

REGIONAL GREEN AIRPORTS SEMINAR

Hosted by the Ministry of Transport of the Republic of
Uzbekistan



Stargate projects on
autonomous electric vehicles &
multimodal planner





Christel Vandenhouten

Head of Sustainable Development
Brussels Airport

Stargate: Accelerating Greener Aviation



23 Partners

3 Goals



Decarbonisation



Modal Shift



Local Environmental
Quality

2021-2026

**24,8
mio**

**Grant EU
Green Deal**



**30+
Projects**



**30% Funding by
Stargate Partners**



A strong and diverse European partnership





How will
autonomous
vehicles contribute
to aviation?

- Increase safety
- Increase efficiency
- Enhance sustainability
- Improve experience



Today's challenges

- Regulatory
- Safety & security
- Human factor
- Complexity of operations

Autonomous shuttle

Phase 1

Airside
Shuttle service
Staff

>> 1,900 km in real airport conditions

Conclusions:

- Safe in controlled airport environments—with a clear operating concept, staged validation and onboard supervision.
- High awareness; no significant trust barrier.
- Operational barriers dominate: route relevance, frequency, transport integration and mixed traffic.
- Substantial greenhouse-gas reductions.

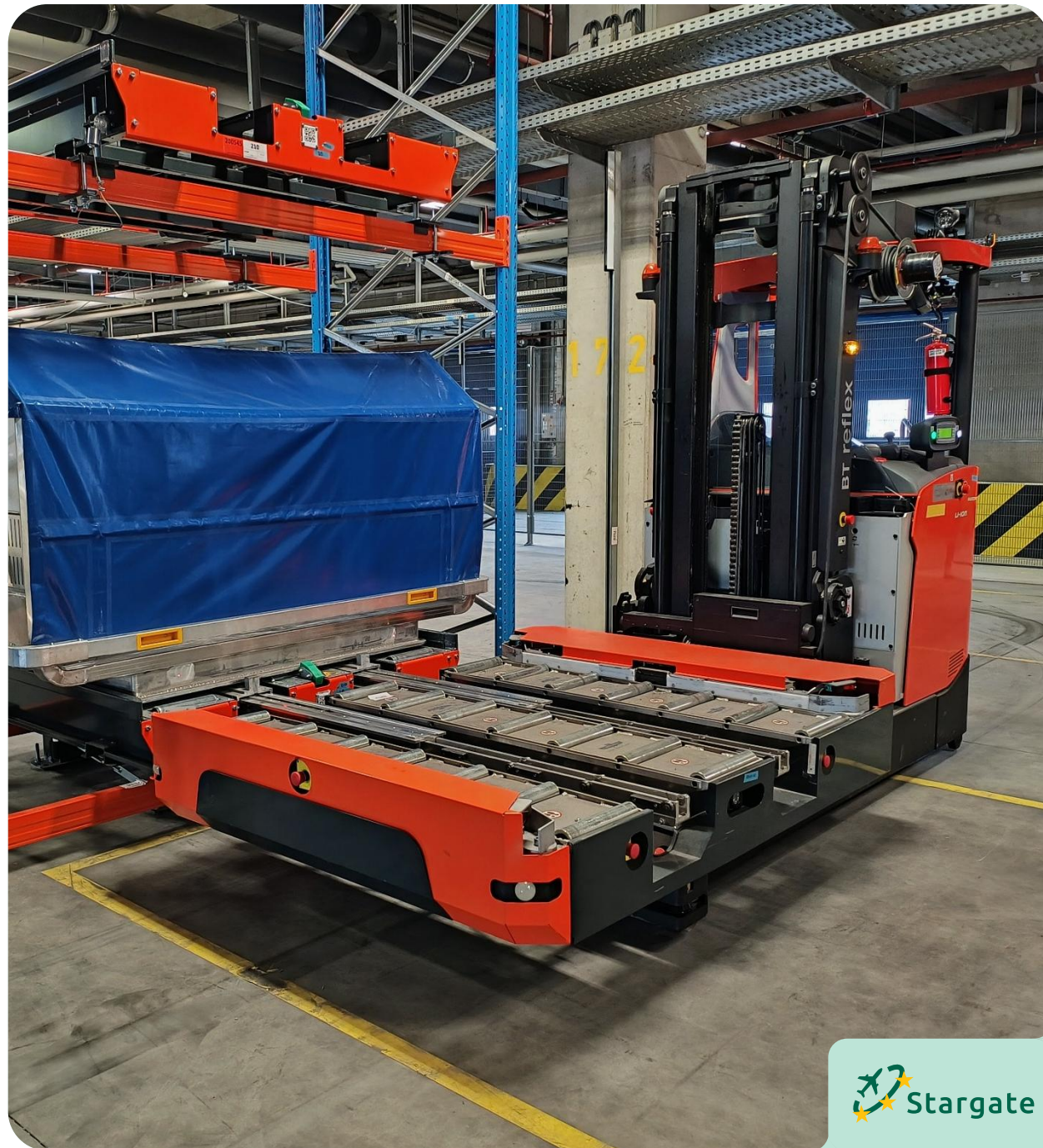
Phase 2

Landside
Shuttle service
Pax



Automated guided vehicle

- **Goal:** Test autonomous container logistics in real life conditions, learn for future tender requirements, test airport community acceptance & experience
- **Actions:** Stargate tested an Automated Guided Vehicle (AGV) to move baggage containers autonomously between storage areas and transfer points.
- **Outcomes:** Identified need for better traceability of so-called Scope 3 emission reduction claims in registries

