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APPRAISER'S OPINION

Embraer E190-E2

Spec, Market Outlook & Value Projection

TYPE	**Commercial Regional Jet (Narrow-body, twin-engine jet)**
MODEL	**E190-E2**
FAMILY	**Embraer E-Jet E2 Series (includes E175-E2, E190-E2, E195-E2)**
AIRFRAME MANUFACTURER	**Embraer S.A., Brazil**
MODEL LAUNCH	**2016**
NO OF ENGINES	**2**
ENGINE TYPE	**Model PW1900G**
SEAT CAPACITY	**Typically, 97–114 passengers**
WEIGHT AND PAYLOAD	**MTOW 56,400 kg (124,340 lbs) & Max Payload 13,500 kg (29,762 lb)**
RANGE CAPACITY	**5,463 km (2,950 nautical miles)**
OTHER IMPORTANT FEATURES	**Advanced Wing Design and Avionics, Short Field Performance, Fly-by-Wire System, ADS-B, ETOPs, Wifi, SATCOM, EFB, CDSS and IFE.**

EMBRAER E190-E2

Background

The Embraer E190-E2 marks a transformative step forward in regional aviation, building upon the proven legacy of Embraer's original E-Jet family. Designed to bridge the critical market gap between smaller regional jets and larger narrow-body aircraft, the E190-E2 delivers mainline capabilities in a platform that offers airlines an optimal balance of operational flexibility, cost efficiency, and passenger comfort.

Officially launched in 2013, the E190-E2 is part of Embraer's next-generation E-Jet E2 program, which includes the E175-E2, E190-E2, and E195-E2 variants. Among them, the E190-E2 serves as the mid-size offering, directly succeeding the original E190 while balancing capacity and range. Its maiden flight occurred on May 23, 2016, with type certification granted in February 2018 by ANAC (Brazil), FAA (U.S.), and EASA (Europe). The first unit was delivered to Wideroe, a Norwegian regional airline, in April 2018.

The E190-E2 integrates a suite of advanced technologies that collectively redefine regional jet performance. Key innovations include the Fourth-generation fly-by-wire system, New high-aspect-ratio wings and Pratt & Whitney PW1900G geared turbofan engines. These upgrades deliver double-digit reductions in fuel consumption, CO_2 emissions, and noise levels compared with previous-generation E-Jets. The aircraft typically accommodates up to 114 passengers and boasts a range of 2,950 nautical miles, making it ideal for both short regional hops and longer thin routes. In addition to operational performance, the E190-E2 emphasizes passenger comfort with a 2-2 seating layout (eliminating middle seats), a spacious and quiet cabin, and advanced avionics that enhance pilot efficiency and reduce maintenance complexity.

The E190-E2 has established a solid position in the global regional aircraft market. It primarily targets airlines seeking modern, fuel-efficient replacements for aging 70- to 120-seat jets, such as the older CRJ series and first-generation E-Jets. It is particularly effective on secondary or thin routes, where lower per-trip costs are vital for profitability.

Its combination of performance, versatility, and sustainability makes it a valuable tool for airlines looking to support point-to-point connectivity and adapt to evolving demand patterns while minimizing airport impact and environmental footprint. The outlook for the E190-E2 is highly favourable. According to Embraer's 2025 market forecast:

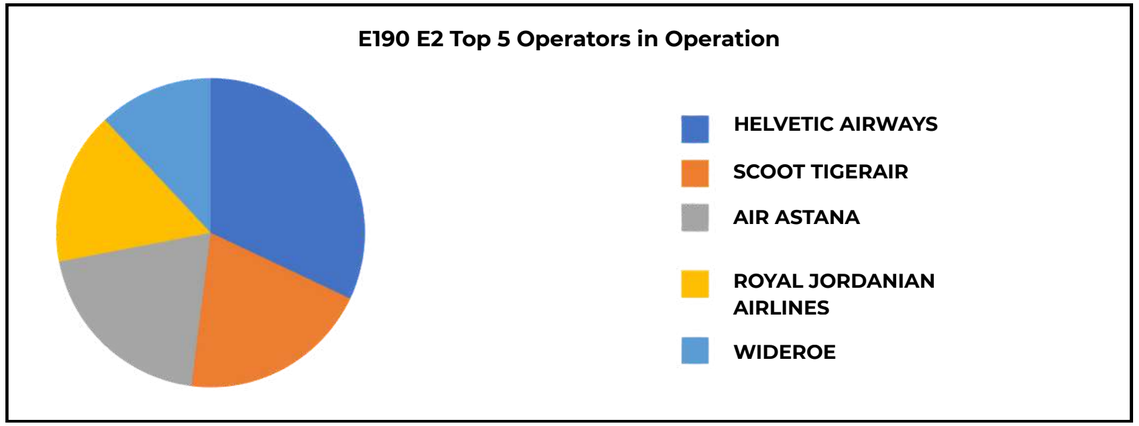
- 10,500 new sub-150-seat aircraft will be needed globally over the next 20 years with a total market value estimated at $680 billion.

- 8,720 of these will be regional jets, including the E190-E2.

The Embraer E190-E2 competes primarily in the 100–130 seat regional jet market, with its main rival being the Airbus A220-100, which offers a slightly longer range and a wider cabin for enhanced passenger comfort. While the A220-100 is recognised for its advanced design, the E190-E2 stands out with lower trip costs, superior fuel efficiency, especially on short-haul routes, and is marketed as having the quietest cabin in its class, though independent verification is limited.

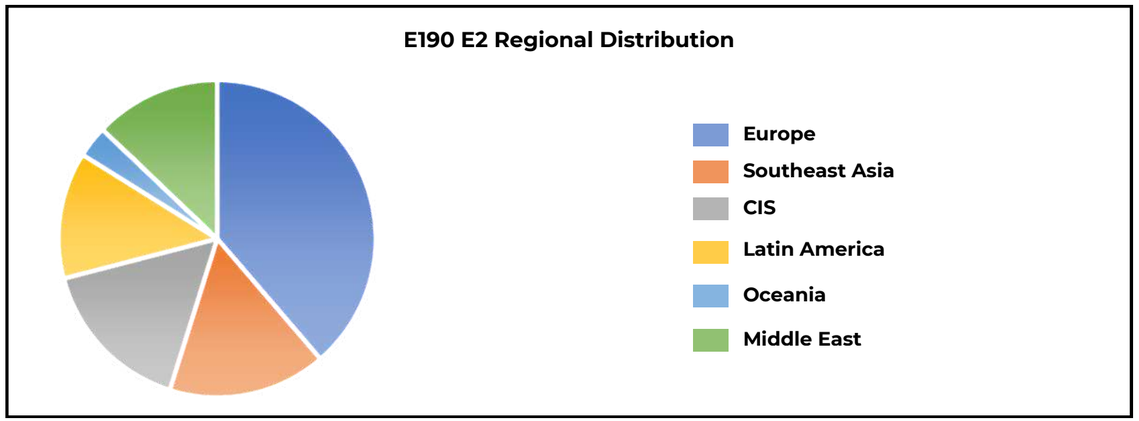
Other competitors include older models such as the Bombardier CRJ-900 and the first-generation Embraer E190, which may appeal to operators seeking lower acquisition costs despite higher operating expenses. The Mitsubishi SpaceJet M90 program has been suspended and is no longer a market factor, while the Sukhoi Superjet 100 remains commercially limited due to ongoing support and reliability challenges, as well as sanctions imposed post-2022. With next-generation Pratt & Whitney GTF engines, high dispatch reliability, and strong environmental credentials, the E190-E2 is positioned as a cost-effective, efficient, and reliable solution for regional and short-haul airline operations.

Since its introduction, the E190-E2 has continued to attract interest from leading regional carriers, with orders from airlines including Helvetic Airways, Scoot Tigerair, and Air Astana. According to AFJ Fleet data as of July 2025, a total of 33 aircraft have been delivered. As per Embraer's December 2024 report, there are 52 firm orders in total.



Source: AFJ Data July 2025

With regard to the geographical spread of the E190-E2, the majority of the fleet is concentrated in Europe (38.7%), followed by Southwest Asia and the CIS at 16.1%, Latin America and the Middle East at 12.9%, and Oceania at 3.2%.



