

**'TEMPEST'** talks

2022



**Ciber e Futuro: como as  
inovações tecnológicas  
estão impactando nossa  
visão sobre a segurança**

**EMBRAER·X**

CRAFTING EXTRAORDINARY FUTURES

**'TEMPEST'** talks

2022



# 01 Introdução & Missão

## CENÁRIO

COMO O VALE DO SILÍCIO  
SE TORNOU UMA  
VIZINHANÇA DE US\$2.8  
TRILHÕES?



# CAPÍTULO UM



# 2016

## EMBRAER VISITA O VALE DO SILÍCIO

02

# A RESPOSTA



O mundo muda rapidamente.

Inovações e tecnologias entram nas  
nossas vidas todos os dias, elevando  
nossas expectativas sobre  
o que é possível.



# A resposta 2017

Nossa aceleradora de mercado.  
Embraer-X é criada para liderar o  
mundo na interseção de inovação  
disruptiva, autonomia e mobilidade  
urbana.



**Space Coast Headquarters**  
276 SW 34th St, Fort Lauderdale  
FL 33315, EUA



**São José dos Campos Office**  
Av. Brg. Faria Lima 2170, São José  
dos Campos - SP 12227-901, BR



**TU Delft Innovation Center Office**  
Kluyverweg 1, 12th floor. 2629 HS  
Delft, NL





2017

## Três projetos nasceram

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Sky: Veículo e-Vtol

UATM: Gerenciamento de tráfego

Beacon: Solução Digital para  
Manutenção.

2020

## Eve *spin-off*

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Sky e UATM se juntaram  
para dar origem à empresa  
Eve.



