

Aerospace manufacturing potential in Ethiopia

Market overview and value proposition (Long version)

August 2025



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Document overview



What is the purpose of this document?

- Present commercial aerospace market outlook, showcase aerospace manufacturing value proposition in Ethiopia, and outline aerospace manufacturing potential in Ethiopia

How to use this document?

- To gain insights into the global aerospace market
- To learn Ethiopia's value proposition in the aerospace manufacturing industry
- To better understand the current landscape of Ethiopia's aerospace manufacturing industry

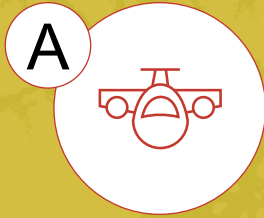
Who is this document for?

- Manufacturers seeking to understand Ethiopia's value proposition in the aerospace manufacturing industry

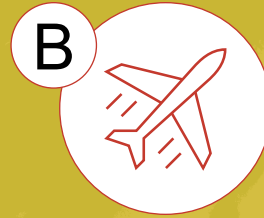
What is not in this document?

- This document does not represent a finalised or unanimously approved investment or marketing deck
- This document does not provide legal, regulatory, or compliance advice

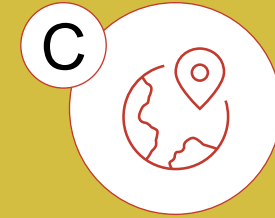
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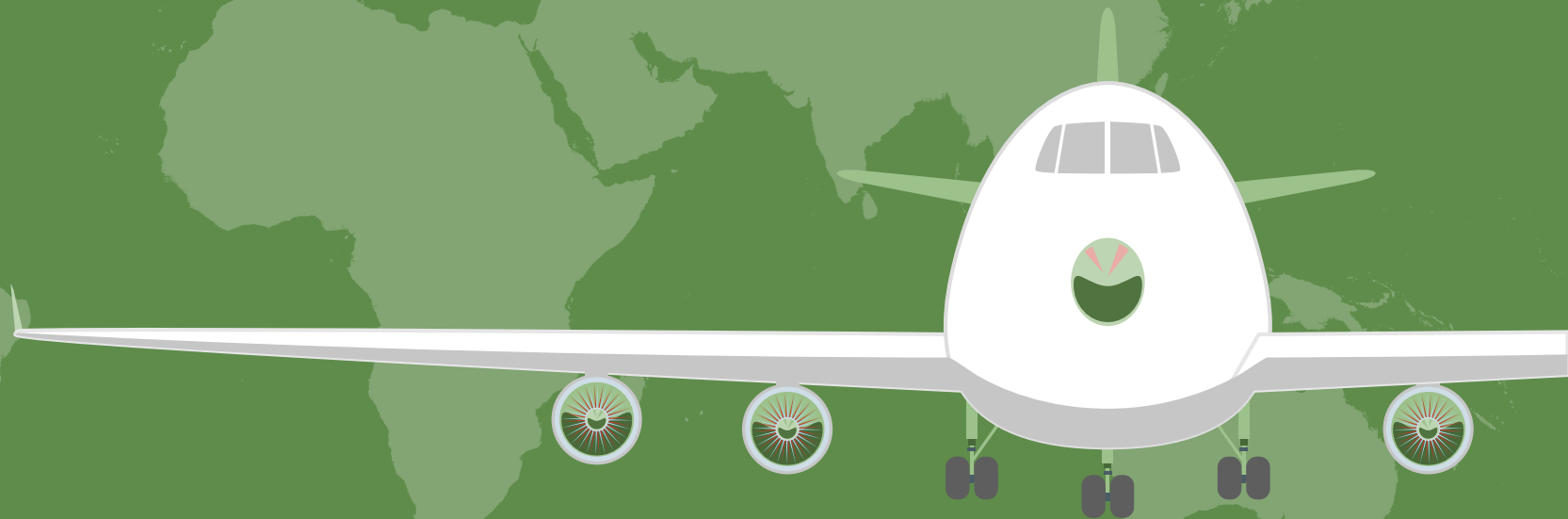
**Global commercial
aerospace market**



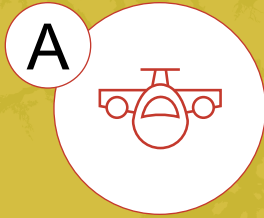
**Ethiopia's value
proposition**



**Aerospace in Ethiopia
and high-potential areas**



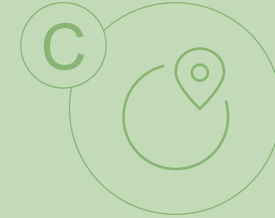
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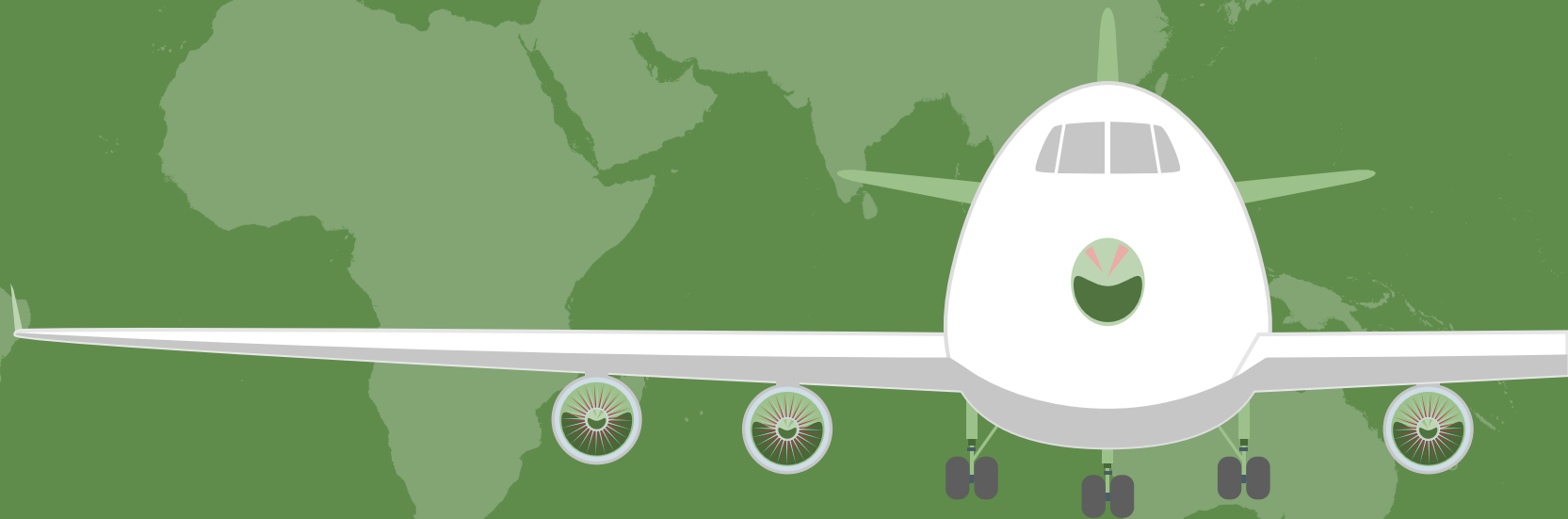
**Global commercial
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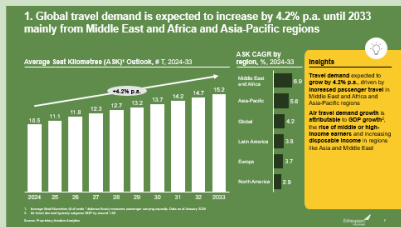
The global commercial aerospace manufacturing segment is expected to grow amidst changing market dynamics



1

Strong outlook for air travel demand

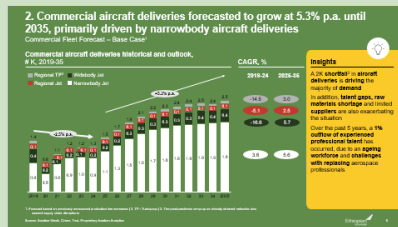
Global travel demand is projected to grow at **4.2% p.a.** through 2033, driven by increased **economic growth**, **rise of middle-class population**, and **growth in disposable income**, mainly in Asia and Middle East regions



2

Delivery backlog due to supply chain challenges

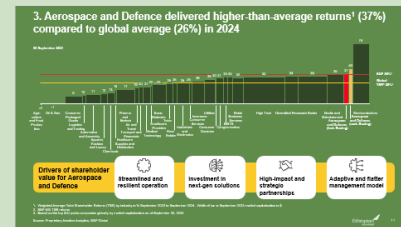
Commercial aircraft deliveries are projected to grow at **5.3% p.a.** through 2035, but deliveries fall short of announced production rates due to supply chain bottlenecks



3

Higher-than-average TSR¹ in Aerospace and Defence

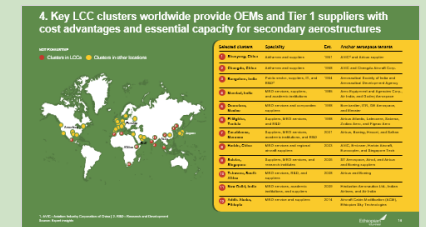
Aerospace and Defence sector achieved a **37% Total Shareholder Returns**, outperforming other sectors (26%) and the S&P 500² (36%) in 2024



4

Global offshoring of manufacturing operations

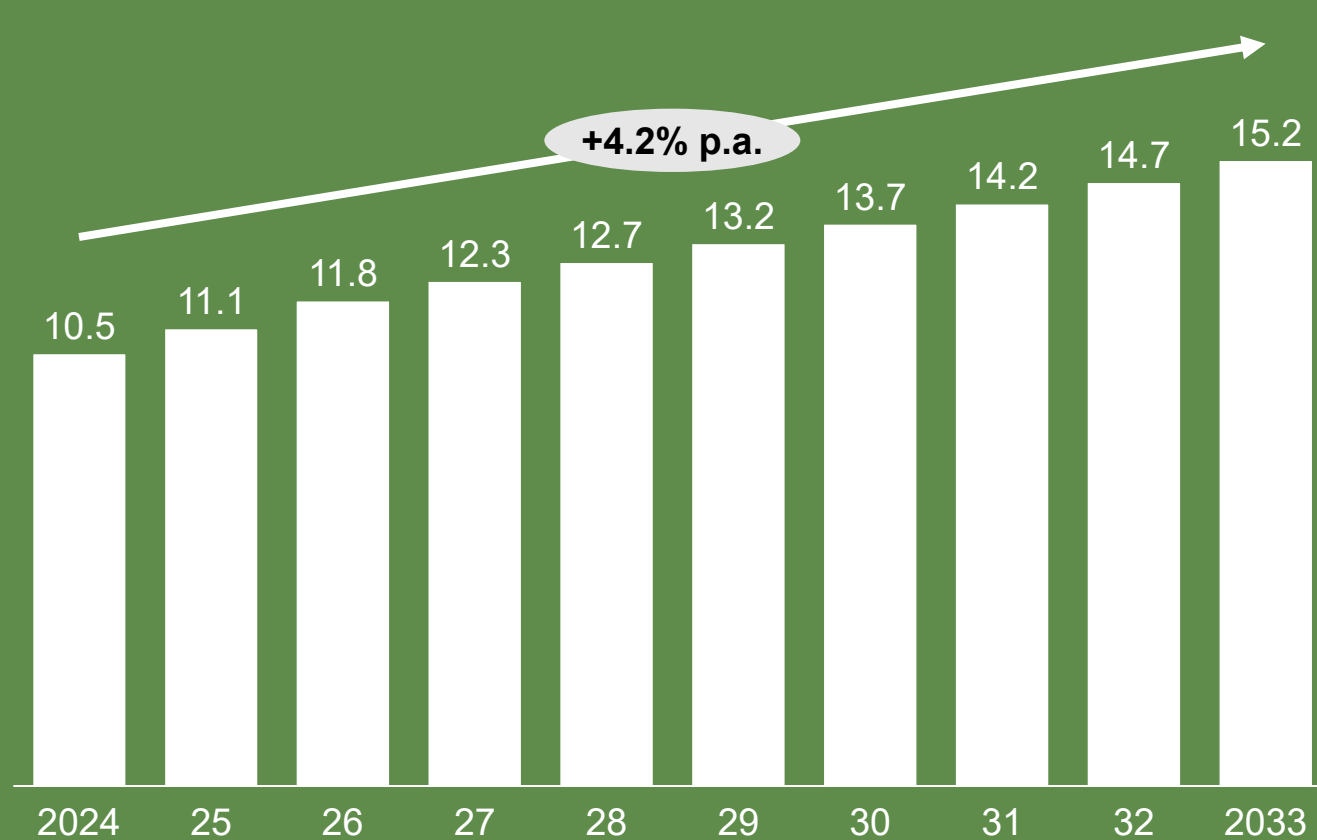
OEMs³ and suppliers are **offshoring secondary structure production** across the world, including to LCCs⁴ to boost profit margins and enhance competitiveness



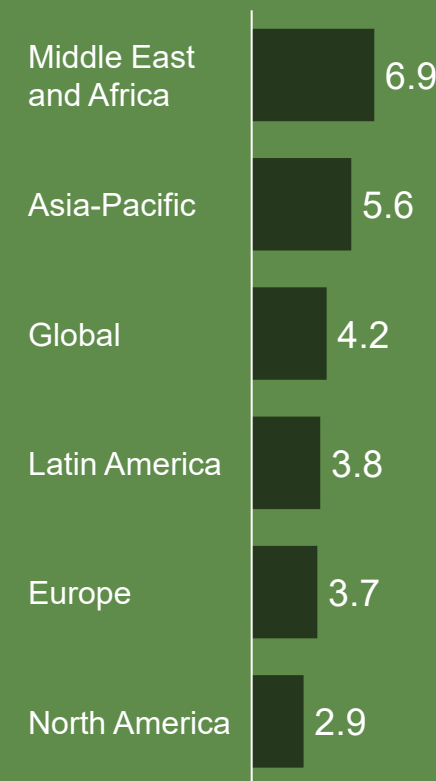
1. Global travel demand is expected to increase by 4.2% p.a. until 2033 mainly from Middle East and Africa and Asia-Pacific regions



Average Seat Kilometres (ASK)¹ Outlook, # T, 2024-33



ASK CAGR by region, %, 2024-33



Insights

Travel demand expected to **grow by 4.2% p.a.**, driven by **increased passenger travel** in Middle East and Africa and Asia-Pacific regions

Air travel demand growth is **attributable to GDP growth²**, the **rise of middle or high-income earners** and increasing **disposable income** in regions like Asia and Middle East

1. Average Seat Kilometres (# of seats * distance flown) measures passenger carrying capacity. Data as of January 2025

2. Air travel demand typically outgrows GDP by around 1.5X

2. Commercial aircraft deliveries forecasted to grow at 5.3% p.a. until 2035, primarily driven by narrowbody aircraft deliveries

Commercial Fleet Forecast – Base Case¹

Commercial aircraft deliveries historical and outlook, # K, 2019-35



CAGR, %

2019-24

2025-35

-14.5	3.0
-5.1	2.5
-16.6	5.7
3.6	5.6

Insights

A 2K shortfall³ in aircraft deliveries is driving the majority of demand

In addition, talent gaps, raw materials shortage and limited suppliers are also exacerbating the situation

Over the past 5 years, a 1% outflow of experienced professional talent has occurred, due to an ageing workforce and challenges with replacing aerospace professionals

1. Forecast based on previously announced production line increases | 2. TP - Turboprop | 3. The post-pandemic ramp-up on already strained networks also caused supply chain disruptions

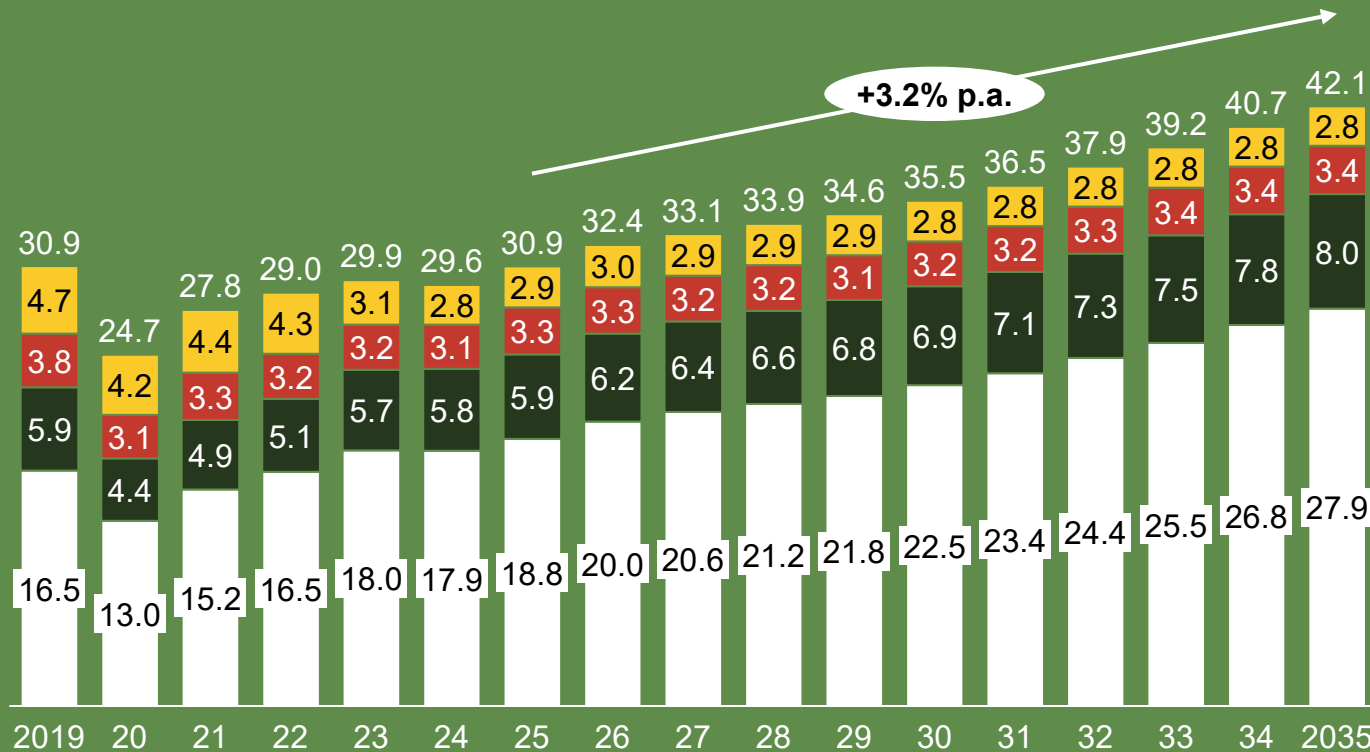
2. Commercial fleet expected to grow 3.2% p.a. 2025-35, driven by growth in narrowbodies

JUNE 2025 BASE SCENARIO²

Regional TP¹ Regional Jet Widebody Jet Narrowbody Jet

Estimated commercial aircraft in service fleet, aircraft # K, 2019-35

CAGR,
2025 – 35, %



Commentary

Fleet is expected to maintain stable growth trajectory during 2025-35 of 3.2% p.a., primarily **supported by narrowbody growth**

Fleet expansion is lagging growth in travel demand, due to airlines **up-gauging** (e.g., A321neo)

Upward trend in global air travel and commercial fleet deliveries expected to positively impact the component manufacturing industry

1. Turboprop | 2. The fleet forecast logic is derived off actual current fleet tuned by announced delivery, unparking and retirements amounts

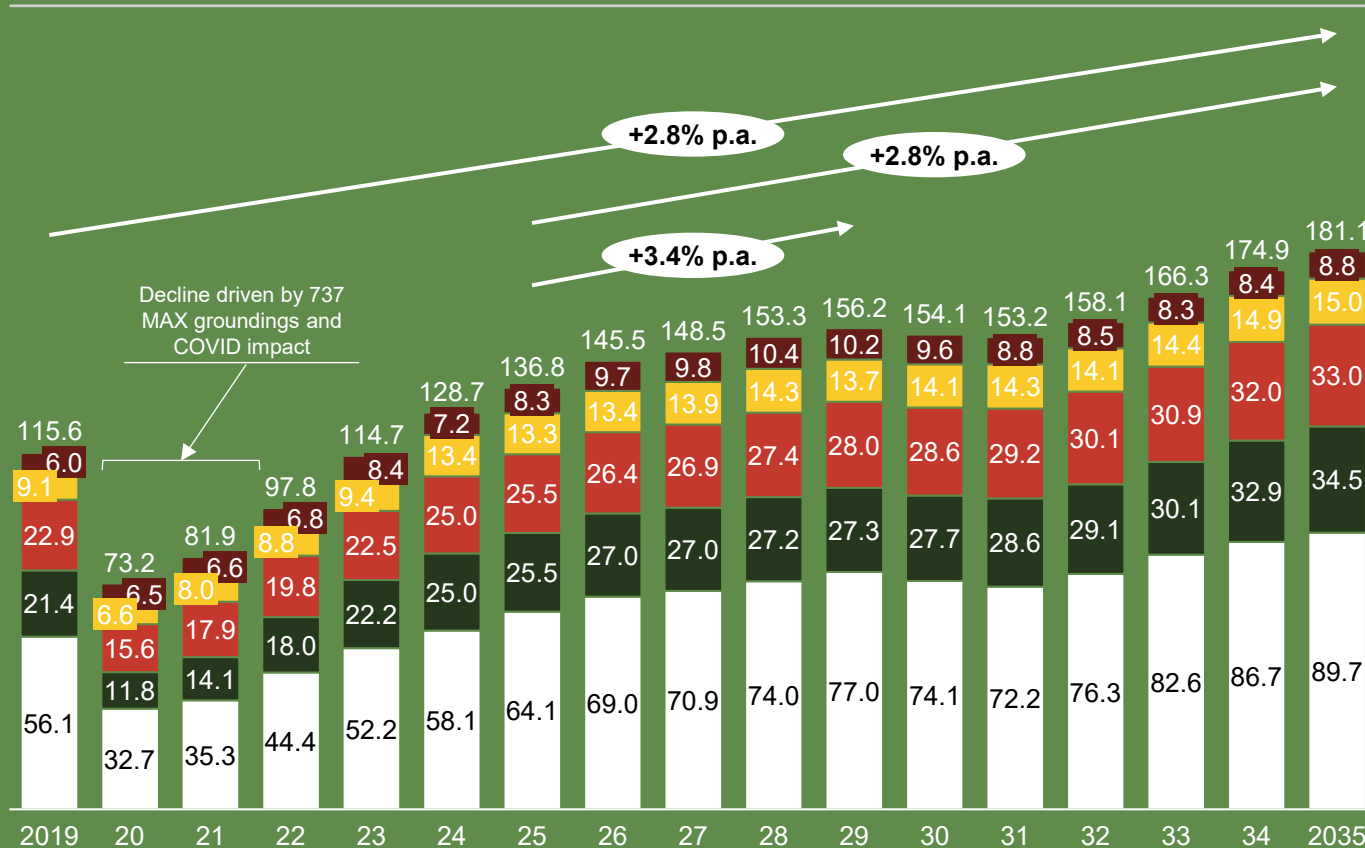
Source: Proprietary Aviation Analytics, Cirium, Airports Control International, press search

2. Commercial MRO¹ market is estimated at \$137B in 2025 and forecasted to grow at 2.8% p.a. through 2035

JUNE 2025 BASE SCENARIO²

■ Modifications
 ■ Airframe Heavy
 ■ Line Maintenance
 ■ Components
 ■ Engine Maintenance

Estimated MRO demand³, \$B



CAGR, %

2025-30 2025-35



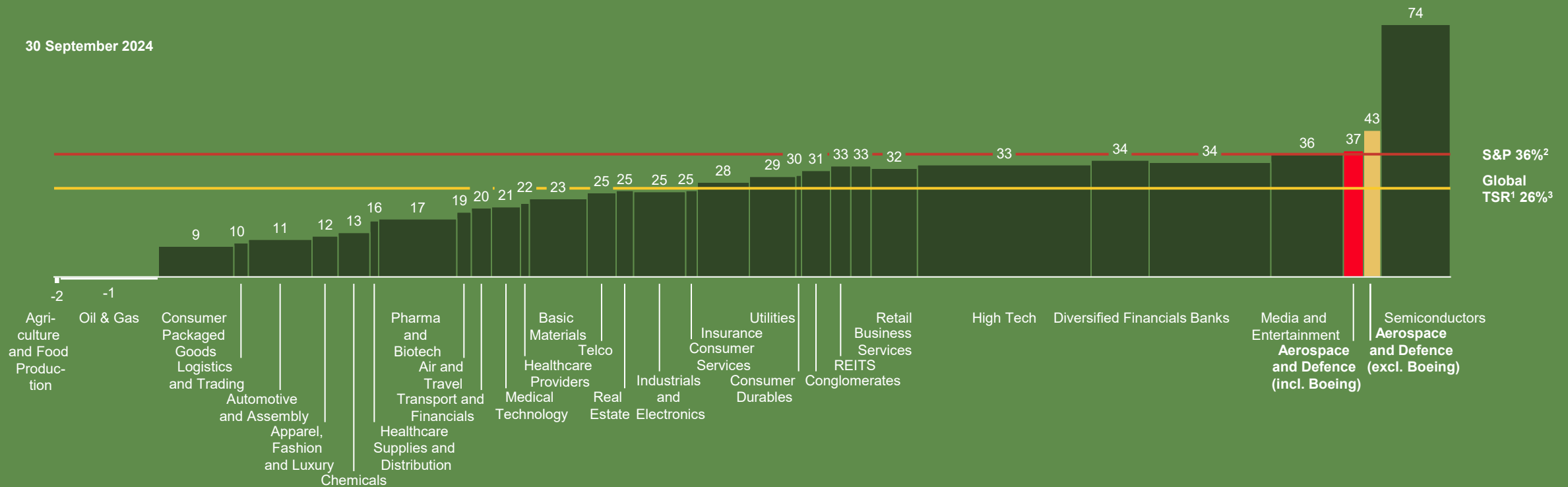
Key drivers

- Rising average fleet age** (~10% increase over the past years) is driving higher demand for MRO
- Growing narrowbody jet shares** (~65% of fleet) known for **early lifecycle engine issues** (e.g., GTF⁴, LEAP⁴) is driving MRO demand
- Expanding global fleet** (~3% CAGR over the next decade) is boosting increased demand for MRO services
- Component maintenance is the 2nd fastest** segment of the MRO market, and it provides a market potential to participate

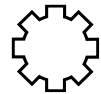
1. MRO - Maintenance, Repair and Overhaul | 2. Not including inflation, 2025 dollars | 3. Forecast estimated based on OEMs projected production amounts, also GDP-MRO translations from regional and platform-level assumptions | 4. Geared turbofan and Leading-Edge aviation propulsion refer to advanced aircraft turbofan engines

