

*State of the AM Industry
(in Europe)*



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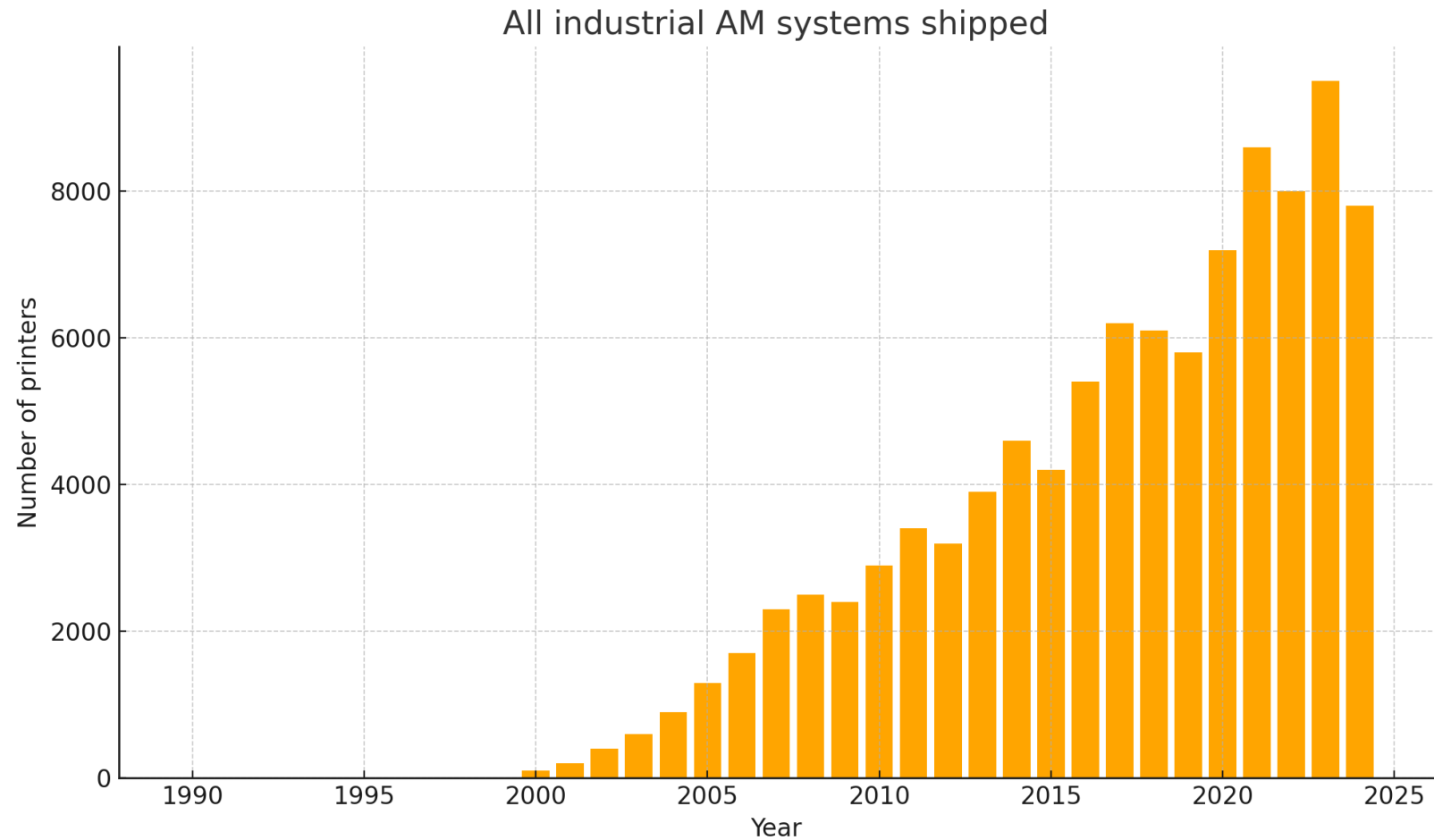
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Reasons to be pessimistic