2022

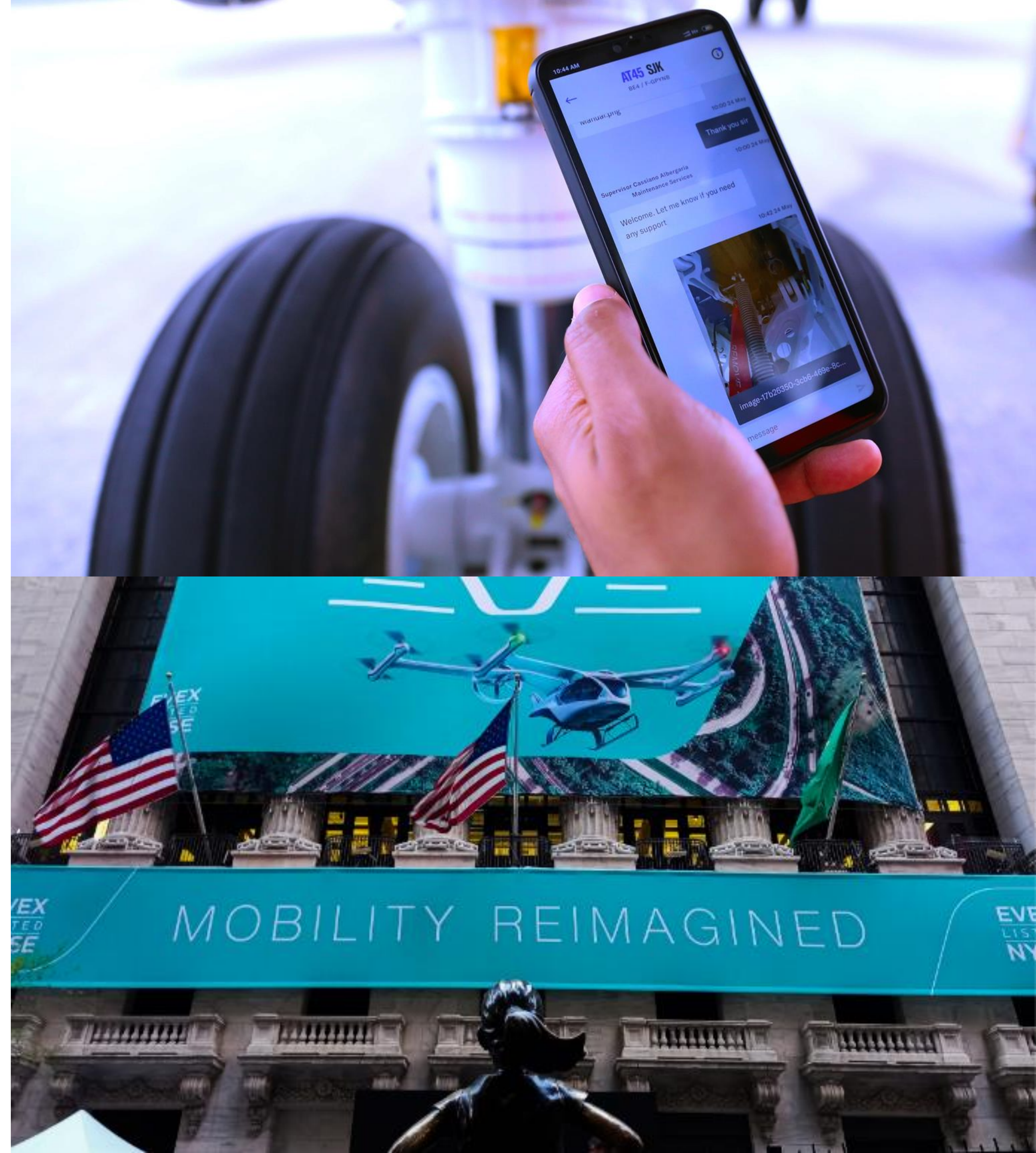
## Beacon Leap Stage

1,600 clientes ativos  
190 aeroportos  
2,800+ aeronaves  
80,000 casos

2022

## Eve é listada em NYSE

Eve é listada em NYSE por meio da Combinação de Negócios com a Zanite Acquisition Corp.