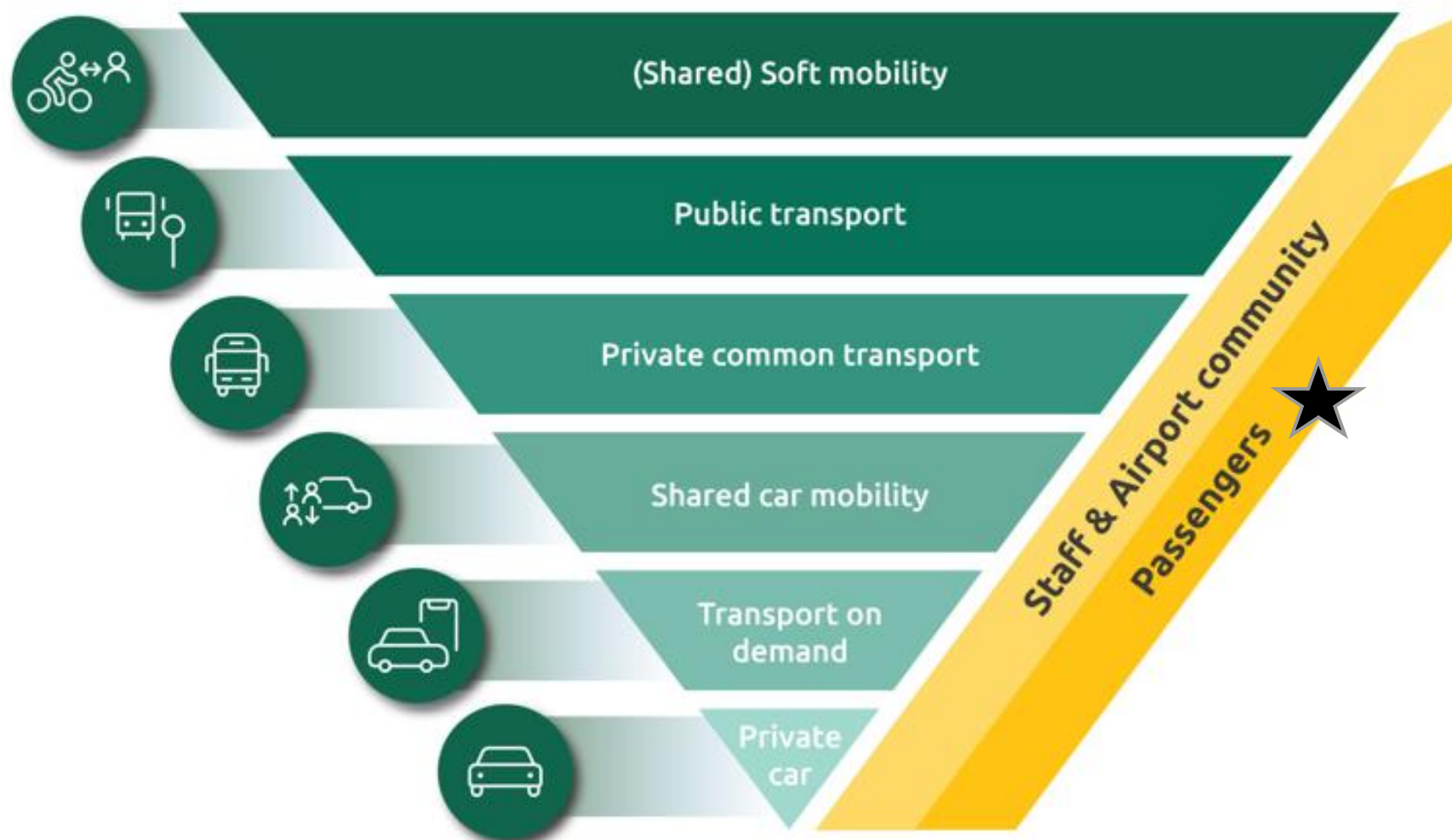


Autonomous cargo transport

- **Goal:** Assess whether autonomous cargo and baggage transport is ready for mixed airside traffic.
- **Pilot:** Three-month cargo-tug trial with handlers across operational use cases.



