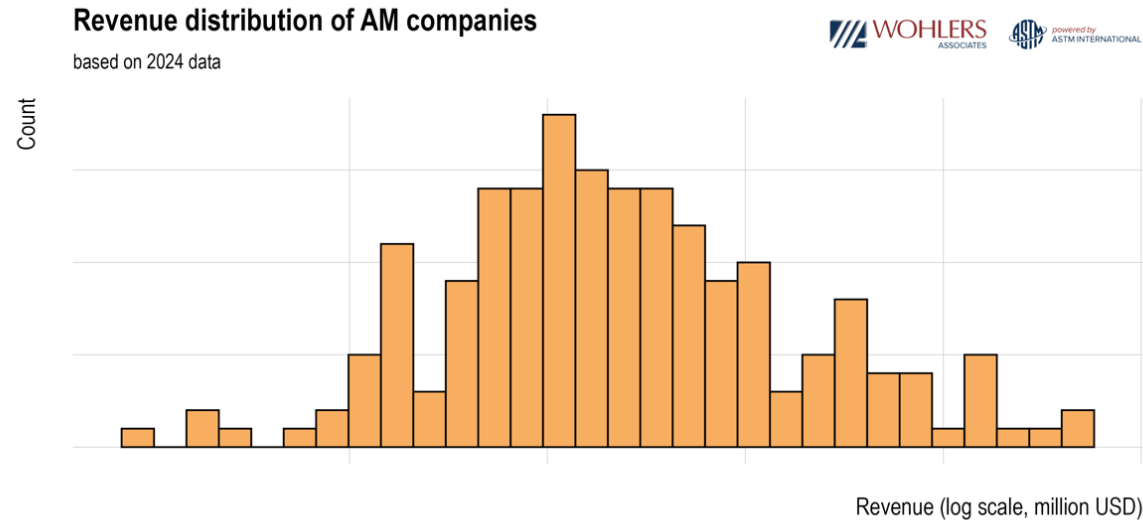
for AM companies contributing 2024 data



Minimize misleading interpretation due to “Selection” bias!

Note: map of companies' AM-specific headquarters (which may differ from the headquarters of their parent company for large multi-national organizations. For example, Nikon SLM Solutions is considered Germany rather than Japan).

This data was used to weight company responses, providing a **more accurate representation of the AM market**

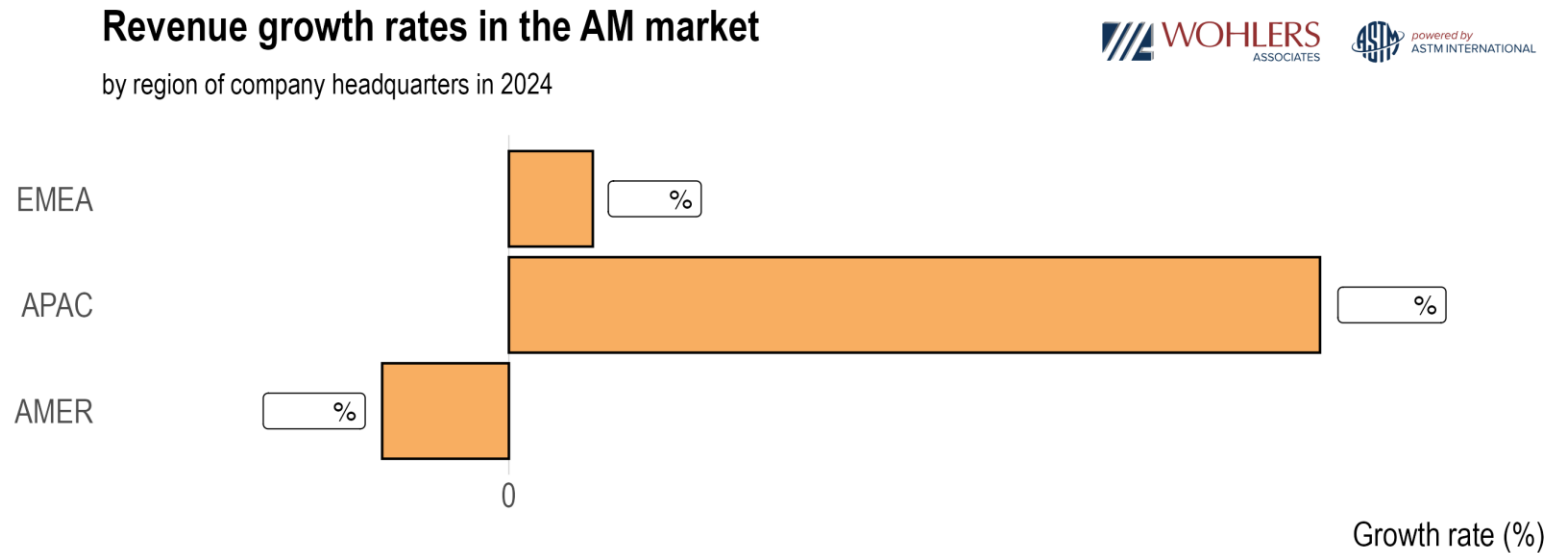


Eliminate distortion by “Size Effect” bias!