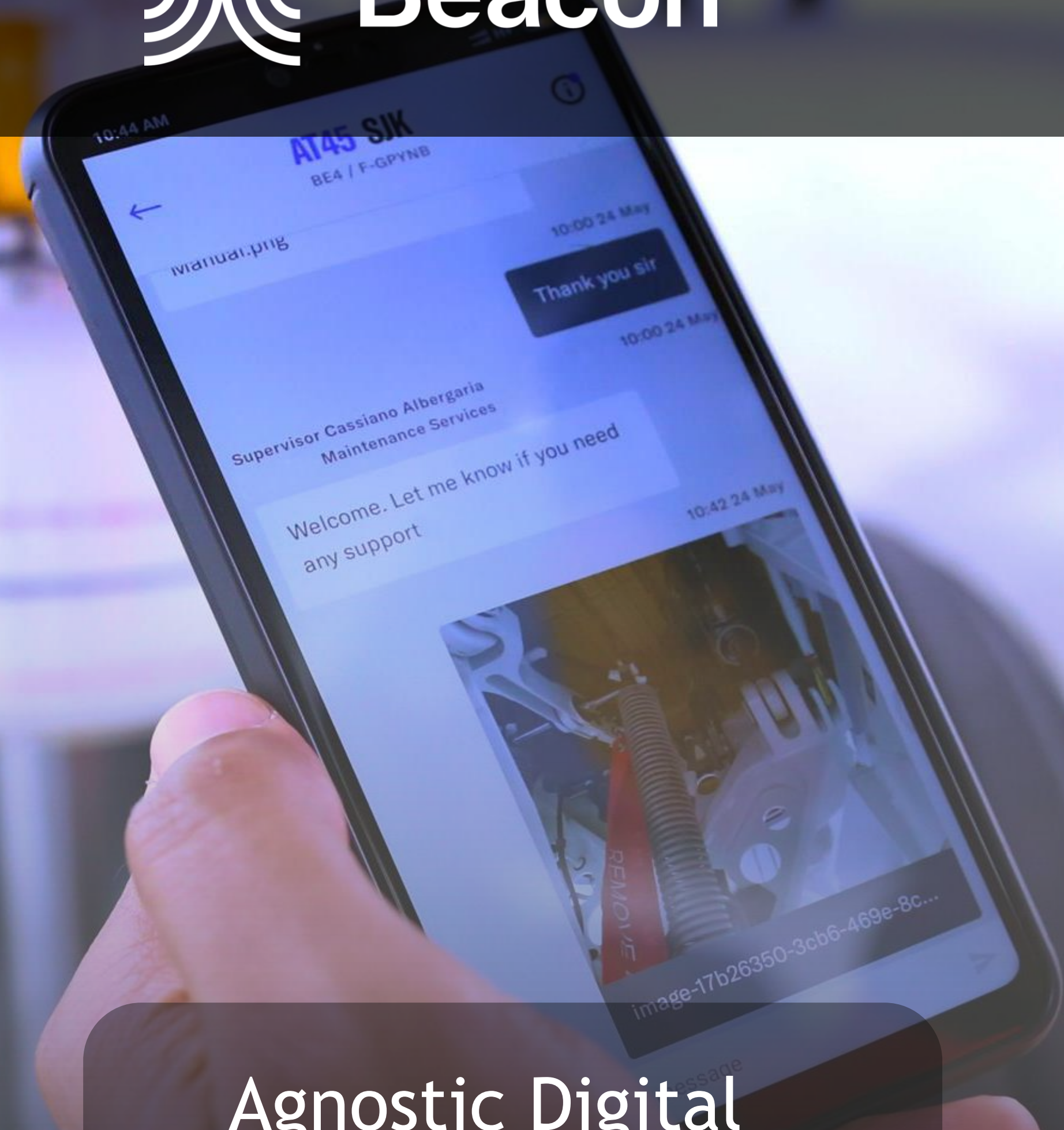




eVTOL  
UATM



Services  
Fleet Ops



Agnostic Digital  
Platform starting  
with Maintenance



# EVE URBAN AIR MOBILITY

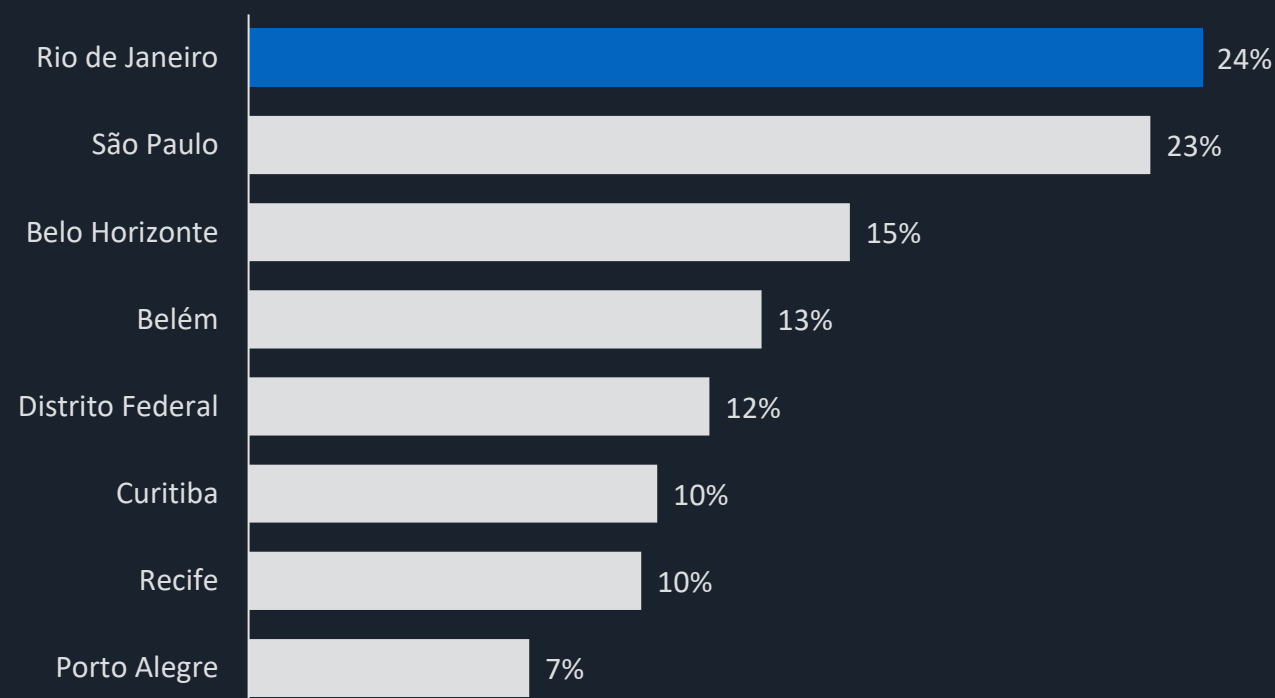


# Urban Air Mobility Demand

AVG COMMUTING TIME IN BRAZIL  
(MINUTES | H - W + W - H)



