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## Sustainability test bed turns 10

The Boeing ecoDemonstrator marked its 10-year anniversary in 2022 — accelerating innovation by taking promising technologies out of the lab and rigorously testing them in an operational environment.

**By the numbers:**

The program has tested over 225 technologies to help enhance safety, decarbonize aviation and improve operational efficiency and the passenger experience.

- Nine platforms served as flying test beds:
  - 2012: American Airlines 737-800.
  - 2014: Boeing 787-8 Dreamliner.
  - 2015: TUI 757.
  - 2016: Embraer E170.
  - 2018: FedEx 777 Freighter.
  - 2019: Boeing 777-200.
  - 2020: Etihad Airways 787-10.
  - 2021: Alaska Airlines 737-9.
  - 2022-2024: Boeing 777-200ER (Extended Range).
- Approximately one-third of those technologies progressed onto Boeing’s products and services, including:
  - More aerodynamically efficient winglets on the 737 MAX.
  - iPad apps that provide real-time weather and other information to pilots, enabling them to improve fuel efficiency and reduce emissions.
  - Custom approach path information to lower community noise.
  - Flight deck touch-screen displays and a camera system on the 777X that will enhance safety by helping pilots avoid ground obstacles.



“I am proud of the ecoDemonstrator’s role in pioneering the use of sustainable aviation fuel (SAF) for the industry. Not only has almost every one of our platforms flown on SAF, we conducted the industry’s first commercial flight on 100% SAF in both engines in 2018 with FedEx Express and tested SAF emissions with NASA. That is what we do — partner across the industry to help safely decarbonize aerospace.”

**Rae Lutters**, ecoDemonstrator program manager

The 2022 Boeing ecoDemonstrator, a 777-200ER (Extended Range) flies on a blend of 30% SAF and 70% conventional jet fuel. (Boeing photo)

 **Video:** [See flying lab.](#)