3. Aerospace and Defence delivered higher-than-average returns¹ (37%) compared to global average (26%) in 2024

30 September 2024



Drivers of shareholder value for Aerospace and Defence



Streamlined and resilient operation



Investment in next-gen solutions



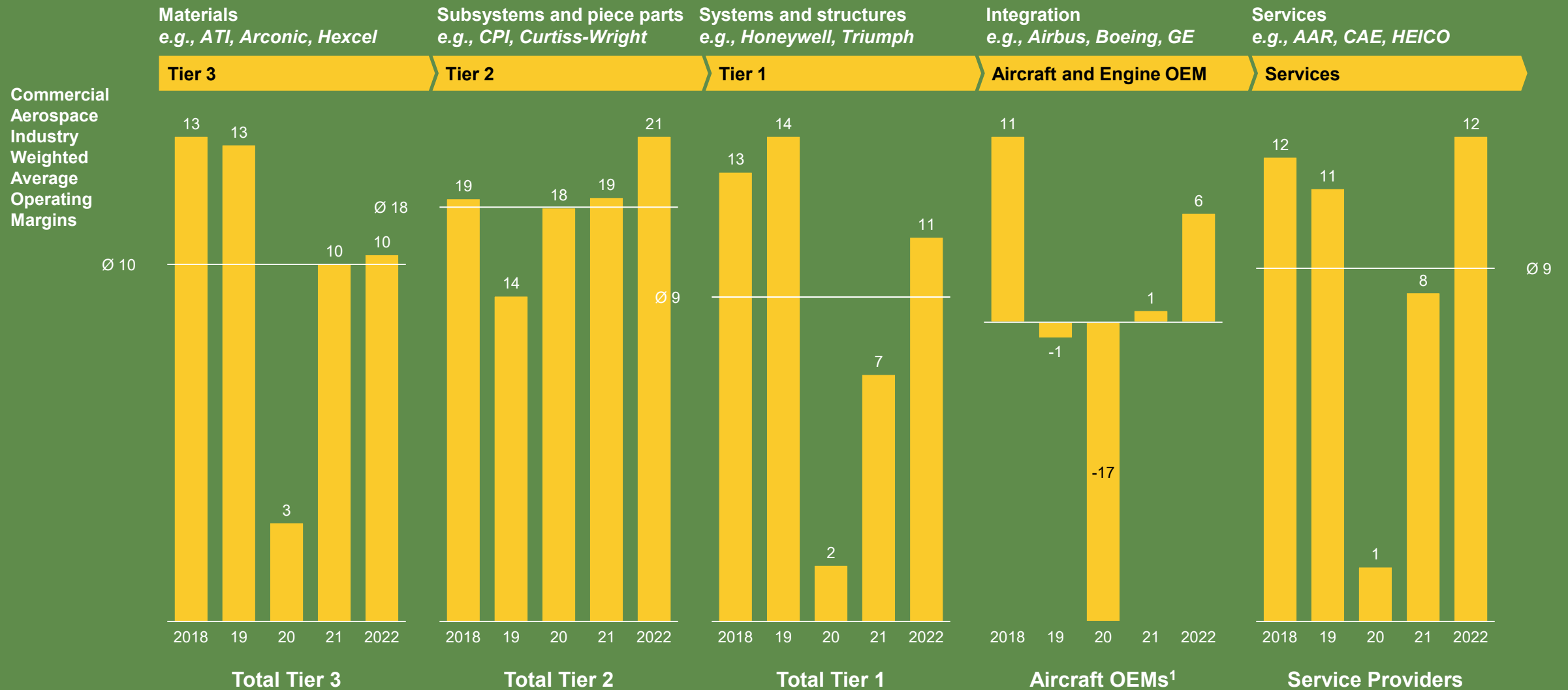
High-impact and strategic partnerships



Adaptive and flatter management model

1. Weighted Average Total Shareholder Returns (TSR) by industry in % September 2023 to September 2024 . Width of bar is September 2023 market capitalisation in \$
 2. S&P 500 TSR returns
 3. Based on the top 500 public companies globally by market capitalisation as of September 30, 2024

3. Sub-systems and piece parts aerospace suppliers achieve higher margins compared to other operators in the value chain

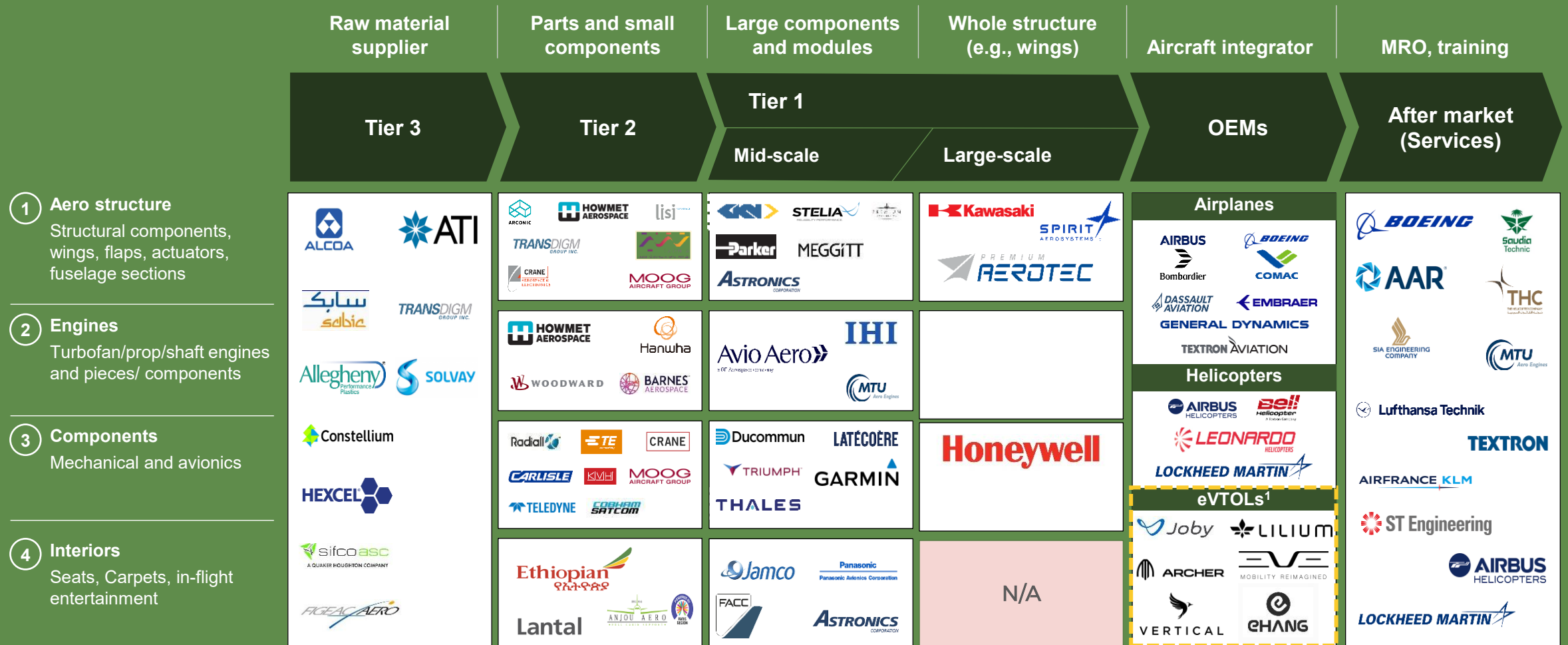


1. The major OEMs' losses are attributed to the fallout caused by B737 MAX grounding in 2020

4. OEMs are increasing vertical integration by bringing the manufacturing of complex aerostructures in-house

NOT-EXHAUSTIVE

 Sustainability players



1. eVTOL - electric Vertical Takeoff and Landing

4. Key LCC clusters worldwide provide OEMs and Tier 1 suppliers with cost advantages and essential capacity for secondary aerostructures

NOT EXHAUSTIVE

● Clusters in LCCs ● Clusters in other locations

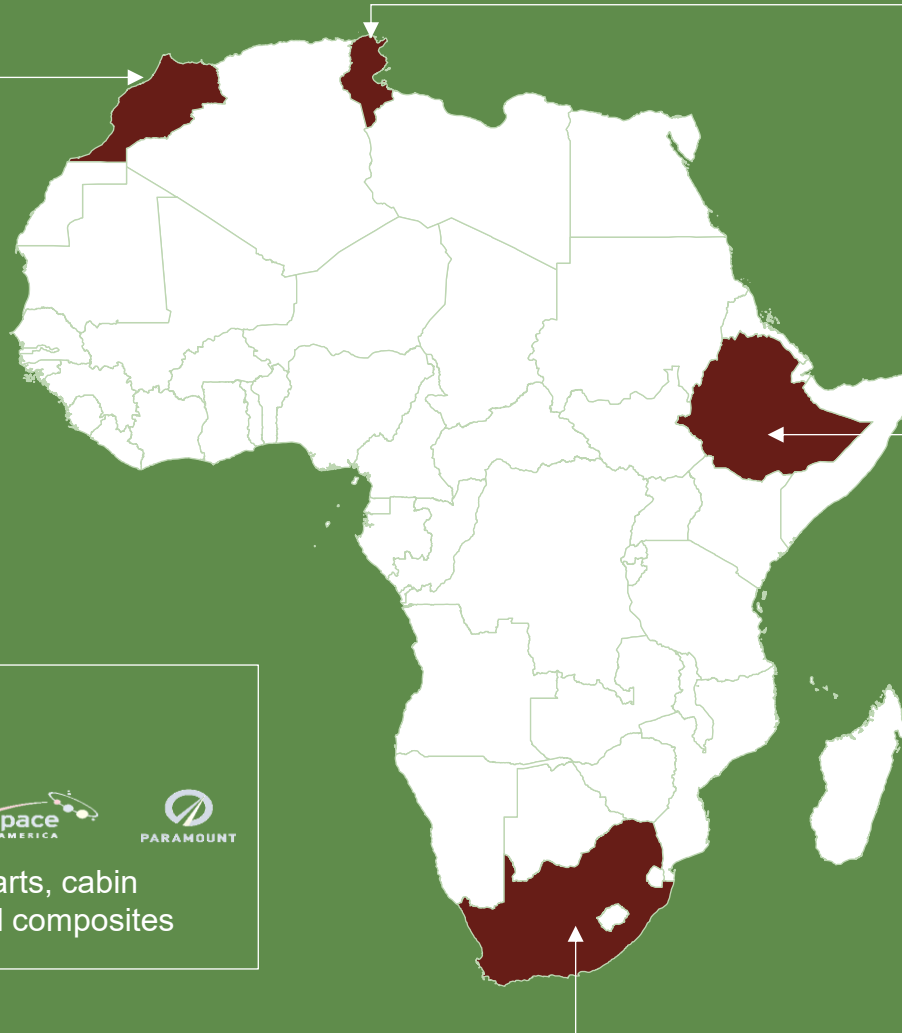


Selected clusters	Speciality	Est.	Anchor aerospace tenants
1 Shenyang, China	Airframes and suppliers	1951	AVIC ¹ and Airbus supplier
2 Chengdu, China	Airframes and suppliers	1958	AVIC and Chengdu Aircraft Corp.
3 Bengaluru, India	Public sector, suppliers, IT, and R&D ²	1964	Aeronautical Society of India and Aeronautical Development Agency
4 Mumbai, India	MRO services, suppliers, and academic institutions	1985	Aero Equipment and Agencies Corp., Air India, and Godrej Aerospace
5 Queretaro, Mexico	MRO services and composites suppliers	1998	Bombardier, ITR, GE Aerospace, and Messier
6 El Mghira, Tunisia	Suppliers, MRO services, and R&D	1998	Airbus Atlantic, Latecoere, Sabena, Zodiac Aero, and Figeac Aero
7 Casablanca, Morocco	Suppliers, MRO services, academic institutions, and R&D	2001	Airbus, Boeing, Hexcel, and Safran
8 Harbin, China	MRO services and regional aircraft suppliers	2003	AVIC, Embraer, Harbin Aircraft, Eurocopter, and Singapore Tech
9 Seletar, Singapore	Suppliers, MRO services, and research institutes	2006	ST Aerospace, Airod, and Airbus and Boeing suppliers
10 Tshwane, South Africa	MRO services, R&D, and suppliers	2008	Airbus and Boeing
11 New Delhi, India	MRO services, academic institutions, and suppliers	2009	Hindustan Aeronautics Ltd., Indian Airlines, and Air India
12 Addis Ababa, Ethiopia	MRO service and suppliers	2014	Aircraft Cabin Modification (ACM), Ethiopian Sky Technologies

1. AVIC - Aviation Industry Corporation of China | 2. R&D - Research and Development
Source: Expert insights

4. Africa has emerging aerospace manufacturing and MRO capabilities

■ Countries with Aerospace manufacturing clusters



Morocco

Major players:



Main components: Engine/nacelle parts, interiors, and aerostructure

Tunisia

Major players:



Main components: Electrical assembly, cable harnesses, and assembly of aerostructure

Ethiopia

Major players:



Main components: Wire harnesses and Insulation blankets

South Africa

Major players:

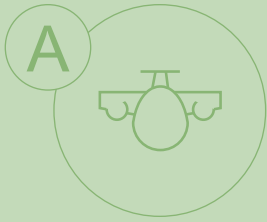


Main components: Wing parts, cabin interiors, cabin systems, and composites

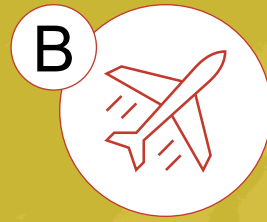
Countries with MRO services



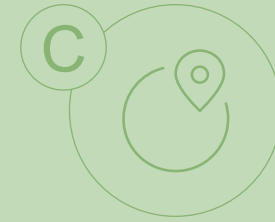
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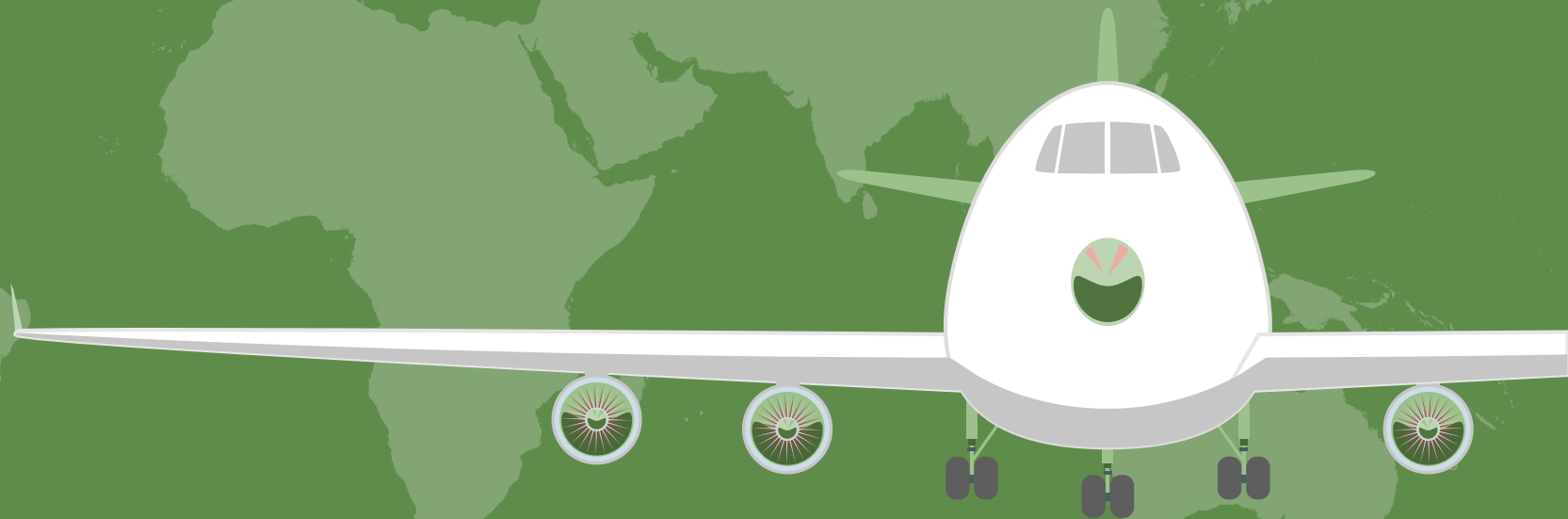
**Global commercial
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**Ethiopia's value
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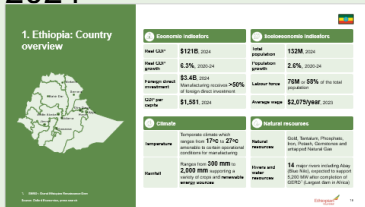
Ethiopia: Macro overview



1

Key statistics

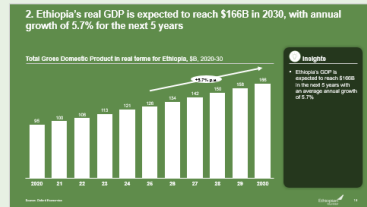
Ethiopia is a country with annual GDP growth of 8%, and foreign direct investment inflow of \$3.4B with manufacturing accounting for >50% in 2024



2

Gross Domestic Product

Ethiopia's real GDP and export value is expected to reach \$166B and \$16.7B in 2030 with growth of 5.7% and 6.2%, respectively



3

Exports and imports decomposition

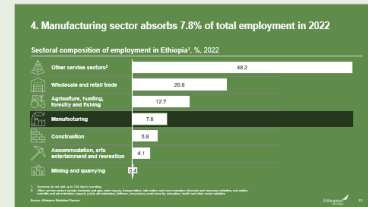
Aviation contributes for 64% to exports, while other exports include coffee, dried legumes, oil seeds, gold, and electricity



4

Sector employment

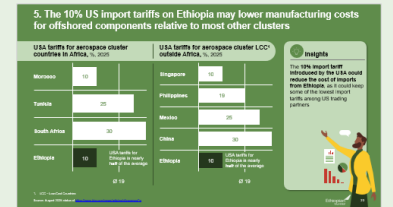
Manufacturing sector absorbs 7.8% of total employment with potential growth due to development of special economic zones and industrial parks



5

Trade tariff with United States

The USA's 10% tariff, about half the average for aerospace clusters in Africa and low-cost countries, could give Ethiopia a competitive edge



1. Ethiopia: Country overview



Economic indicators

Real GDP	\$121B , 2024
Real GDP growth	6.3% , 2020-24
Foreign direct investment	\$3.4B , 2024 Manufacturing receives >50% of foreign direct investment
GDP per capita	\$1,581 , 2024

Socioeconomic indicators

Total population	132M , 2024
Population growth	2.6% , 2020-24
Labour force	76M or 58% of the total population
Average wage	\$2,079/year , 2023

Climate

Temperature	Temperate climate which ranges from 17°C to 27°C amenable to certain operational conditions for manufacturing
Rainfall	Ranges from 300 mm to 2,000 mm supporting a variety of crops and renewable energy sources

Natural resources

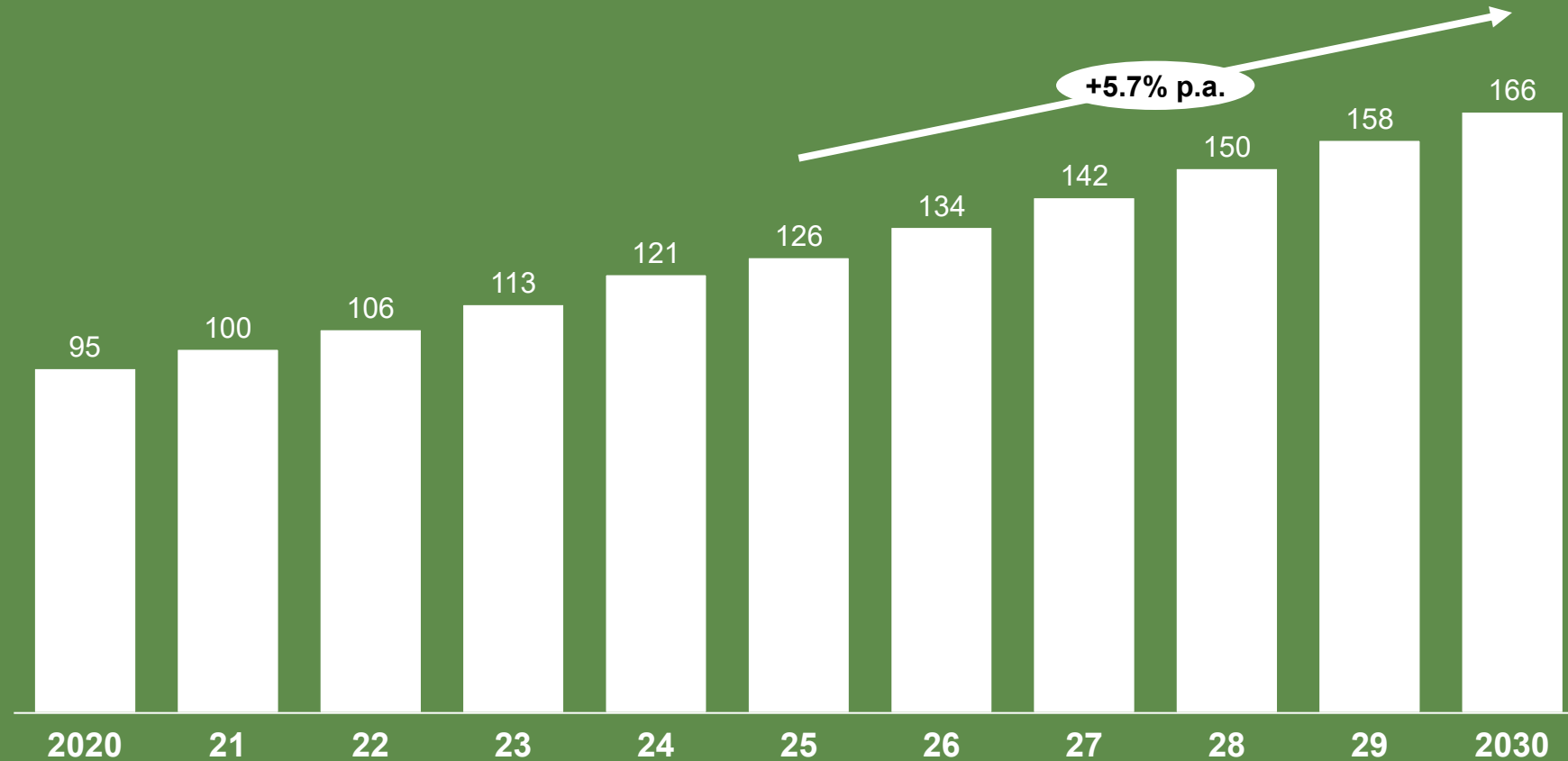
Natural resources	Gold, Tantalum, Phosphate, Iron, Potash, Gemstones and untapped Natural Gas
Rivers and water resources	14 major rivers including Abay (Blue Nile), expected to support 5,200 MW after completion of GERD ¹ (Largest dam in Africa)

1. GERD - Grand Ethiopian Renaissance Dam

Source: Oxford Economics, press search

2. Ethiopia's real GDP is expected to reach \$166B in 2030, with annual growth of 5.7% for the next 5 years

Total Gross Domestic Product in real terms for Ethiopia, \$B, 2020-30

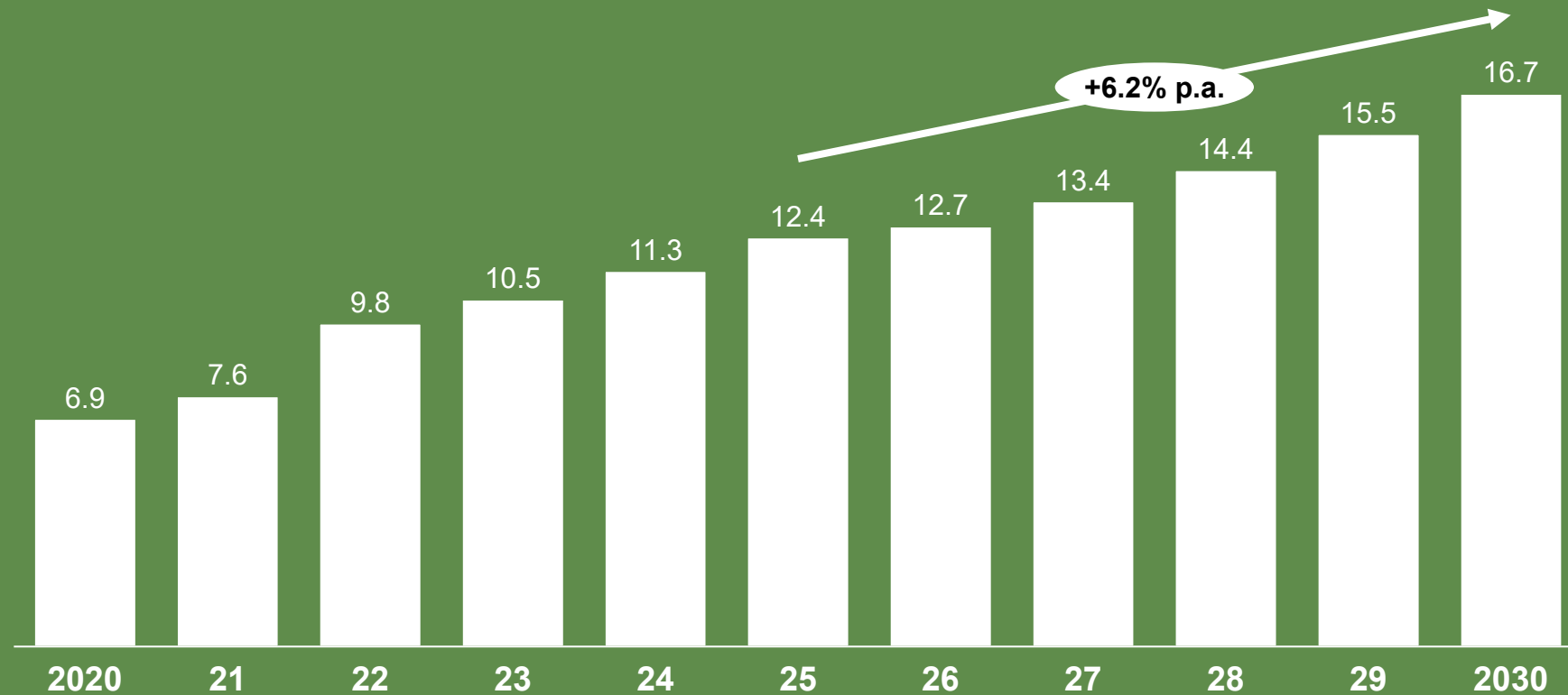


Insights

- Ethiopia's GDP is expected to reach \$166B in the next 5 years with an average annual growth of 5.7%