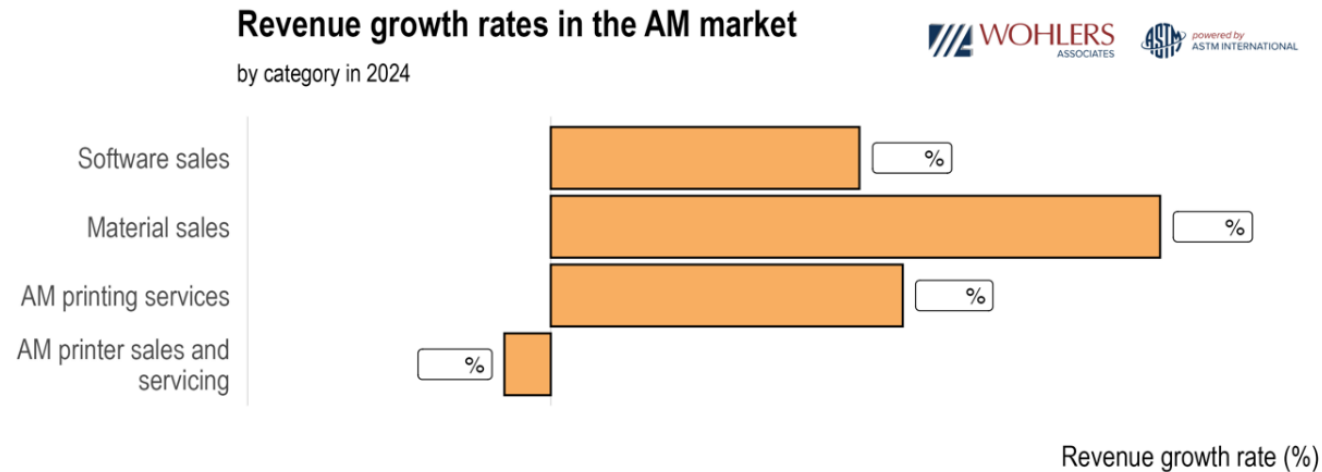
❑ Strongest growth in APAC (mainly China):

- Expansion of the entry-level printer market with models from China
- Competitively priced high-end industrial printing systems from Asian companies
- Rapidly increasing domestic adoption of AM in the Chinese market for tooling and end use parts

❑ **Note:** many companies in EMEA and AMER regions experienced double digit positive revenue growth rates depending on their role in the AM market and their respective niches.



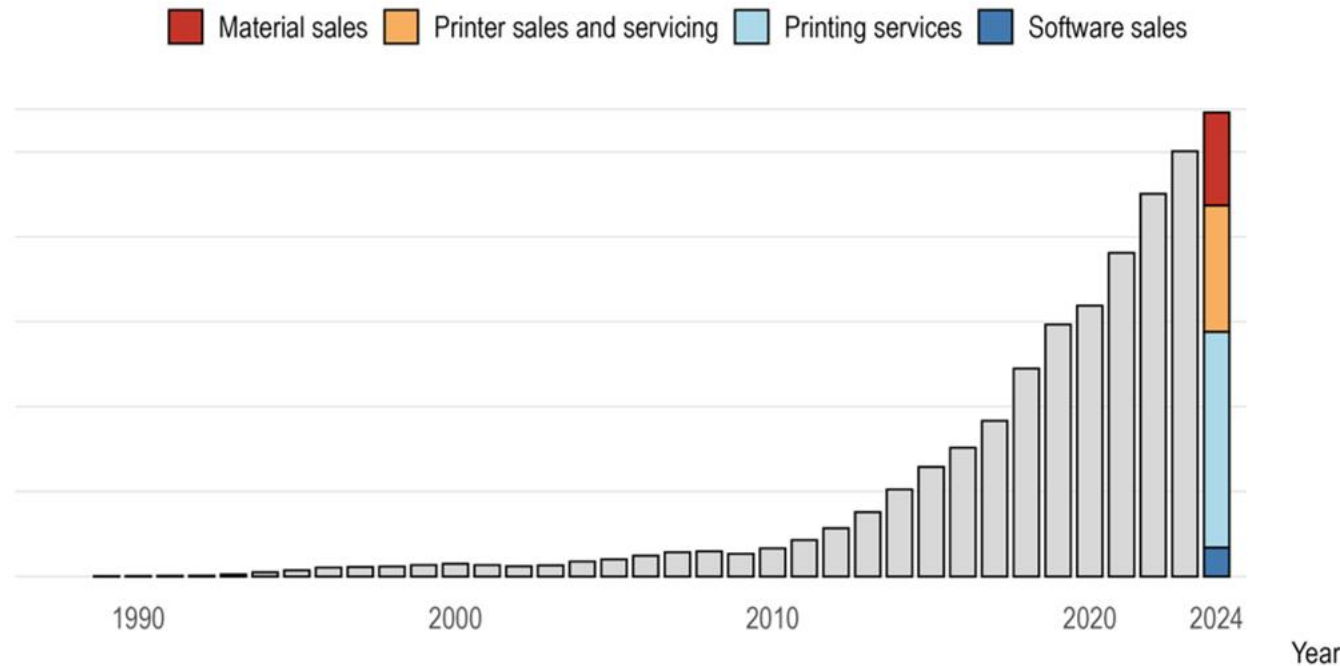
- ❑ **Strongest growth:** material sales of all types (metal, polymer, ceramic, etc.)
- ❑ **Moderate growth:** software and printing services
- ❑ **Revenue Decline:** System manufacturers
 - Due to reduced revenue from printer sales but was partially offset by growth in printer servicing revenues (maintenance, training, upgrades, etc.).



2024: Difficult but with incremental growth

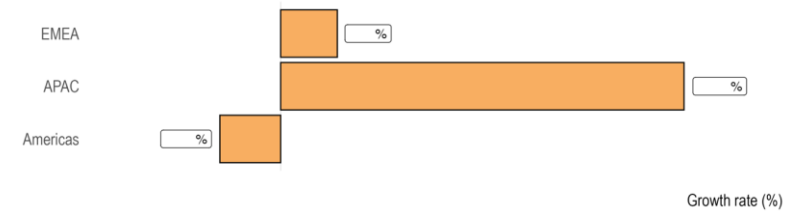
AM market revenue

per year, segmented by revenue type



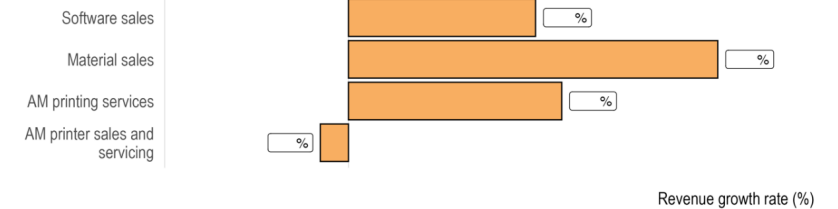
Revenue growth rates in the AM market

by region of company headquarters in 2024



Revenue growth rates in the AM market

by category in 2024



➤ **2024:** while hard-fought, it was nonetheless a year of incremental success and growth for most of the AM industry, though not by the kind of margin that many hoped for.

