JEC TALKS INDIA 2025

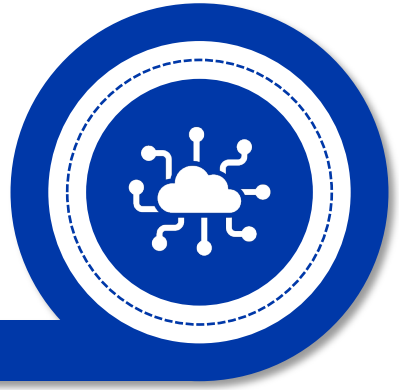
AEROSPACE OUTLOOK AND INDIA'S EXPANDING ROLE

Future Materials Group

COUNTERPOINT.aero

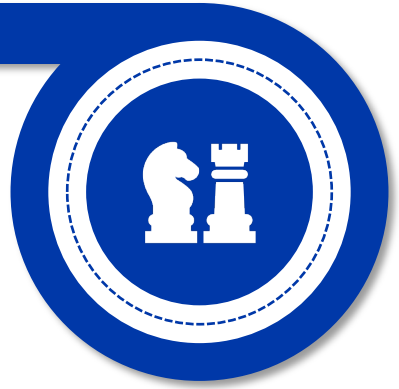
Part of the Future Materials Group

Counterpoint is a market intelligence firm specialising in aerospace supply chains



Market reports

Detailed research reports on aerospace and defence markets, with a special emphasis on Tier 1 and Tier 2 suppliers



Consulting services

Including strategic planning, market deep dives, target acquisitions, forecasting and due diligence