Source: AFJ Data July 2025

Market Analysis

In 2024, as per IATA, global air passenger traffic surged by 10.6% year-on-year, driven by continued recovery from the pandemic, robust demand across key regions, and strong growth in emerging markets. Despite a slight deceleration in growth pace, demand consistently outpaced capacity, pushing the global passenger load factor to a record high of 83.5%.

Asia-Pacific and European airlines accounted for over 74% of the net increase in revenue passenger kilometres, largely due to a rebound in international traffic and expanding domestic markets, particularly in China, India, and the U.S. International traffic rose 8.0% YOY in Apr 2025 globally.

These trends underscore the growing demand for efficient, mid-capacity aircraft, especially in high-growth markets and on short-to medium-haul routes. As a result, the E190-E2 is well-positioned to meet fleet modernization needs across both mature and emerging markets.

Airlines are increasingly adopting mixed narrowbody fleets, blending large and small aircraft to maximize network flexibility in a climate shaped by shifting demand, regulatory pressure, and sustainability goals. The E190-E2's superior economics, environmental advantages, and cabin design strongly align with these emerging strategies. Recent deliveries to carriers such as Mexicana further highlight the aircraft's growing footprint in Latin America and other key regions. While 190-E2, continues to offer desired benefits to stake holders there have been Entry into service (EIS) issues for PW1900G, mainly related to HPC rotor shaft and HPT 1st Stage hub and blade retaining plate, which have led to unscheduled removals, In-flight shutdowns and the grounding of aircraft. Further to this a powder metal contamination issue has caused accelerated inspections and replacements of affected parts.

It is also to be noted that for E2 series (E175-E2, E190-E2 & E195-E2) as of July 2025, the highest backlog is for E175-E2 at 164 units, while for E195-E2 firm orders show 282 and the backlog stands at 154 units. E190-E2 deliveries are 33 with a backlog of only 25 units.

This order momentum underscores the growing demand for fuel-efficient, right-sized aircraft in the sub-150-seat category. However, it also shows that there is higher demand for either smaller or little bigger segment than subject aircraft based on total firm orders and backlogs.

The lease rate environment for the E190-E2 remains strong and stable, reflecting its status as a high-demand, new-generation aircraft. The market shows continued robust lease rates for modern regional jets, driven by limited supply and growing demand among airlines modernizing their fleets.

Unlike older regional jets, whose lease values are under pressure due to market oversupply and retirement trends, the E190-E2 benefits from advanced efficiency, a relatively young fleet, and minimal presence on the secondary market. These factors contribute to lease rate resilience and investment appeal. As ongoing deliveries continue and operator interest expands, the E190-E2 is viewed as both an operational asset and a financially sound investment for lessors focused on the sub-150-seat segment.

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The Embraer E190-E2 continues to establish itself as a key player in the evolving regional aviation landscape. Offering a compelling blend of advanced avionics, fuel efficiency, and lower emissions, it addresses both the environmental and economic priorities of today's operators. Its right-sized capacity, reliability, and cost-effectiveness make it particularly attractive in markets where flexibility and performance are critical.

Backed by a growing customer base, stable lease dynamics, and a robust order backlog, the E190-E2 is positioned to remain a cornerstone of sub-150-seat fleet strategies. As airlines modernize their fleets and adapt to shifting passenger trends, the E190-E2 stands out as a versatile solution capable of delivering long-term value to lessors, operators, and stakeholders across the aviation value chain.