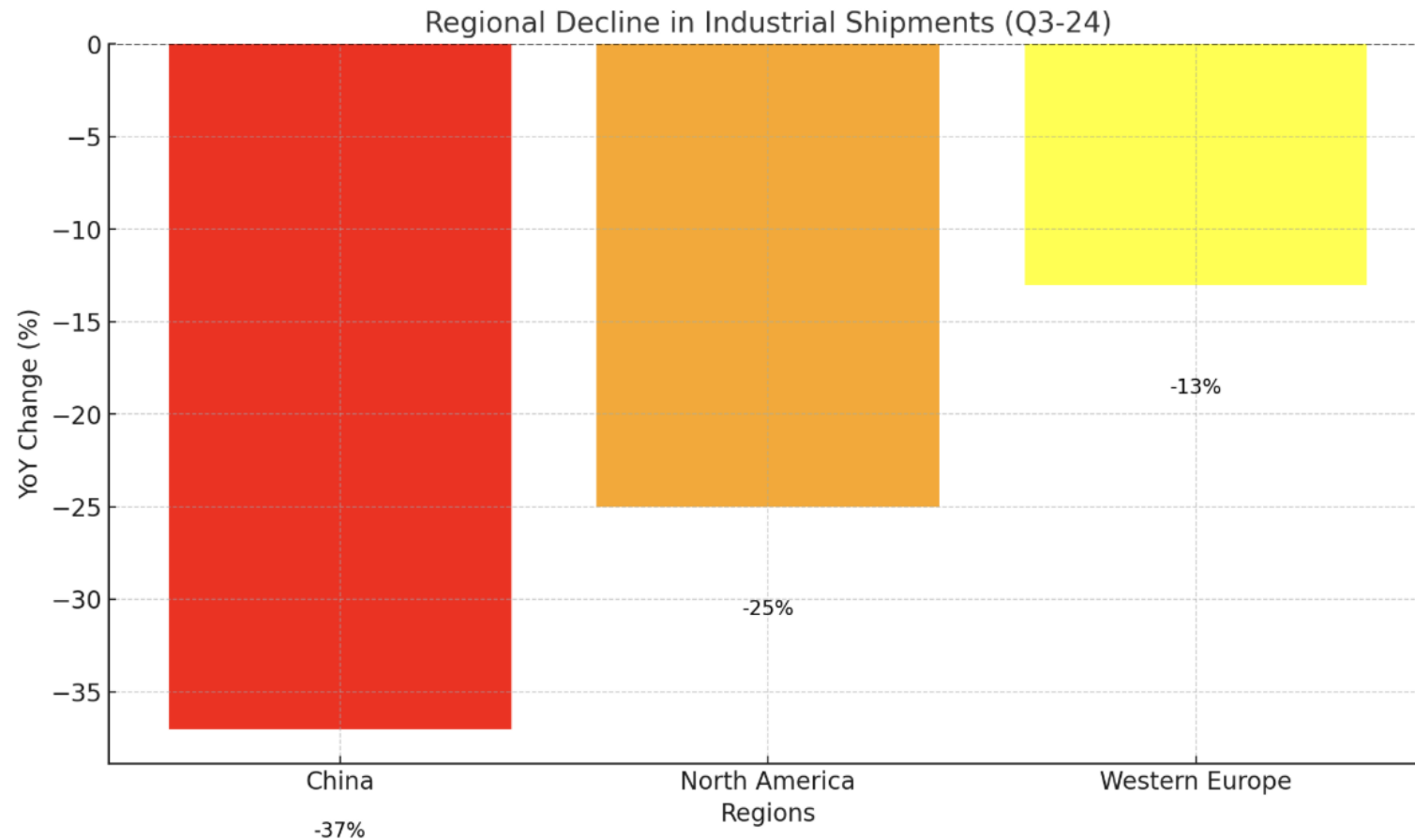
Reasons to be pessimistic

- Industrial machine sales dropped globally
- A recession in many Western regions
- Withdrawal of Western investors towards new emerging technologies
- Sustainability applications below expectations
- Ongoing market consolidation
- Lack of qualified AM talent
- Complex standardisation & regulations