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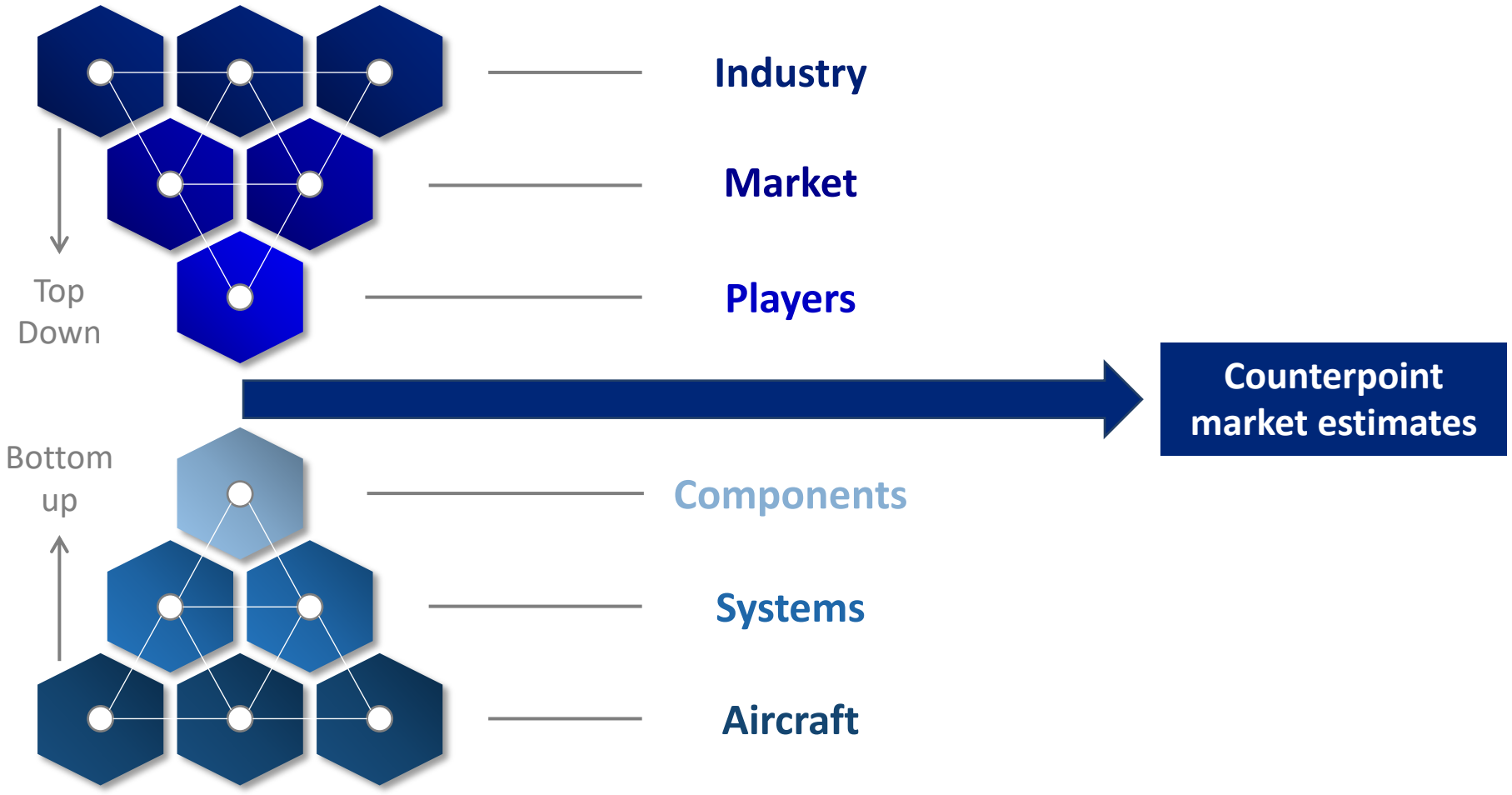
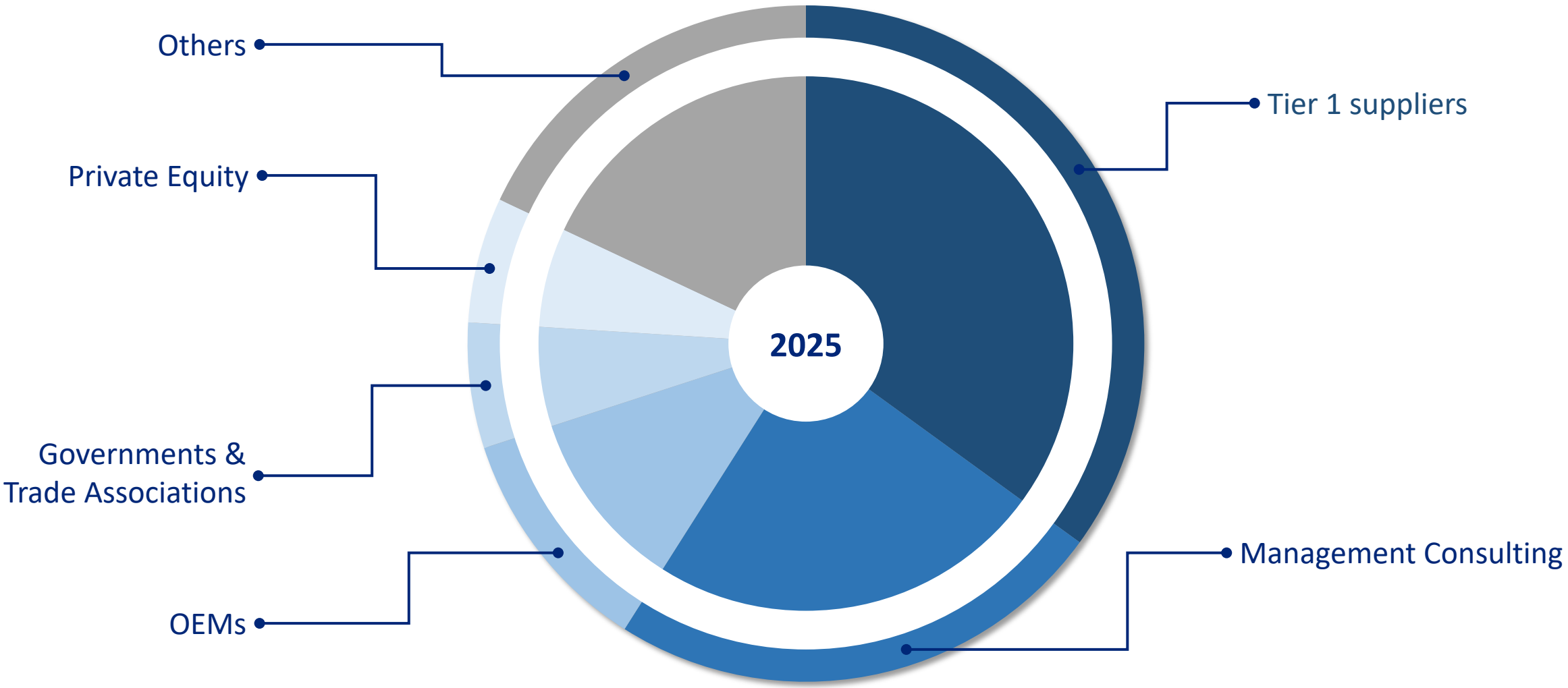
Our market models utilise a combination of top-down and bottom-up approaches



Our market data is trusted by OEMs, suppliers, investors, advisors, and policy makers



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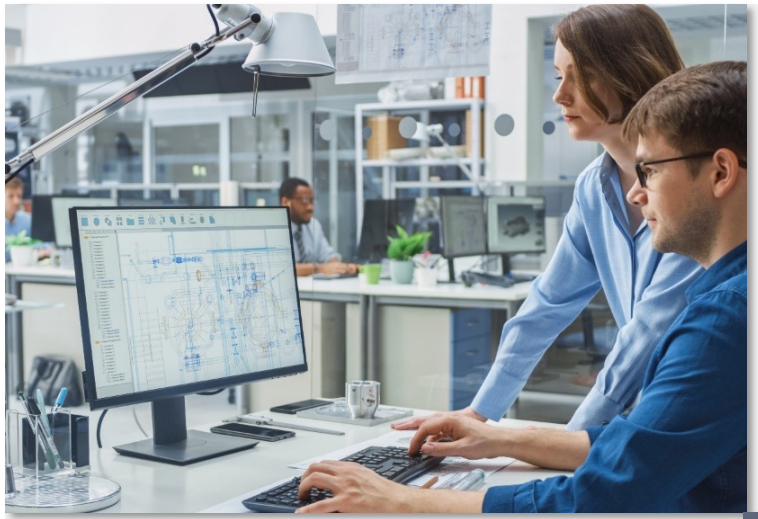
Our level of insight and accuracy stands apart



INFORMED BY SUBJECT MATTER EXPERTS

Each report is written with input compiled from multiple subject matter experts. Our network of experts provide detailed insight, rather than generic market analysis.