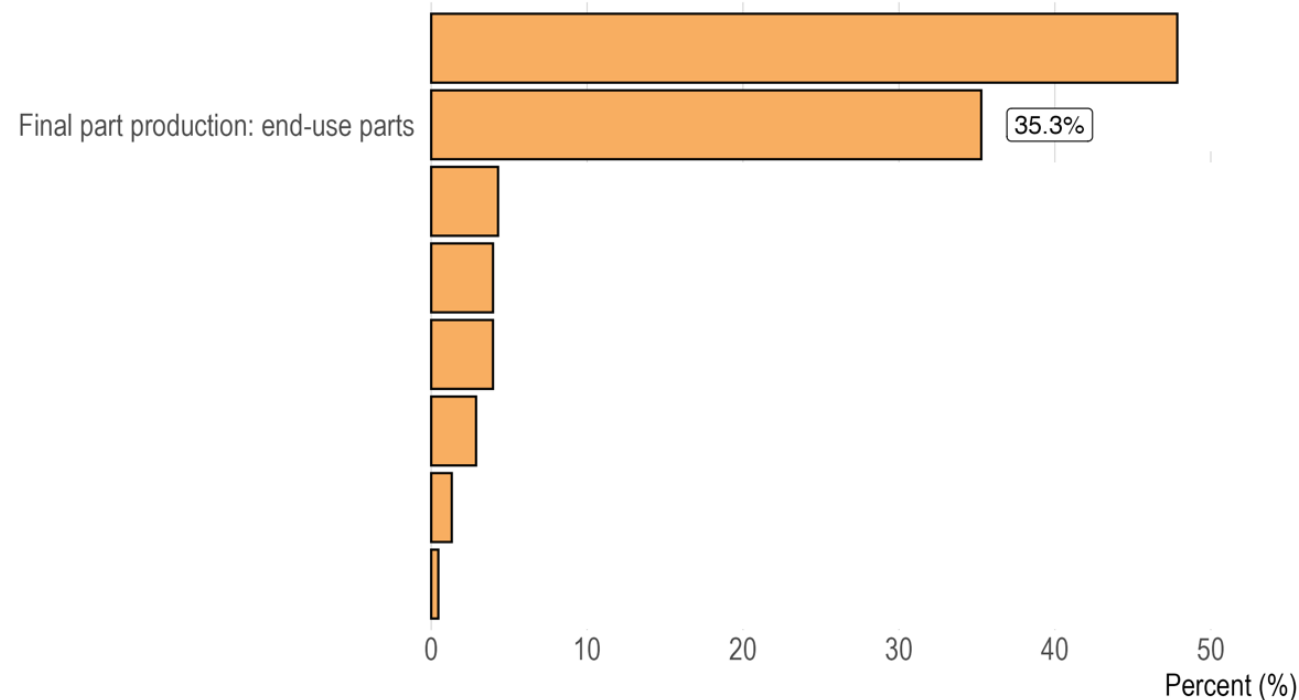
Service providers and end-users of AM parts were both asked what applications AM was being used for.

- Final part production: 35.3%
- YoY Growth: positive (i.e.: AM adoption is increasing)



Type of parts produced using AM

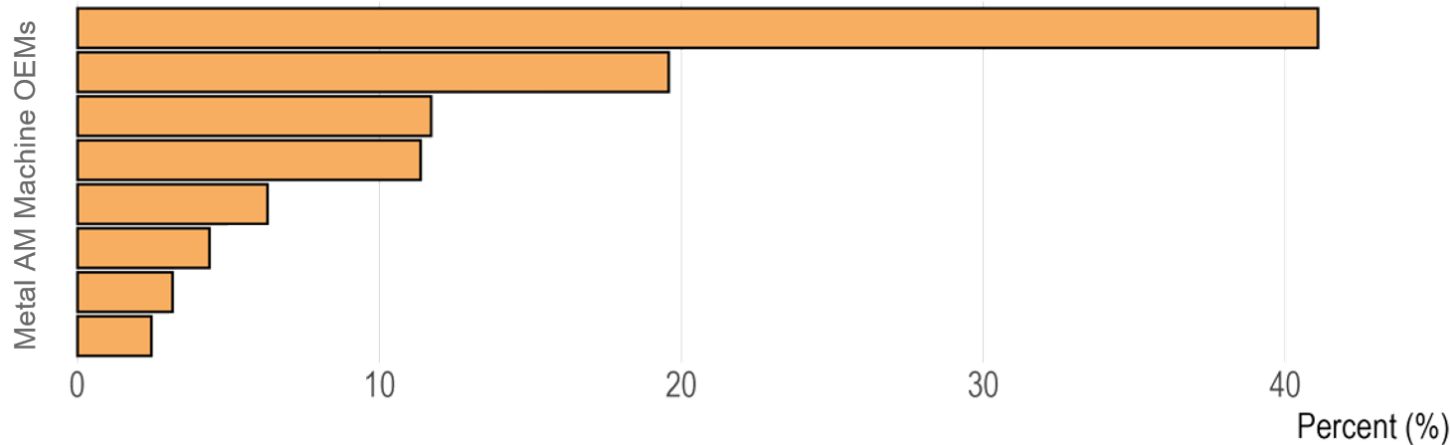
by part function, from AM service providers and AM end users in 2024