Industrial AM Systems shipped

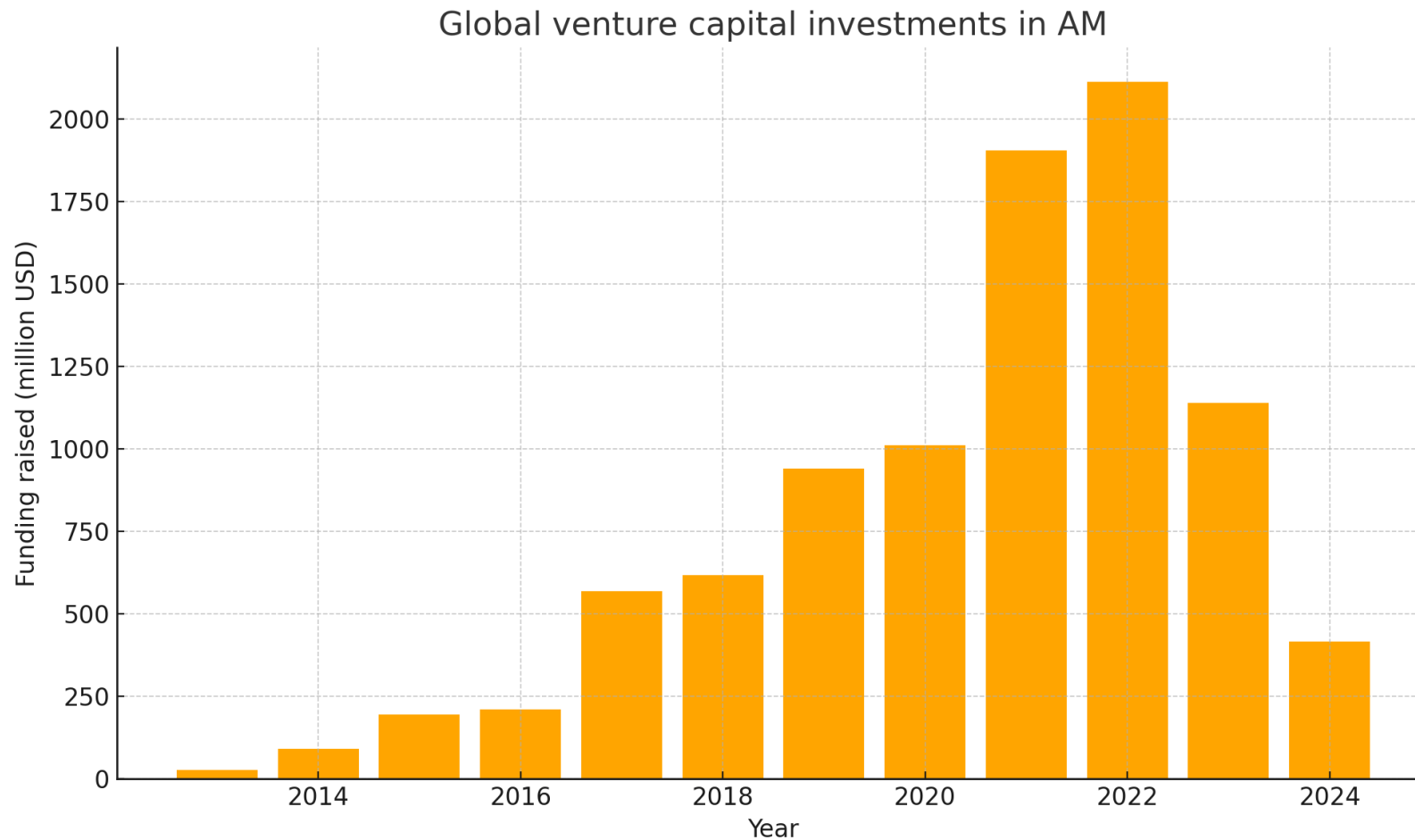


Industrial AM Systems shipped



Industrial: \$100,000+
Midrange \$20,000–\$100,000
Professionals: \$2,500–\$20,000
Entry-level: under \$2,500

Global Investments



Why I am optimistic

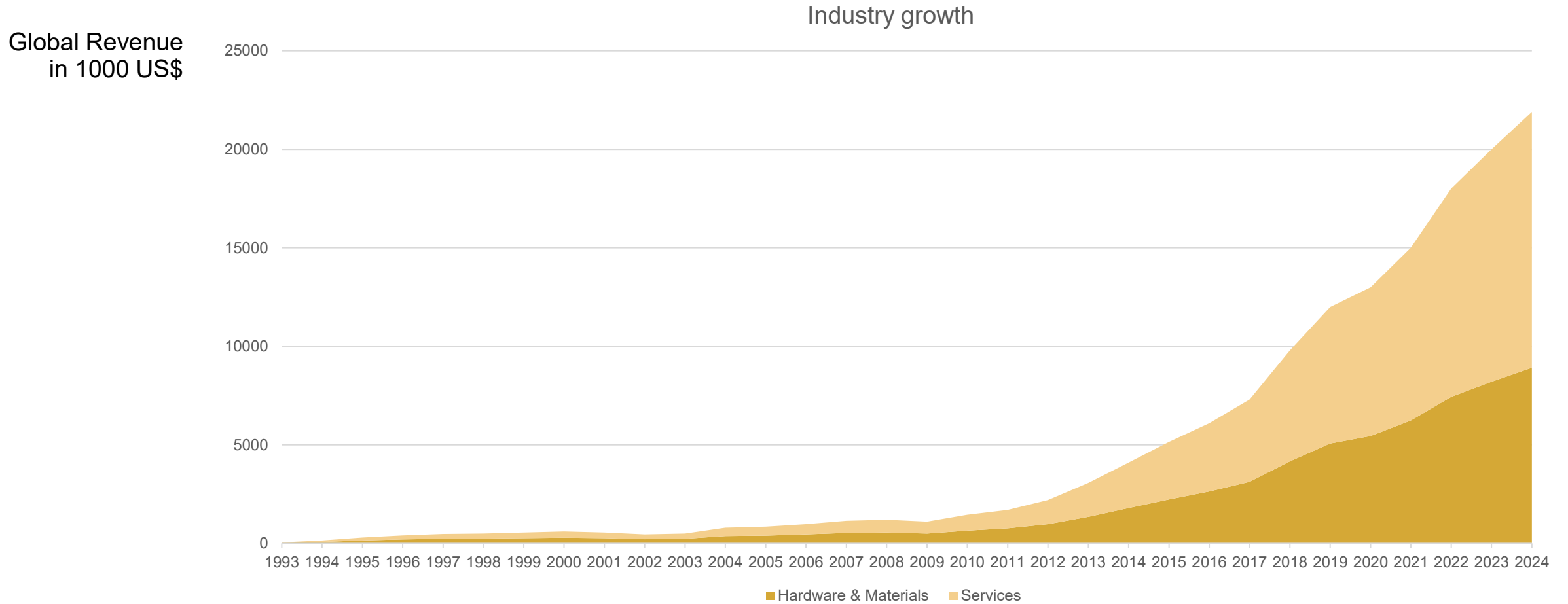
Reasons to be optimistic

- AM applications continue to grow exponentially
- Fluctuating hardware sales are natural
- Consolidation is a sign of a maturing market
- Increased investment volume from the aerospace / defence / energy industry
- Increasing number of market approvals for highly regulated applications
- Increasing politically relevancy of AM