BUILT FROM DETAILED INDUSTRY MODELS

Our market size estimates are based on a part-by-part build-up of major aircraft programmes. We track production of dozens of platforms and tens of thousands of parts.

CLOSELY CONNECTED TO THE INDUSTRY

Our reports are bought and used by major industry players. Through our network of customers and contacts, we continue to refine our reports and add further insights.

Agenda

Where are composites used in the aerospace industry?

What are some of the challenges and opportunities in the industry?

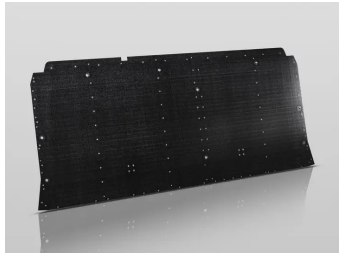
What role does India play in the industry and how might this evolve?

Composites are used in aircraft structures, interiors and engines

AEROSTRUCTURES

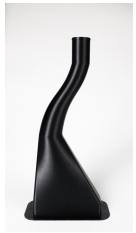
- Carbon fibre composite
- Glass fibre composite
- Carbon sandwich composite
- Aluminium
- Other metal (titanium, steel, etc)

INTERIORS



Floor and sidewall panels

Seat structures



Ducting

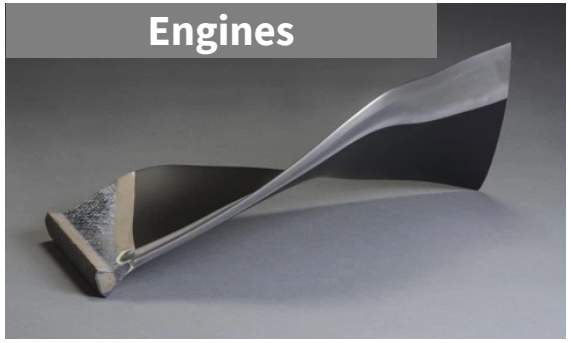
ENGINES

Casing, nose cone spinners, annulus fillers, bypass ducts

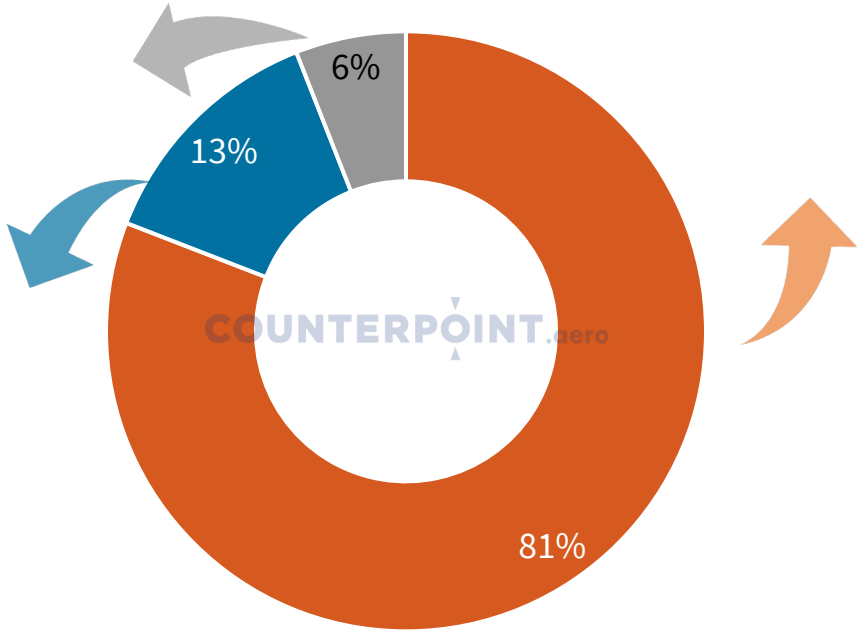
Fan blades

Nozzles/shrouds (ceramic matrix composites)