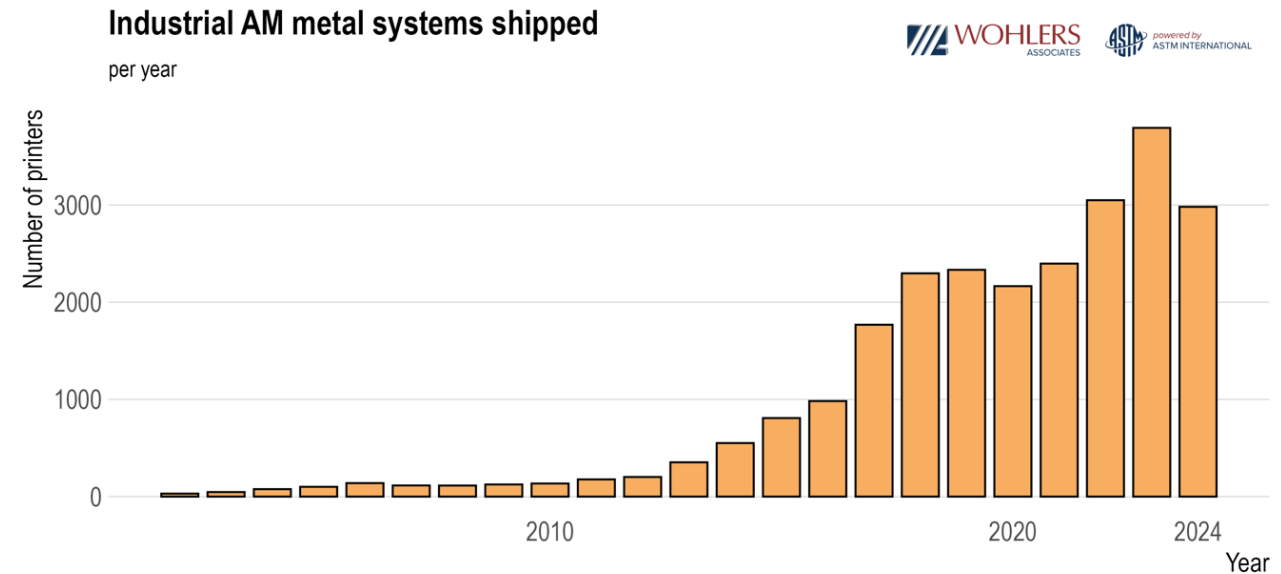
- ❑ Breakdown of the manufacturing technologies by brand installed at service providers and end users
 - Most of the top owned brands are PBF producers
 - ~70% of the install base is gained by three AM OEMs
- ❑ **Note:** Inclusion of “mega factories” will significantly skew the below results towards the Chinese AM system OEMs.

Metal printer installations by manufacturer

at service providers and end users in 2024



- ❑ Many metal AM system manufacturers reported significant revenue declines in 2024
- ❑ ~ 26% YoY decline in #machines sold
 - High-price and larger printers (reduced the ratio of #sold/revenue)
 - Time required for achieve maximum throughput
 - Increased machine reliability and thus lower demand for new machines



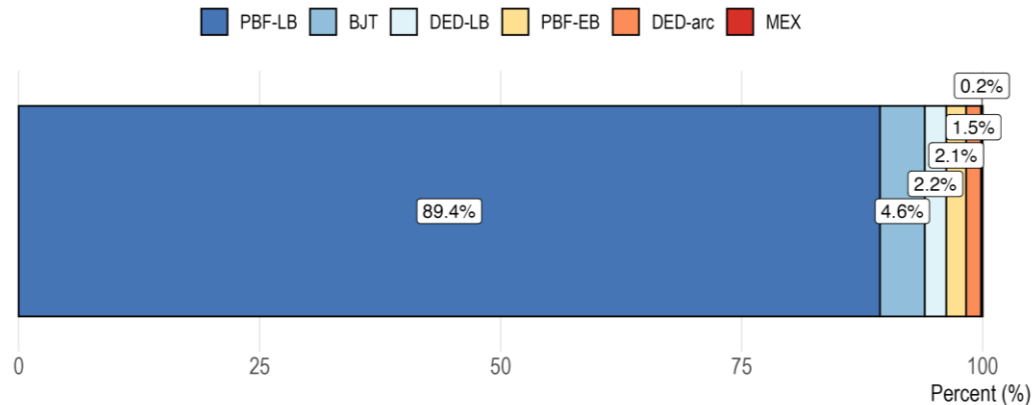
Current technologies owned

As well as

- Metal printers (brands) owned
- Most profitable materials (metal and polymer)
- Printer technologies being considered (metal and polymer)