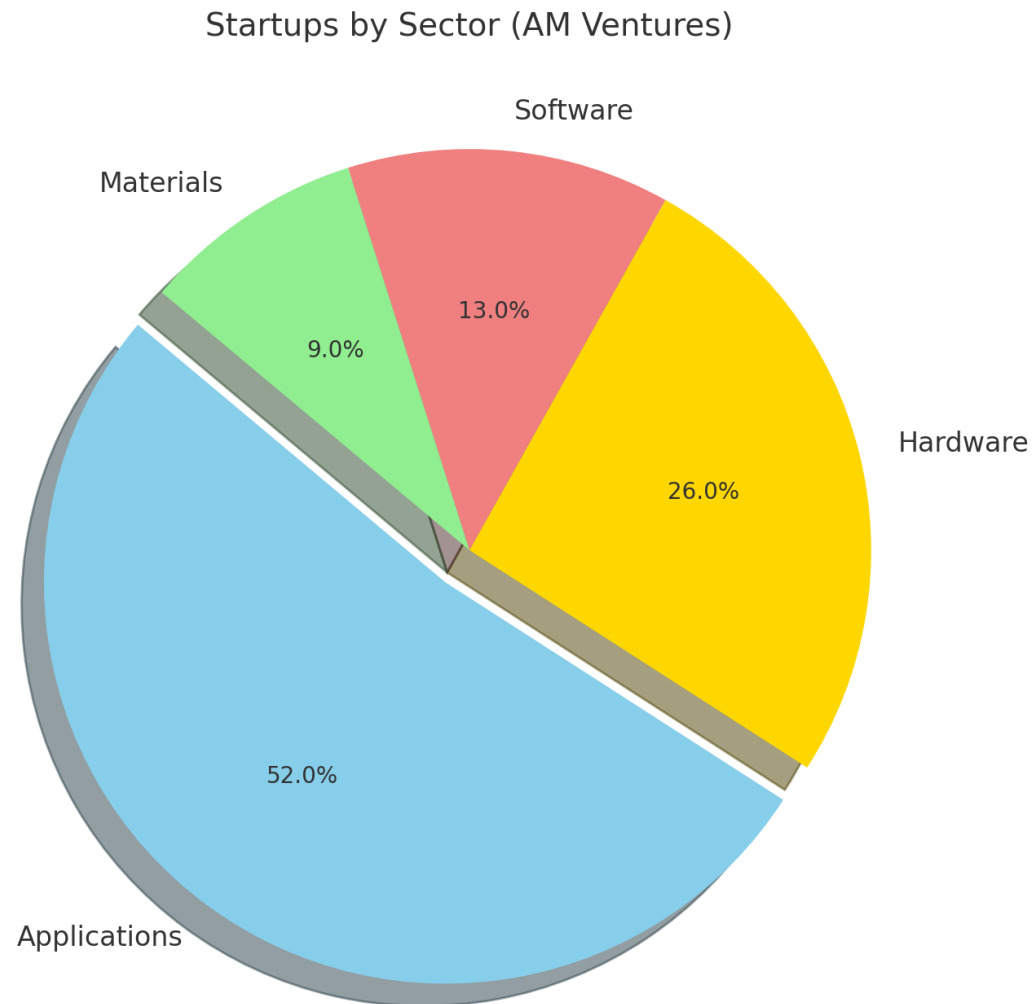
State of the industry

- Worldwide revenue in 2024: **\$21.9 billion**
- Industry growth from 2023: **+9.1%**
- Regional growth:
 - APAC: +31%
 - EMEA: +3%
 - AMER: -5%
- Categorial growth:
 - Materials: +20%
 - Printing Services: +12%
 - Software: +10%
 - System Manufacturer: -1,5%