By value, aerostructures is the largest area of composite usage

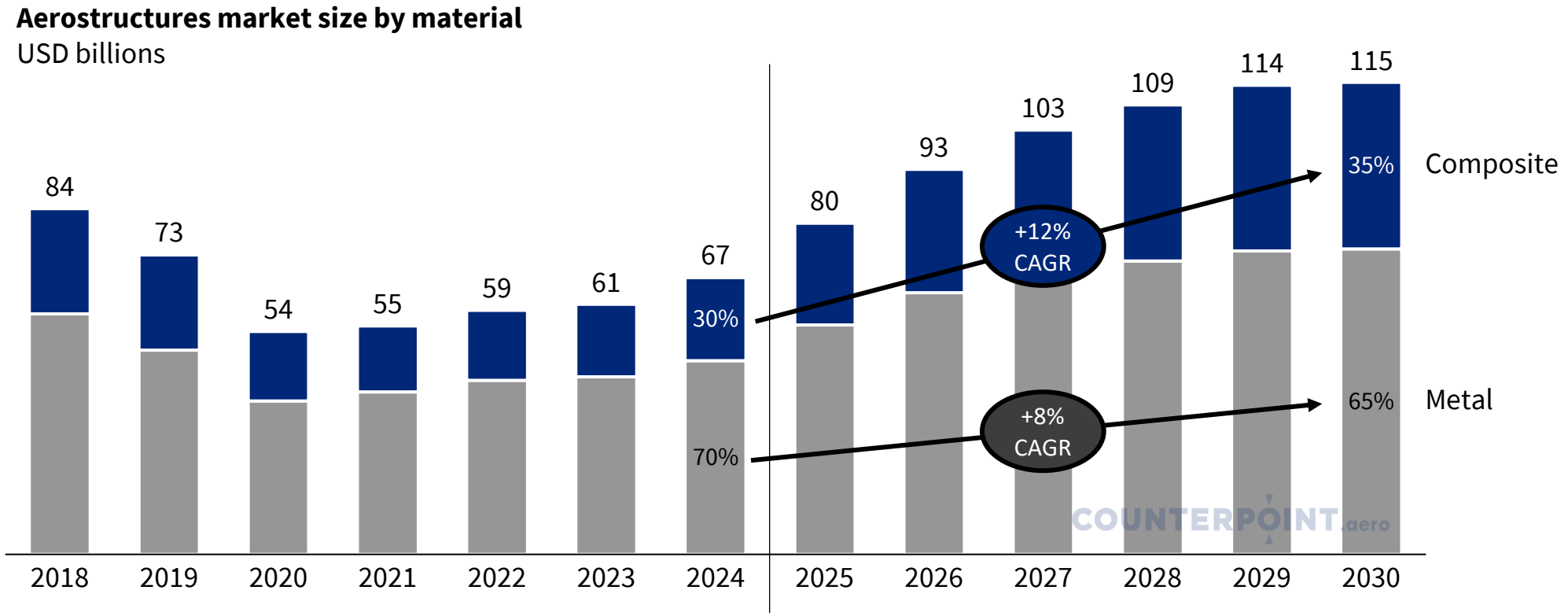


Aerospace composite market size by value
2024 civil and military



Data source: Counterpoint Market Intelligence analysis
Image sources: Diehl Aviation, Albany International, FlightGlobal

Despite advances in composites usage, much of the aircraft structure is still metallic



Much of the high-rate programmes have low composite penetration

Programme	% Composites*	2024 deliveries
Airbus A330	13%	32
Boeing 737	~15%	265
Airbus A320	~15%	602
Boeing 777/X	11%/30%	14
F-35	38%	110
Airbus A220	46%	75
Boeing 787	50%	51
Airbus A350	53%	57

Composites are not yet heavily used in high quantities on some of the most heavily produced aircraft programmes

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*% of structural weight, excluding engines
Data source: OEM announcements, Counterpoint analysis

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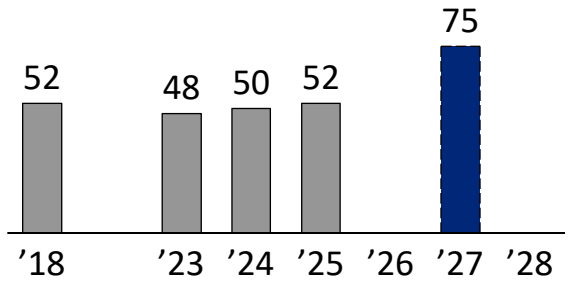
1 Aircraft programmes continue to ramp up – adding pressure to the supply chain