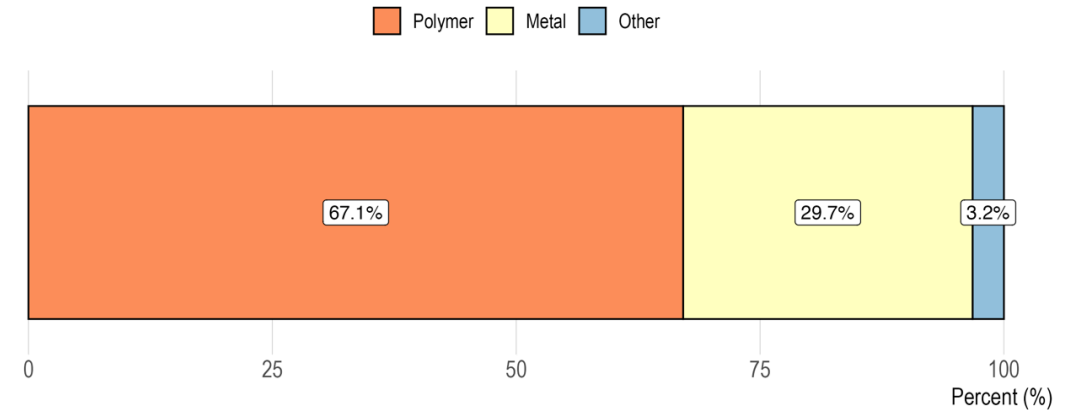
Metal printers owned by technology

at service providers and end users in 2024



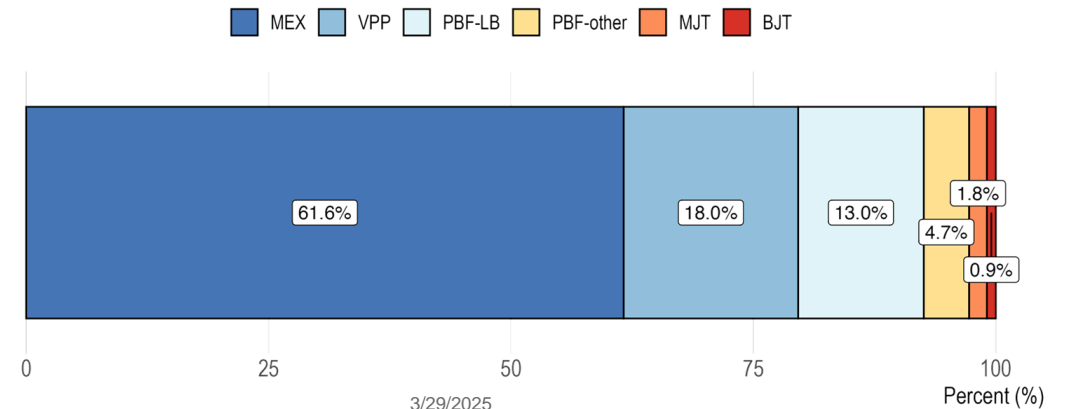
Printers owned by material

at service providers and end users in 2024



Polymer printers owned by technology

at service providers and end users in 2024



For the first time, Wohlers Associates is presenting upper and lower bounds for forecasting the size of the AM market

❑ **Lower bound:** five-year average of growth rates

- recent growth rates have been lower
- appropriate if we expect future growth to reflect a still growing but maturing market

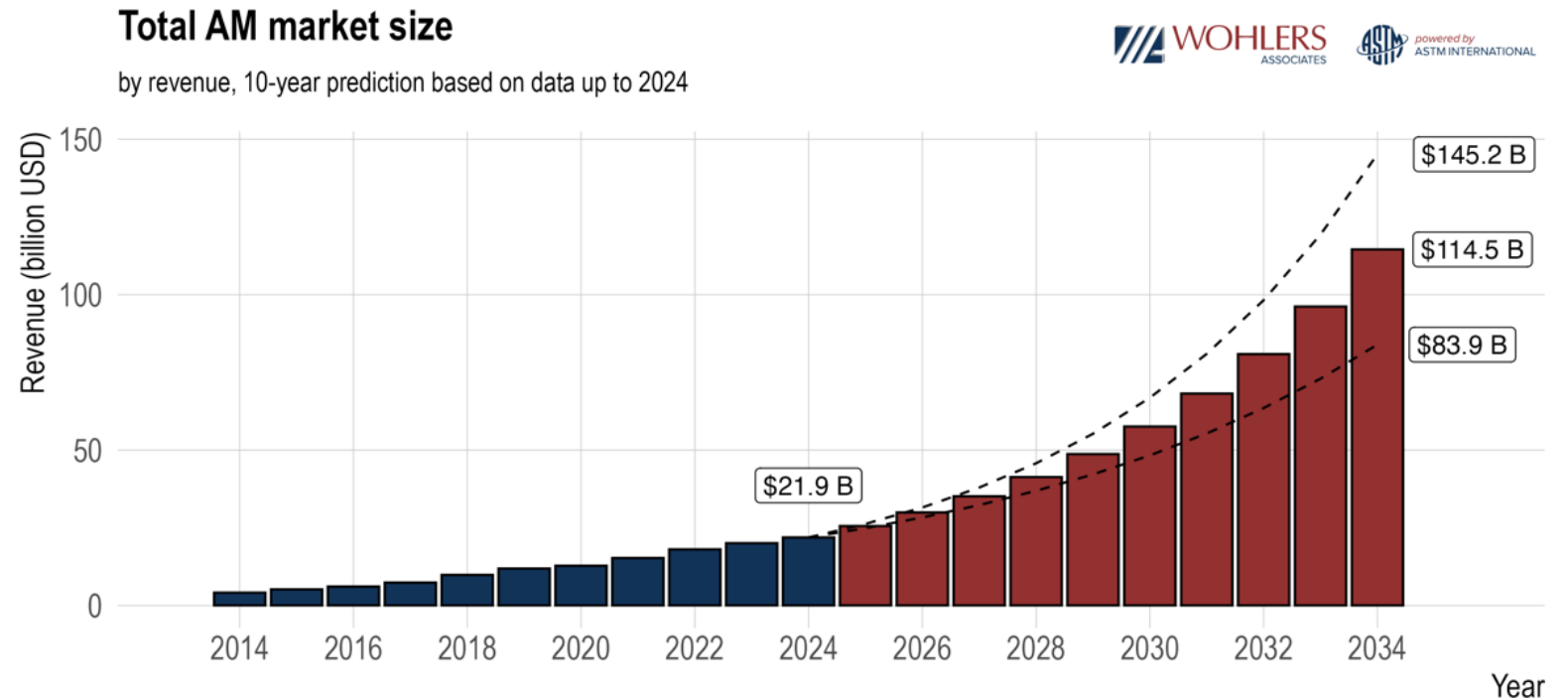
❑ **Upper bound:** ten-year average of growth rates

- more rapid growth rates experienced over the past 10-years
- appropriate if we expect the more recent performance to be a temporary slowdown due to surmountable obstacles

❑ **Market Size:** An average of the upper and lower bounds

For the first time, Wohlers Associates is presenting upper and lower bounds for forecasting the size of the AM market