The long nose of AM



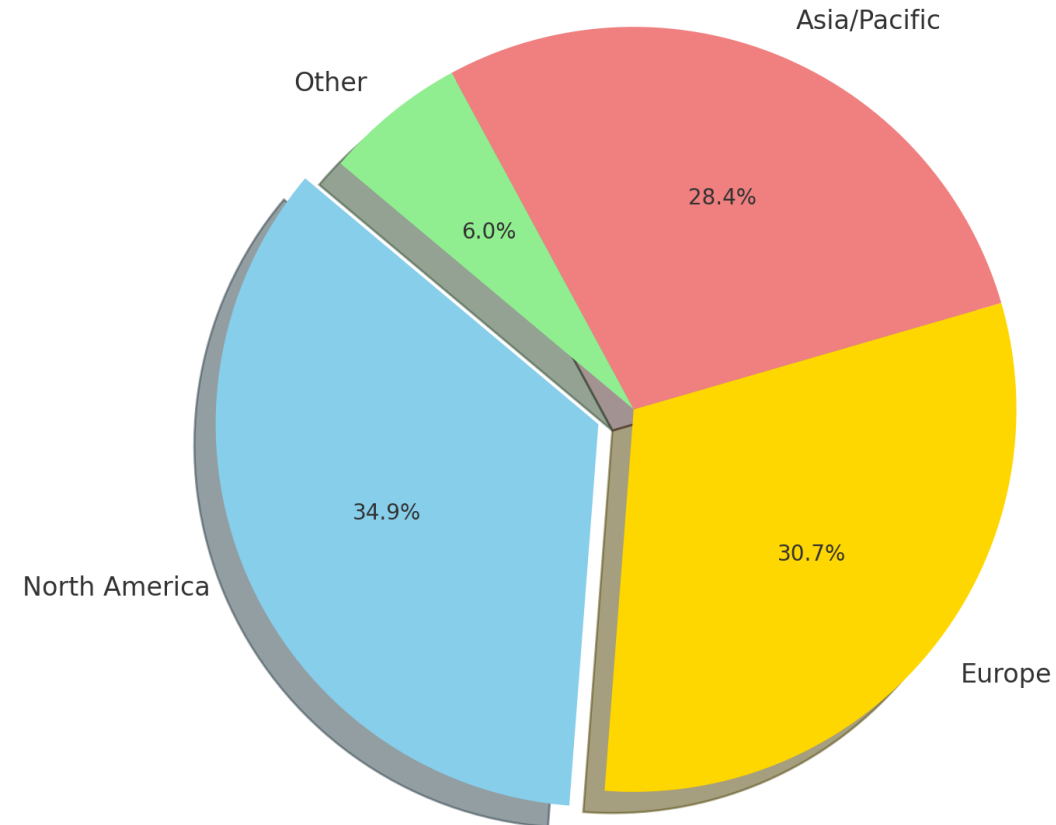
Startups by Sector



The role of Europe

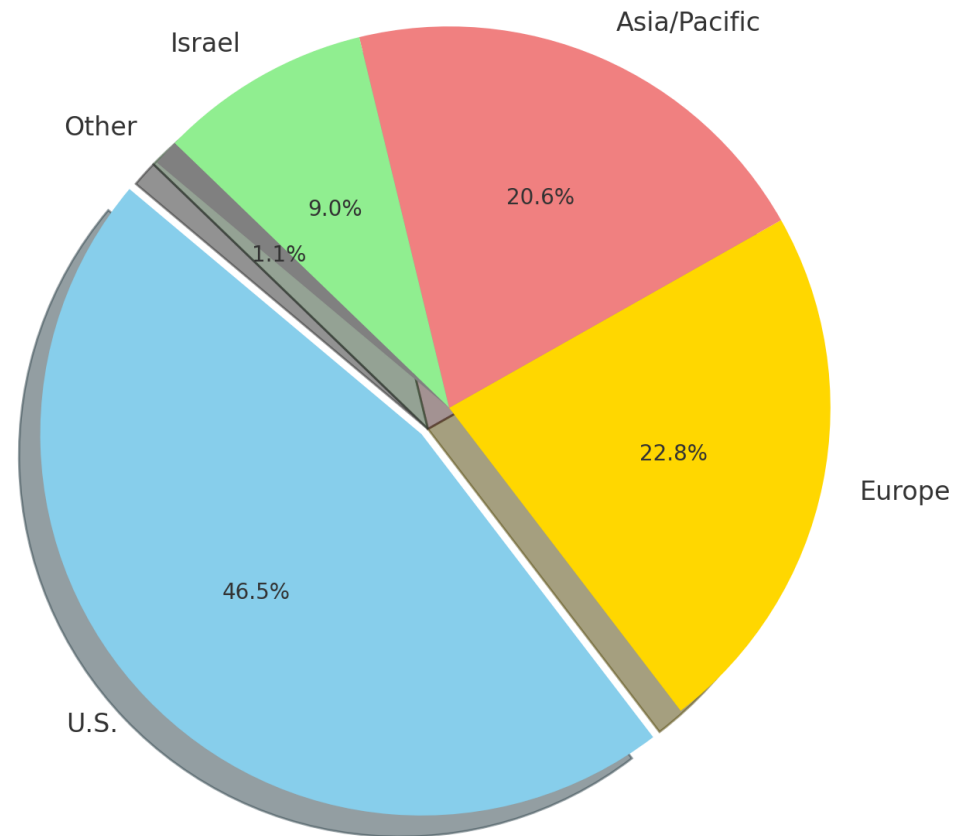
AM System Installation Base by Region

AM System Installation Base by Region (Wohlers Associates)