2. Export value is expected to grow by 6.2% for the next 5 years

Total goods and services exports in Ethiopia, \$B, 2020-30

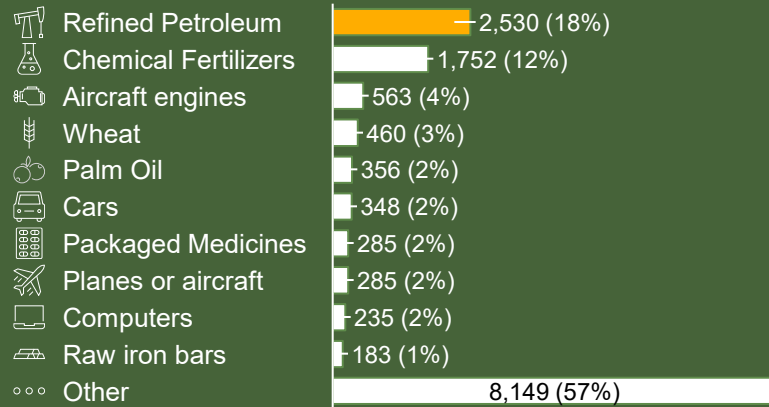


Insights

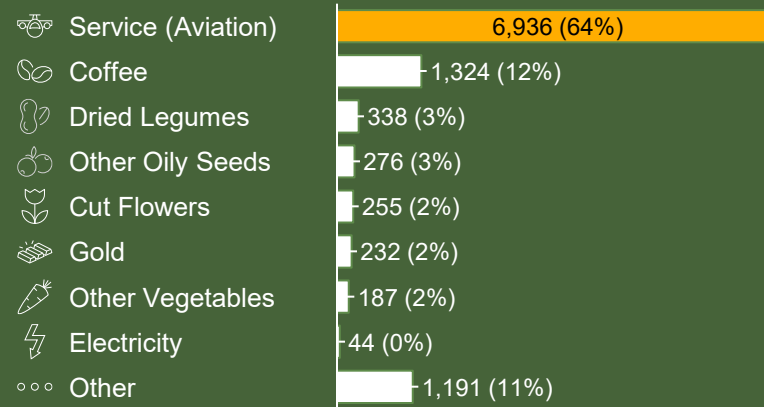
- Ethiopia's export value is expected to reach \$16.7B in the next 5 years with an average annual growth of 6.2%

3. Aviation makes up 64% of exports, the largest share, while refined petroleum accounts for 18% of imports

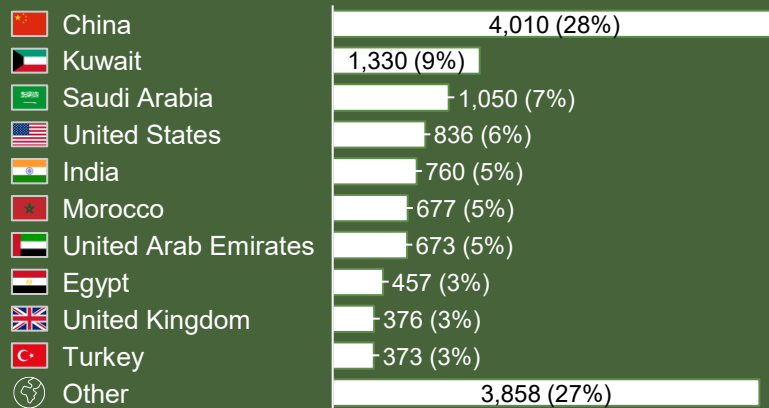
Major imports items, \$M, 2023



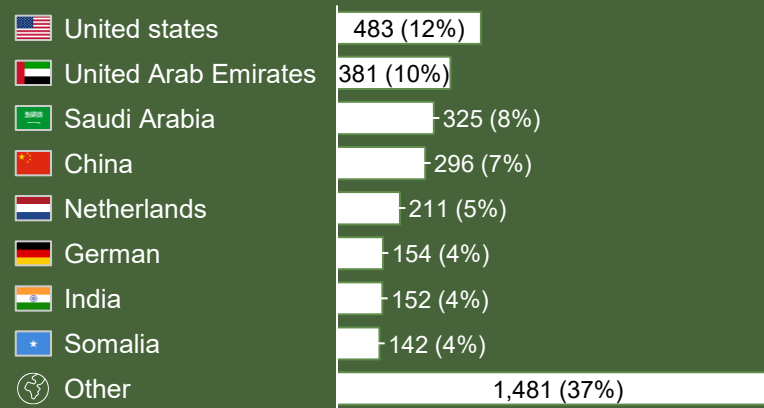
Major exports items, \$M, 2023



Major imports partners, \$M, 2023



Major exports partners, \$M, 2023

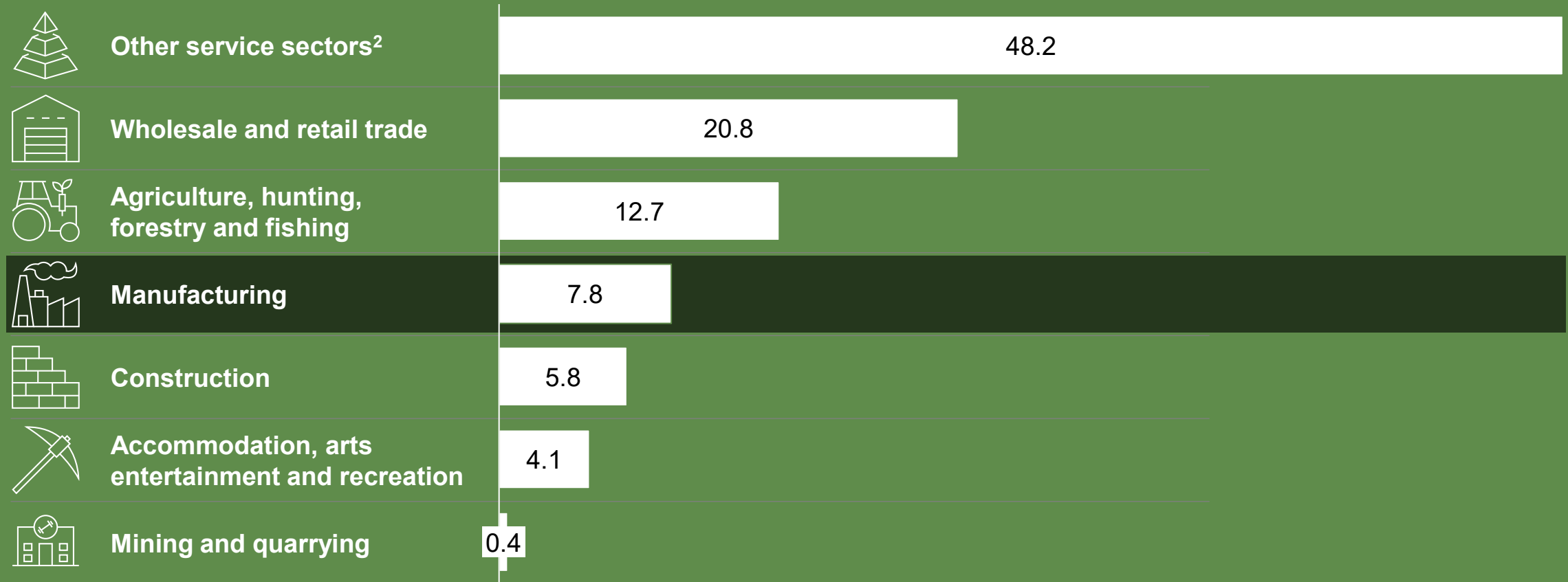


Insights

- **Aviation contributes 64% of exports** while other exports include coffee, dried legumes, oil seeds, cut flowers, gold and electricity
- Key export partners include the USA, UAE and Saudi Arabia
- **Major imports include refined petroleum, fertilisers, aircraft engines, wheat, palm oil and vehicles** from countries such as China, Kuwait, Saudi Arabia and USA

4. Manufacturing sector absorbs 7.8% of total employment in 2022

Sectoral composition of employment in Ethiopia¹, %, 2022

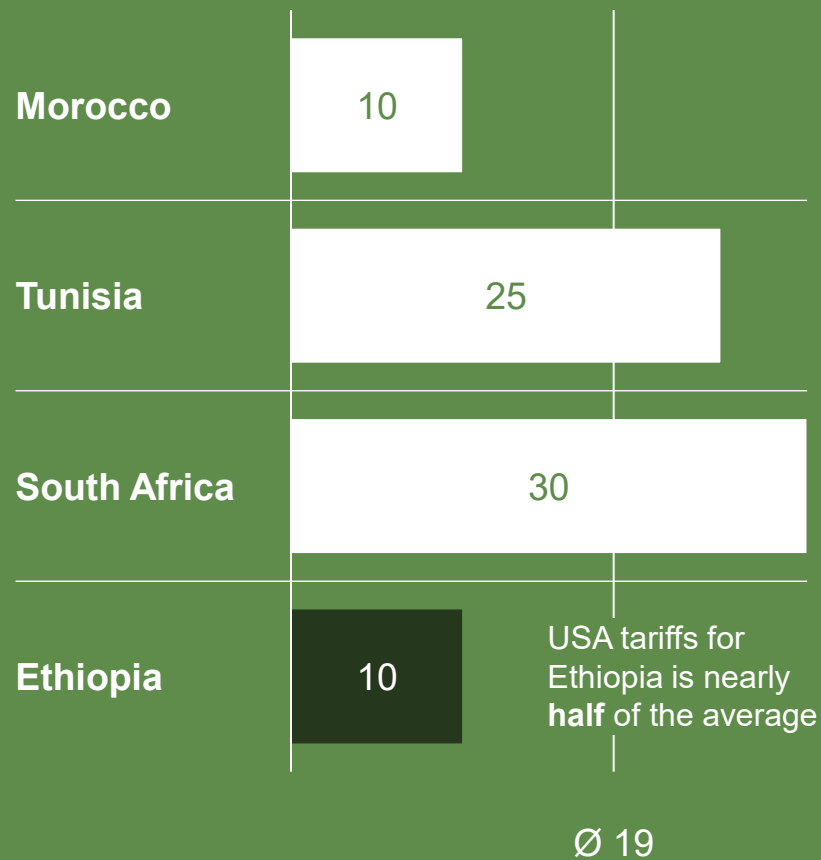


1. Numbers do not add up to 100 due to rounding

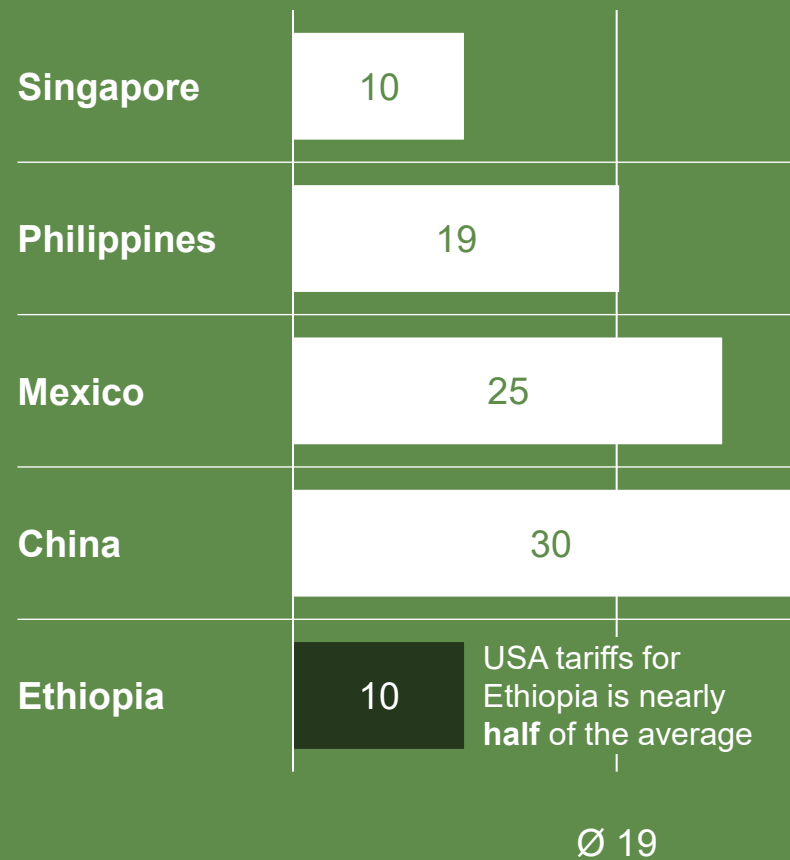
2. Other service sectors include electricity and gas, water supply, transportation, information and communication, financial and insurance activities, real estate, scientific and administrative support, public administration, defence, compulsory social security, education, health and other social activities

5. The 10% US import tariffs on Ethiopia may lower manufacturing costs for offshored components relative to most other clusters

USA tariffs for aerospace cluster countries in Africa, %, 2025



USA tariffs for aerospace cluster LCC¹ outside Africa, %, 2025



Insights

The **10% import tariff introduced by the USA could reduce the cost of imports from Ethiopia**, as it could keep some of the lowest import tariffs among US trading partners



1. LCC – Low-Cost Countries

Source: August 2025 status of <https://www.bbc.com/news/articles/c5ypxnnvg7jo>

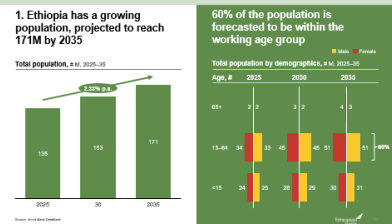
There are five key factors which position Ethiopia as a potential hub for aerospace manufacturing



1

Increasing talent base

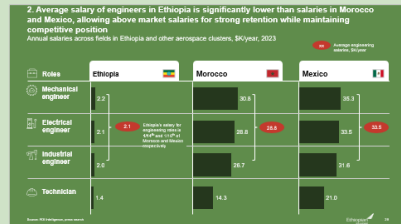
Ethiopia's **rising and youthful population** provides a robust talent pipeline ready to be trained and developed to meet the demands of the local aerospace industry



2

Offering low labour and energy costs

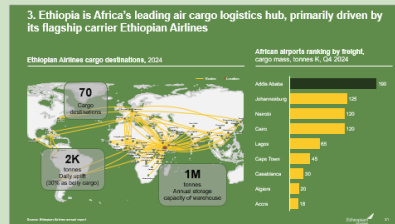
Ethiopia offers **relatively lower electricity and labour costs** compared with other LCC aerospace clusters



3

Leading airfreight logistics hub

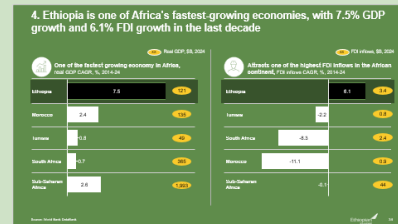
Ethiopia's **large-scale airfreight capabilities deliver streamlined supply chain logistics** to meet the operational needs of manufacturers



4

Growing economy

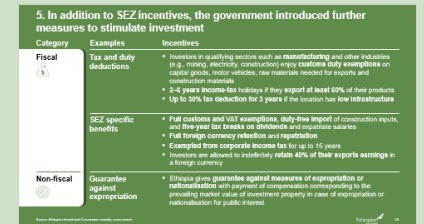
Ethiopia is one of Africa's **fastest-growing economies, with recent structural reforms** aimed at unlocking the country's potential and attracting FDI¹



5

Providing supportive business incentives

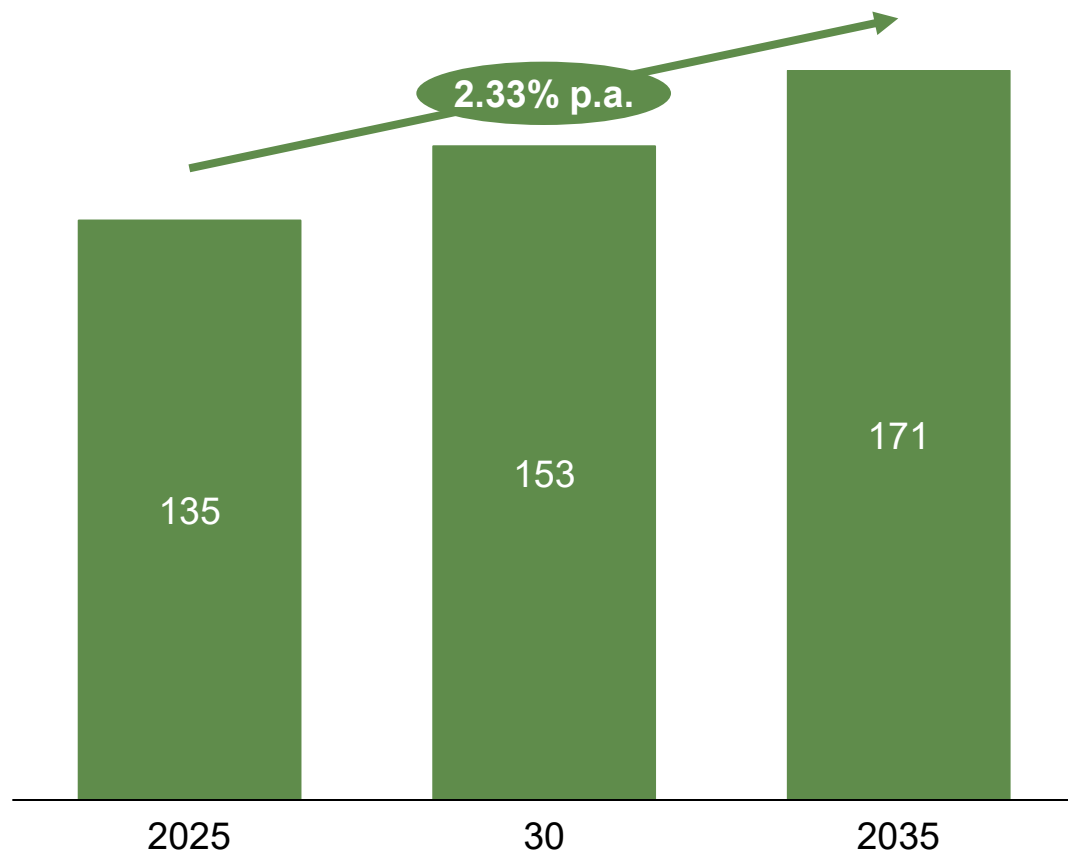
Ethiopia offers **SEZs² and industrial parks** equipped with built-up infrastructure and **fiscal incentives** that includes duties and tax exemptions



1. FDI - Foreign Direct Investment | 2. SEZs - Special Economic Zones

1. Ethiopia has a growing population, projected to reach 171M by 2035

Total population, # M, 2025–35

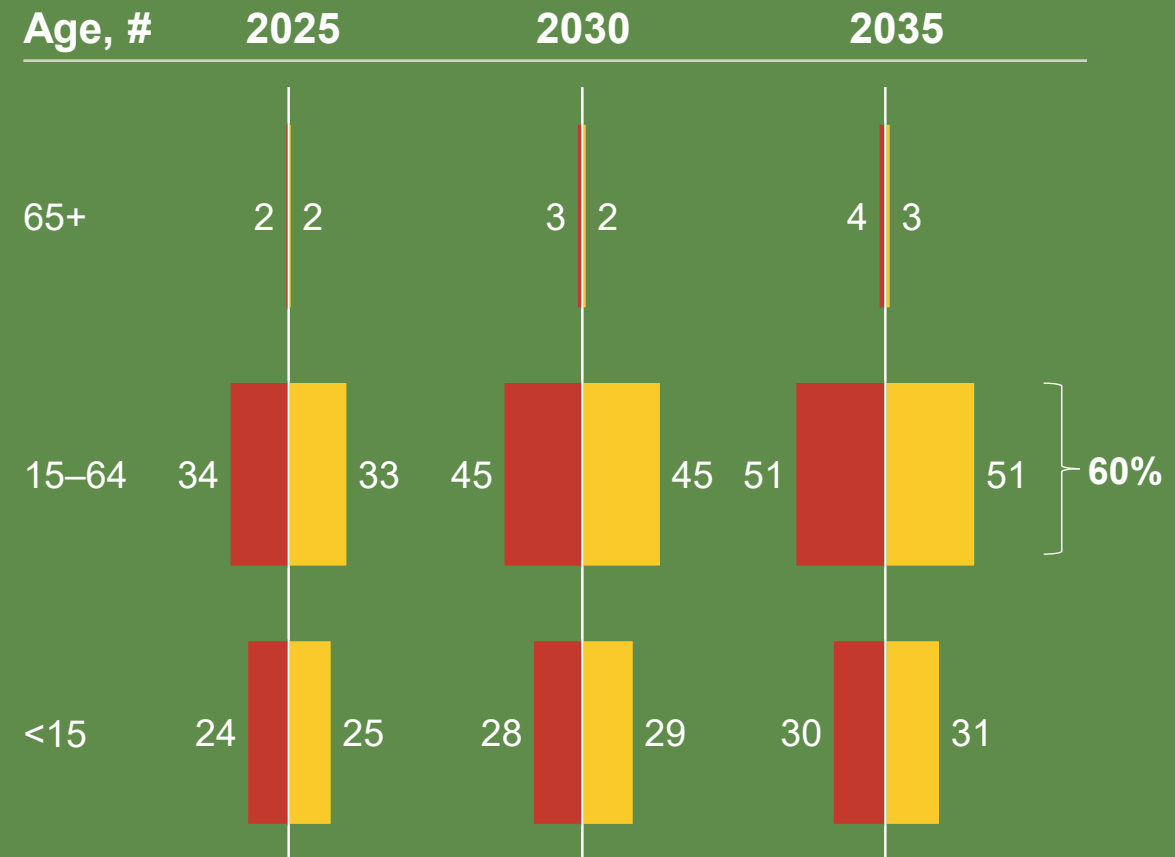


Source: World Bank DataBank

60% of the population is forecasted to be within the working age group

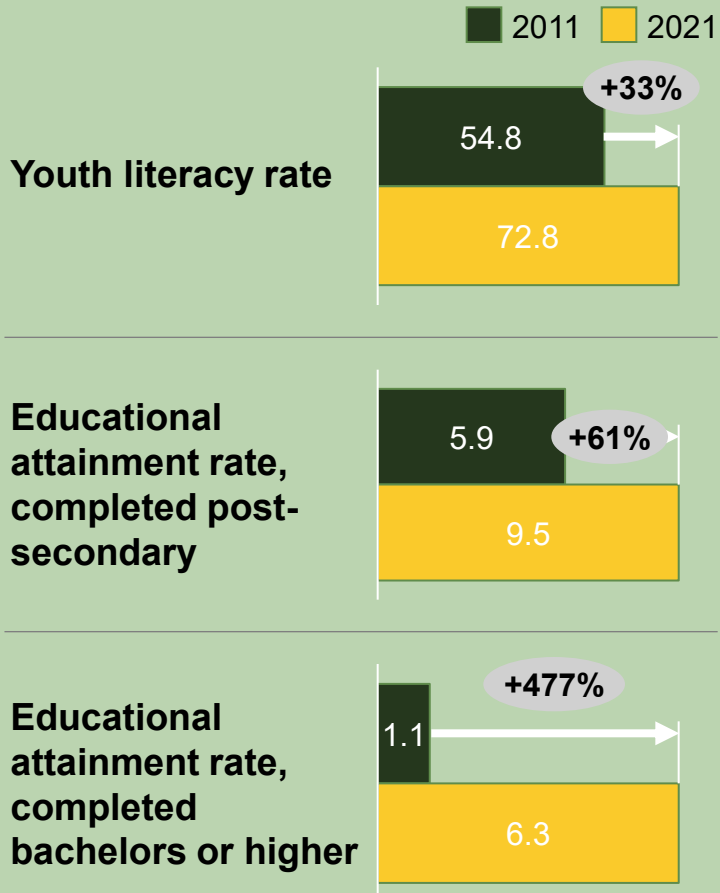
Male Female

Total population by demographics, # M, 2025–35

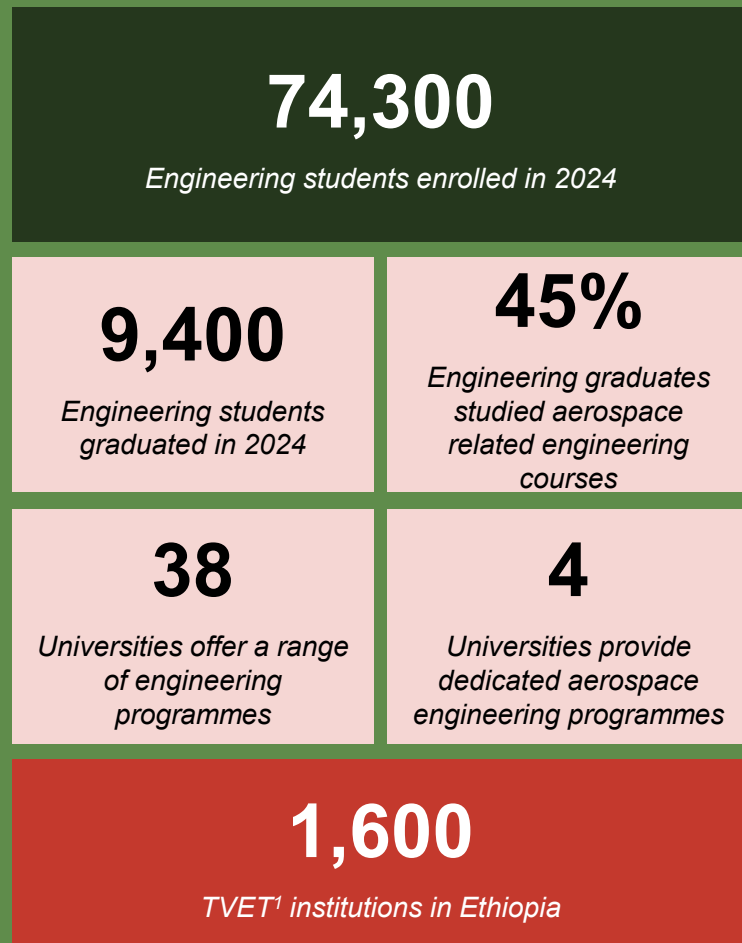


1. There is an improvement in educational outcomes in Ethiopia supported by a growing availability of engineering talent and programmes

Education metrics, both sexes, %, 2011-21



Key statistics on available engineering and aerospace skills



Aerospace education programmes available in Ethiopia

- **University**
 - Aeronautical Engineering (BSc, MSc, PhD)
 - Aviation Maintenance Engineering (BSc)
 - Aerospace Structures and Systems Engineering (BTech)
 - Aerospace Propulsion Engineering (BTech)
- **TVET institution**
 - Aircraft Maintenance
 - Aircraft Structure Maintenance
 - Avionics Component Maintenance
 - Aircraft Power Plant Maintenance
 - Airframe Mechanical Component Maintenance
 - Aircraft Cabin Maintenance