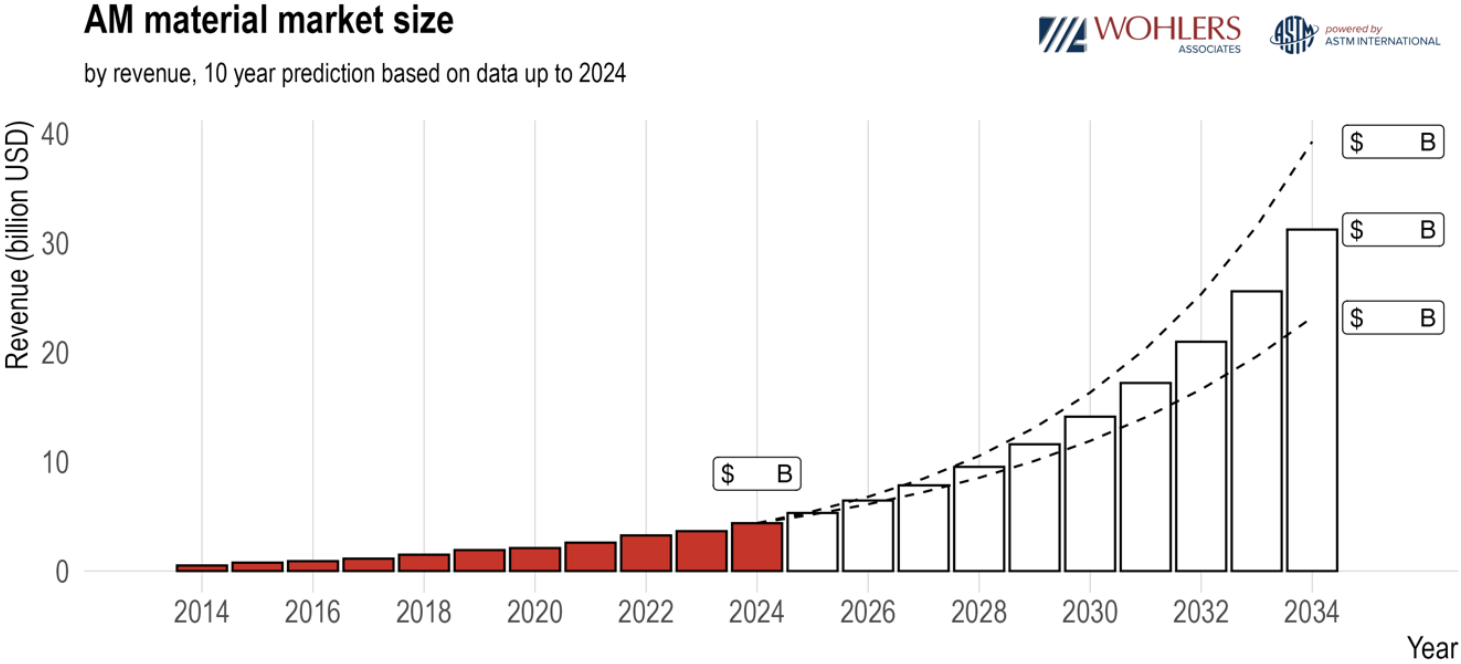
- ❑ **Market Size:** \$115 billion (10-yr CAGR: 18%)
- ❑ **Upper bound:** \$145 billion
- ❑ **Lower bound:** \$84 billion



Forecast Across Categories

Material Producers

□ CAGR%: 21.7%



System Manufacturers

International Sales (All)

☐ Stats are based on the movement of goods across borders, therefore exclude domestic sales and additionally, depend on the location of manufacturing sites rather than solely company headquarters.

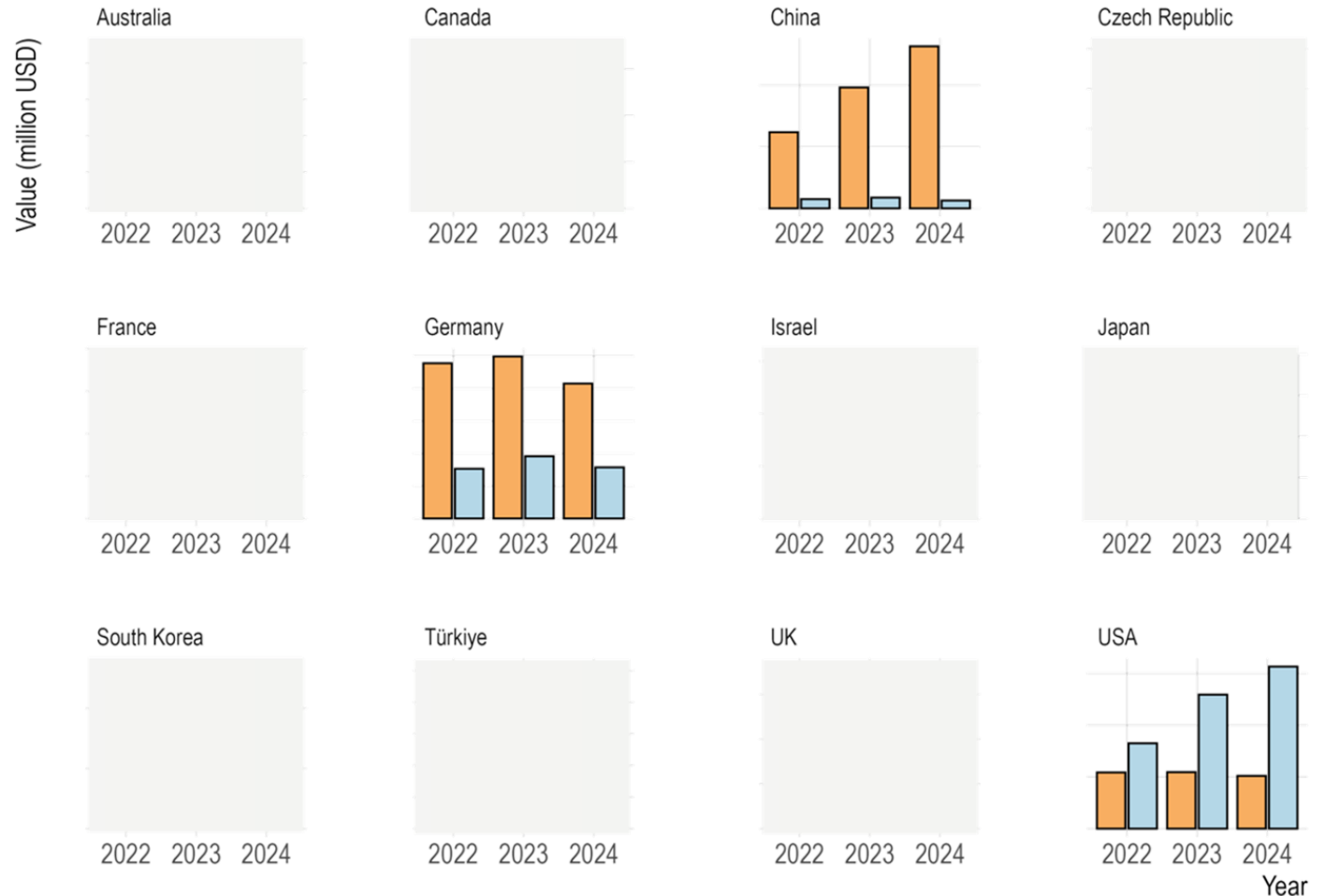
- USA: imports have surged
- Germany: 1/3 of China's export and showed a 20% YoY decline
- China: increasing export and decreasing import (signaling stronger domestic and global demand for its systems)

- **Note:** AM machine "export" of China, USA, and Germany totals to about \$2B!