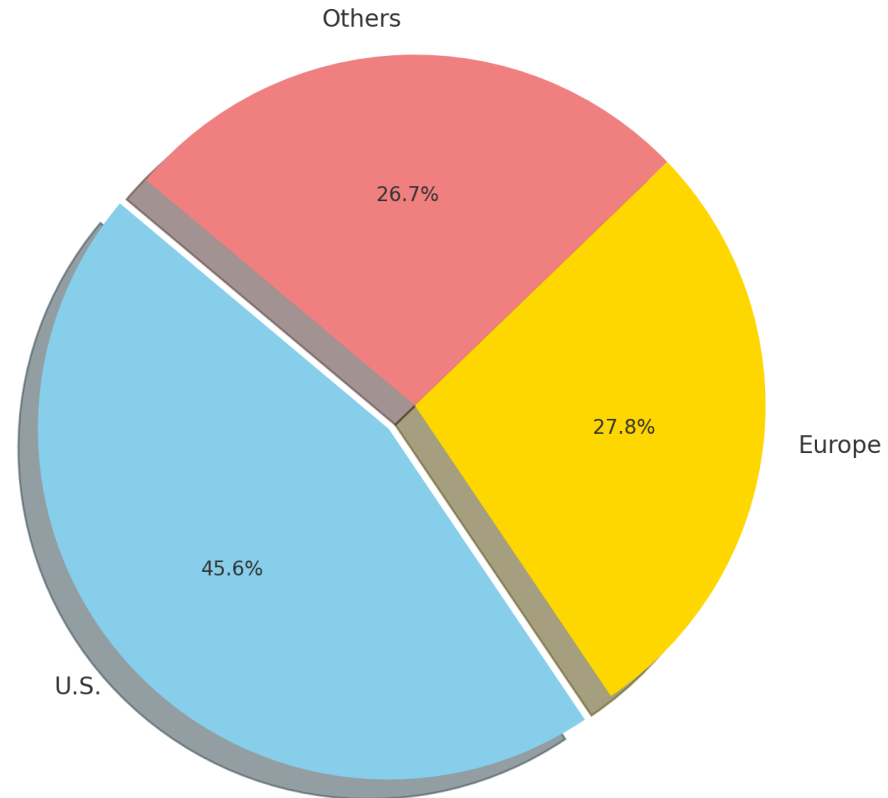
Industrial AM Systems sold per Region

Industrial AM Systems Sold by Region (Wohlers Associates)