SHARE OF COMMUTERS SPENDING MORE  
THAN 1 HOUR



Sources: Eve Air Mobility, IBGE, INRIX (2020), FIRJAM (2014), IPEA, Quanta Consultoria

**RIO** ranked **#2** on INRIX's Annual Scoreboard (2019) – Most Congested Cities Worldwide

**190 hours** lost in rush hours in one year

**R\$ 267B** Annual losses due to traffic congestion

## UAM MARKET

by **2035** we forecast

**970** operating eVTOLS in the 5 top cities (São Paulo, Rio, Brasilia, BH, Curitiba)

performing over

**15,000** flights per day

transporting over

**16M** passengers per year



# From Barra to Galeão in 10-15 minutes

**Barra da Tijuca Impacted Area**  
Population: 380000+  
Early adopters: **High**  
Short term adopters: **High**  
Taxi (Premium): R\$ 262,00

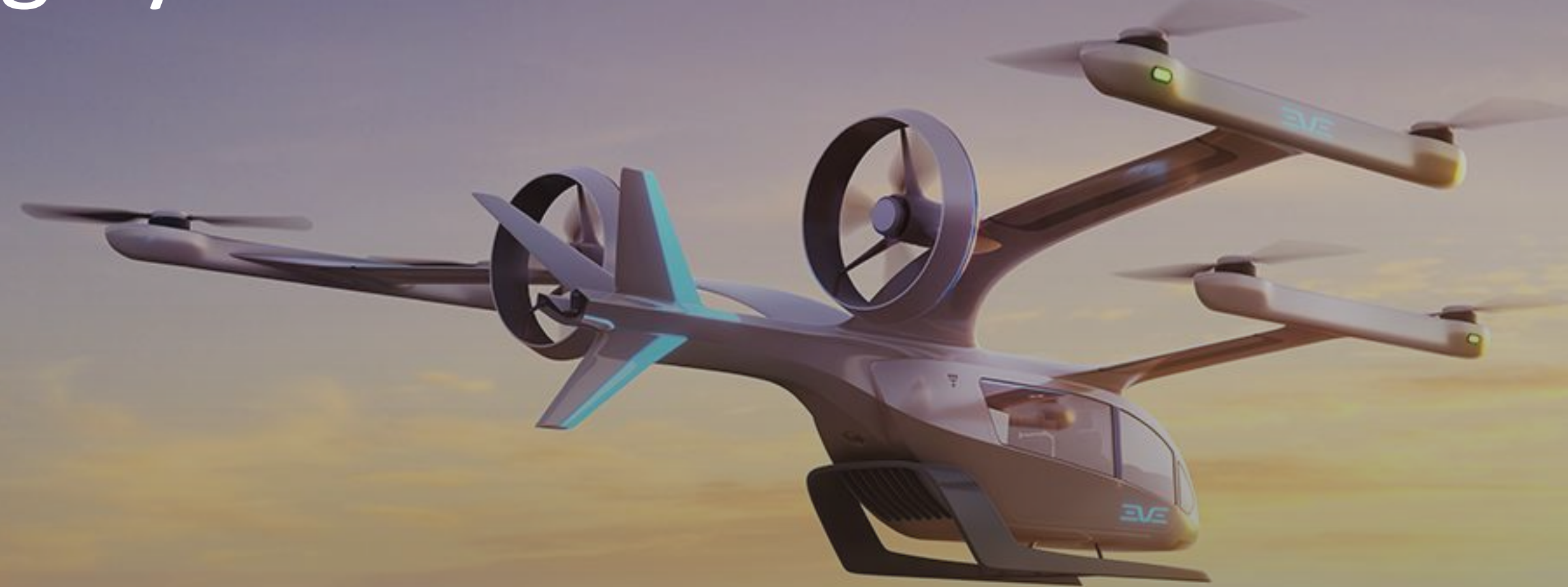
**Copacabana Impacted Area**  
Population: 168000+  
Early adopters: **Medium**  
Short term: **Medium**  
Taxi (Premium): R\$ 138,00

**Centro Impacted Area**  
Population: 136000+  
Early adopters: **Medium**  
Short term: **Medium**  
Taxi (Premium): R\$ 128,00

Sources: Eve Air Mobility, IBGE, HERE MAPS



# Highly Scalable UAM Solution



## EVTOL DESIGN AND PRODUCTION

Practical design choice drives lowest operational cost and simplest certification path