Trade statistics for AM machines

Domestic sales not captured in data

Export
Import



☐ USA (metal machines):

- Primarily supplied by Germany
- Limited import from China

Imports of metal machines for AM

from partner countries by value in 2024



Percent of AM metal system imports by value

Over 260 AM experts contributed to the Wohlers Report 2025

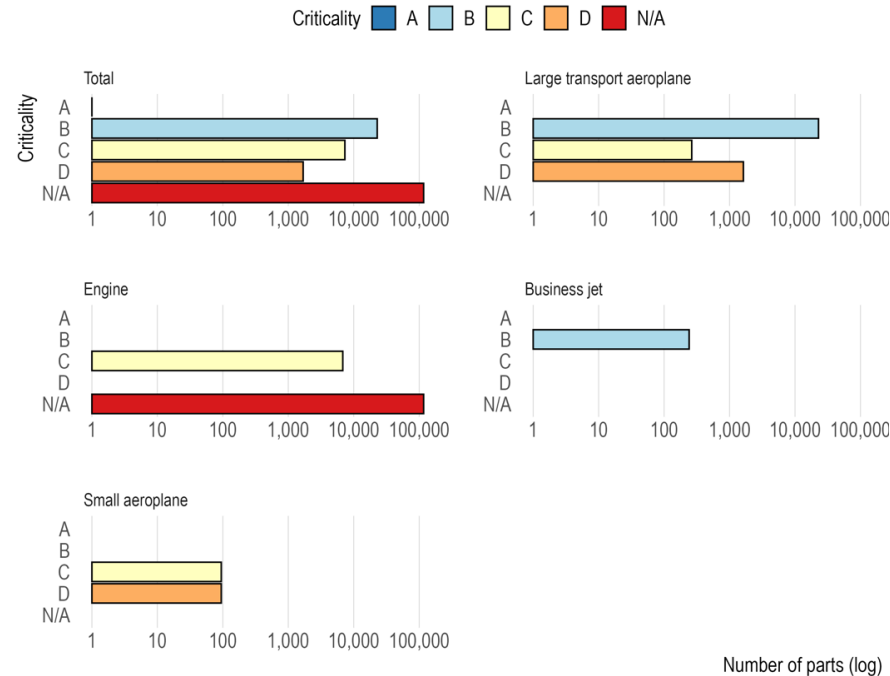
- Industry-specific trends and insights
- Education, academic research, and national laboratories
- Government-sponsored research and military initiatives
- Emerging technologies
- Investment in AM (publicly traded companies, M&As, and startups)
- AM supply chain (e.g. robotics, data management, AM security, generative AI, post processing, and qualification and certification)
- Global reports covering approximately 40 countries
- Consortia and collaboration, featuring over 20 AM groups
- AM standards

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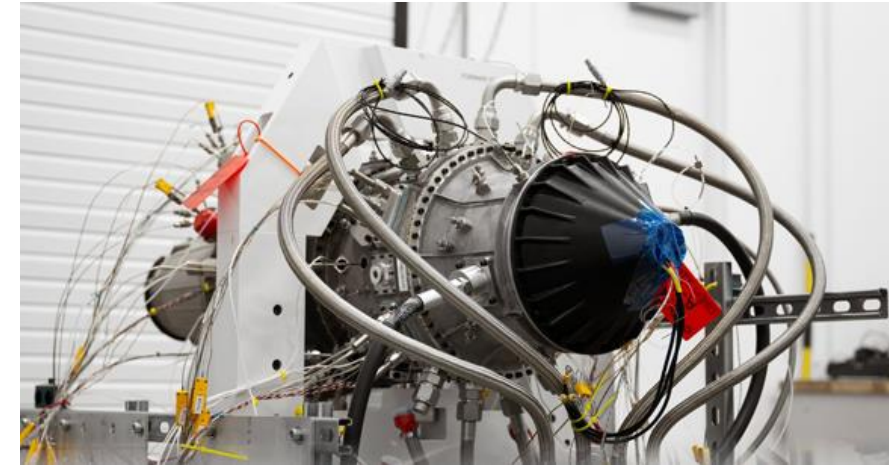
- Major developments in 2024
- Regulatory landscape
- Supply chain readiness
- Short-mid-term outlook

AM parts in service per criticality class

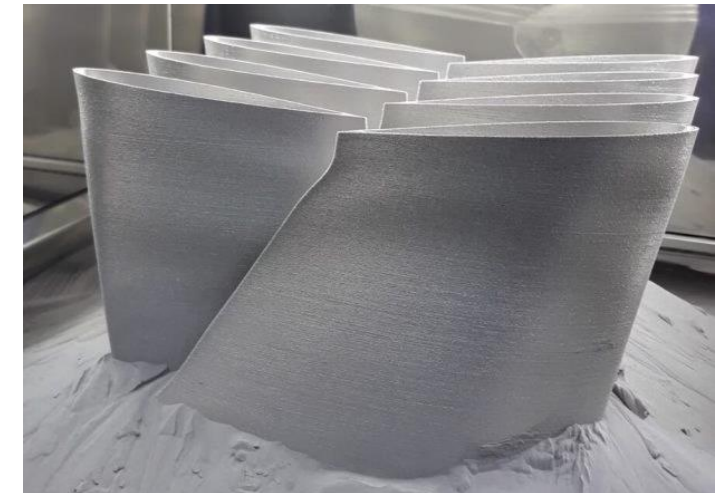
for various product classes, courtesy of EASA and Wichita State University