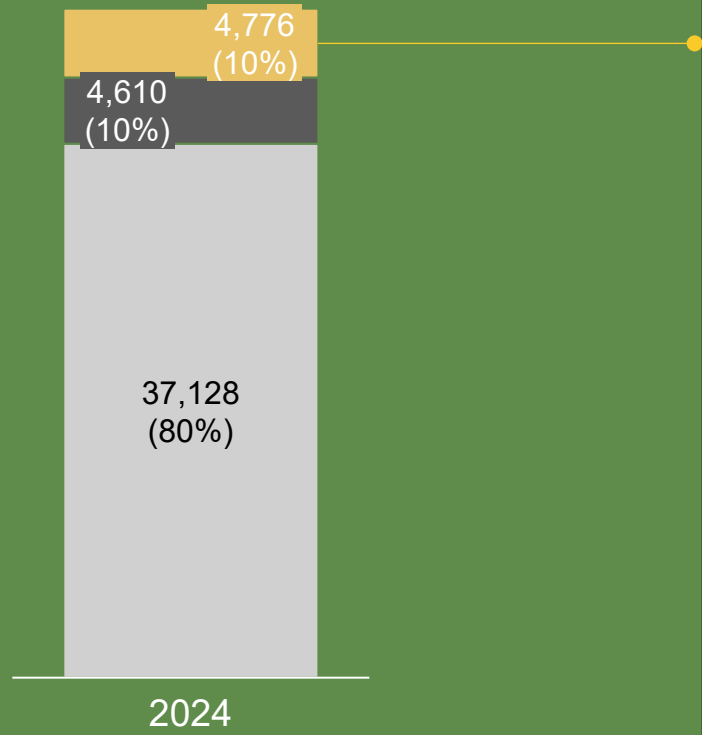
1. TVET - Technical and Vocational Education and Training

Source: UNESCO UIS Data Browser, World Bank DataBank, Ministry of Education, press search

1. Ethiopia's growing base of engineers enhances its aerospace talent pipeline, addressing current needs while positioning for future growth

Total university graduates, #, 2024

- Aerospace related engineering
- Non-aerospace related engineering
- Other



Total engineering graduates for relevant disciplines, #, 2024

- Electrical and Computer
- Mechanical
- Industrial
- Electromechanical



- In 2024, 4,249 bachelor's degree and 527 master's degree students graduated in aerospace related engineering fields
- While the current number of aerospace engineers are still nascent, there is potential for growth as more universities create tailored programmes for Ethiopia's growing aerospace industry

1. Five institutions are providing aerospace programmes in technician, undergraduate and post graduate level, fostering aerospace pipeline

University programmes with aerospace engineering



Ethiopian Aviation University

Established in 2023 – from EAA¹

- Aeronautical Engineering (BSc)
- Aviation Maintenance Engineering (BSc)



Ethiopian Defence University

Established in 1997

- Aerospace Structures And Systems Engineering (BTech)
- Aerospace Propulsion Engineering (BTech)
- Aeronautical Engineering (MTech)



Addis Ababa Science and Technology University with ESSTI²

Established in 2023

- Aeronautical Engineering (MSc)
- Aeronautical Engineering (PhD)



Jimma University

Established in 2024

- Aerospace Engineering And Aviation Sciences

TVET programmes with aerospace technician



Ethiopian Aviation University

(formerly EAA¹)

Established in 1964

- Aircraft Maintenance Training
- Aircraft Structure Maintenance Technician
- Avionics Component Maintenance Technician
- Aircraft Power Plant Maintenance Technician
- Airframe Mechanical Component Maintenance
- Aircraft Cabin Maintenance Technician



National Aviation College

Established in 2024

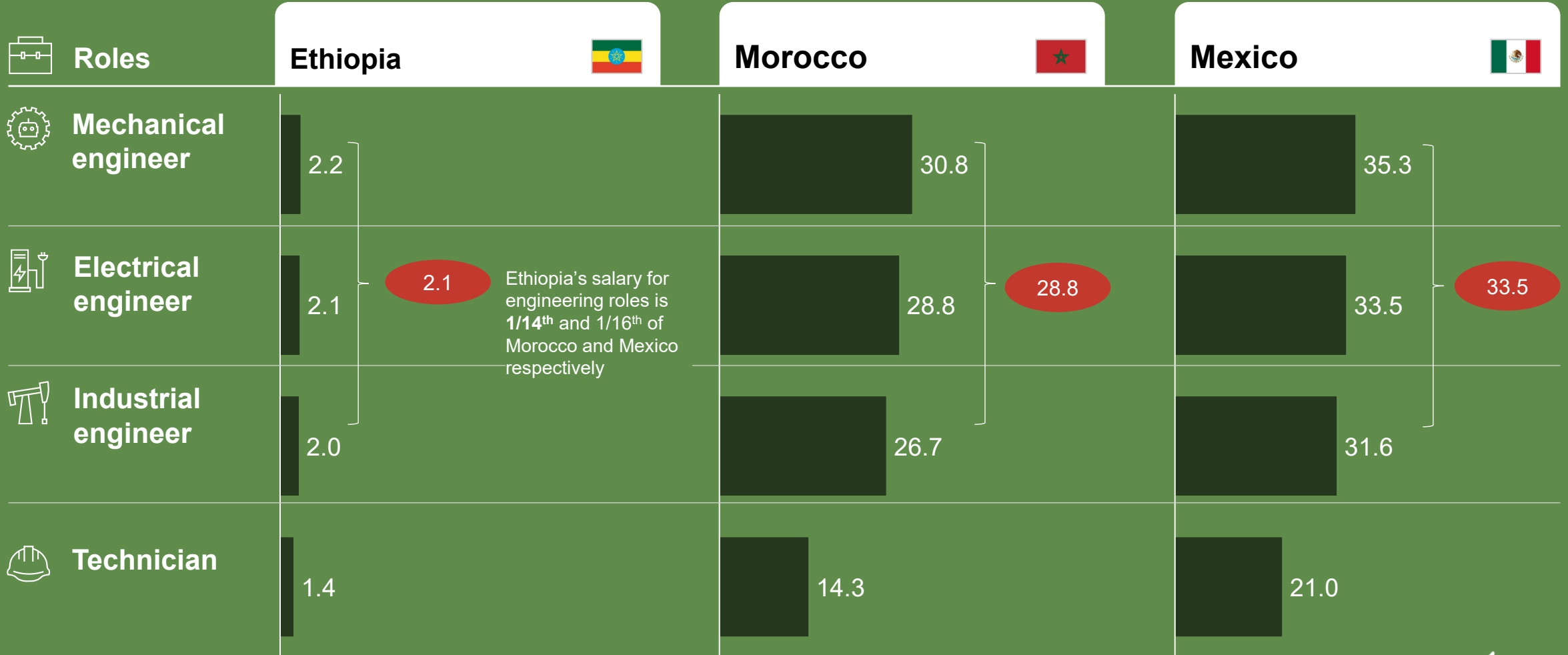
- Aviation Maintenance Technician

1. EAA - Ethiopian Aviation Academy 2. ESSTI - Ethiopia Space Science and Technology Institute

2. Average salary of engineers in Ethiopia is significantly lower than salaries in Morocco and Mexico, allowing above market salaries for strong retention while maintaining competitive position

Annual salaries across fields in Ethiopia and other aerospace clusters, \$K/year, 2023

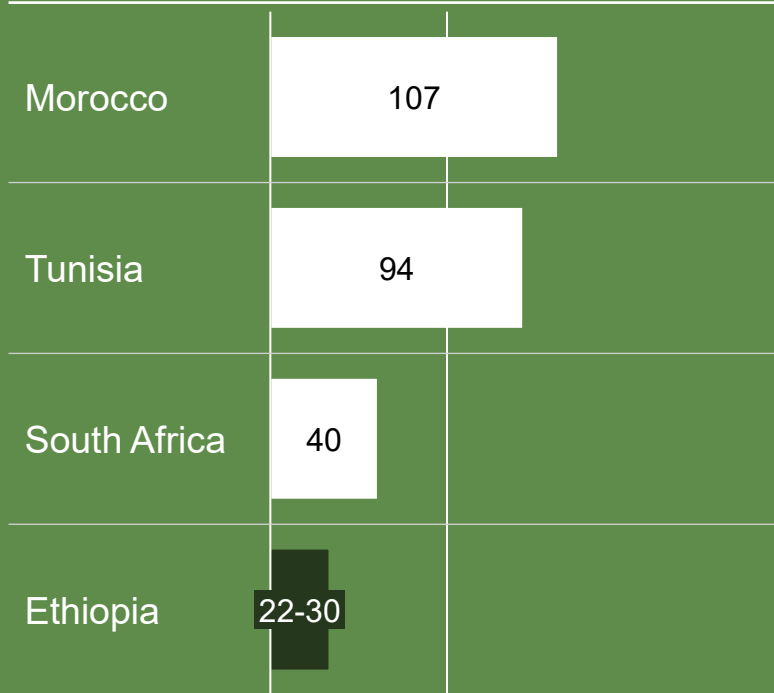
XX Average engineering salaries, \$K/year



2. Ethiopia's electricity price is comparatively lower than the average price in aerospace clusters in Africa and other LCC clusters outside Africa

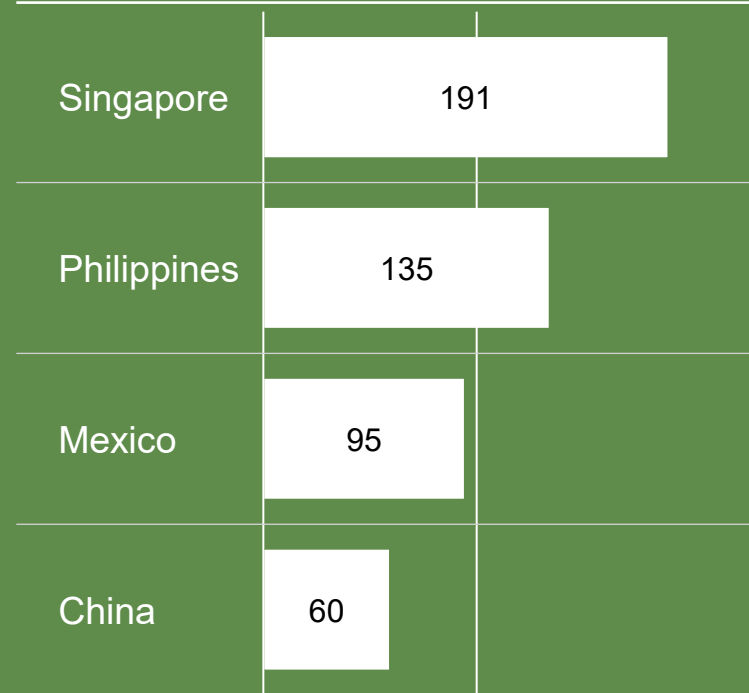


2024 electricity price for industrial use in aerospace clusters in Africa, USD/MWh



Ø 65.8
Ethiopia's electricity cost is **one-third of the average**

2024 electricity price for industrial use in LCC aerospace clusters outside Africa, USD/MWh

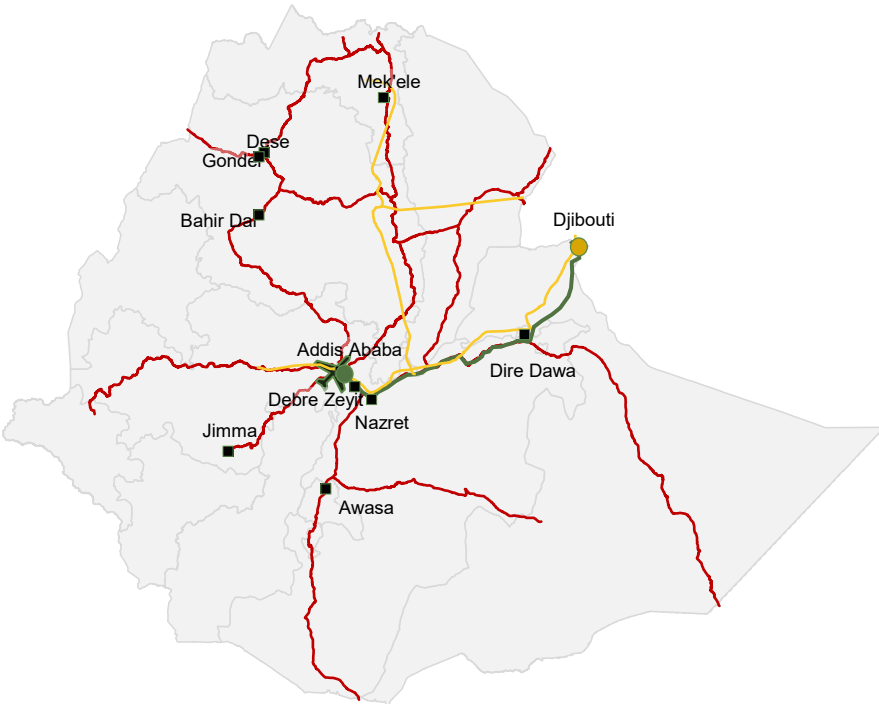
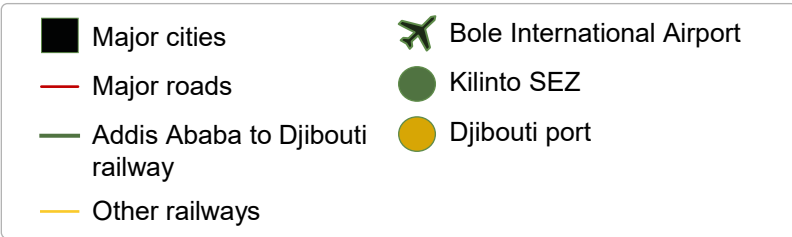


Ø 100.5
Ethiopia's electricity cost is **one-sixth of the average**

Insights

- The primary source of Ethiopia's electricity is **hydropower, accounting for 92%**, while wind and geothermal energy contribute 7% and 1%, respectively
- **SEZs and industrial parks have dedicated power substations** to provide **reliable power** for tenants (e.g., Kilinto SEZ has 33 kVA dedicated substation)
- Ethiopia offers **one-third of the average energy cost of aerospace clusters in Africa** and **one-sixth of LCC outside Africa**, which could be a consideration for energy-intensive businesses

3. Ethiopia is expanding its logistics infrastructure across land and sea



Dry ports

There are **10** dry ports under **ESLSE¹**, one of them is Modjo Dry Port which is near to Kilinto SEZ

The Ethio-Djibouti corridor, linking four dry port cities, is **undergoing a \$730M upgrade**, alongside a **\$1B expansion of the Berbera corridor**



Ocean freight

ESLSE is specialised shipping service with **10 ships** transporting **3.7 MT** in 2024

ESLSE has plans to buy 6 more cargo ships and expand to transport **4.3 MT** in 2026



Railway

The **\$3.4B, 750 km Ethio-Djibouti electric railway**, reduced travel time by **85%** and enabled **2 MT** of annual cargo transport

It is expected to increase its capacity to **6.2 MT** in 2027 by **operational improvements** and new train additions

1. ESLSE - Ethiopian Shipping and Logistics Services Enterprise

Source: Ministry of Foreign Affairs of Ethiopia, press search

3. Ethiopian Airlines is the one of the largest commercial aviation players in Africa with 159+ in-service aircraft fleet and \$7B in revenues

Key facts about Ethiopian Airlines

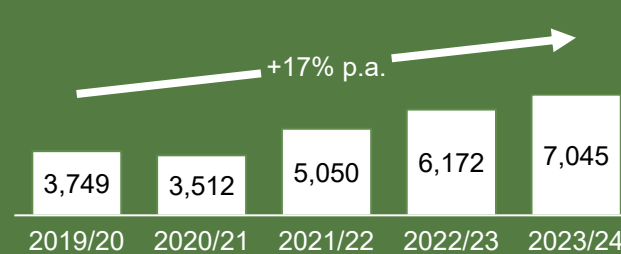


ETG is headquartered at Bole International Airport in **Addis Ababa, Ethiopia**

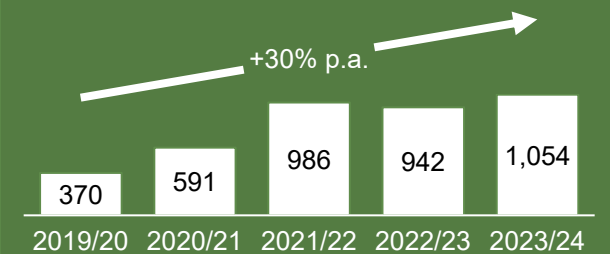
ETG has **17,600 employees** and generated **\$7B revenue** in 2023/24 FY

ETG operates a fleet of 159 aircraft, which includes 63 long-range passenger planes, 45 medium-range passenger planes, 31 regional and domestic passenger planes, 5 long-range cargo planes, and 15 non-scheduled cargo aircraft

ETG revenue (2019/20-2023/24), \$M



ETG profit (2019/20-2023/24), \$M



Services	Description
Passenger services	<p>ETG operates 140 passenger aircraft, making it Africa's largest airline by passenger volume and revenue</p> <p>In 2023/24, it flew 13.38M international passengers to 135 destinations, earning \$4.72B</p> <p>Domestic flights carried 3.72M passengers to 22 destinations, a 37% increase from the previous year, with revenue of \$240M, up 48%</p>
Cargo and logistics services	<p>ETG operates Africa's largest cargo network with 17 dedicated aircraft serving 69 destinations</p> <p>Ethiopian Cargo handles general and special goods like horticulture, pharmaceuticals, valuables, live animals, e-commerce, mail, and couriers, with a 1M ton annual capacity</p> <p>In 2023/24, it transported 755 tonnes of freight and generated \$1.68B in revenue</p>
MRO services	<p>Ethiopian MRO offers MRO services at Ethiopian flight stations and to African and Middle East operators</p> <p>The facility includes hangars and workshops certified by CAA, FAA, and EASA for aircraft, engine, and component repairs</p> <p>In 2023/24, ETG generated \$90M from third-party MRO services, a 19% rise from 2022/23</p>
Manufacturing	<p>Ethiopian Sky Technologies, a JV of ETG produces insulation blankets for B737 on 2,100 sqm facility (expanding to 10,000 sqm), earning \$6M in 2023/24 FY</p> <p>ETG also produces wire harnesses for B737, B747, and B777 on 500 sqm facility (expanding to 1,500 sqm), earning \$2.5M in 2023/24 FY</p>
Others	<p>ETG provides services including education, hospitality, airport, in-flight catering, and ground services, generating \$540M in revenue</p> <p>EAU¹, Africa's largest aviation university, offers pilot and technician training plus aeronautical engineering degrees</p> <p>In FY 2023/24, EAU enrolled 1,107 new students and graduated 1,745, earning \$8.53M, a 21% increase from the previous year</p>

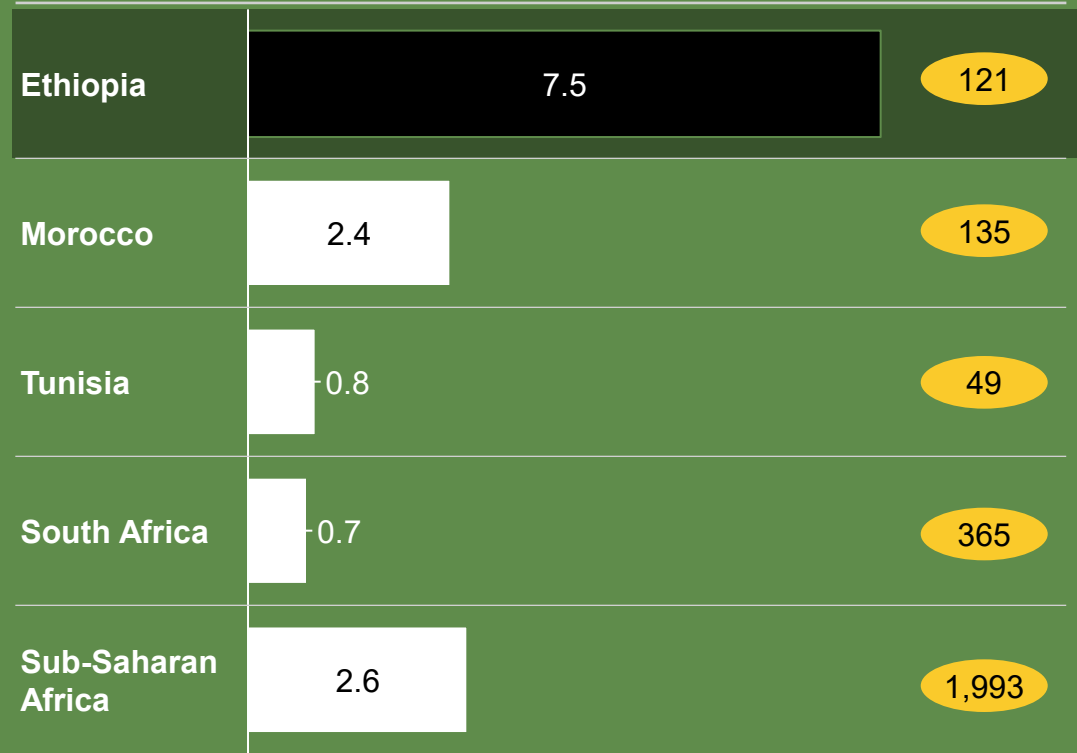
1. EAU - Ethiopian Aviation University

4. Ethiopia is one of Africa's fastest-growing economies, with 7.5% GDP growth and 6.1% FDI growth in the last decade



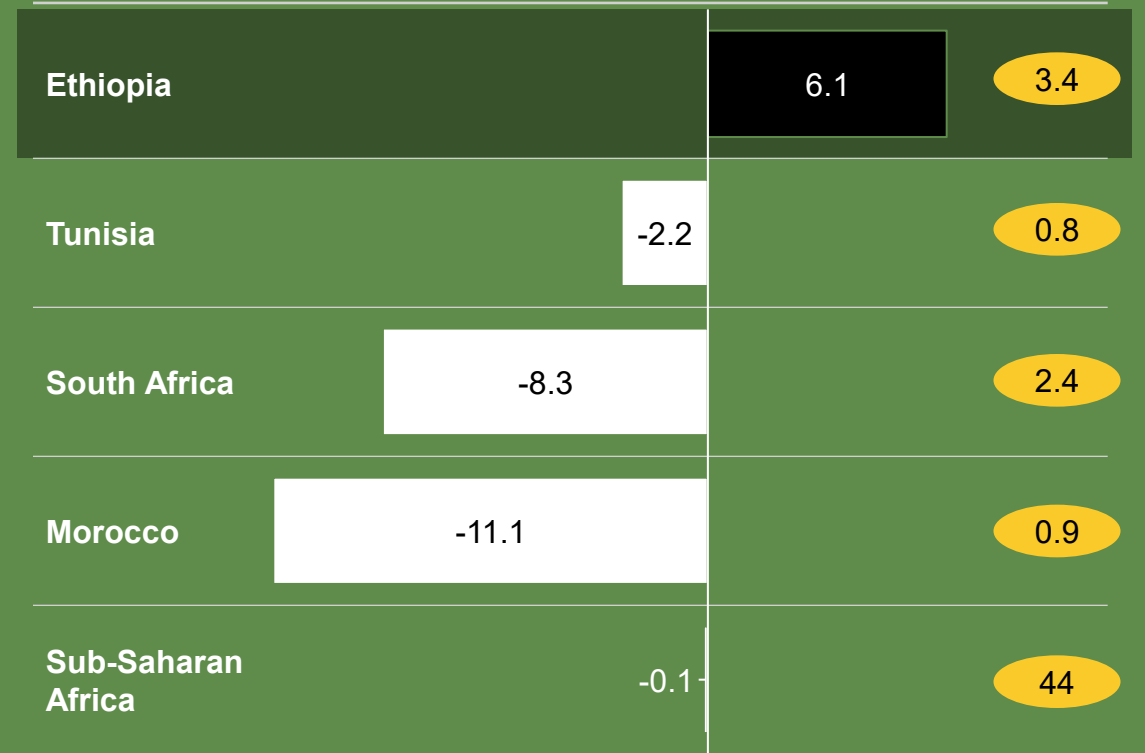
One of the fastest growing economy in Africa, real GDP CAGR, %, 2014-24

xx Real GDP, \$B, 2024



Attracts one of the highest FDI inflows in the African continent, FDI inflows CAGR, %, 2014-24

xx FDI inflows, \$B, 2024



4. The Government of Ethiopia is implementing ongoing economic reforms to unlock the country's full potential

Liberalisation and privatisation of key sectors



Key sectors like **telecom, banking and logistics** have been liberalised to foreign investment

State-owned manufacturing facilities, such as sugar plants, are being put up for sale to private investors

Foreign exchange floatation



Exporters are allowed to **keep 50%** of their **foreign currency earnings**, and foreign investors can **repatriate 100%** of capital

Banks and licensed offices are allowed to **trade forex freely** after the ETB was floated in mid-2024

Aerospace manufacturing incentives



A **six-year tax exemption** for aerospace manufacturers has been implemented as an extra incentive

Import/Export reforms and initiatives



Duty-free, quota-free access to the EU markets through EBA (Everything but Arms) and AfCFTA (African Continental Free Trade Area)

ECMS¹ automation replaced manual imports/exports, reducing import release time from 44 days to 12 days





1. ECMS - Electronic Customs Management System

Source: National Bank of Ethiopia, press search

5. 13 SEZs and 2 industrial parks have been established to support manufacturing

Further detailed

		Name	Location	Area, ha	Targeted sector
13 Special Economic Zones (SEZs) 		Adama	Oromia	365	Textile and apparel
		Hawassa	Sidama	300	Textile, apparel and leather
		Kilinto	Addis Ababa	279	Aerospace and pharmaceutical
		Bole Lemi II	Addis Ababa	176	Textile, apparel and leather
		Bole Lemi I	Addis Ababa	156	Textile, apparel and leather
		Bure	Amhara	150	Mixed
		Dire Dawa	Dire Dawa	150	Mixed
		Yirgalem	Sidama	150	Mixed
		Bahir Dar	Amhara	100	Textile and apparel
		Debre Berhan	Amhara	100	Textile, apparel and agro-processing
		Kombolcha	Amhara	100	Textile, apparel and leather
		Jimma	Oromia	75	Textile, apparel and agro-processing
		Mekele	Tigray	75	Textile, apparel and leather
2 Industrial parks 		ICT	Addis Ababa	200	ICT
		Semera	Afar	50	Textile, leather, packaging and chemicals

5. Kilinto SEZ has a dedicated space for aerospace manufacturing

Site overview

- Located in southeastern Addis Ababa, **15 km to Bole International Airport**, with proximity to Ethio-Djibouti railway and to the new airport in Bishoftu city
- Total area spans 279 ha, including 177 ha of serviced land, with **4.7 ha dedicated to aerospace players** with total capacity to host ~1000 manufacturing companies
- **Land leases are available for up to 40 years**, with a progressively increasing pricing structure of \$3.73 - \$15.51 per sqm
- Approval granted by EIC¹ and IPDC², with **minimum capital investment** for foreigners set at \$200K and **\$150K for JV with local partners**

Facilities and infrastructure

- Dedicated **power substation** with 33 kVA
- 14,000 m³/day **waste management system** (40 km sewage draining system)
- Fresh water supply
- Security, fire brigade
- Support building with **one-stop shop**, including banks and a customs office
- 19 km of built-up roads (750 streetlights)

Incentives

- **Full customs and VAT exemptions, duty-free import** of construction inputs, and **five-year tax breaks** on dividends and expatriate salaries
- **Full foreign currency retention and repatriation**
- **Exempted from corporate income tax** for up to **15 years**