## SERVICE AND SUPPORT

Leveraging Embraer global footprint to enable a sizable and profitable revenue stream



## FLEET OPERATIONS

Capital efficient strategy of aligning with operators and scaling partner-by-partner



## URBAN AIR TRAFFIC MANAGEMENT

Applying the knowledge from designing Brazil's ATC system to enable safe eVTOL flights



# Vehicle Design Optimized for Urban Mobility



## Flexible Seating Capacity

4 passengers at entry into service  
Up to 6 in autonomous mode <sup>(1)</sup>

## High Utilization Rate

Designed for **thousands** of flight cycles per year with industry-leading reliability

## Lift + Cruise Design

**Most practical** design choice for efficiency and certifiability

## Community Friendly

Approximately **90%** lower noise footprint compared to equivalent helicopters <sup>(4)</sup>

## Tailored for Urban Mobility

**100 km** (60 mile) range at EIS  
Addresses **99%** of UAM missions in cities and metropolitan areas <sup>(2)</sup>

## Leading Cost Efficiency

Over **6x** lower cost-per-seat than helicopters and best-in-class for eVTOLs <sup>(3)</sup>

Note: Expected vehicle performance metrics are based on preliminary models, simulations and proof of concepts ("PoCs"). Actual performance characteristics are subject to validation and change.

(1) Eve expects autonomous operations to commence around 2030.

(2) EIS = entry into service. Eve's estimate of serving 99% of UAM missions in cities and metropolitan areas is based on a study of 1,500 markets worldwide conducted by Eve and Massachusetts Institute of Technology.

(3) Helicopter costs are based on an analysis from Conklin & de Decker. Eve vehicle costs are based on Eve analysis.

(4) Data is based on simulations performed by Eve and publicly available noise profile data for a Bell 430 helicopter.

# RECENT ACCOMPLISHMENTS

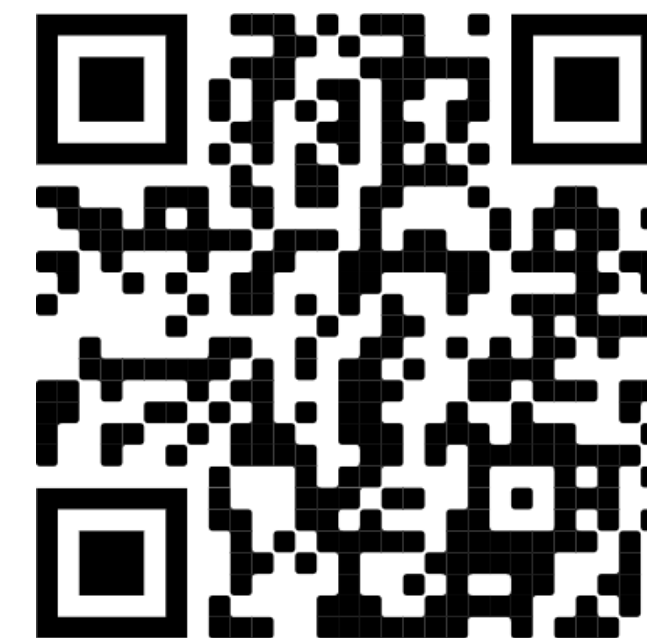


by Car 35 km | 60-90 min  
by Air 25 km | 10 min

A simulation of the  
entire uam journey

BARRA  
DA TIJUCA

RIO GALEÃO





# TYPE CERTIFICATE PROCESS

FORMALIZED WITH ANAC



MOBILITY REIMAGINED

# Building a global partner ecosystem

## Helicopter Operators



## Fixed Wing Operators



## Vertiports



## Renewable Energy



## Ride Sharing Platforms



## Lessors



## Technology



## Defense



## Financing / Development





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2022

*A NEW ERA OF  
FASTER & SMARTER  
RETURN-TO-SERVICE*

[www.beacon.works](http://www.beacon.works)