Parts in service per criticality class, Courtesy of Wichita State University



First fire test of its additively manufactured jet engine demonstrator
Courtesy of Beehive Industries

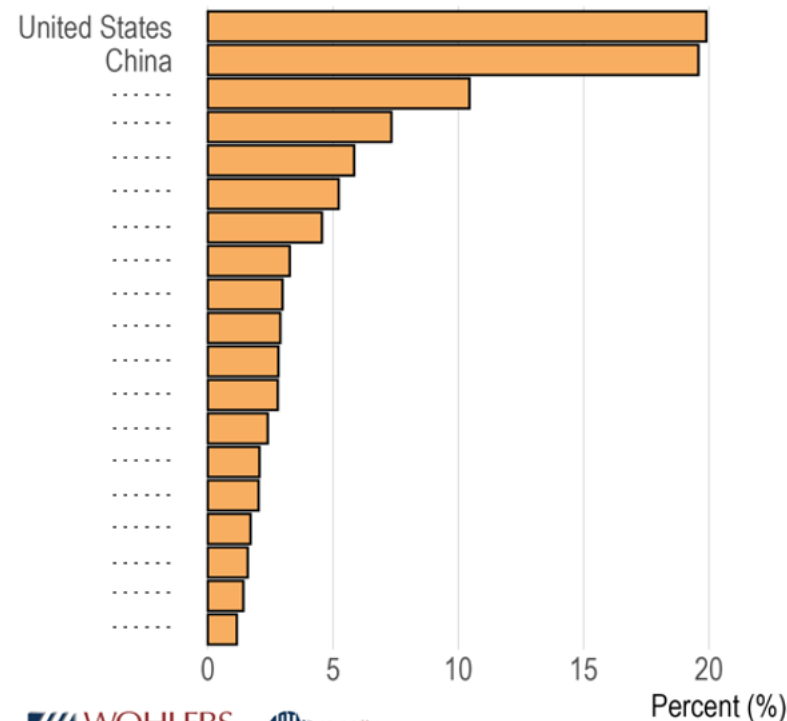


Structural vanes made by AM, certified for flight by EASA,
Courtesy of ITP Aerospace

- #Dissertations in AM
- Publications per material (metal, polymer, ceramic, concrete)
- Selected academic projects/programs
- Outlook

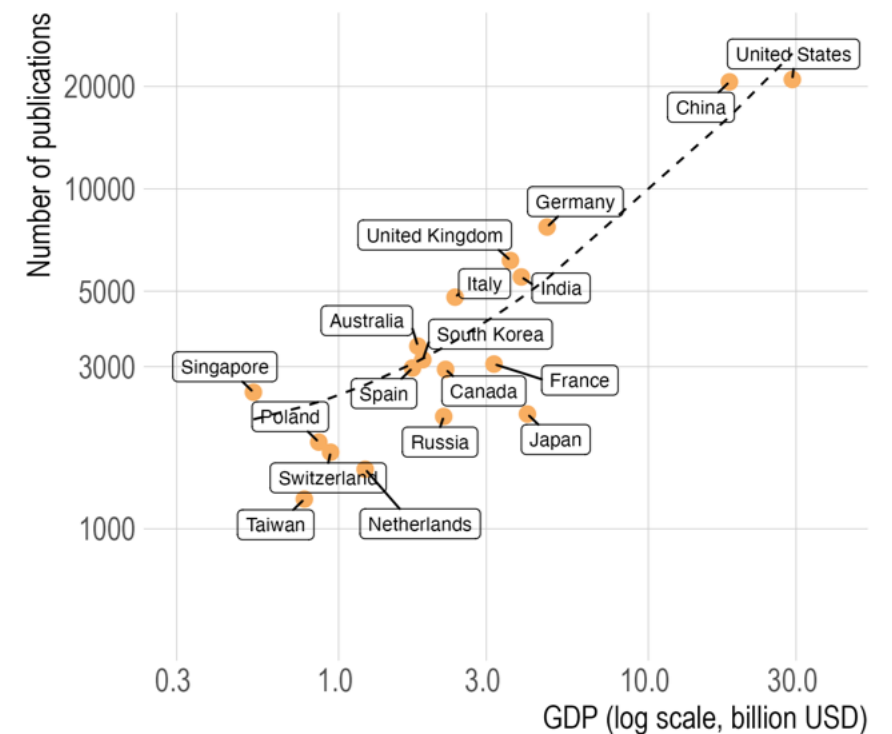
Share of AM publications

by country, published in 2024



Effect of GDP on research output

using GDP and publication count for 2024



AM Consortia, Associations, National Labs

Collaboration is essential!



Licensing Models

Features	Single-User	Consortia	Enterprise	Enterprise Unlimited	Academia
Price/Access	\$849	\$699	\$2,995 \$599 /access	\$4,999	\$4,490 \$449 /access
# Registered users	1	1	Unlimited	Unlimited	Unlimited
# Concurrent users	-	-	5	Unlimited	10
Downloadable Images and Tables	✓ Yes	✓ Yes	✓ Yes	✓ Yes	✓ Yes
Access to datapack	✓ Yes (+\$999)	✓ Yes (+\$999)	✓ Yes	✓ Yes	✓ Yes
Printed report	✓ Yes (+\$449)	✓ Yes (+\$449)	✓ Yes (+\$449)	✓ Yes (+\$449)	✓ Yes
1 hr free consultation	✗ No	✗ No	✗ No	✓ Yes	✗ No
Value	<ul style="list-style-type: none"> Competitive pricing for small and individual users 	<ul style="list-style-type: none"> \$150 discount 	<ul style="list-style-type: none"> 30% discount per access Spreadsheet graph data 	<ul style="list-style-type: none"> Significant discount per access Spreadsheet graph data 1-hr free consulting session 	<ul style="list-style-type: none"> 50%+ discount per access Spreadsheet graph data



Wohlers Report 2025

The 30th Anniversary

Report Release: March 31, 2025

To access Wohlers Report 2025, visit : wohlersassociates.com/reports
Contact us at wa@wohlersassociates.com