1. EIC - Ethiopian Investment Commission | 2. IPDC - Industrial Parks Development Corporation

5. In addition to SEZ incentives, the government introduced further measures to stimulate investment

Category

Examples

Incentives

Fiscal



Tax and duty deductions

- Investors in qualifying sectors such as **manufacturing** and other industries (e.g., mining, electricity, construction) enjoy **customs duty exemptions** on capital goods, motor vehicles, raw materials needed for exports and construction materials
- **2–6 years income-tax holidays** if they **export at least 60%** of their products
- **Up to 30% tax deduction for 3 years** if the location has **low infrastructure**

SEZ specific benefits

- **Full customs and VAT exemptions, duty-free import** of construction inputs, and **five-year tax breaks on dividends** and expatriate salaries
- **Full foreign currency retention and repatriation**
- **Exempted from corporate income tax** for up to 15 years
- Investors are allowed to indefinitely **retain 40% of their exports earnings** in a foreign currency

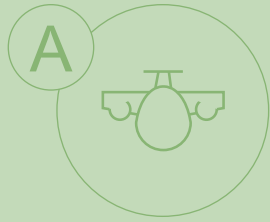
Non-fiscal



Guarantee against expropriation

- Ethiopia gives **guarantee against measures of expropriation or nationalisation** with payment of compensation corresponding to the prevailing market value of investment property in case of expropriation or nationalisation for public interest

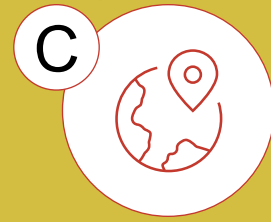
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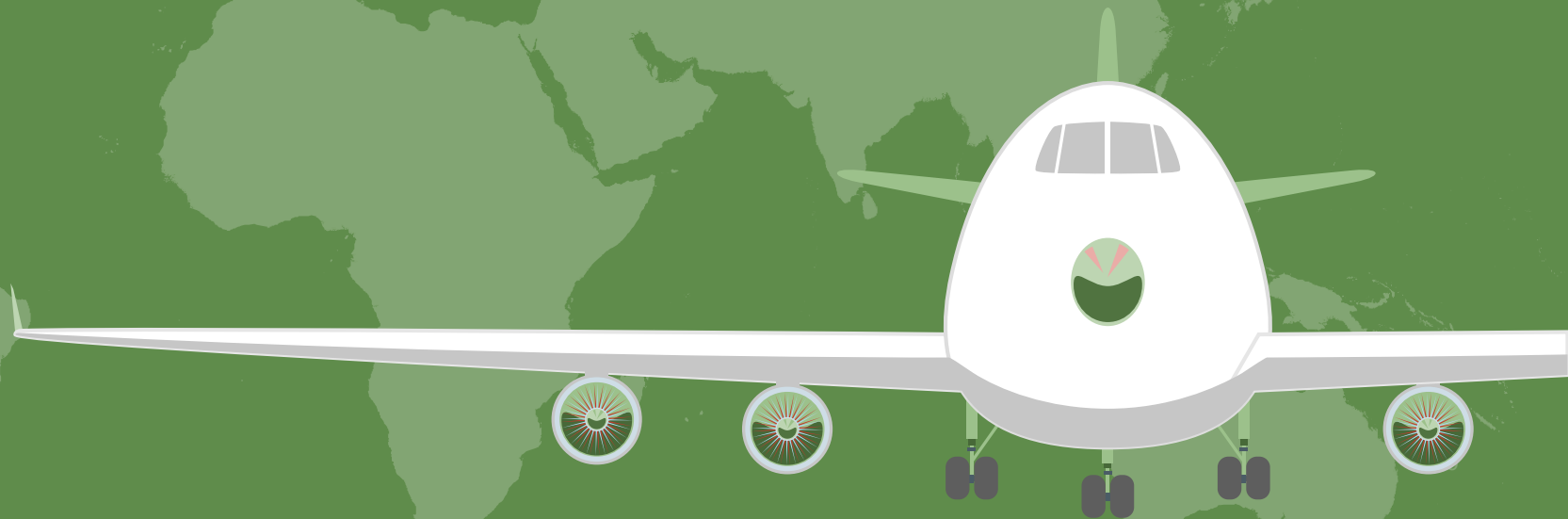
**Global commercial
aerospace market**



**Ethiopia's value
proposition**

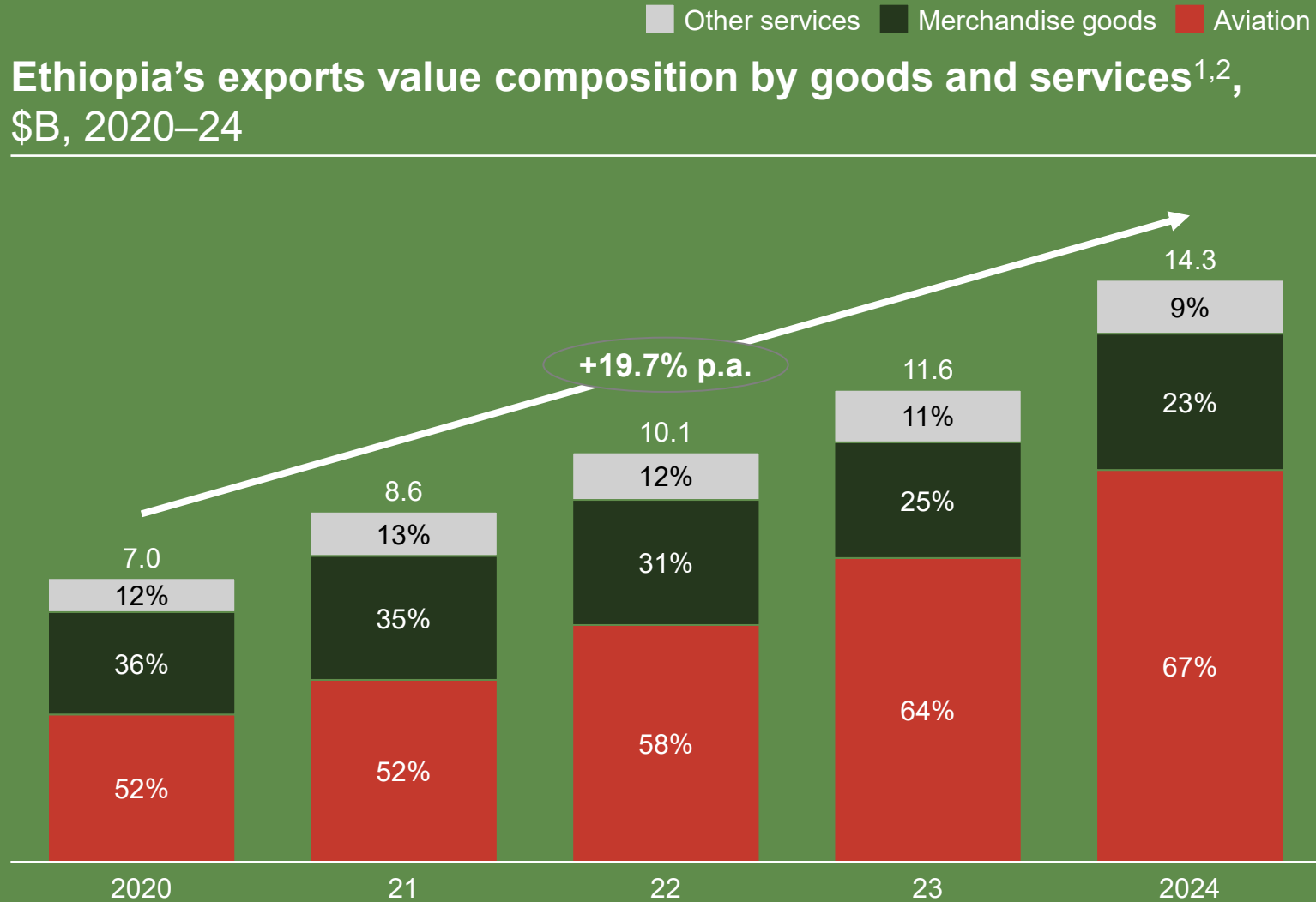


**Aerospace in Ethiopia
and high-potential areas**



1. Aviation sector leads services exports, contributing 67% of total exports in 2024

Ethiopia's exports value composition by goods and services^{1,2}, \$B, 2020–24


































Insights

- Aviation is the largest exports sector for Ethiopia, accounting for **52–67% of total exports** between 2020 and 2024
- While Ethiopian Airlines Group's (ETG) **contribution to GDP is small**, it is **significant to exports**
- ETG provides **aviation, MRO and aerospace manufacturing services** to customers globally

1. For 2023-24, service exports values were estimated using the CAGR value drawn during 2018-2022 | 2. Aviation was assumed to account for 90% of transportation and travel exports within service exports based on preceding years

2. Ethiopia's aviation and aerospace sector includes a diverse range of public and private stakeholders

Value chain	Players	
Airlines 	Public airlines  Ethiopian Airlines	Private airlines  National Airways  Abyssinian Flight Services  Aquarius Aviation
		 Trans Nation Airways  East African Aviation
Airports 	 Ethiopian Airports Enterprise	
MRO 	 Ethiopian MRO	 One MRO
Training institutes 	 Ethiopian Aviation University	 National Aviation College  Abyssinian Flight Academy
	 Addis Ababa Science and Technology University	 Jimma University  Ethiopian Defence University
Manufacturers 	 Ethiopian Airlines	 Ethiopian Sky Technologies
Regulators 	 Ethiopian Civil Aviation Authority (ECAA)	 Ministry of Transport and Logistics
Ground handling 	 Ethiopian Ground Services	 International Cargo and Aviation Services  Dream Aviation Support
Catering 	 Ethiopian Catering  Addis International Catering	

3. Ethiopia is enhancing its aerospace capabilities through ETG's integrated ecosystem of aviation services, MRO, and aerospace manufacturing

Details follow



Aviation services

- Established in 1945, ETG operates **>140 passenger and 20 cargo aircrafts** including the A350-900, A350-1000, B737 MAX 8, to over 135 destinations
- In 2024, **ETG generated \$7B in revenue** with passenger and cargo services accounting for 67% and 24% of total revenues, respectively



Maintenance, Repair and Overhaul (MRO)

- Established in 1957, Addis Ababa, Ethiopia, ETG's is one of Africa's **largest MRO services with 3,000 technical staff members**
- The **facility has 8 hangars** certified by CAA, FAA, and EASA for aircraft, engine, and 1,200 component repairs



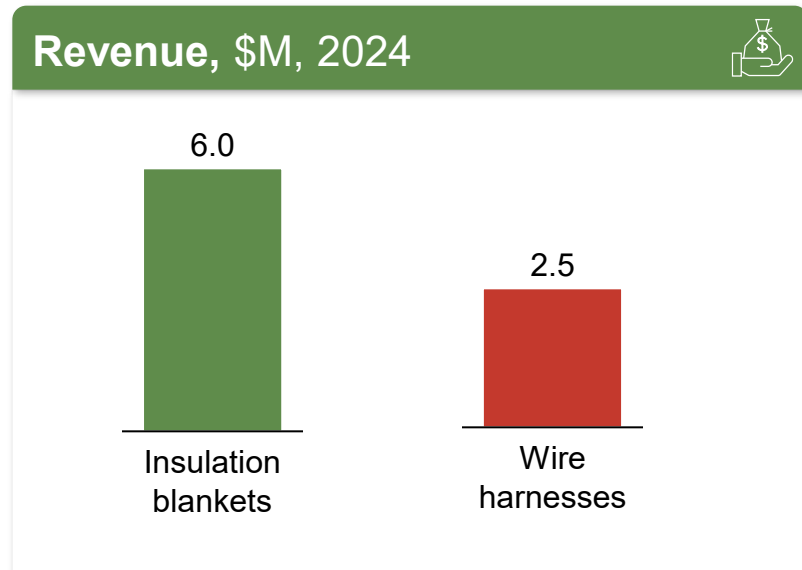
Aerospace manufacturing

- **ETG Wire Harness Manufacturing was established in 2014** and produces wire harness for Boeing
- **Ethiopian Sky Technologies was established in 2022 by a JV** with Geven-SkyTechno to produce insulation blankets

3. ETG is the leading aerospace component manufacturer in Ethiopia

Overview

- Headquartered in Addis Ababa, ETG operates a **2,500 sqm facility** with **160 employees**
- ETG manufactures **insulation blankets and harnesses**, with plans to expand into **seat cushions and cargo/pallet nets production**



Products

Insulation blanket

- Ethiopian Sky Technologies was formed as a **JV – ETG (51%) and Geven S.K.A. (49%)**
- The company generated **\$6M in annual revenue in 2024** and has a current production rate of 5 shipsets/month delivered to Boeing
- Operates from a **1,500 sqm manufacturing facility** with a workforce of **120 employees**, producing insulation blankets for B737 MAX aircraft model
- Initial knowledge transfer was provided by the Italian partner – Geven to Ethiopian Sky Technologies employees

Wire harnesses

- Starting in January 2014**, the **Wire Kit Harness Plant (WKHP)** began assembling aircraft components, including resistors, diodes, and interphone jack assemblies
- Generates **\$2.5M in annual revenue**, having produced **>40,000 products** in the past five and a half years, all supplied to **Boeing and its subsidiaries**
- Operates from a **500 sqm facility** and employs **20 people**. It has produced various harnesses for the B737, B747, and B777 models and has earned the Blue Level Boeing Performance Award

Partners

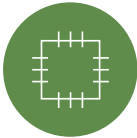


Customers

Certification/Awards




3. ETG's planned move to Kilinto by end of December 2025 could increase ETG's operational capacity



X Scale of increase in operational capacity

Components	Old facility size, sqm		New facility size, sqm
 Insulation blankets	2,100	5x	10,000
 Wire harnesses	500	3x	1,500
 Cargo nets, palette nets, and seat cushions	0	N/A	1,500

3. Metal works, textile manufacturing and assembly are some of the capabilities within the ETG group

Manufacturer			
Manufacturer	Parts manufactured	Capabilities	Talent
Ethiopian Sky Technologies	Thermal insulation blanket for B737 Max	<ul style="list-style-type: none"> • Fabric material cutting • Sewing • Assembly 	120 employees on the assembly line, including engineers, 80 technicians, and assemblers
ETG wire harness manufacturing	Resistors, diodes, and interphone jack assemblies for B737, B747, and B777 models	<ul style="list-style-type: none"> • Assembly 	20 employees
ETG MRO	TBU	<ul style="list-style-type: none"> • TBU 	TBU

3. Ethiopian Sky Technologies demonstrates its strength in attracting top-tier talent through the volume of applications received per cohort



1. ETST - Ethiopian Sky Technologies
Source: Ethiopian Airlines

20

**additional
components
identified
for in-country
production**

 **Details to follow**

Adjacent products¹

Filtration media production

1 Air filters

Textile manufacturing

2 Carpets

3 Seat or head rest covers

4 Life vests

Composite moulding

5 Ceiling panel

6 Flooring material

7 Seat shell

8 Sidewalls

9 Galley storage compartments

Frontier products²

Metal stamping

10 Mounting brackets

Sheet metal forming and finishing

11 Fuselage access panel

12 Fuselage fairings and covers

13 Ducting

14 Fuselage, empennage, wing skins

15 Metal floor panels

16 Wing flaps and slats

17 Metal doors or hatches

Metal machining

18 Nuts, bolts, and screws

19 Latches

20 Hinges

1. Products closely aligned with current capabilities in Ethiopia

2. Products involving more complex manufacturing processes and new capabilities

Source: Aerospace manufacturing product assessment

4. Adjacent products

a. Air filters

b. Seat covers

c. Life vests

d. Carpets

e. Composites



4a. Air filter manufacturing involves 6 steps, with quality testing and control being the most labour-intensive

● High ● Medium ● Low



Critical filtration components in aircraft environmental control systems (ECS) that remove particulates, contaminants, and microbes from cabin air to maintain quality and safety

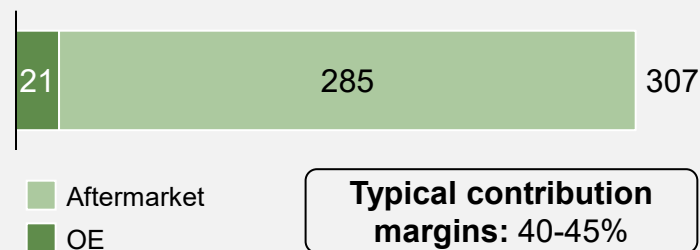
Types of air filters

HEPA filter: Removes at least 99.97% of particles ≥0.3 microns

Activated carbon filter: Absorb larger molecules, odours and chemical vapours

Nano fibre filter: Uses ultrafine fibres for high-efficiency particle capture with low airflow resistance

2025 market size, \$M



Detailed manufacturing process

Filter media formation: Extrusion lines produce base nonwoven fibre mats, while electrospinning machines deposit ultrafine nano fibres to enhance filtration performance

Media screening and drying: The fibre mats are dried and inspected to ensure consistent thickness and pore size

Pleating: Automatic pleating machines fold the filter media to maximise surface area

Cutting: CNC or automated cutting machines precisely cut the pleated media to required sizes

Media treatment and bonding: Tackifiers or resins are applied and cured by heat or ultrasonic bonding to stabilise the media structure

Testing and quality control: The finished media undergoes rigorous filtration efficiency and durability testing to meet aviation standards

Labour intensity



Primary customer groups

Tier 1 suppliers: Core customers assembling complete air filtration systems per OEM specifications

OEMs: Occasionally purchase filter media directly

Airlines: Procure replacement air filters directly from suppliers

MROs: Purchase filters to support maintenance operations

















Implications

Filter media manufacturers could collaborate directly with system aggregators by leveraging competitive advantages like lower labour costs, but must ensure the capacity to meet **high-volume demand**

Capabilities needed

- Precision assembly and inspection skills
- Expertise with filtration materials and automated pleating or cutting machinery
- Knowledge of aerospace quality standards

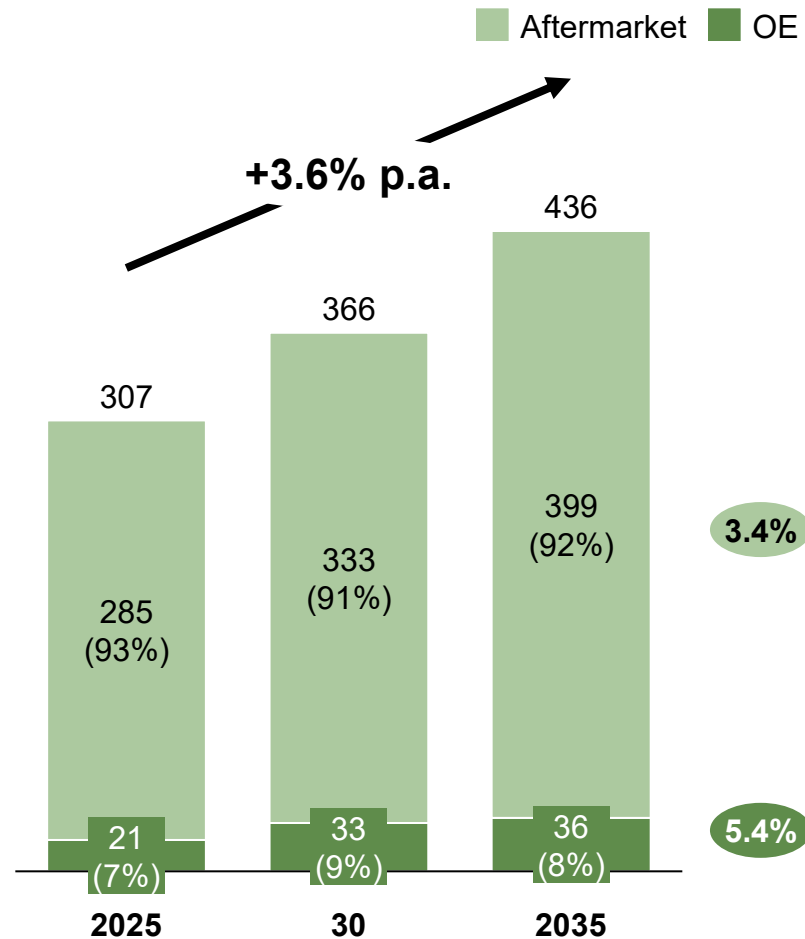
4a. Various machines are required to produce filter media, with electrospinning machines being the most expensive

Machine Type	Description	Voltage requirements	Operators needed per machine	Key Suppliers	Supplier Locations	Estimated price
 <p>Extrusion lines</p>	Melt and shape polymer resins into continuous filter fibres or membranes used as filter media	380 – 480V	3 – 5	Reifenhäuser, Coperion, Davis-Standard	 	\$50 – 90K
 <p>Electrospinning machines</p>	Equipment producing nano fibre-based filter media by electrically drawing polymer solutions into thin fibres	110 – 240V	1 – 3	Elmarco, Linari Nanotech	 	\$600K – 1M
 <p>Pleating machines</p>	Machines that fold filter media into pleats, increasing surface area for filtration efficiency	220 – 480V	1 – 2	Pehle GmbH, PLM Filter Solution	 	\$40 – 60K
 <p>CNC machines</p>	Computer-controlled cutting and shaping machines used for precise cutting of filter frames or media	230 – 480V	2 – 3	DMG Mori, Haas Automation, Mazak	  	\$15 – 25K
 <p>Heat bonding machines</p>	Machines applying heat and pressure to bond layers of filter media or attach components without adhesives	220 – 480V	1 – 2	Brückner Group, PLM Filter Solution	 	\$5 – 10K

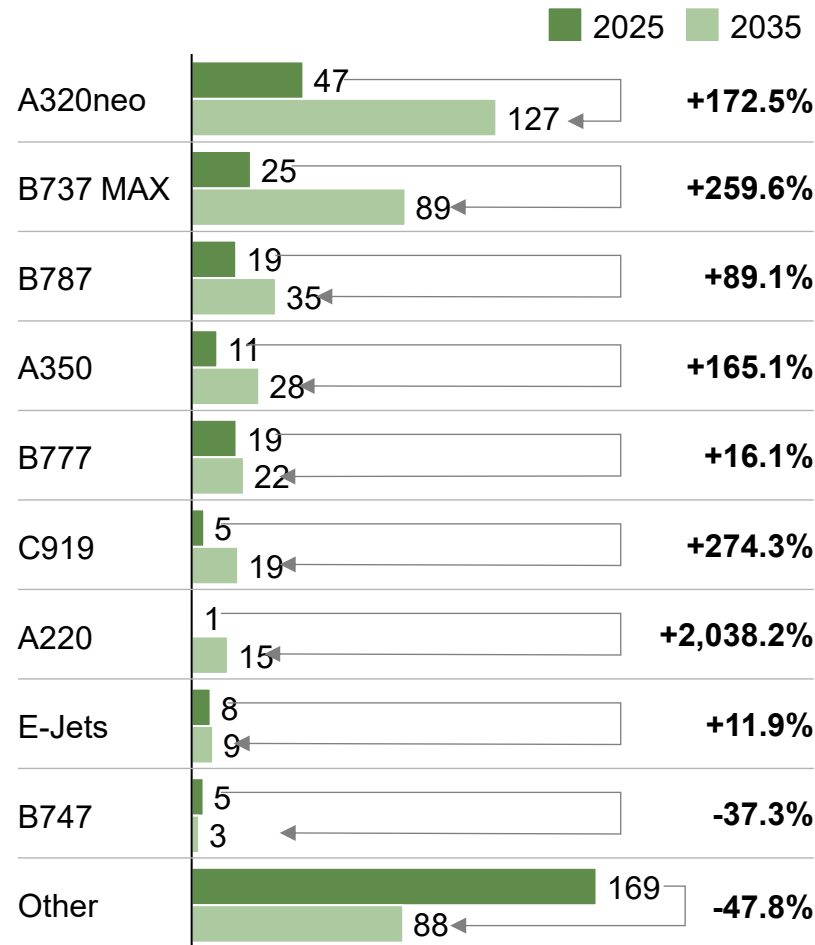
4a. Air filter market is projected to grow by 3.6% p.a. until 2035, driven primarily by aftermarket segment

\$M, 2025-35

Air filters market



Air filters market by aircraft type







Insights



- Over 90% of the air filter market is currently driven by the **aftermarket segment**, primarily due to the **high replacement frequency (every 18 months)** of air filters in commercial aircraft
- Rising **regulatory expectations** and an **increased focus** on passenger **health and comfort** are driving airlines to invest in higher-quality air filters and larger quantities, thereby **fuelling market growth**

4a. The air filter market is driven by trends in passenger safety, advanced filtration media, energy efficiency, and eco-friendly solutions

Market trend		Description
Increased focus on passenger health and safety		Post-pandemic awareness of cabin air quality has increased demand for advanced filters that improve passenger comfort and minimise airborne contaminants
Adoption of advanced filtration media		Cutting-edge technologies like nano fibre filters and graphene-based media are enabling the capture of ultrafine impurities, including viruses, bacteria, and volatile organic compounds
Energy-efficient filter designs		Innovative air filter systems are improving cabin airflow, reducing energy consumption, and lowering operational costs for airlines
Eco-friendly filtration systems		Biodegradable and reusable filter materials are being developed to meet stricter environmental regulations and reduce the ecological footprint of airlines

Drivers of demand

COVID-19's impact on health and safety priorities

Limitations of traditional HEPA filters in capturing ultrafine particles









Rising pressure to cut energy-related expenses in aviation




















Increasing regulatory focus on sustainability in aviation

4a. Top suppliers have a strong presence in the market, leveraging diversification in low-cost countries, like Mexico and India

Top suppliers

Air filter suppliers

	Parker Hannifin
	Donaldson Aerospace & Defence
	Safran
	Pall Corporation
	Freudenberg
	Challenger Aviation Products
	Honeywell Aerospace
	MANN+ HUMMEL
	Porvair Filtration Group
	Beta Group

Main buyers	Market share, %	Manufacturing sites	Other components produced	Recent focus and strategy
	20-25	 USA UK FR DE	Fluid systems, hydraulic systems, control systems, motion control for aircraft	Fuel cell systems replacing APUs; focus on lightweight, efficient aerospace solutions
	15-20	 USA MX PL DE CN UK BR AU IN	Air, fuel, hydraulic, lubrication filtration for aircraft, rotorcraft, defence vehicles	Expand global presence, invest in R&D, focus on sustainability and supply chain resilience
	15	 FR USA IN MX RO CN TN PL	Aircraft interiors, seats, engines, landing gear, avionics, safety systems	Integration of Zodiac, innovation in comfort/safety, digitalisation, sustainability
	8-10	 USA SG UK DE CN FR IT	Filtration, separation, purification for aerospace, microelectronics, biotech	Expansion in Asia, investment in semiconductor filtration, strategic acquisitions, R&D focus
	8-10	 DE USA CN ES IT MY	Seals and gaskets, aerospace filtration systems	Advanced filtration media and sustainable aerospace tech
	N/A	 USA	Green alternative air and oil filters for small engines	Emphasis on eco-friendly, reusable filter solutions for aviation
	N/A	 USA CA MX UK FR DE SG MY CN AU	Avionics, engines, APUs, environmental controls, wheels, brakes, safety systems	Advanced avionics, NextGen tech, sustainability, digitalisation, global OEM/aftermarket services
	N/A	 DE PL USA CN IN MX BR	Air, cabin, fuel, oil filters for automotive and industrial, including aerospace	Streamlining to core filtration, investing in sustainability, expanding in clean air/water
	N/A	 UK USA IN	Pleated filter elements, sintered metal fibre filters for aerospace fuel, hydraulic, air systems	Innovation in filtration materials, focus on contamination control and lightweight solutions
<i>Not publicly available</i>	N/A	 UK	Spray booth filters, HVAC air filters of various sizes and types	Expanding custom filter designs supporting aerospace manufacturing environments