Airbus A320

- MTOW: 78 t
- Composites: 15%

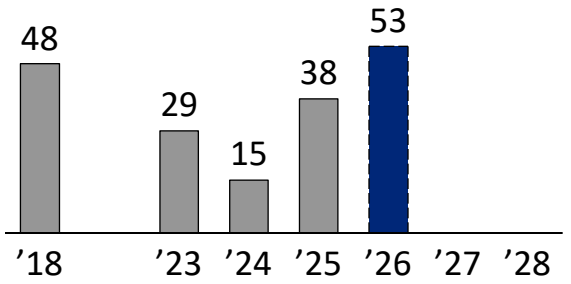
Monthly production*



Boeing 737

- MTOW: 71 t
- Composites: 15%

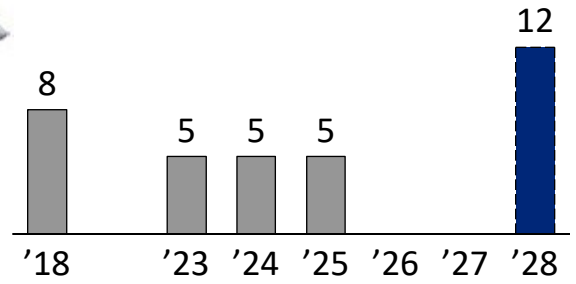
Monthly production*



Airbus A350

- MTOW: 283 t
- Composites: 53%

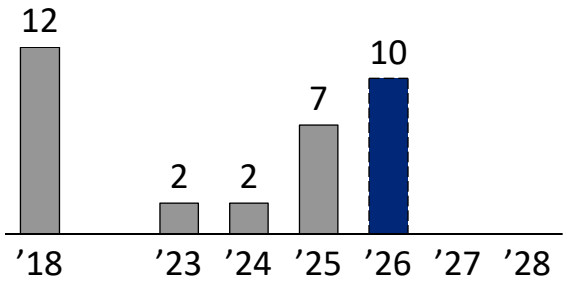
Monthly production*



Boeing 787

- MTOW: 250 t
- Composites: 50%

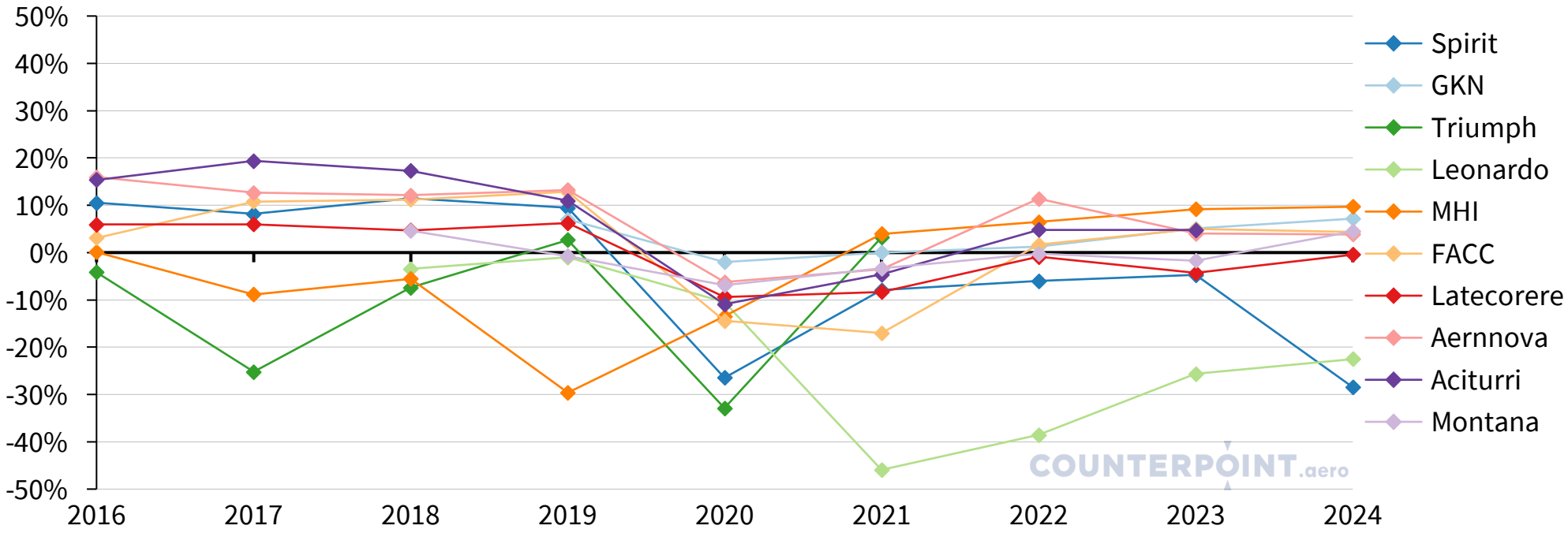
Monthly production*



*Historic monthly production rates are averages of the annual total; this figure includes only new aircraft produced in the year, not deliveries from inventory; historic figures are only averages – actual production within a given month may be much higher. 2025 values are estimates. Future years are only shown where an announcement has been made.

2 Tier 1 aerostructures players are struggling financially

Operating margins for selection of independent aerostructures companies
USD billions



Data source: Company financial statements; Counterpoint Market Intelligence analysis