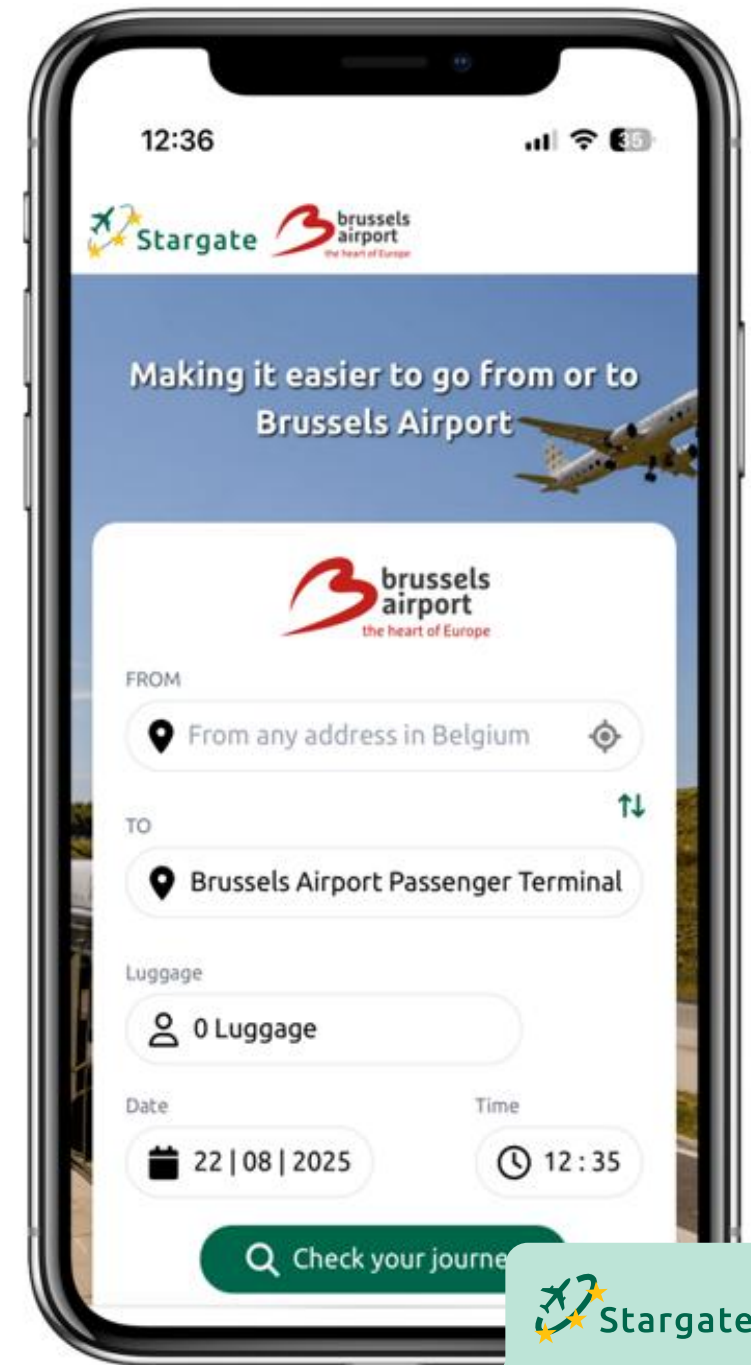
Lifting the mode



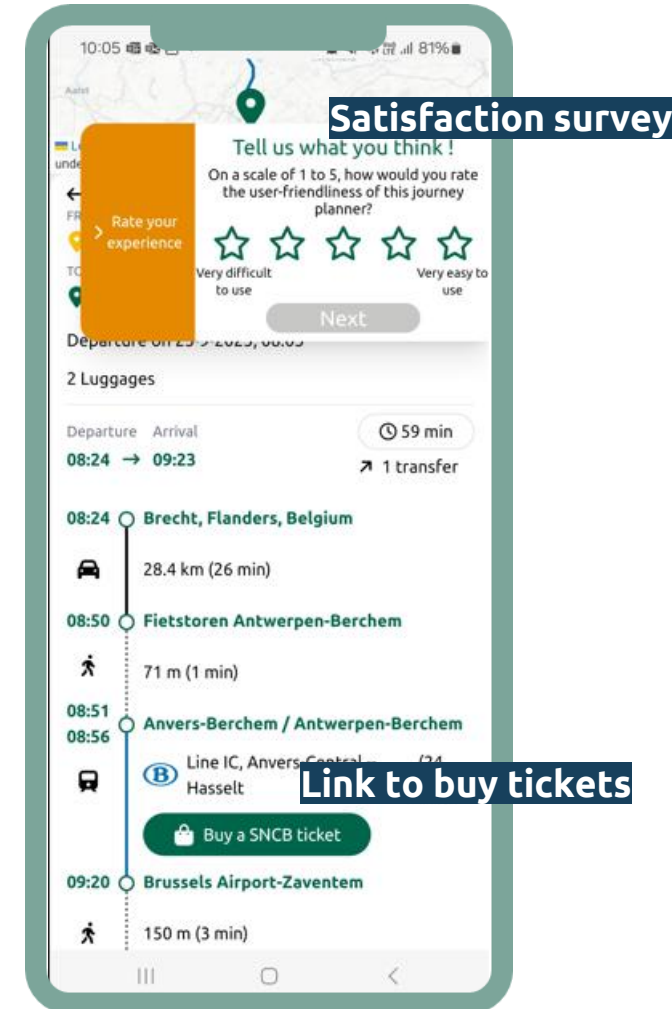
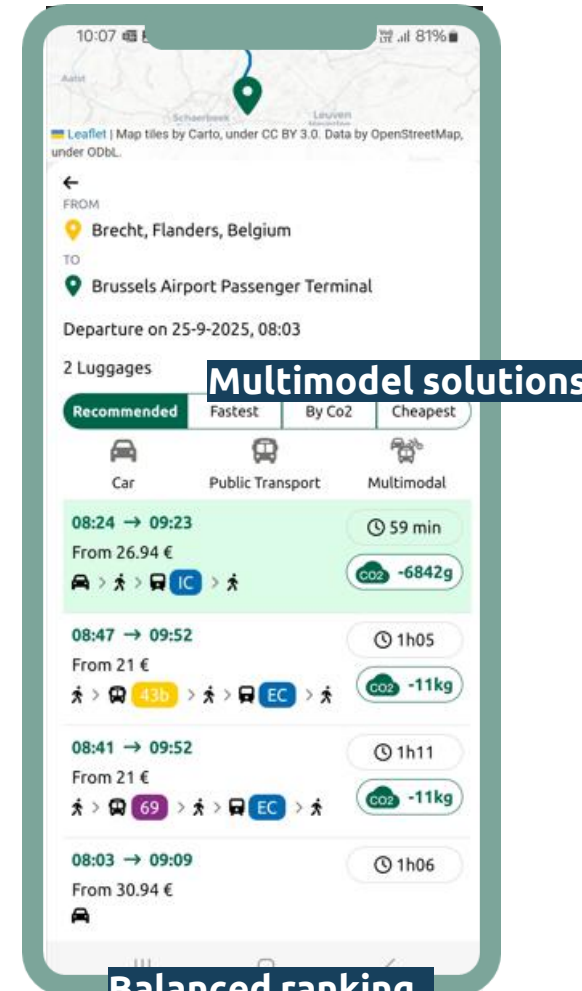
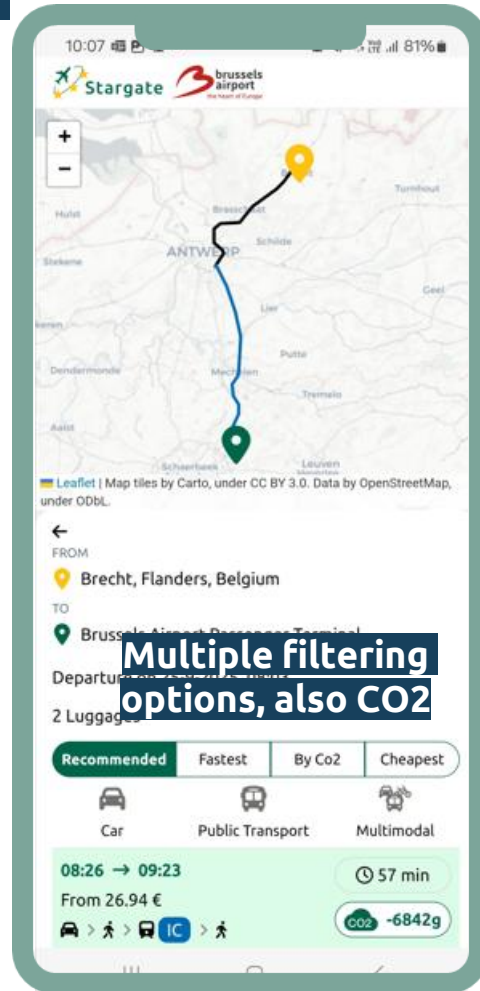