Source: Expert insights, press search

4a. Success in this market hinges on technological leadership, energy cost optimization, and Tier 1 partnerships

What is needed to win

Examples

Technological leadership



Utilising advanced technology platforms is essential for developing innovative filter media and staying competitive in an evolving market

Freudenberg's use of electrospinning machines to produce **nano fibre filters** and other innovative materials like **non-wovens** keeps them differentiated

Energy cost optimization



Providing energy-efficient production solutions is crucial, as filter media manufacturing is highly energy-intensive

Donaldson and **Parker Hannifin** leverage in-house operations in Asia-Pacific to capitalise on lower energy costs

Strategic Tier 1 partnerships



Building strong relationships with Tier 1 suppliers is essential in a concentrated market where a few players, control large shares

Donaldson, **Parker Hannifin**, and **Safran** control 60% of the market

4. Adjacent products

a. Air filters

b. Seat covers

c. Life vests

d. Carpets

e. Composites



4b. Seat cover manufacturing heavily relies on labour, especially for material preparation, sewing, and finishing

● High ● Medium ● Low



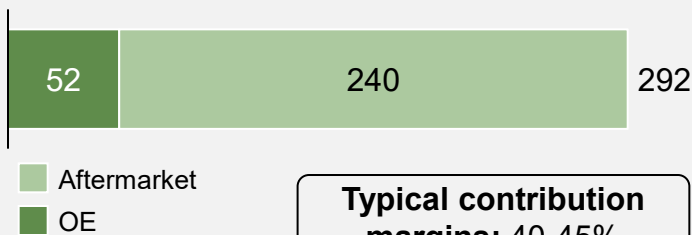
Protective and decorative fabric or leather coverings for aircraft seats designed to meet strict aviation standards including fire resistance and durability

Types of seat covers

Fabric covers: Lightweight, fire-retardant textiles, often woven with specialised fibres

Leather covers: Treated genuine leather or synthetic leather, fireproofed with chemical treatments

2025 market size, \$M



Typical contribution margins: 40-45%

1. Buyer Furnished Equipment
2. Seller Furnished Equipment

Source: Expert insights, press search

Detailed manufacturing process

Design and patterning: Using CAD software and 3D rendering to create precise patterns tailored to specific seat models

Material preparation: Fireproof fabrics or leather treated and inspected for defects

Cutting: CNC cutting machines for precise leather and fabric cutting to pattern specifications

Sewing and assembly: Automated and manual computerised sewing machines stitch pieces; includes quilting and reinforcement at stress points

Finishing: Wrinkle-free binding to foam cushions ensuring smooth fit, plus quality inspection for aviation compliance

Labour intensity



Primary customer groups

Airlines: Primarily BFE¹-focused products due to high customisation. Airlines typically supply the fabric and specifications

OEMs: Occasionally, non-customised SFE² orders are placed by OEMs, though these are rare

MROs: Purchase seat covers for maintenance operations








Implications

Potential to **sell directly to airlines by offering competitive pricing**, but requires the capability to produce seat designs **identical to the original** manufacturer's specifications




Capabilities needed

- CAD pattern design
- Advanced sewing and upholstery techniques for fire-retardant material
- Proficiency with industrial sewing and CNC cutting

4b. Seat cover production requires relatively low-cost machinery

Machine Type	Description	Voltage requirements	Operators needed per machine	Key Suppliers	Supplier Locations	Estimated price
Sewing machines 	Industrial machines used for stitching seat cover materials, including leather, and fabric	110 – 240V	1 – 2	Juki Corporation, Brother Industries, Pegasus	 	\$5 – 15K
CNC machines 	Computer-controlled cutting and shaping machines used for precise cutting of fabric	230 – 480V	2 – 3	DMG Mori, Haas Automation, Mazak	  	\$15 – 25K

4b. The seat cover market is driven by trends in advanced technological features, antimicrobial and sustainable materials

Market trend		Description
Advanced technological features		Integration of temperature regulation, health-monitoring sensors, and noise cancellation (e.g., ACM's sensor tech) to enhance passenger comfort
Antimicrobial materials		Use of advanced technologies like silver ion to prevent bacteria, mould, and mildew growth (e.g., Duracote)
Sustainable materials		Adoption of eco-friendly materials, such as recyclable laminated textiles (e.g., Monova PE), to minimise environmental impact

Drivers of demand

Growing focus on elevating the overall passenger flight experience

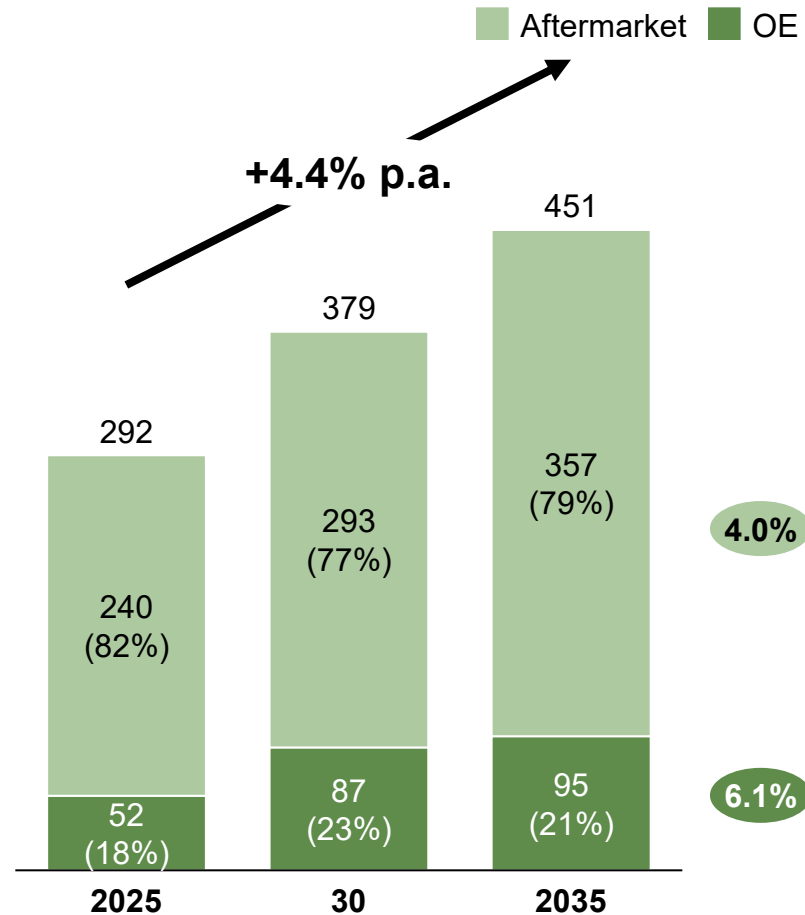
Increased post-pandemic emphasis on hygiene and safety

Rising regulatory pressure for sustainability in aviation

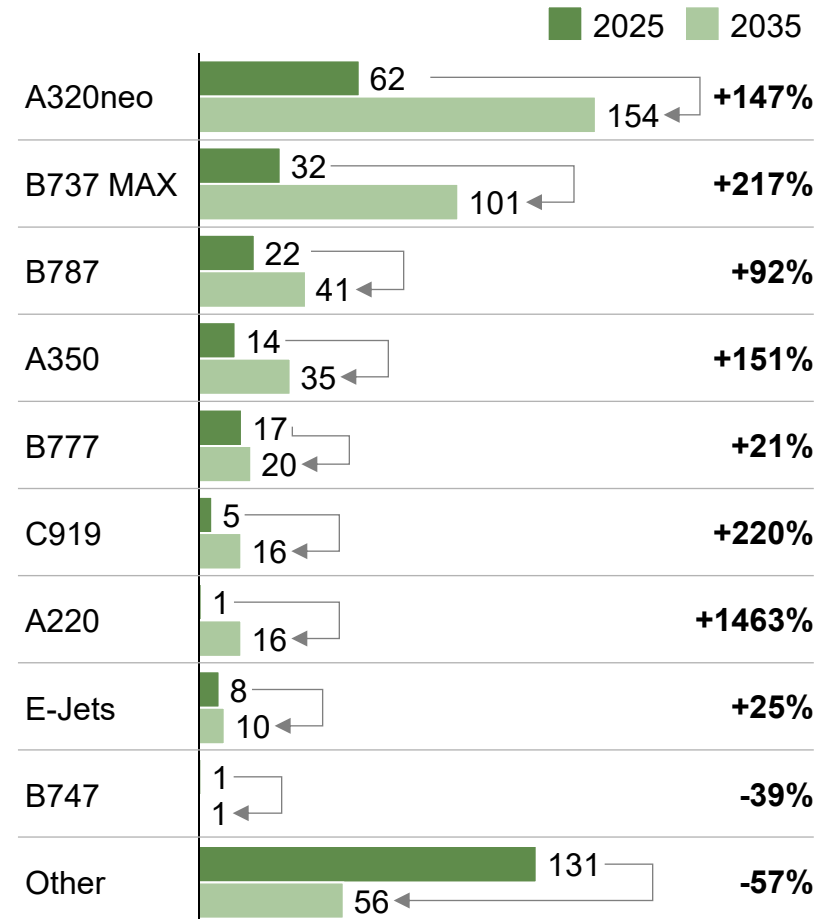
4b. Seat cover market is projected to grow by 4.4% p.a. until 2035, driven mainly by narrowbody¹ aircraft

\$M, 2025-35

Seat cover market



Seat cover market by aircraft type



Insights












- The aftermarket segment serves as the primary growth driver for the sector, currently representing more than 80% of the total market share, due to frequent replacements (every 4-6 years)
- Over the past 10-15 years, the PMA or secondary seat cover market has grown as airlines seek cost-effective solutions and faster maintenance service. ETG could benefit from this trend by leveraging its low-cost operations to attain and retain clients



















1. These are aircraft like B737Max and A320neo

4b. Top suppliers have a strong presence in the market with Safran operating in both Tunisia and Morocco

Top suppliers

Seat cover suppliers

 Collins Aerospace	B/E Aerospace (Collins Aerospace)
 RECARO	Recaro Aircraft Seating
 SAFRAN	Safran
 ACM Aerospace	ACM Aerospace
 Lantal	Lantal Textiles AG
 Muirhead	Muirhead
 Gen Phoenix	Gen Phoenix
 epsilon	Epsilon Aerospace
 Long Haul Technologies	Long Haul Technologies

Main buyers	Market share ¹ , %	Manufacturing sites	Other components produced	Recent focus and strategy
	25	 USA	Cabin interior products: seats, galleys, lighting, oxygen, lavatories, monuments, fasteners	Integration into Collins Aerospace/RTX; advanced cabin solutions, global support
	16	 USA DE PL CN	Aircraft seats: economy, premium, business, crew seats	Lightweight, ergonomic, sustainable seating, global manufacturing
	10	 FR USA IN MX RO CN TN MA	Aircraft interiors, seats, engines, landing gear, avionics, safety systems	Integration of Zodiac, innovation in comfort/safety, digitalisation, sustainability
	N/A	 USA	Interior components: seat covers, shells, panels, soft goods, composites	Custom interiors, composites, rapid prototyping, FAA/EASA certification
	N/A	 CH PT UK CZ	Aircraft seat covers, carpets, curtains, pneumatic comfort systems, VIP interiors	Digital dyeing tech, sustainability, expansion in ground transport, innovation in eco-textiles
	N/A	 UK	Leather for aircraft, rail, automotive	Sustainable leather, traceability, low-carbon tanning
	N/A	 UK USA	Sustainability, circular economy, eco-materials	Recycled leather for aircraft, automotive, rail, marine
	N/A	 IN	Carpets, curtains, not-textile flooring	Custom design, MRO services
	N/A	 UK	Seat cushions	Composites, ergonomic technology innovation, weight reduction

Source: Press search, Counterpoint Aircraft Interiors 2024

1. Taking overall seat market share as proxy

4b. Success in this market hinges on competitive pricing, short lead times, integrated MRO offering, and comprehensive seat knowledge

What is needed to win

Examples

Competitive pricing



Offer cost-effective solutions to airlines, as frequent seat cover replacements due to passenger damage drive demand for lower-cost alternatives to OE pricing

Smaller suppliers with PMAs often win aftermarket business by undercutting OEM prices

Short lead times



Ensure rapid turnaround times to meet airlines' urgent demands for seat cover replacements caused by unexpected damage

Even major suppliers like Safran and Collins occasionally struggle to meet tight deadlines, highlighting the importance of agility in this market

Integrated MRO and PMA offerings



Combine MRO services with PMA offerings to attract airlines during routine maintenance checks

Lufthansa Technik and Air France's MRO services include PMAs for select seat cover types, creating a one-stop solution for airlines

Comprehensive knowledge of seat specifications



Develop a deep understanding of the specifications and styles of all seat types within a single aircraft. This expertise, often exclusive to original manufacturers gives them an edge over PMAs

Safran's ability to produce seat covers tailored to specific seat designs makes it difficult for PMAs to compete

4. Adjacent products

a. Air filters

b. Seat covers

c. Life vests

d. Carpets

e. Composites



4c. Life vest manufacturing relies heavily on labour-intensive assembly, attachment, and inspection processes

● High ● Medium ● Low

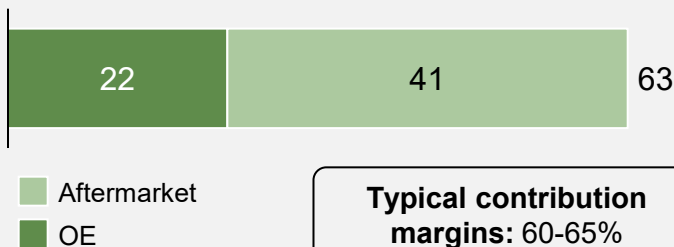


Personal flotation devices stored under seats, mandatory for passenger safety, designed to inflate automatically or manually to provide buoyancy during water emergencies

Types of air filters

Under-seat life vests: Compact, stored in soft pouches, inflates with CO₂ cartridge

2025 market, \$M



1. Buyer Furnished Equipment
2. Seller Furnished Equipment

Source: Expert insights, press search

Detailed manufacturing process

Material preparation and cutting: Durable coated fabrics are precisely cut into panels using cutting machines

Bladder formation and sealing: Air chambers are formed and airtight seams produced using heat sealing or vulcanisation machines

Assembly and attachment: Panels are assembled, and buckles, straps, CO₂ cylinders, and inflators are attached with industrial sewing machines and mechanical fitting tools

Testing and inspection: Vests undergo pressure and leak tests using inflation and leak detection equipment, followed by detailed quality inspections

Packaging: Finished life vests are folded, inserted into pouches, and sealed using automated packaging machines for distribution

Labour intensity



Primary customer groups

Airlines: Life vests are typically BFE¹, as airlines often have specific preferences for the type they use and purchase directly

OEMs: Occasionally purchased by OEMs, but this is uncommon since life vests are not standard SFE² equipment

MROs: Purchase life vests for maintenance operations












Implications

- **Potential to win airline business with competitive pricing**, but faces strong competition from seat component aggregators, who typically offer lower-cost life vests
- **No need to replicate** original manufacturers' specifications, as airlines are open to utilising different life vest types




Capabilities needed

- Vulcanisation and hot-press operation skills
- Multi-material assembly capabilities
- Leak or seam testing proficiency

4c. The use of vulcanising machines increase life vest manufacturing costs in comparison to seat covers

Machine Type	Description	Voltage requirements	Operators needed per machine	Key Suppliers	Supplier Locations	Estimated price
Sewing machines 	Industrial machines used for stitching seat cover materials, including leather and fabric	110 – 240V	1 – 2	Juki Corporation, Brother Industries, Pegasus	 	\$5 – 15K
Vulcanisation machines 	Apply heat and pressure to cure and bond rubber or PVC components of life vests	220 – 480V	2 – 3	Almex, VMI Group, Toyo Seiki	  	\$500k – 1M
CNC Machines 	Computer-controlled cutting and shaping machines used for precise cutting of fabric	230 – 480V	2 – 3	DMG Mori, Haas Automation, Mazak	  	\$15 – 25K

4c. The life vest market is driven by trends in safety features, lightweight designs and sustainable materials

Market trend		Description
Enhanced safety features		Integration of advanced safety technologies, such as automatic inflation upon water entry, global tracking for emergency location, and visibility aids like reflective tape and lights
Lightweight and durable designs		Development of compact, lightweight, and durable life vests using advanced materials and innovative inflation systems
Sustainable materials		Adoption of recyclable, biodegradable, and eco-friendly materials in life vest manufacturing

Drivers of demand

Focus on maximising passenger survival rates and improving rescue efficiency

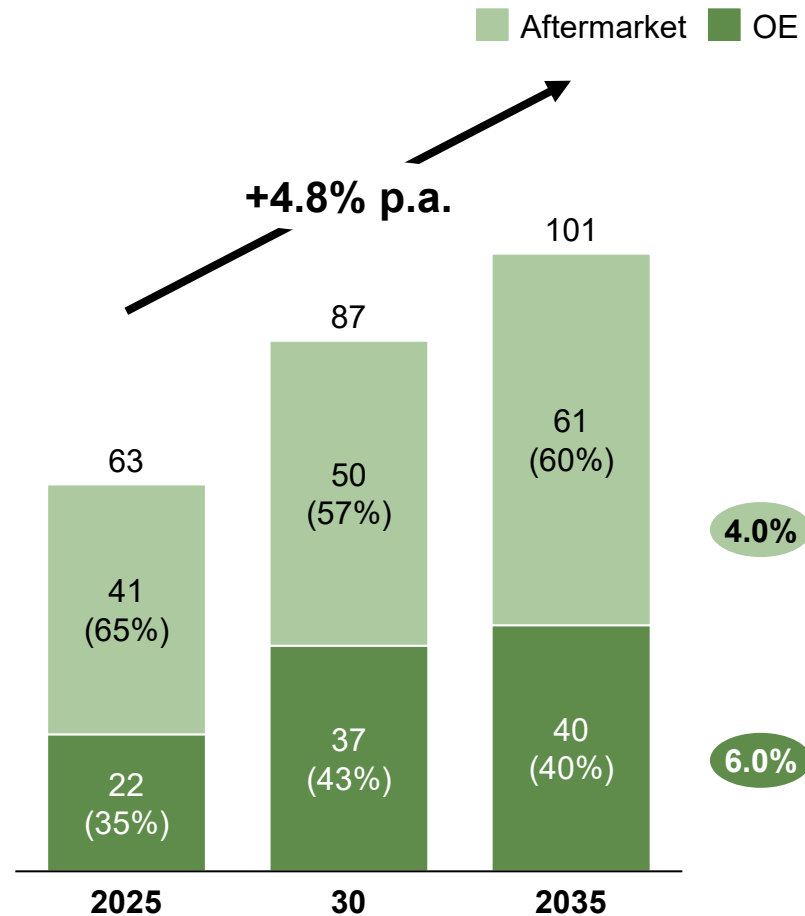
Airlines' interest to reduce aircraft weight and operational costs

Rising regulatory pressure for sustainability in aviation

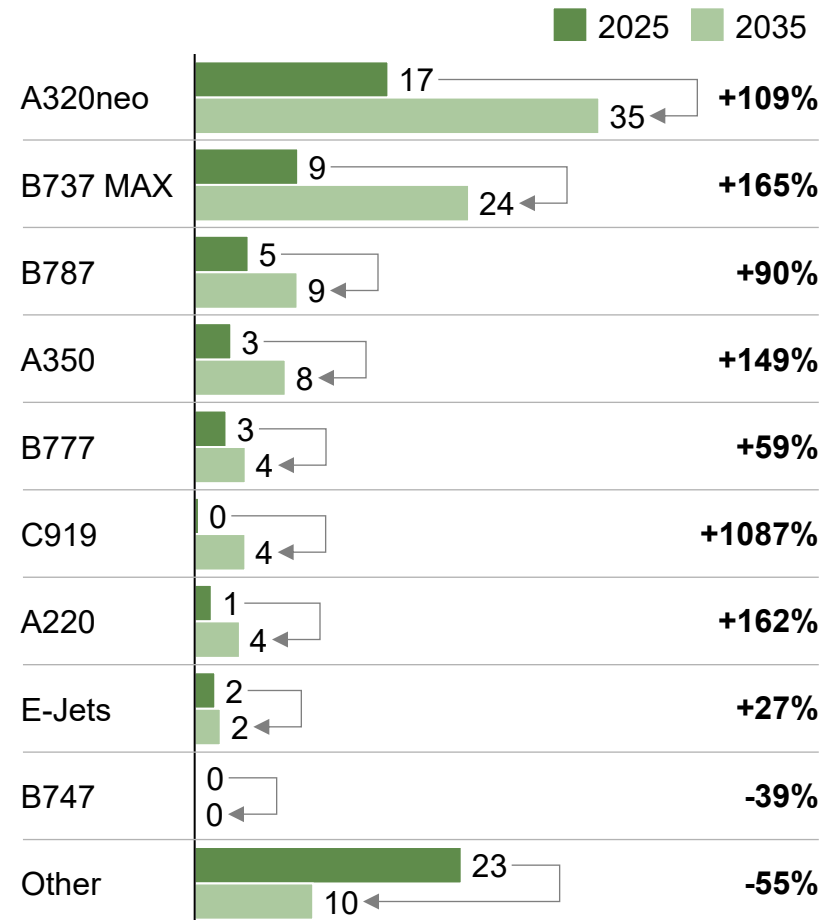
4c. Life vest market is projected to grow by 4.8% p.a. until 2035, driven by the OE market segment

\$M, 2025-35

Life vest market



Life vest market by aircraft type


























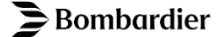

















Insights



- Life vests are susceptible to **damage and occasional theft** by passengers, leading to higher replacement rates (every 8-10 years) and boosting the share of the aftermarket (>60%)
- The recent increase in **aircraft incidents** has **heightened** the airlines' demand for **advanced, higher-performing life vests**, resulting in increased investment in more expensive equipment

4c. The market is led by suppliers, like Safran, leveraging synergies with other offerings to maintain competitive pricing

Top suppliers

Life vest suppliers	Main buyers	Market share, %	Manufacturing sites	Other components produced	Recent focus and strategy
 SAFRAN Safran	  	N/A	       	Aircraft interiors, seats, engines, landing gear, avionics, safety systems	Integration of Zodiac, innovation in comfort/safety, digitalisation, sustainability
 EAM Worldwide	  	N/A	 	Life vests, survival equipment, evacuation slides, rafts	Safety innovation, global certification, rapid delivery
 Collins Aerospace (Collins Aerospace)	 	N/A		Cabin interior products: seats, galleys, lighting, oxygen, lavatories, monuments, fasteners	Integration into Collins Aerospace/RTX; advanced cabin solutions, global support
 Switlik	  	N/A		Life vests, rafts, survival equipment	Focus on aviation/marine safety, innovation, US manufacturing
 Survitec	  	N/A		Life vests, rafts, survival equipment, fire safety, PPE	Safety innovation, global expansion, regulatory compliance
 AVI	 	N/A		Life rafts, inflatable slides,	Safety innovation and MRO services
 Regent Aerospace	  	N/A		Aircraft seat overhaul, refurbishment, soft goods, cabin retrofits, PMA parts	Refurbishment, rapid turnaround, PMA parts, global support

Source: Expert insights, press search

4c. Success in this market hinges on competitive pricing, lighter-weight offerings, and product durability

What is needed to win

Examples

Competitive pricing



Provide cost-effective life vest solutions to address the frequent need for inspection and replacement

Safran offers competitively priced life vests as part of its bundled seating solutions, making it an attractive option for airlines

Weight reduction



Offer lightweight life vest designs to help airlines lower overall aircraft weight and operational costs

Safran has introduced innovative materials and designs to significantly reduce life vest weight

Durability



Develop highly durable life vests that require less frequent replacement, reducing long-term costs for airlines

Switlik's life vests boast a lifespan of up to 10 years, offering a strong value proposition for durability

4. Adjacent products

a. Air filters

b. Seat covers

c. Life vests

d. Carpets

e. Composites



4d. Carpet manufacturing is less labour-intensive than other textiles but still relies on manual labour for finishing and quality assurance

High Medium Low



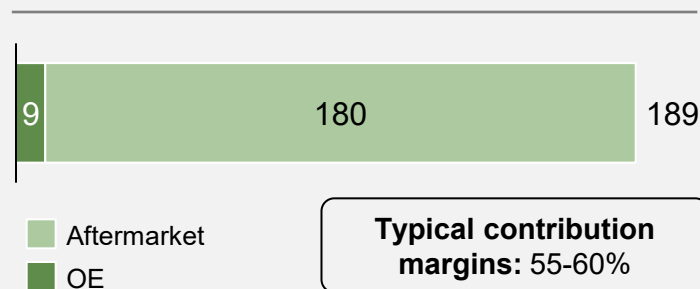
Lightweight, flame-retardant floor coverings designed for durability, safety, and passenger comfort in commercial airplanes

Types of carpets

Aisle carpets: narrow strips running along the aircraft aisle, often removable for easy maintenance

Non-aisle carpets: larger floor panels covering seating areas or cabin sections

2025 market size, \$M



Detailed manufacturing process

Yarn preparation and blending: fibres (e.g., polyamide, wool) are blended and spun using fibre extrusion and spinning machines to produce yarns

Weaving or tufting: Yarns are woven or tufted into carpet fabric with industrial carpet weaving looms or tufting machines

Backing application: Carpets receive a secondary backing layer using latex-coating machines and are pressed under heat and pressure with pressing rollers to bond and stabilise the structure

Cutting to pattern: Finished carpets are cut precisely using CNC laser cutting machines or hydraulic die-cutting machines tailored to aircraft floor layouts

Edge finishing and quality control: Edges are bound or overlapped with overlocking or sewing machines, followed by thorough inspection for compliance with flame, durability, and dimensional standards

Labour intensity



Primary customer groups

OEMs: Carpets are largely SFE, with minimal customisation, leading OEMs to handle most purchases directly

Airlines: A smaller share of the market, with occasional requests for customised carpets

MROs: Purchase carpets for maintenance operations

Implications










Potential to partner with OEMs for carpet production by providing **cost-efficient energy solutions** for this energy-intensive process