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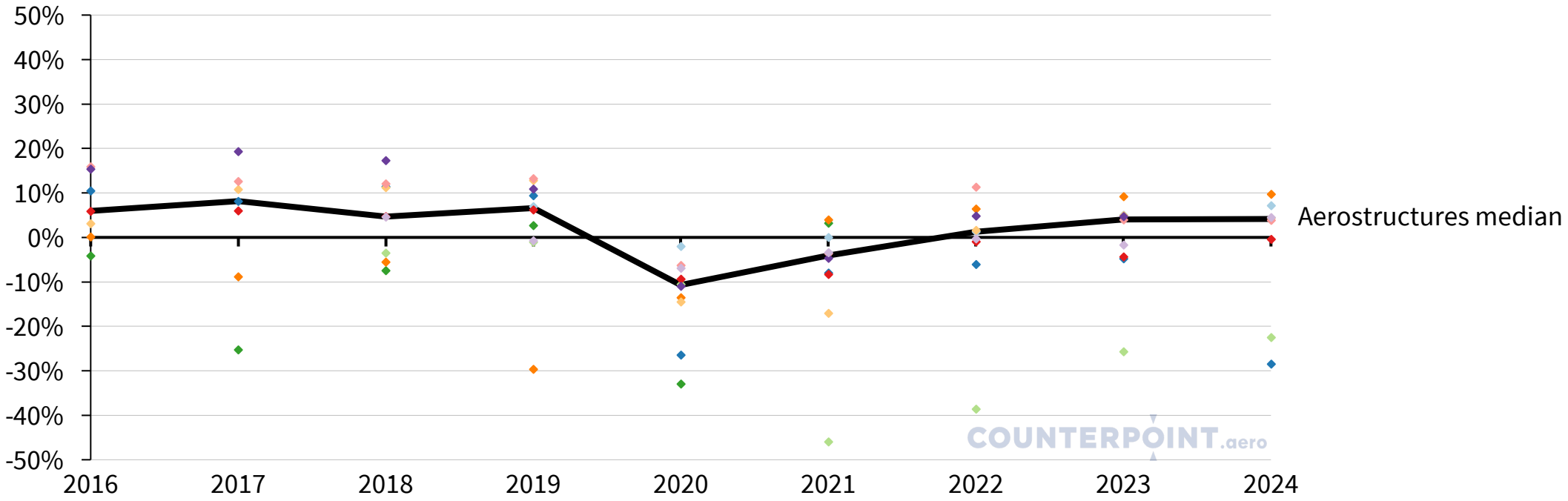
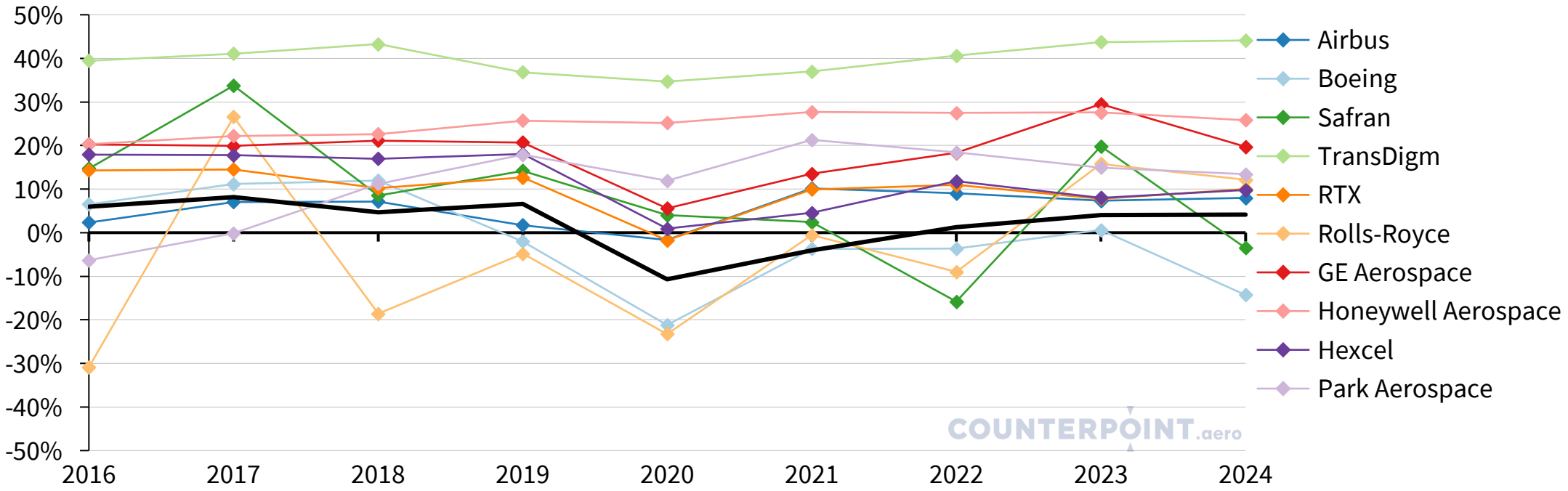


Data source: Company financial statements; Counterpoint Market Intelligence analysis