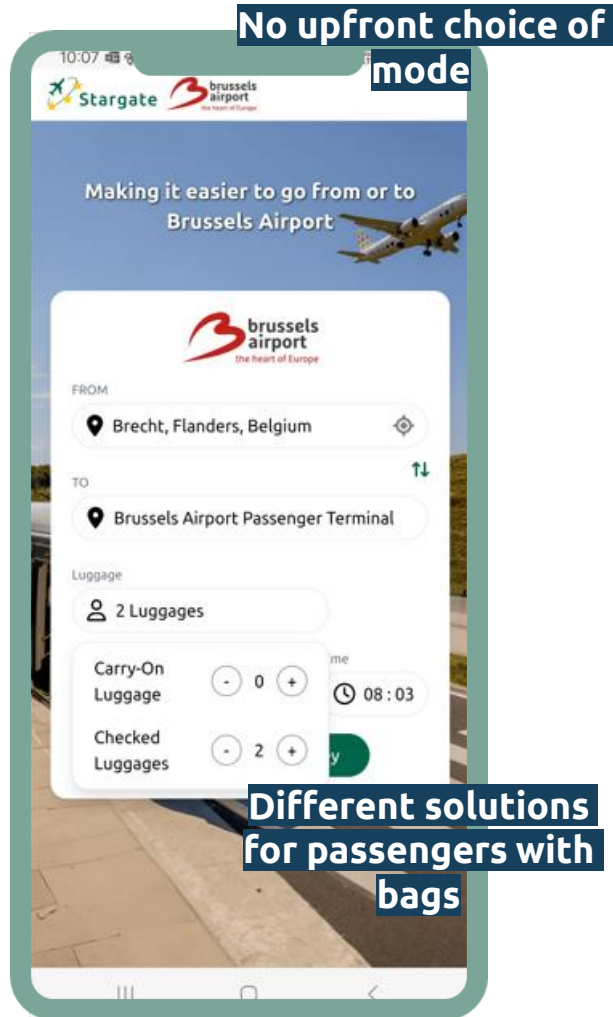
Towards assuring **accessibility** & reducing **CO2**

Journey Planner

- **Goal:** Make airport journeys easier and more sustainable by helping passengers compare transport options.
- **Solution:** A multimodal journey planner connecting 7 operators across 9 transport modes.
- **Result:** 13,500 users in the first year.



Features of the Journey Planner



Thank You