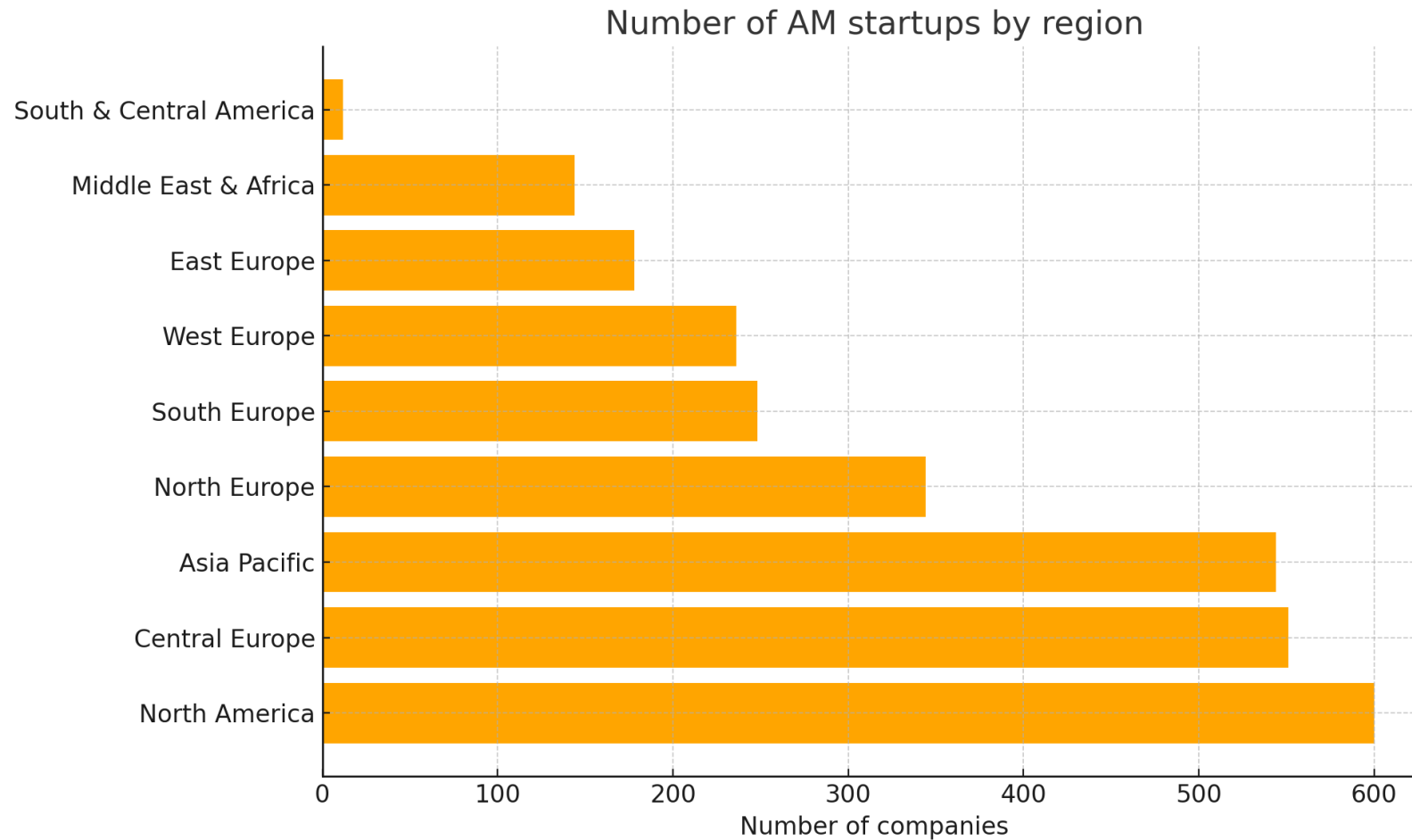


Investments in Startups by Region

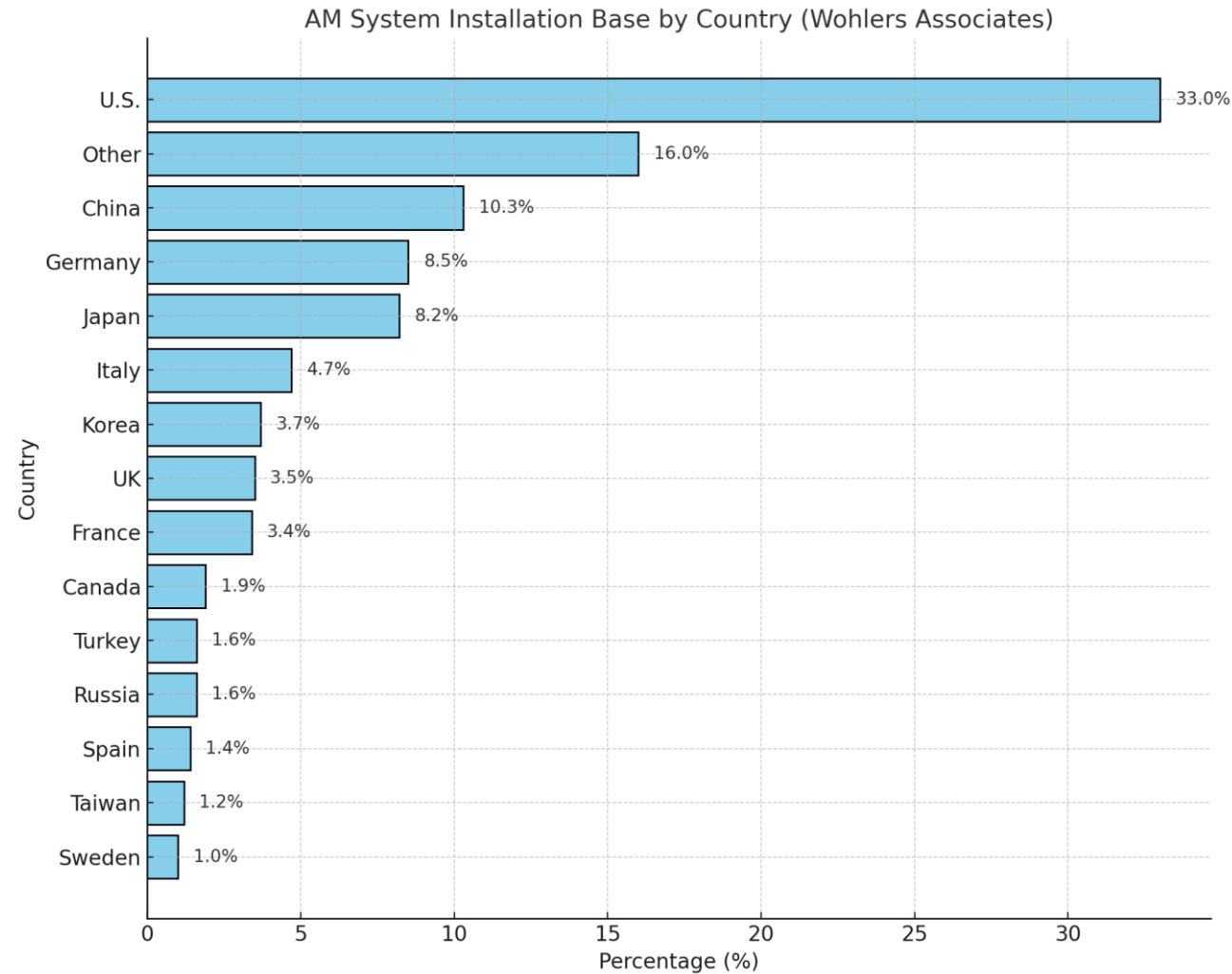
Investments into Startups by Region (Wohlers Associates)