POWERED BY  
EMBRAER<sup>X</sup>



## MTX SYSTEMS

TRAXXALL

**Sabre**

**NAVBLUE**  
AN AIRBUS COMPANY

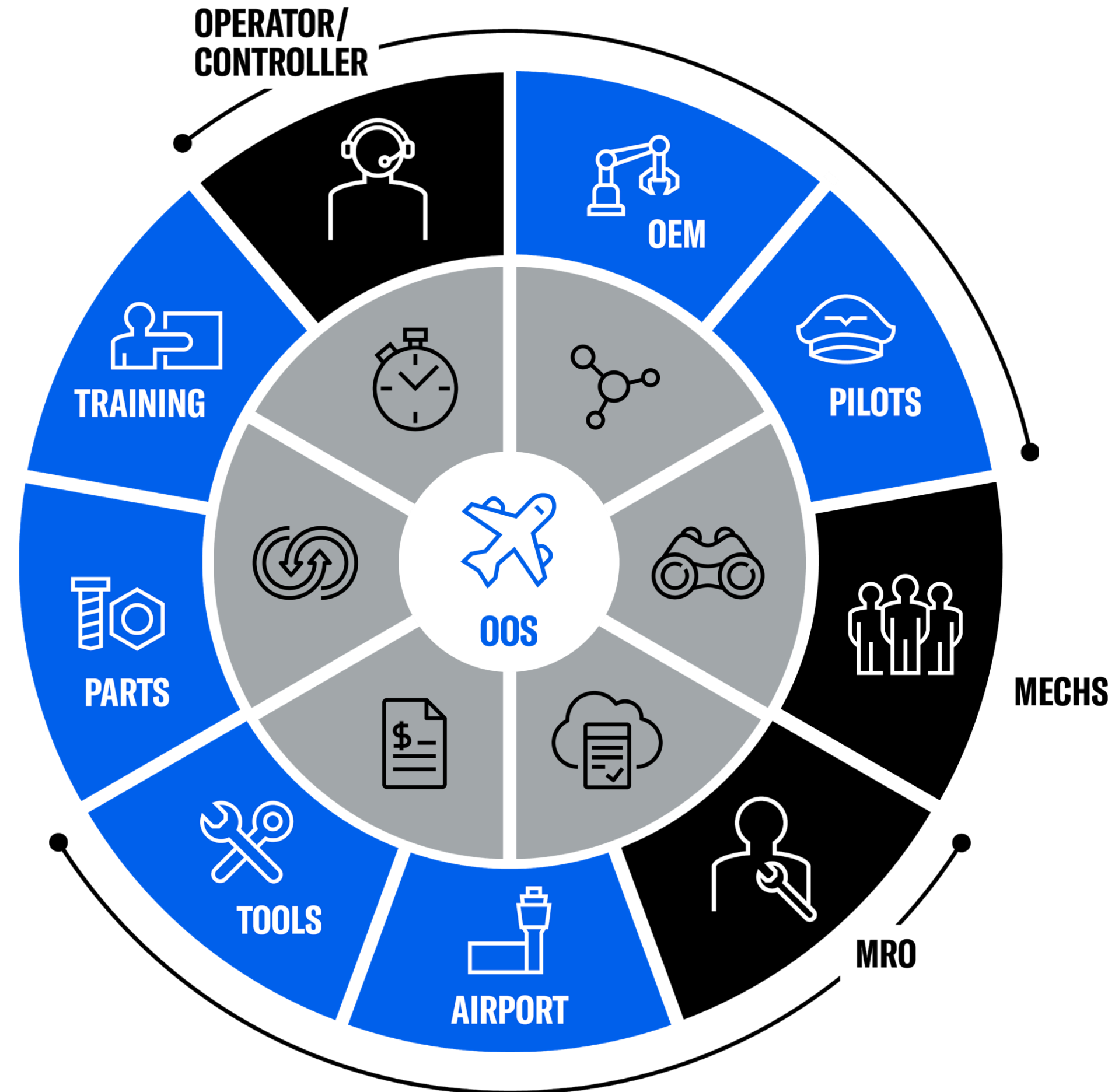
**AMOS**

SKYTRAC

ramco

## CRM SYSTEMS

salesforce



## COMMUNICATION CHANNELS



*800+ users*  
*190+ airports*  
*90K+ cases*  
*2K+ airplanes*





# EMBRAER INNOVATION VERTICALS

ZERO EMISSIONS

AUTONOMOUS FLIGHT

AI & DATA SCIENCE

INDUSTRY 4.0

AIRFRAME COMPETITIVENESS

CYBERSECURITY

PASSENGER EXPERIENCE

PLATFORM BASED BUSINESS



Daniel Moczydlower  
CEO Embraer-X  
VP Inovação & Digital, Embraer