2 Tier 1 aerostructures players are struggling financially

Operating margins for selection of large aerospace manufacturers
USD billions



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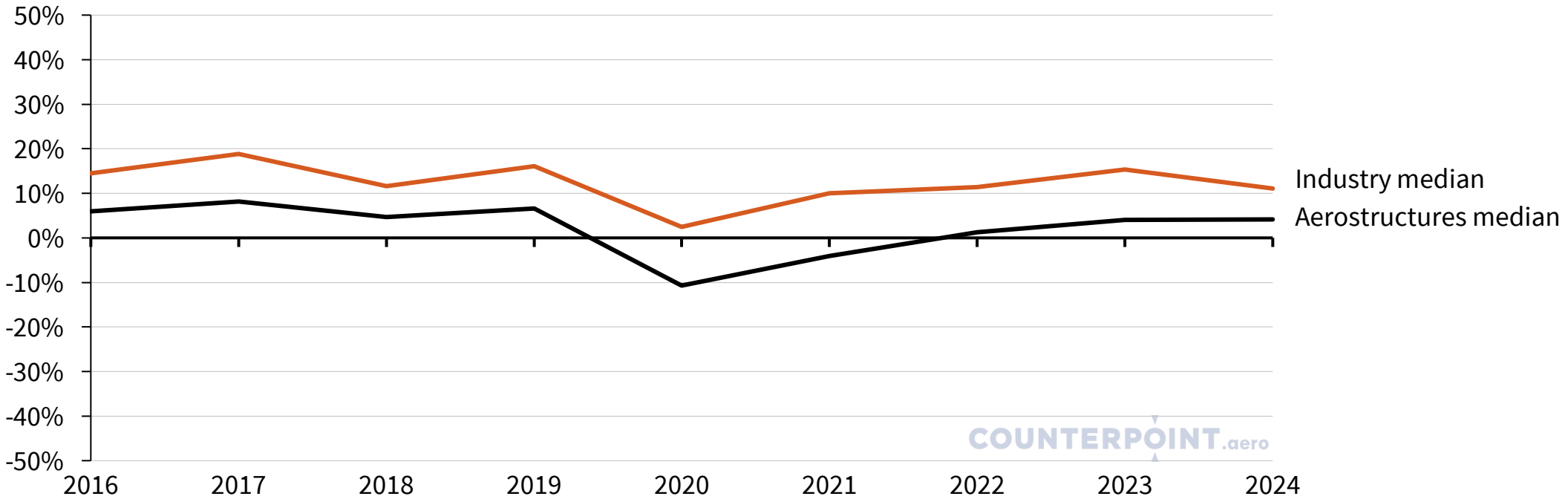
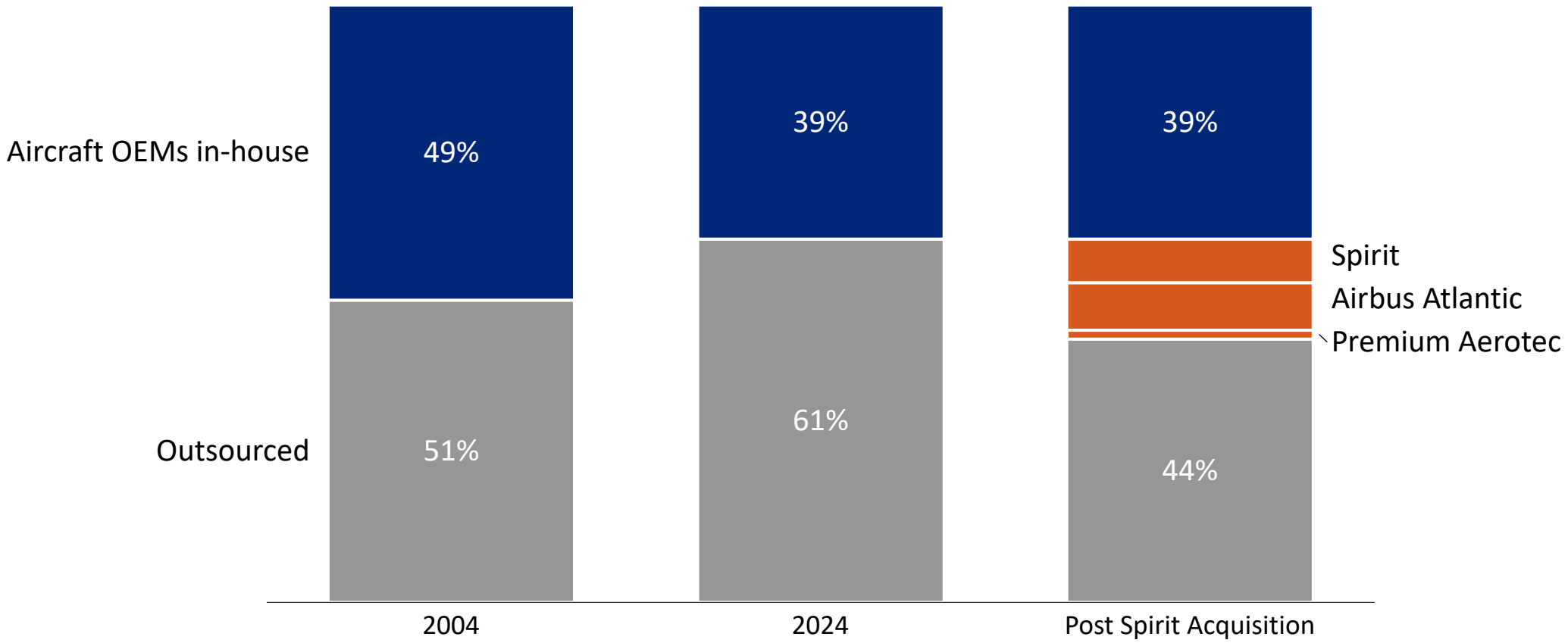