Competitive labour costs offer limited advantage here, as **carpet production is semi-automated**





Capabilities needed

- Experience with tufting and latex coating machinery
- CNC cutting precision
- Knowledge of fire-resistance standards and quality control in textile manufacturing

4d. Tufting machines account for the highest costs in carpet manufacturing

Machine Type	Description	Voltage requirements	Operators needed per machine	Key Suppliers	Supplier Locations	Estimated price
Carpet Tufting Machines 	Automatic machines that insert yarn tufts into backing fabric, creating carpet pile; capable of various pile heights and complex patterns	220 – 240V	1 – 3	WDCM, KCMCO, A.T.E.	 	\$100 – 300K
Latex Coating Machines 	Machines applying latex adhesive layers onto carpet backing for bonding and durability, often with integrated drying or curing ovens	380 – 480V	1 – 3	A.T.E., Qingdao	 	\$50 – 100K
CNC Machines 	Computer-controlled cutting and shaping machines used for precise cutting of carpets	230 – 480V	2 – 3	DMG Mori, Haas Automation, Mazak	  	\$15 – 25K

4d. The carpet market is driven by trends in usage of nylon material, recycled yarn, lightweight designs and ease of cleaning

Market trend		Description
Shift to Nylon carpets		Growing preference for nylon over wool due to its superior durability and longer lifespan
Recycled yarn adoption		Increasing use of recycled materials, such as Econyl yarn , to minimise carpet waste (e.g., Anker's sustainable carpet solutions)
Lightweight designs		Focusing on lightweight carpet designs to reduce aircraft weight and operational costs
Easy-to-clean designs		Preference for carpet designs that are easier to clean, reducing maintenance frequency and replacement needs

Drivers of demand

Airlines' demand for reduced replacements and extended product life

Increasing regulatory focus on sustainability in aviation

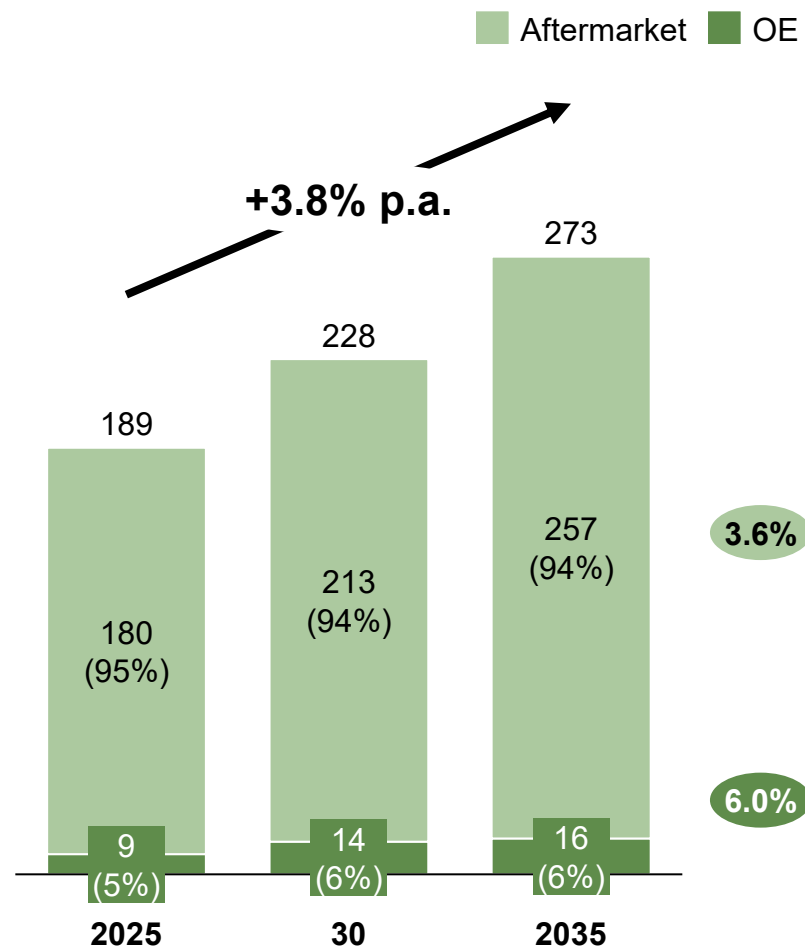
Ensuring lower energy consumption and fuel costs

Airlines' focus on cutting maintenance and replacement costs

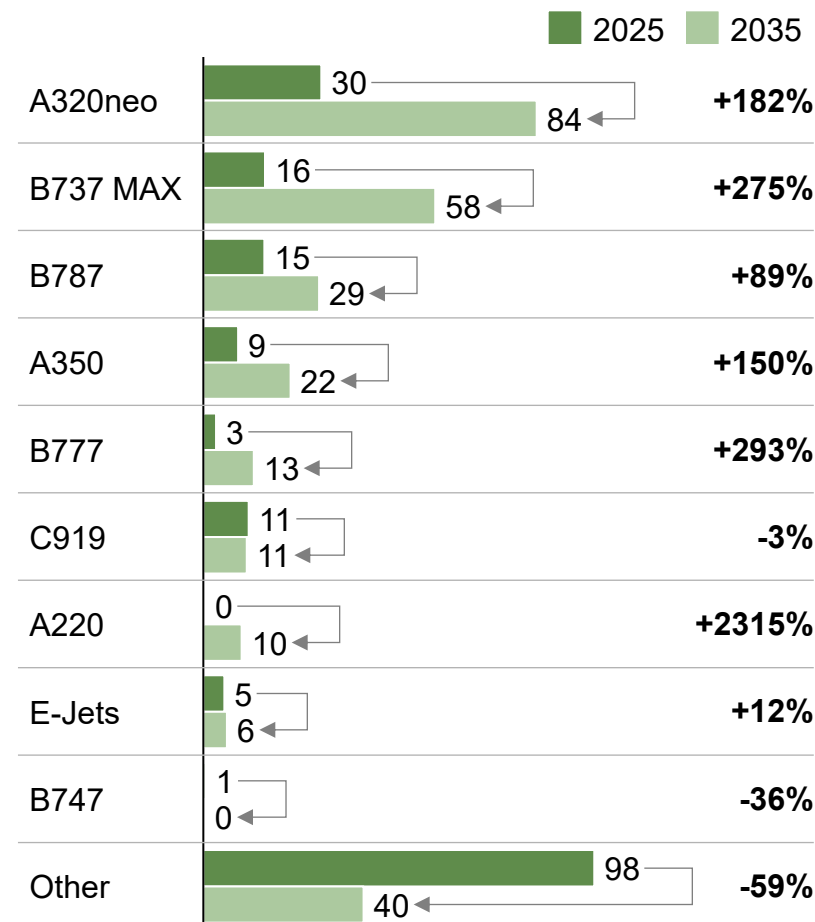
4d. Carpet market is projected to grow by 3.8% p.a. until 2035, driven mainly by aftermarket segment

\$M, 2025-35

Carpet market



Carpet market by aircraft type



Insights



- Rising passenger traffic** (3.4% CAGR 2025-35) and increased aircraft utilisation have **accelerated carpet deterioration**, resulting in **more frequent replacements** (6 months for aisle and 18 months for non-aisle), thereby **reinforcing** the aftermarket's prevalent position in the market
- Beyond the functional improvements, there is a **growing trend in utilisation of highly customised carpets**, tailored to the airline's brand aesthetics and preferences which is driving the market expansion

4d. Top carpet manufacturers are yet to shift operations to low-cost countries

Top suppliers

Carpet suppliers

	Mohawk Group Air
	Anker carpets
	Botany Weaving
	Lantal Textiles AG
	Sky-Tiles
	Milliken Aerospace
	B.I.C. Carpets
	InterfaceFLOR
	Wilton Carpets Ltd (UK)

Main buyers	Market share, %	Manufacturing sites	Other components produced	Recent focus and strategy
	24	 USA	Aircraft carpeting, woven nylon carpets, AkroBak latex backing	Safety, durability, sustainability, economies of scale, global leader in floor coverings
	7	 DE	High-end woven carpets for aviation, using Econyl yarn	Focus on sustainable, custom carpets; expanding in China; eco-friendly production
	6	 IE	Seat fabrics, curtain fabrics, carpets for aviation/rail	Innovation in high-performance, certified textiles for aviation/rail; focus on design and durability
	4	 CH PT UK	Aircraft seat covers, carpets, curtains, pneumatic comfort systems, VIP interiors	Digital dyeing tech, sustainability, expansion in ground transport, innovation in eco-textiles
	N/A	 USA	Carpets for gate area, VIP check-in, club lounge, and jet bridge	Focus on sustainability, less maintenance requirements and durability
	N/A	 USA UK	Performance textiles, floor coverings, chemical solutions, composites	Sustainability, safety, consulting/training, global market expansion
	N/A	 DE PT	Wilton woven, hand-tufted, ultra-lightweight aircraft carpets	Sustainability, eco-labels, lightweight carpets for fuel savings, global distribution
	N/A	 USA NL CN MY	Modular carpet tiles, resilient flooring (including aviation)	Mission Zero: carbon neutrality, closed-loop supply chain, recycled materials, global expansion
	N/A	 UK	Custom commercial and transport carpets	Sustainable wool blends, bespoke designs

Source: Press search, Counterpoint Aircraft Interiors 2024

4d. Success in this market depends on strong relationships with airlines, and offering high-durability solutions

What is needed to win

Examples

Strong airline relationships



Build and maintain robust partnerships with airlines, as the aftermarket drives demand due to frequent replacements

Mohawk claims to dominate 90% of the US market through strong ties with major carriers like Delta, American, United, and Alaska Airlines

High-durability solutions



Provide long-lasting carpet options using advanced materials like nylon to reduce replacement frequency

Mohawk's Skylon Carpet is favoured for its significantly longer lifespan compared to wool carpets

4. Adjacent products

a. Air filters

b. Seat covers

c. Life vests

d. Carpets

e. Composites



4e. Mould preparation and post-processing are the most labour-intensive stages of composite moulding



ILLUSTRATIVE EXAMPLE OF ONE COMPOSITE MOULDING PROCESS



Lightweight, high-strength, flame-resistant interior components designed to meet durability, safety aesthetic versatility, and comfort in airplanes

Types of composite

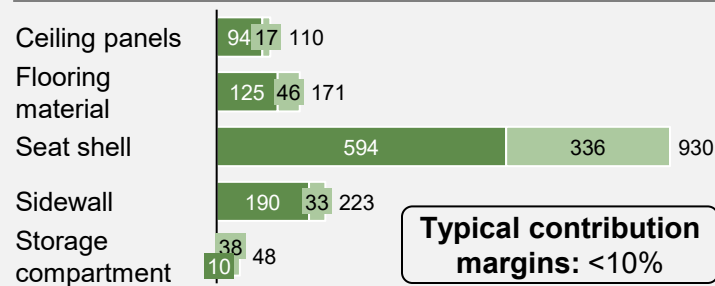
Aramid: synthetic fibre with strength, impact, and heat resistance, used in fairings and emergency exit systems

Glass fibre: lightweight, flexible, and corrosion-resistant, used in ceilings, sidewalls, and floor panels

Carbon fibre: strong, lightweight, stiff, and fatigue-resistant, used in floor panels, beams, and for corrosion resistance

2025 market size, \$M

Aftermarket OE



Detailed manufacturing process of RTM

Labour intensity

Preparation of mould: Coating of mould with release agent to facilitate easy demoulding then cutting and laying of dry fibres (e.g., glass or carbon) into the mould cavity



Mould closure: Closure and clamping of mould to compact fibre layers to the reach desired volume



Resin injection: Injection of liquid thermosetting resin (e.g., epoxy, polyester) to impregnate the fibre preform



Curing of composite: Curing of fibre resin composite inside mould through both pressure and heat application



Demoulding and post processing: Removal of finished composite part from mould then trimming, sanding, and painting of required final component



Primary customer groups

OEMs: Composite panels are primarily sold directly to OEMs, with only a small share serving the retrofit market

Tier 1: Occasionally purchase panels for large section assembly

MROs: Procure panels for maintenance needs

Implications











Potential for ETG to **leverage existing relationships with Boeing and Airbus** to expand into composites and secure necessary certifications to unlock new business

Capabilities needed

- Experience with preform preparation, lay-up and machine operation
- Ability to work with different types of composites
- Knowledge of trimming, sanding, and painting




4e. Composite presses represent the largest machinery cost in composite moulding

ILLUSTRATIVE EXAMPLE OF ONE COMPOSITE MOULDING PROCESS

Machine Type	Description	Voltage requirements	Operators needed per machine	Key Suppliers	Supplier Locations	Estimated price
Composite press 	Closed moulds consisting of 2 halves that are clamped together to create a sealed cavity for resin injection and curing	380 – 480V	1 – 3	Composite Integration, Langzauner, Plasan Carbon Composites, Fives group		\$500-800K
Ply cutters 	Precisely cut composite reinforcement into specific shapes and sizes	220 – 480V	1 – 2	Gerber technology, Zund Systemtechnik AG, ALP Global		\$200-400K
Vacuum pumps 	Creates a vacuum environment within the mould which aids in resin flow and air removal	380 – 480V	1 – 2	Leybold, Edward Vacuum, Busch Vacuum Pumps, Pfeiffer Vacuum		\$25-50K
Heating systems 	Control the temperature of the mould and resin during injection and curing phases	380 – 480V	1 – 2	Langzauner, Frigel, Composite Integration, Mikrosam		\$250-300K
Resin injector 	Machine designed to inject liquid resin into closed mould containing a fibre preform	380 – 480V	1 – 3	Composite integration, Desantis Mechatronics, Pinette PEI, Isojet		\$100-130K

Source: Expert insights, press search

4e. Composites market is driven by trends in growing aerospace applications, advancements in technology, and adoption of bio composites

Market trend		Description
Increasing share of composites in aircraft		As of 2024, composites make up 40% of aircraft weight , driven by their lightweight properties that enhance fuel efficiency and reduce operational costs
Advancements in manufacturing technologies		Cutting-edge methods like Automated Fibre Placement (AFP), Automated Tape Laying (ATL), thermoplastic welding , and co-bonding are transforming composite production
Adoption of bio composites		Growing use of natural fibre-based and biodegradable composite materials in aircraft manufacturing

Drivers of demand

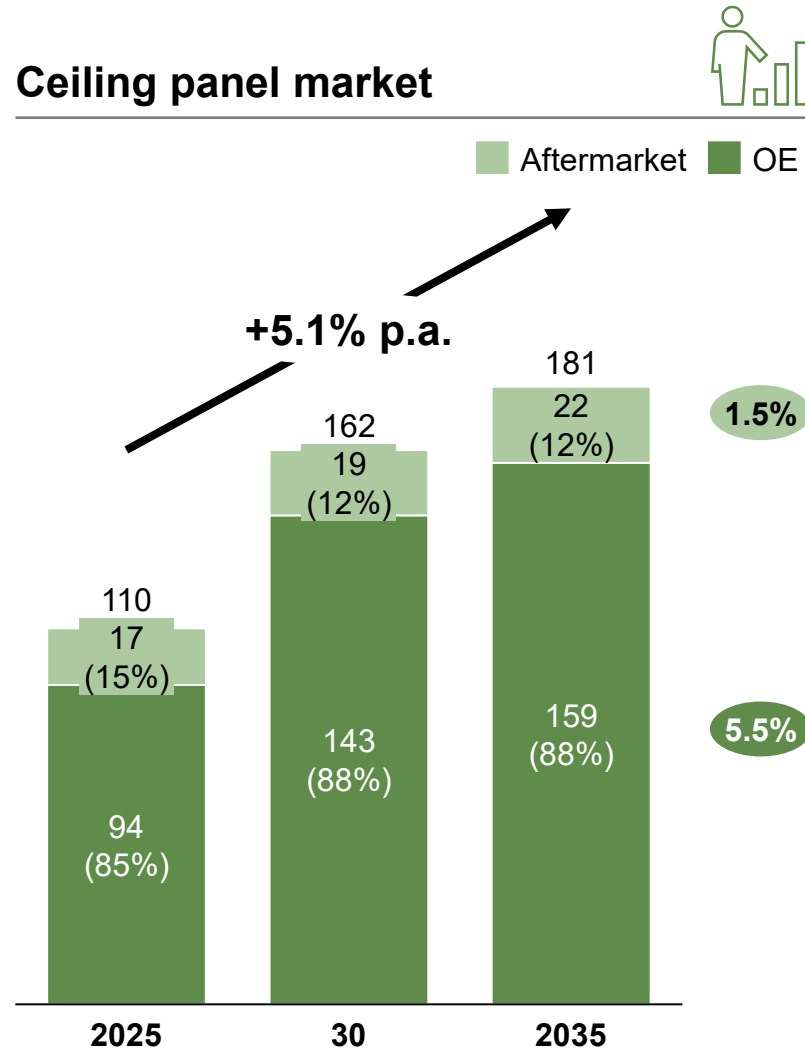
Need to lower energy consumption and fuel costs

Need to lower manufacturing costs

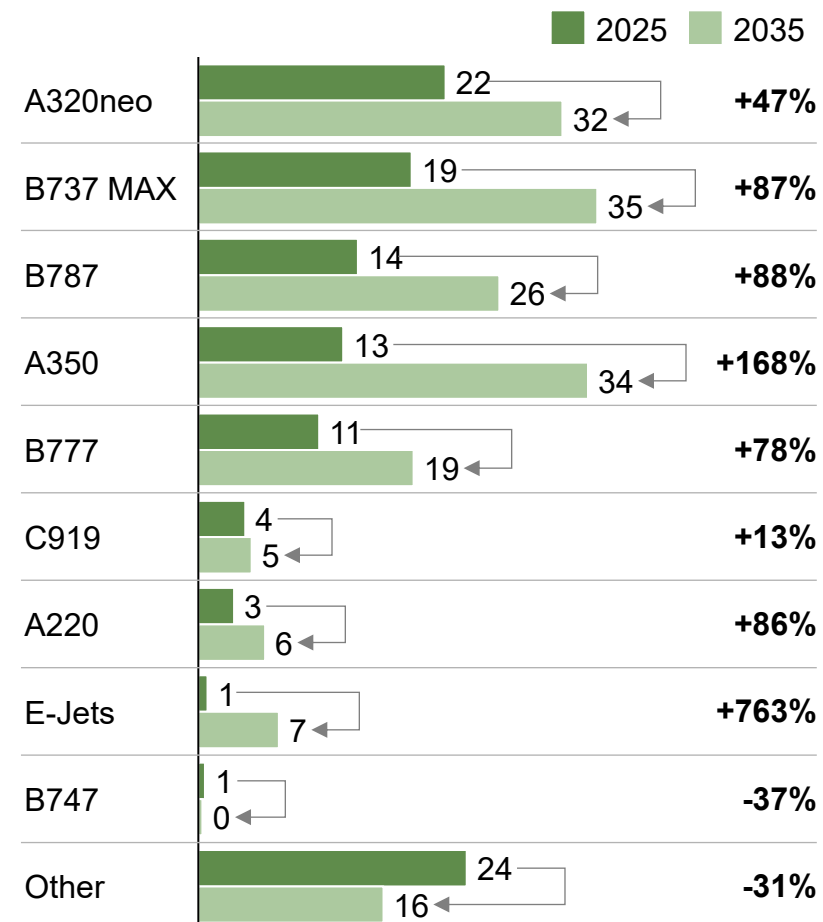
Increasing regulatory focus on sustainability in aviation

4e. Ceiling panel market is projected to grow by 5.1% p.a. until 2035, driven mainly by the OE market segment

\$M, 2025-35



Ceiling panel market by aircraft type










Insights
































- Currently, **85% of the market** is driven by the **OE segment**, as ceiling panels are typically replaced every 5 to 7 years, resulting in a smaller share for the aftermarket
- The **COMAC C919** is projected to be the **fastest-growing aircraft type**, with growth expected to reach **763% by 2035**. This could allow ETG to **expand their client base, leveraging the country's close ties with China** in the manufacturing sector

4e. Top suppliers lead the ceiling panel market by securing business from major OEMs

Top suppliers

Ceiling panel suppliers

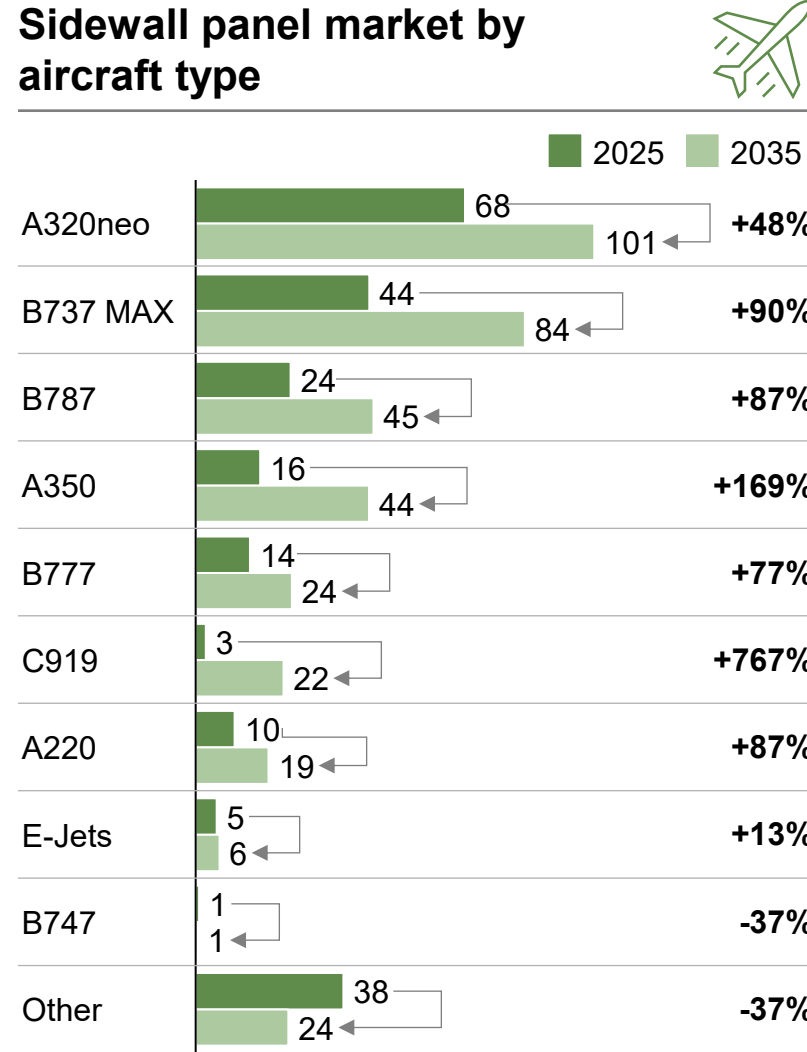
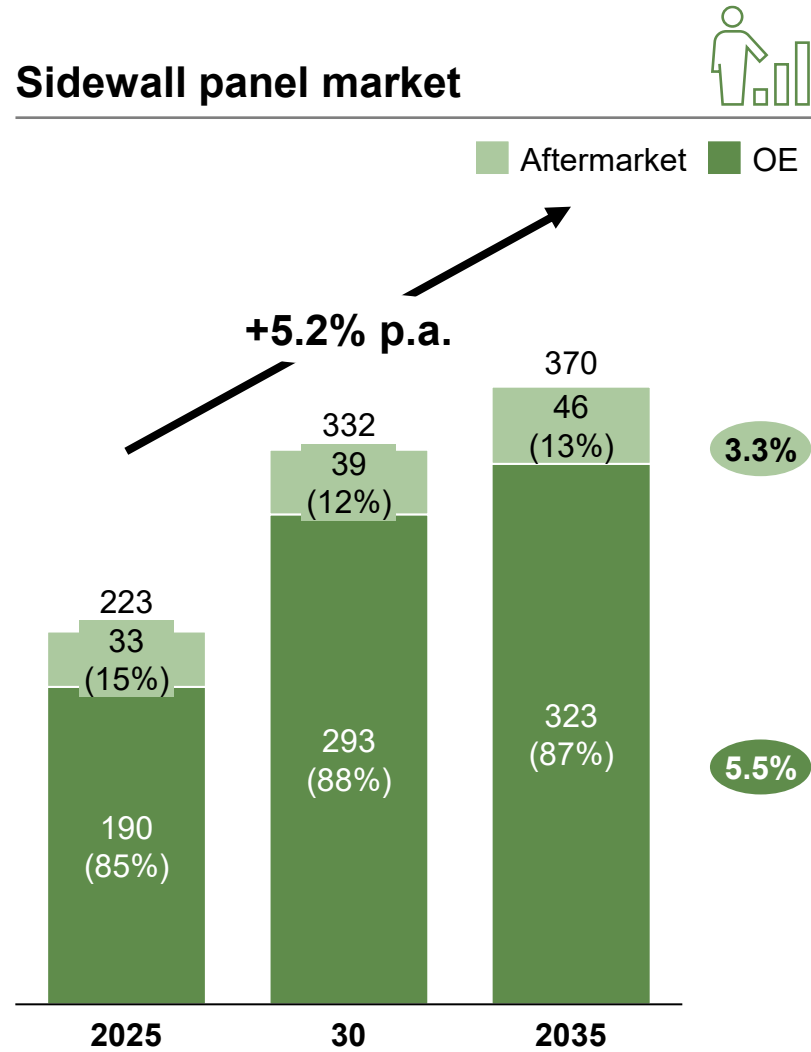
	Zodiac Aerospace (Safran)
	FACC
	Diehl Aviation
	B/E Aerospace (Collins Aerospace)
	JBRND
	Aviation Glass and Technology
	Hexcel

Main buyers	Market share, %	Manufacturing sites	Other components produced	Recent focus and strategy
  	N/A	   USA FR UK	Now part of Safran; focus on comfort, safety, onboard systems, innovation	Aircraft interiors, onboard systems, safety (life vests, slides), seating, cabin equipment
  	N/A	     USA AT RO CN MX	Lightweight composites: aerostructures, engines/nacelles, cabin interiors	Urban air mobility, drones, focus on aftermarket expansion
  	N/A	    DE HU FR TN	Cabin interiors, avionics, lighting, lavatories, crew rest, air distribution, slides, electronics	Cabin innovation, global expansion, joint ventures (Thales), digitalisation
  Gulfstream	N/A	  USA UK	Cabin interior products: seats, galleys, lighting, oxygen, lavatories, monuments, fasteners	Integration into Collins Aerospace/RTX; advanced cabin solutions, global support
  	N/A	 USA	Aircraft components: IR sensors, antenna bases, chandeliers, fuselages, thin stone veneers, custom interiors	VIP/VVIP market focus, turnkey assemblies, composite and machine shop expansion
 	N/A	 NL	Ultra-thin laminated glass windows, mirrors, cabin dividers, screens	Lightweight, certified glass for aviation, customisation, innovation in cabin transparency
 	N/A	  UK USA	Carbon fibre prepregs, honeycomb cores	Advanced prepregs, sustainability in composite materials