Disclaimer

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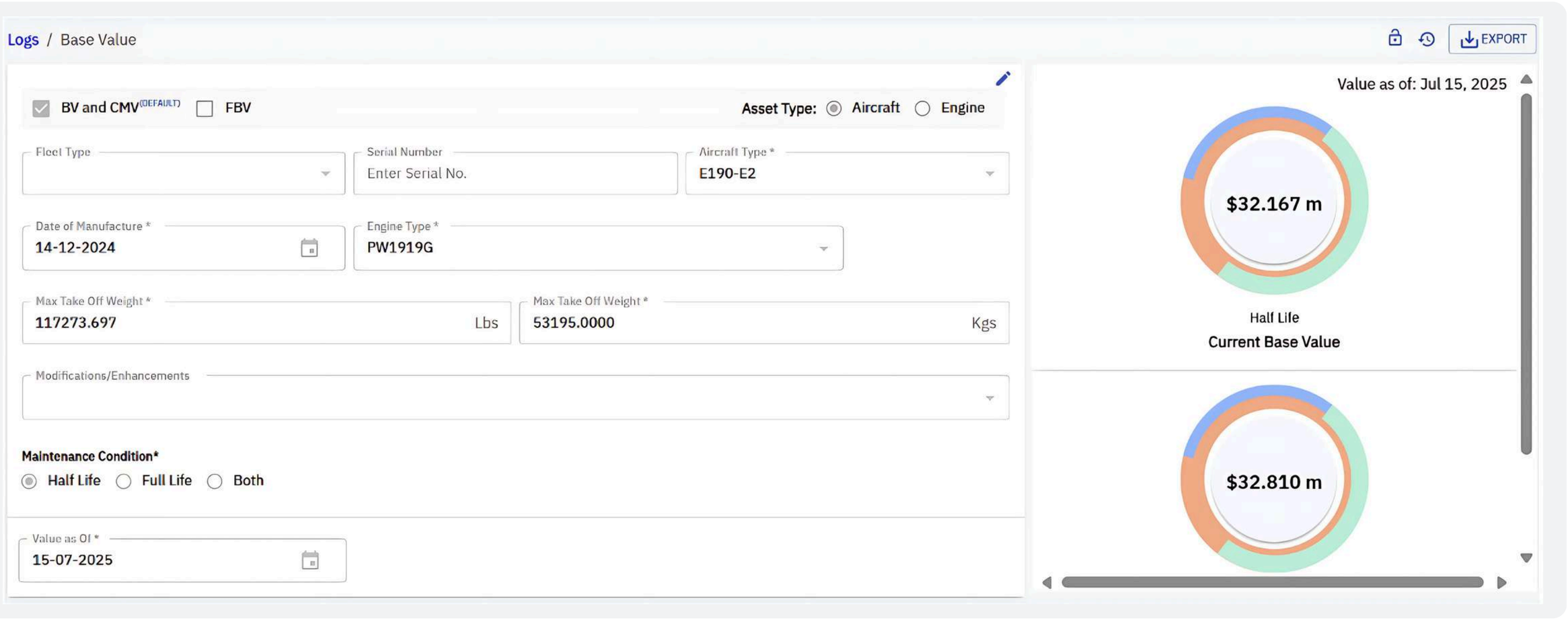
Value projection (fin-S)

E190-E2 Acumen Values as of 1st Jan 2025														
Year of Build	Current Market Value	Current Base Value	Future Base Values at 2% inflation											
			2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
2018	21.853	21.530	21.530	20.123	18.943	17.895	16.878	15.954	15.004	14.152	13.275	12.493	11.757	10.943	10.174
2019	23.474	23.127	23.127	21.530	20.122	18.943	17.896	16.878	15.953	15.004	14.151	13.275	12.493	11.757	10.942
2020	25.046	24.676	24.676	23.114	21.519	20.112	18.932	17.886	16.869	15.945	14.996	14.144	13.268	12.487	11.750
2021	26.520	26.128	26.128	24.553	22.998	21.411	20.011	18.838	17.797	16.785	15.865	14.921	14.073	13.202	12.425
2022	28.094	27.679	27.679	26.092	24.518	22.966	21.380	19.983	18.811	17.771	16.761	15.843	14.900	14.053	13.183
2023	29.435	28.858	28.858	27.324	25.757	24.204	22.672	21.107	19.727	18.570	17.543	16.546	15.640	14.709	13.873
2024	31.428	30.812	30.812	29.059	27.514	25.937	24.373	22.829	21.254	19.864	18.700	17.666	16.661	15.749	14.812
2025	34.323	33.650	33.650	31.736	29.931	28.340	26.714	25.105	23.514	21.892	20.461	19.260	18.196	17.161	16.221

Value projection (fin-S)



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