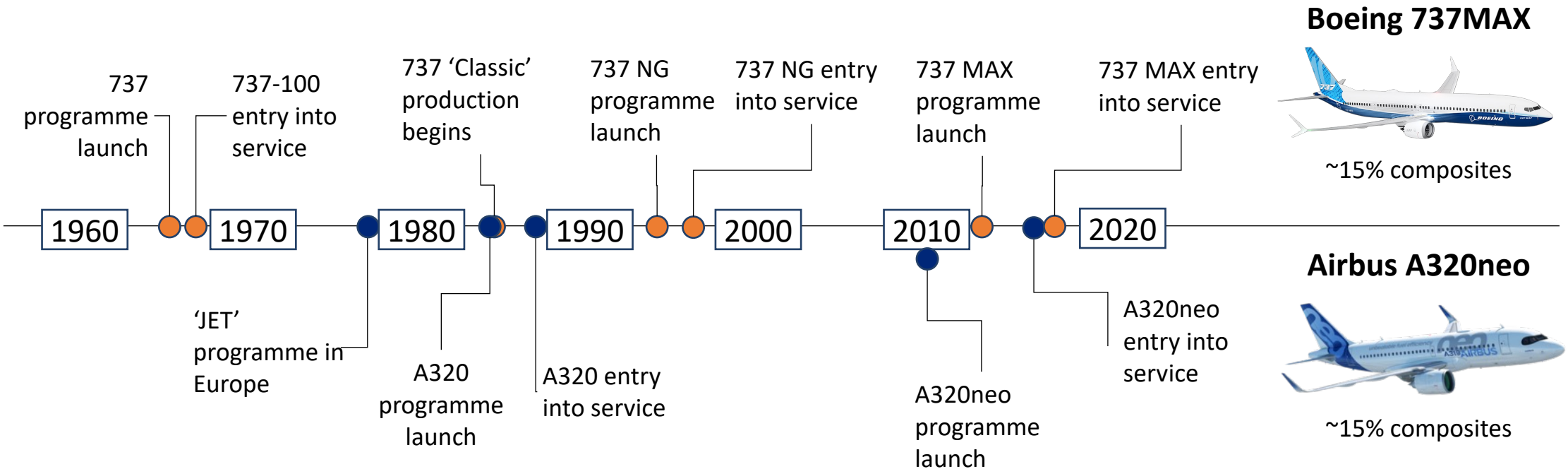
Data source: Company financial statements; Counterpoint Market Intelligence analysis

2 As a result, we have seen OEMs begin to make more aerostructures work in-house

Aerostructures value – in-house versus outsourced



3 Single-aisle programmes represent a huge opportunity for composites



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India has developed an established set of players – including in composites

Primarily metallics

BHARAT FORGE | KALYANI GROUP COMPANY

mahindra AEROSPACE

AEQUS® ecosystems of efficiency

DYNAMATIC TECHNOLOGIES

Godrej

Composites capabilities

HAL

TATA

TATA ADVANCED SYSTEMS

KINECO® WORLD OF COMPOSITES

L&T Precision Engineering and Systems

Partnerships, contracts, and joint venture activity is accelerating

- *December 2025:* Dynamatic Technologies has signed an agreement with Dassault Aviation to build the entire rear fuselage of the Falcon 6X business jet.
- *November 2025:* Azad Engineering signed and agreement with Pratt & Whitney Canada to develop and make engine components
- *October 2025:* Bharat Forge and Rolls-Royce signed an agreement to produce titanium fan blades for its latest Pearl 700 and Pearl 10X jet engines
- *October 2025:* TASL and Airbus agreed to set up a final assembly line for the Airbus H125 light helicopter
- *August 2025:* Mahindra Aerostructures was awarded a contract by Airbus Helicopters to manufacture the main fuselage of the H125 helicopter
- *July 2025:* HAL signed a manufacturing licence agreement with GE Aerospace for local production of the F414-INS6 engines that will power India's TEJAS MK-2 fighter jets; GE will transfer up to 80% of the engine's manufacturing and technical data to HAL
- *July 2025:* Godrej Aerospace secured a contract from Pratt & Whitney to manufacture complex components for aircraft engines

These are just a few of the announcements that have been announced in the last six months

Western OEMs show continued appetite for sourcing from India

> **The supply chain in India largely outperforms the supply chain globally in terms of quality by a very wide margin, it is truly a tremendous performance, absolutely.**
>
> -Boeing India President Salil Gupte
> October 2024

> **Airbus expects to double the total value of parts it sources from India to $1.5 billion in coming years.**
>
> -Remi Maillard, President of
> Airbus India and South Asia
> January 2024

> **Pratt & Whitney's growth in the country represents our strong ties and deep respect for the skills India offers, skills needed for the future of aviation.**
>
> -Ashmita Sethi, Managing Director of United
> Technologies Corporation India Pvt Ltd
> July 2022

> **India is fast emerging as a preferred hub for global sourcing, and we are looking to broaden our partnerships here…**
>
> -Nicola Grady-Smith,
> Chief Transformation Officer Rolls-Royce
> October 2025

Counterpoint sees further growth potential for the Indian aerospace market

Contracts and partnerships will continue to bolster India's aerospace ecosystem

- As India develops further capabilities, it becomes increasingly attractive as a complete supply chain solution
- Ramp-up and high backlogs continue to support dual sourcing opportunities
- Trade tensions with China will accelerate; partnerships with Russia could complicate it

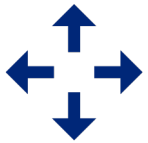
Western OEMs will continue to look to India – particularly for high labour activity

- Aerostructures work has been attractive to outsource due to high labour activity and relatively low barriers to entry
- The country has proven indigenous capability in Dhurv and TEJAS
- For future programmes, however, high-rate manufacturing technology will be increasingly important

We believe there is appetite to source higher-value components from India

- Some OEMs have expressed interest in seeing higher value work sourced from India
- Engine components, followed by avionics, are the next likely areas of expansion
- Beyond components, final assembly lines may also be an opportunity for India

For Indian companies, we may see the following strategies from players



Expanded capabilities

particularly into higher value manufacturing and aircraft systems

Vertical integration

to offer OEMs a one-stop manufacturing solution

High-rate production

to support next generation programmes

Global expansion

by acquiring Western assets with established customer bases

Thank you for your time and attention

Any questions?