Cumulated Number of Startups by Region



AM System Installation Base by Country



The growing political dimension of AM

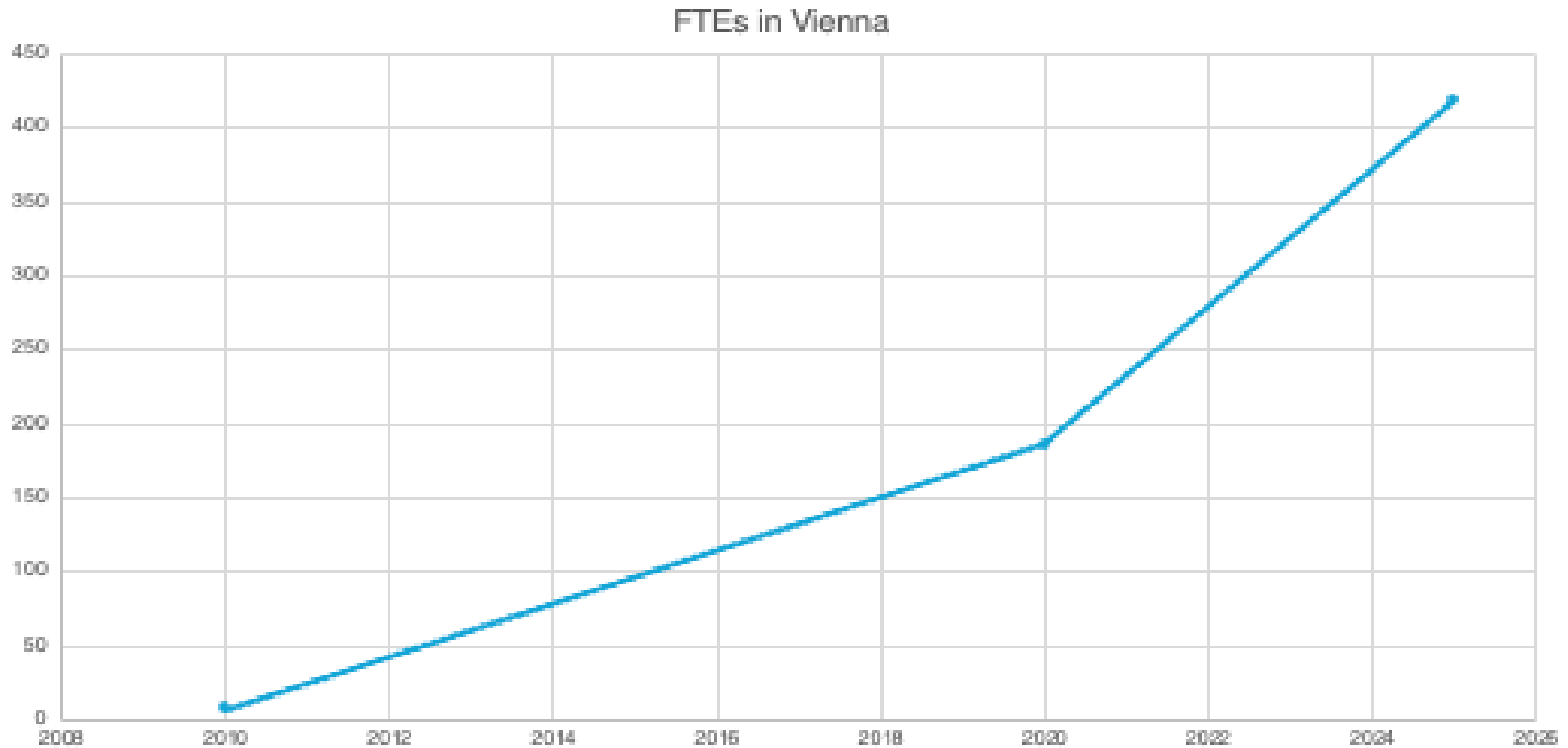
AM as Enabling Technology

- **Resilient Value Chains**
- **Sustainability**
- **Energy**
- **Security and Critical Infrastructure**
- **Defence**
- **Reshoring and maintaining the manufacturing economy in Europe**

State of the industry

- # of companies with own AM departments: **> 12.000**
 - # of AM-specific companies (global) : **> 5.300**
- | | |
|------------------------------|-----------|
| Average number of employees: | 14 |
| Males: | 69 % |
| Females: | 31 % + |
| Female machine operators: | 12 % |
| Average time of employment: | 4.3 years |
| AM generations | > 3 |

FT Employees in Vienna



(Gartner, upcoming)

European Initiatives

- **CECIMO Initiative**
European Association of Manufacturing Technologies
<https://www.cecimo.eu/news/manifesto-for-a-competitive-european-additive-manufacturing-sector/>
- **(add)liance** by iAM3DHub in Barcelona
<https://globalamhubssummit.eu/>

The key is collaboration

Positive side effects of in-house AM

- AM **increases flexibility** in many domains: The ability of equipment and systems to adapt to changing operations, processes, production sequences, capacity, routing, automation, and material handling needs (Eyers et al. 2018)
- AM implementation **enhances process innovation, customer satisfaction, and overall performance** (Marzi et al., 2018).
- AM increases the importance of **access to technical knowledge, internal knowledge transfer within the company**, and customer proximity when making decisions about production locations. On the other hand, AM **reduces the importance of access to intermediate products** (Ysabel et al., 2022).
- AM leads to a shift in value creation and the **establishment of additional value streams**. It complements and strengthens the value creation of traditional methods rather than replacing them (Rylands, 2016).
- Make-or-buy: Arguments for In-house implementation: **protection of intellectual property, learning effects, skill acquisition, and increased enthusiasm** within the company (Friedrich, Lange, and Elbert, 2022).

Thank you!



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