Source: Expert insights, press search

4e. Sidewall panel market is projected to grow by 5.2% p.a. until 2035, driven mainly by OE segment

\$M, 2025-35



Insights





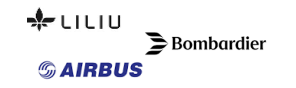



















- Durable composite sidewall panels require **minimal retrofitting**. Airlines often **refurbish** such parts by **painting or re-laminating** during maintenance checks rather than replacing them, limiting the aftermarket **share to 15%** of the market
- Composite sidewalls, **primarily** made from glass-fibre composites (**>64% of the total set**), present a **chance for ETG** to quickly create a strong market position by **leveraging its current fibreglass processing expertise**

4e. The top suppliers for ceiling panels also lead the sidewall panel market, though some smaller players are also present

Top suppliers

Sidewall suppliers

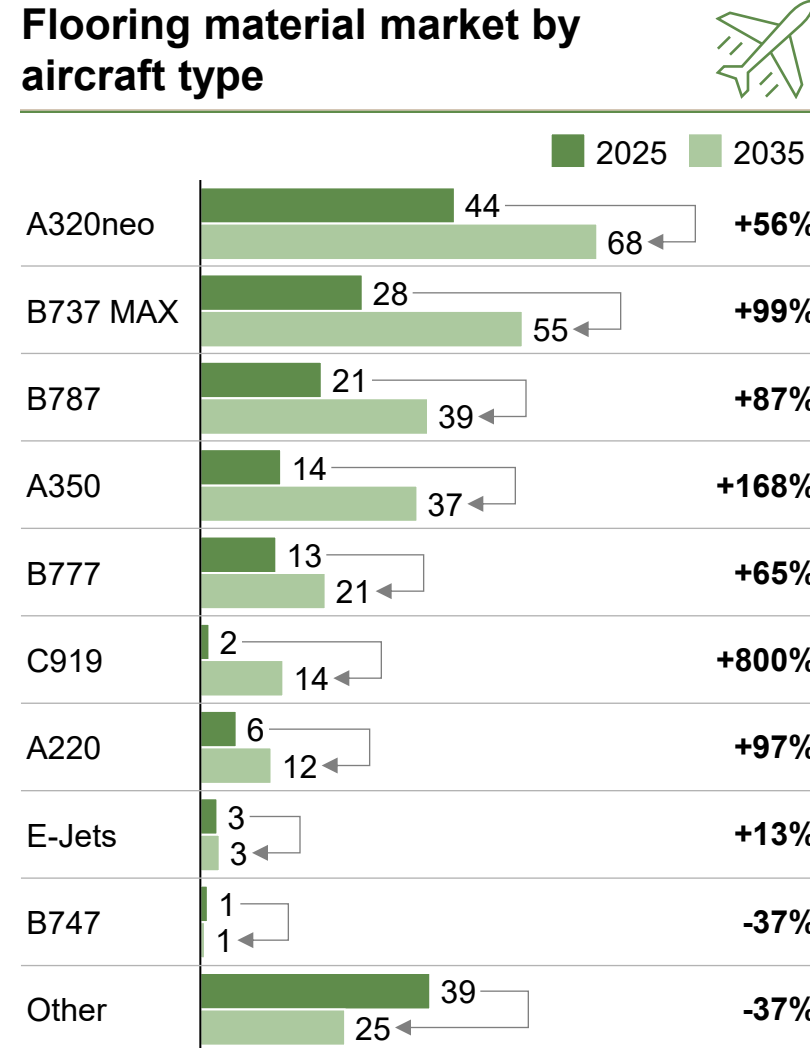
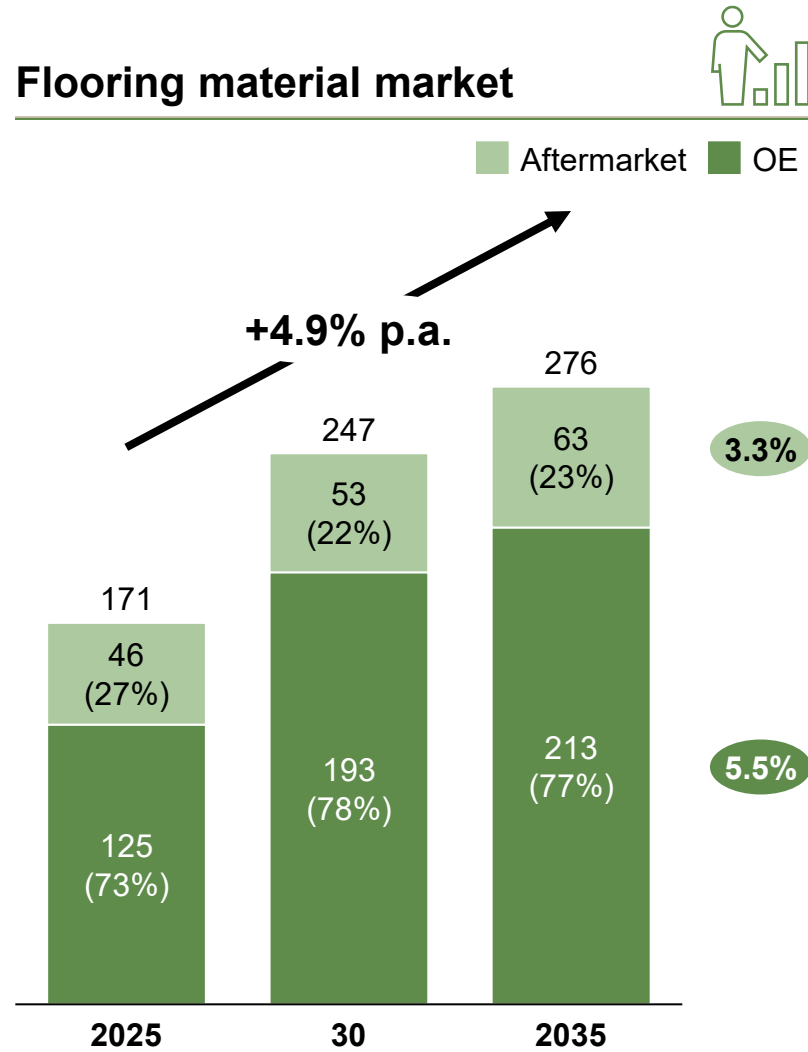
	Zodiac Aerospace (Safran)
	FACC
	Diehl Aviation
	Elbe Flugzeugwerke
	B/E (Collins) Aerospace
	AAR Corp
	Cannon
	Regent Aerospace
	ATS
	ACS
	Triumph Group
	Spirit AeroSystems

Main buyers	Market share, %	Manufacturing sites	Other components produced	Recent focus and strategy
	N/A		Aircraft interiors, onboard systems, safety (life vests, slides), seating, cabin equipment	Now part of Safran; focus on comfort, safety, onboard systems, innovation
	N/A		Lightweight composites: aerostructures, engines/nacelles, cabin interiors	Urban air mobility, drones, focus on aftermarket expansion
	N/A		Cabin interiors, avionics, lighting, lavatories, crew rest, air distribution, slides, electronics	Cabin innovation, global expansion, joint ventures (Thales), digitalisation
	N/A		Cabin interiors, cargo conversion, sidewalls, galleys, lavatories, floor panels	Passenger-to-freighter conversions, integrated cabin solutions, composites
	N/A		Cabin interior products: seats, galleys, lighting, oxygen, lavatories, monuments, fasteners	Integration into Collins Aerospace/RTX; advanced cabin solutions, global support
	N/A		MRO, component repair, supply chain, interiors, landing gear	Digital MRO, global expansion, PBH support, rapid response
	N/A		Industrial components (e.g., moulds for resin application)	<i>Not publicly available</i>
	N/A		N/A	Refurbishment, rapid turnaround, PMA parts, global support
	N/A		MRO, component repair, engine services, interiors	Full-service MRO, component innovation, global support
	N/A		Cockpit lighting, air vent, brake bleeders, gas cap, etc.	Aviation support, custom products
	N/A		Composite cabin elements, aerostructures	Lightweight cabin interiors, digital manufacturing
	N/A		Composite fuselage sections, cabin components	Automation in composite fabrication

Source: Expert insights, press search

4e. Flooring market is projected to grow by 4.9% p.a. until 2035, driven mainly by OE segment

\$M, 2025-35



























Insights

- The aftermarket accounts for >20%, driven by in-service fleet size and age, while the OE market dominates with 80% due to **strong commercial aircraft production**
- Vertically integrated firms**, such as Gill Corporation, are likely to have a **stronger market position** due to their ability to operate as either a Tier 1 or Tier 2 supplier. However, their **profitability** largely depends on **pricing and availability of raw materials**

4e. Flooring suppliers manufacture metal floor panels in addition to composite flooring, expanding beyond just composite materials

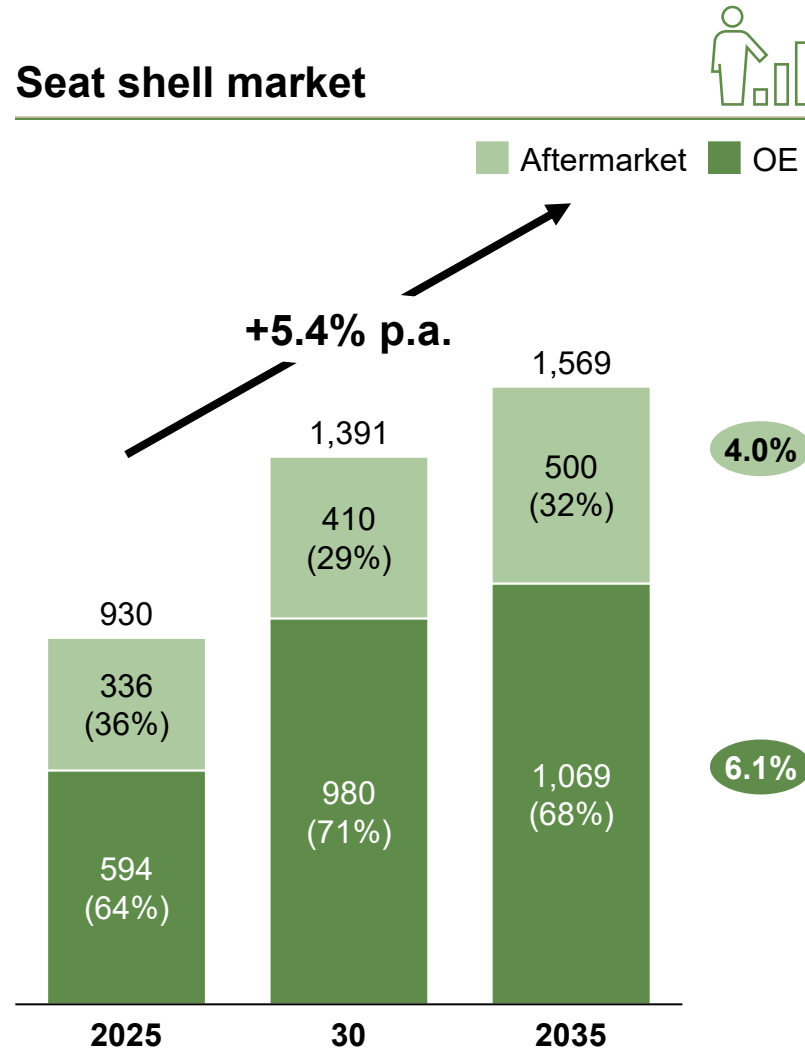
Top suppliers

Flooring suppliers	Main buyers	Market share, %	Manufacturing sites	Other components produced	Recent focus and strategy
 FACC	   	N/A	      USA AT RO CN MX UK	Lightweight composites: aerostructures, engines/nacelles, cabin interiors	Urban air mobility, drones, focus on aftermarket expansion
 Diehl Aviation	   	N/A	    DE HU FR TN	Cabin interiors, avionics, lighting, lavatories, crew rest, air distribution, slides, electronics	Cabin innovation, global expansion, joint ventures (Thales), digitalisation
 Lonseal	  	N/A	  USA JP	Resilient vinyl flooring for aircraft, marine, healthcare, commercial applications	Lightweight, durable, sustainable flooring, FAA compliance
 Comtek Advanced Structures	  	N/A	 CA	Composite/metallic aircraft structures, floor panels, cargo liners, repair services	Repair/engineering services, aftermarket growth, composites innovation
 The Gill corporation	   	N/A	  USA FR	Honeycomb panels, cargo liners, floor panels, composite structures	Lightweight composites, global expansion, R&D in advanced materials
 Encore Aerospace		N/A	  USA MX	Custom galleys, monuments, lavatories, sidewalls, linings, ceilings, floor panels	Vertical integration, composites, aftermarket support, quality/process control
 Spirit Aerosystems	 	N/A	     USA UK FR MY MX	Aerostructures: fuselages, pylons, nacelles, wing components, composites	Diversification (defence/space), advanced composites, digital manufacturing
 Satair		N/A	    USA DK SG CN	Aircraft parts distribution, supply chain solutions, component management	Digital supply chain, global logistics, Airbus subsidiary, inventory management
 Meggitt PLC	 	N/A	  UK USA	Composite structural components, sensors	Advanced composites and materials R&D

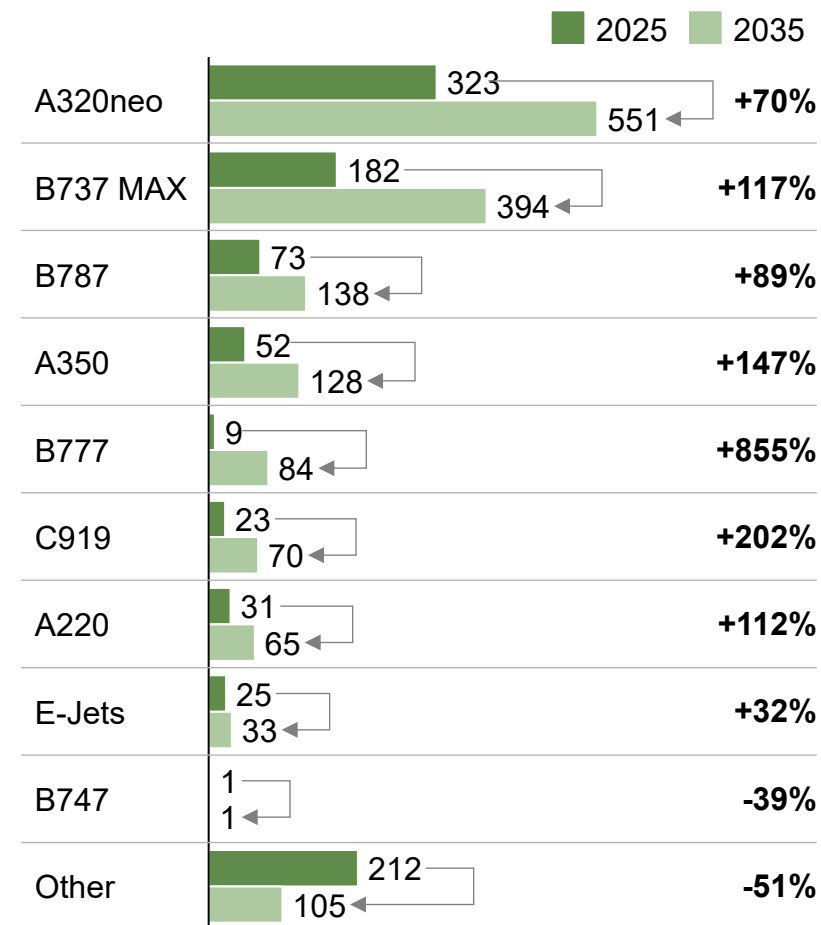
Source: Expert insights, press search

4e. Seat shell market is projected to grow by 5.4% p.a. until 2035, driven mainly by Narrowbody aircraft

\$M, 2025-35



Seat shell market by aircraft type



Insights

- Composite materials in seat shells enable **streamlined, lightweight** designs, reducing **weight by up to 30%**
- The slimmer design not only resulted in lighter seats but also **reduced the space required per seat, increasing overall seating capacity per aircraft**, (as demonstrated by Lufthansa's adoption of RECARO's BL350 model)
- **Higher production volumes and increased seat capacity per aircraft** have driven the OE market to capture over 60% of the market share

4e. Most seat shell suppliers also manufacture other seat components, enabling them to offer competitive pricing

Top suppliers

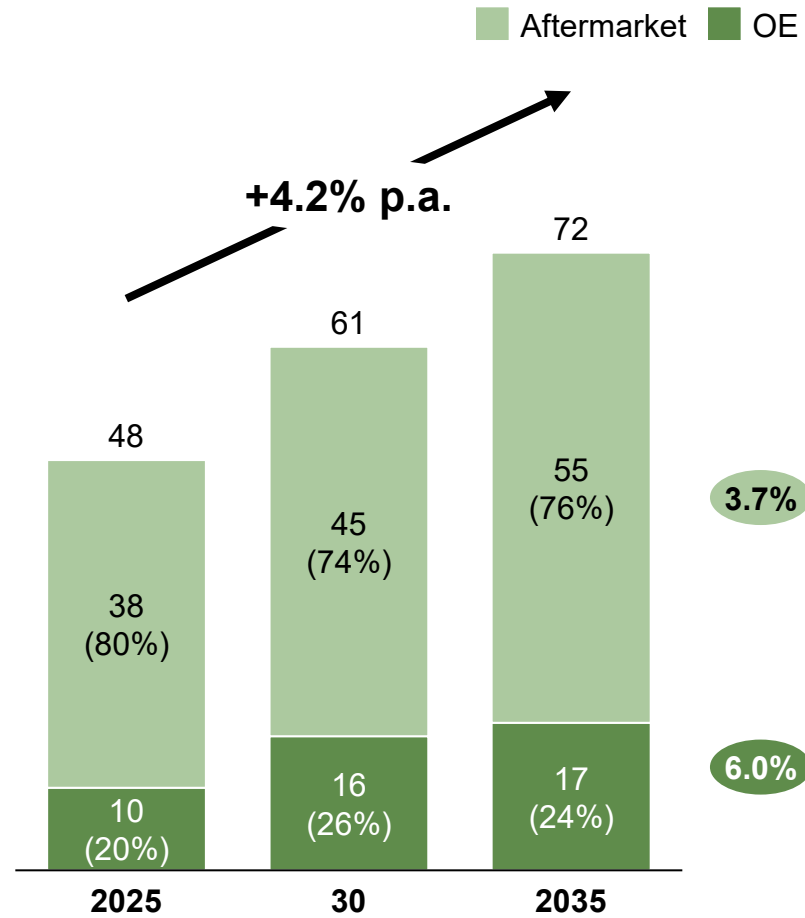
Seat shell suppliers	Main buyers	Market share, %	Manufacturing sites	Other components produced	Recent focus and strategy
 Zodiac Aerospace (Safran)	 	N/A	   USA FR UK	Aircraft interiors, onboard systems, safety (life vests, slides), seating, cabin equipment	Now part of Safran; focus on comfort, safety, onboard systems, innovation
 Recaro Aircraft Seating	  	N/A	    USA DE PL CN	Aircraft seats: economy, premium, business, crew seats	Lightweight, ergonomic, sustainable seating, global manufacturing
 ACM Aerospace	  	N/A	 USA	Interior components: seat covers, shells, panels, soft goods, composite	Custom interiors, composites, rapid prototyping, FAA/EASA certification
 Collins Aerospace B/E Aerospace (Collins Aerospace)	 	N/A	  USA UK	Cabin interior products: seats, galleys, lighting, oxygen, lavatories, monuments, fasteners	Integration into Collins Aerospace/RTX; advanced cabin solutions, global support
 FACC	   	N/A	      USA AT RO CN MX UK	Lightweight composites: aerostructures, engines/nacelles, cabin interiors	Urban air mobility, drones, focus on aftermarket expansion
 Adient Aerospace	 	N/A	   USA DE JP	Aircraft seating, premium seats, business class suites	Joint venture with Boeing, innovation in premium seating
 HAECO	 	N/A	  USA CN	Aircraft seating, interiors, MRO, engineering	Cabin solutions, MRO expansion, global reach
 Stelia	  	N/A	 FR	Premium aircraft seating, aerostructures, pilot seats	Premium seating, aerostructures, integration with Airbus
 Geven	 	N/A	 IT	Aircraft seating, interiors, lavatories	Cabin innovation, rapid delivery, European market leadership
 AIM Altitude	  	N/A	   UK USA CZ	Composite seat shells, cabin interiors, lavatories	Modular seat architecture, lightweight composites
 Ipeco	  	N/A	 UK	Aircraft seats, electronics, cushions	Lightweight materials, modular design

Source: Expert insights, press search

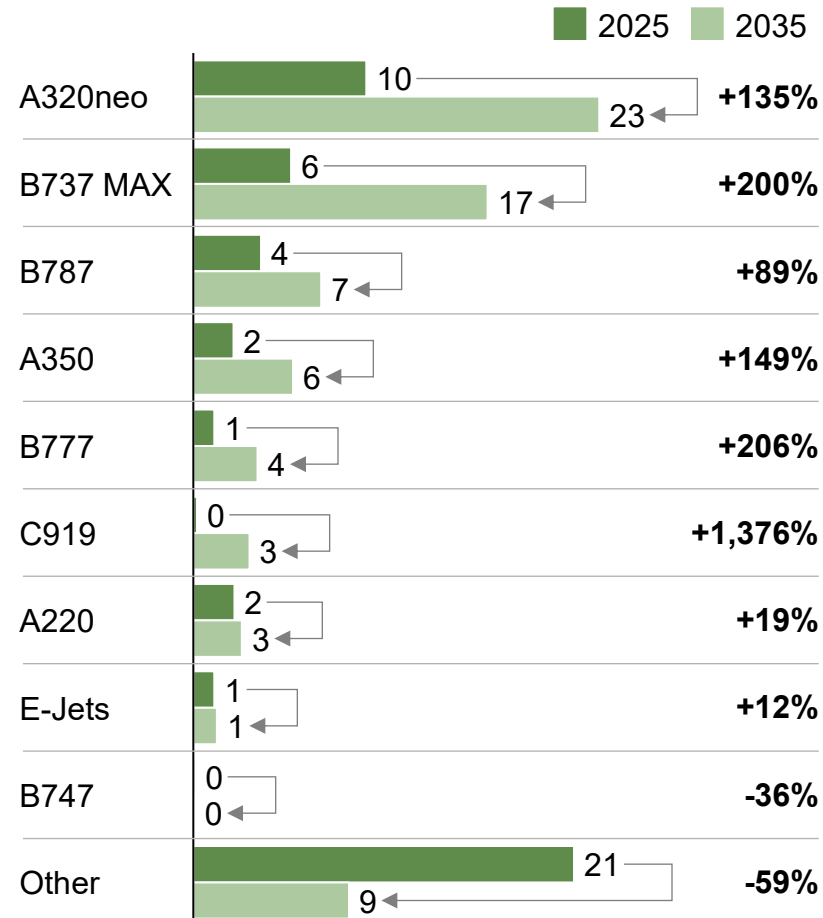
4e. Galley storage component market is projected to grow by 4.2% p.a. until 2035, driven mainly by aftermarket segment

\$M, 2025-35

Galley storage market



Galley storage market by aircraft type






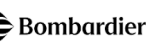

















Insights



- The galley storage component is **subject to less stringent airworthiness regulations** as it is classified as "carry-on equipment", allowing niche third-party players to increase competition in the market
- Airlines are increasingly challenging the dominance of sole-sourced galley storage solutions, slowly rejecting one-size-fits-all designs. ETG could utilise this gap by delivering products **tailored to each airline's brand** or operational needs, acquiring order deals and expanding market share

4e. Despite being a smaller market, galley storage compartments still attract major composite suppliers

Top suppliers

Galley storage suppliers		Main buyers	Market share, %	Manufacturing sites	Other components produced	Recent focus and strategy
 Zodiac Aerospace (Safran)	  	40	  	Aircraft interiors, onboard systems, safety (life vests, slides), seating, cabin equipment	Now part of Safran; focus on comfort, safety, onboard systems, innovation	
 B/E Aerospace (Collins Aerospace)	  	18	 	Cabin interior products: seats, galleys, lighting, oxygen, lavatories, monuments, fasteners	Integration into Collins Aerospace/RTX; advanced cabin solutions, global support	
 Diehl Aviation	 	5	   	Cabin interiors, avionics, lighting, lavatories, crew rest, air distribution, slides, electronics	Cabin innovation, global expansion, joint ventures (Thales), digitalization	
 FACC	  	1	     	Lightweight composites: aerostructures, engines/nacelles, cabin interiors	Urban air mobility, drones, focus on aftermarket expansion	
 Elbe Flugzeugwerke GmbH	 	N/A		Cabin interiors, cargo conversion, sidewalls, galleys, lavatories, floor panels	Passenger-to-freighter conversions, integrated cabin solutions, composites	
 Driessen Catering Equipment	 	N/A		Galley inserts, trolleys, catering equipment	Innovation in galley/catering, global airline partnerships	
 Diethelm Keller Aviation	 	N/A	 	Galley inserts, trolleys, containers, catering equipment	Innovation in galley/catering, focus on weight reduction, global airline support	
 Korita Aviation	 	N/A		Galley inserts, trolleys, containers	Custom galley solutions, cost leadership, rapid delivery	
 Egret Aviation	 	N/A		Galley inserts, trolleys, containers, catering equipment	Asian market expansion, cost-effective galley solutions	
 AIM Altitude	  	N/A	  	Composite seat shells, cabin interiors, lavatories	Modular seat architecture, lightweight composites	

4e. Shorter tact times, certification from OEMs, and technological leadership determine success in this market

What is needed to win

Examples

Shorter tact times



Reducing production cycle times is critical in this high-volume business to secure more contracts

Suppliers are adopting press moulding processes to significantly cut tact times and boost efficiency

Certifications by Boeing and Airbus



Securing certifications from major OEMs enables suppliers to tap into the aftermarket segment, even if it represents a smaller share of the market

FACC supplies Airbus directly and manages retrofits for customers, expanding its business prospects

Technological advances in lightweight composites



Developing advanced lightweight composites is a key differentiator, aligning with OEMs' focus on weight reduction

When Airbus and Boeing launch new single-aisle aircraft to replace the A320 and 737 platforms, composite wings and fuselages could drive significant demand for lightweight materials

4. Interested manufacturers could potentially participate in two ways



Consider a JV with Ethiopia's leading aerospace component manufacturer (ETG)



Setup a stand-alone manufacturing facility for production of secondary structures

4. ETG could offer support on talent attraction, government engagement and logistics to aid facility setup by potential manufacturers

ETG offerings for JV partners



To be confirmed by Ethiopian Airlines

ETG offerings to other companies



Skilled talent attraction: Facilitate the identification and attraction of **skilled talent pool** leveraging ETG's credibility as a leading employer of high-quality talent



Facilitation of GoE relations: Act as an **intermediary with key state entities** to ensure and promote **seamless set up of in-country facilities**



Logistics support: Provide air freight backbone for the **timely delivery of raw materials and finished components** via its large logistics network

Key contacts



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