EASA
European Aviation Safety Agency

New business models – Technological innovations challenging legacy concepts

Moderator

Panellist

Jean-Marc Cluzeau

Emeric de Wazier

Arvid Müllern-Aspegren

Trish Fritz

Panel 5

Your safety is our mission.

An agency of the European Union

Wingly

Democratizing light aviation

THE STORY

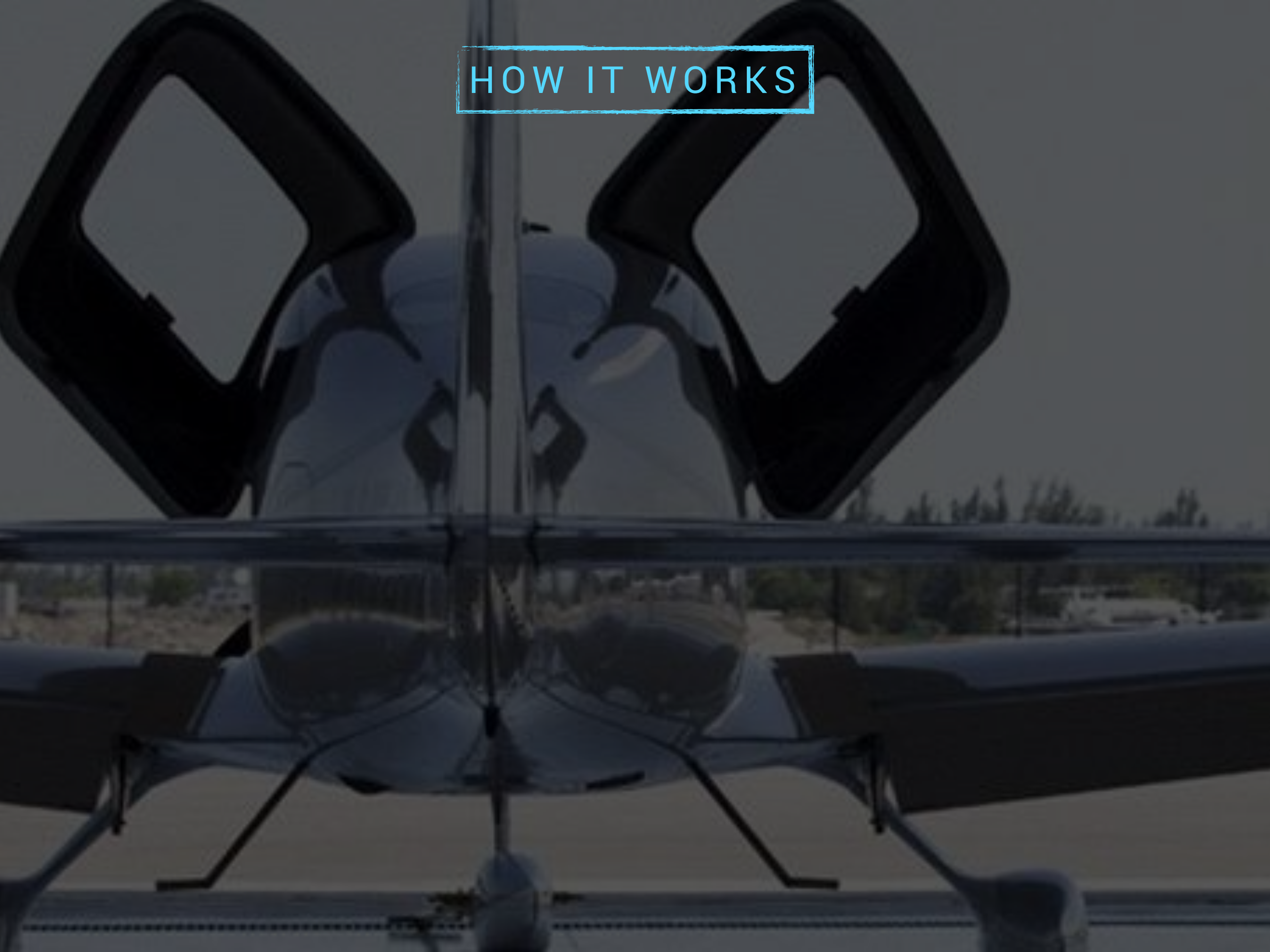
Today:

THE STORY

Today:

Tomorrow:

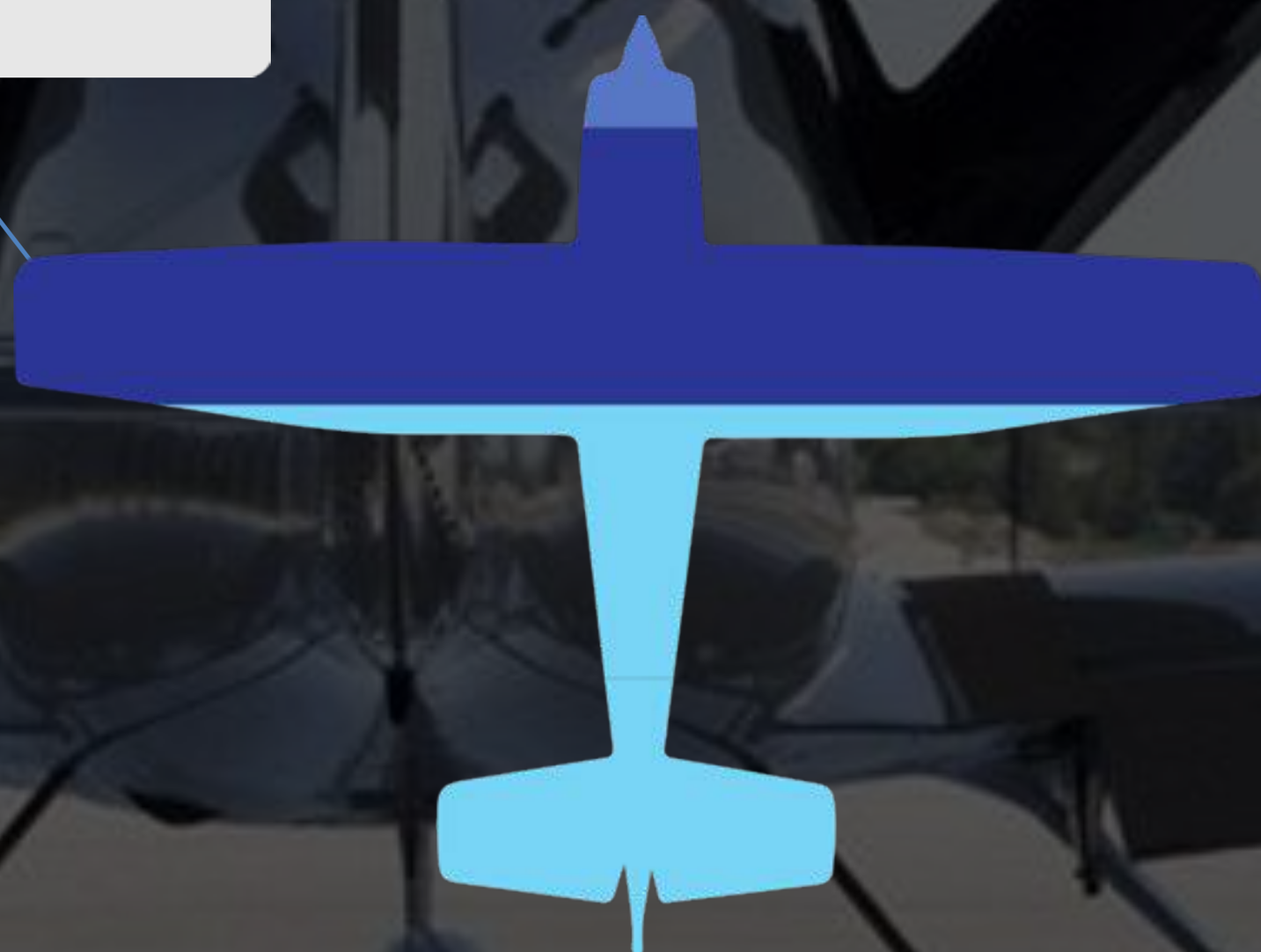
HOW IT WORKS



HOW IT WORKS

Pilots

Pilots post their flights on **Wingly** indicating the number of seats available, date, price...



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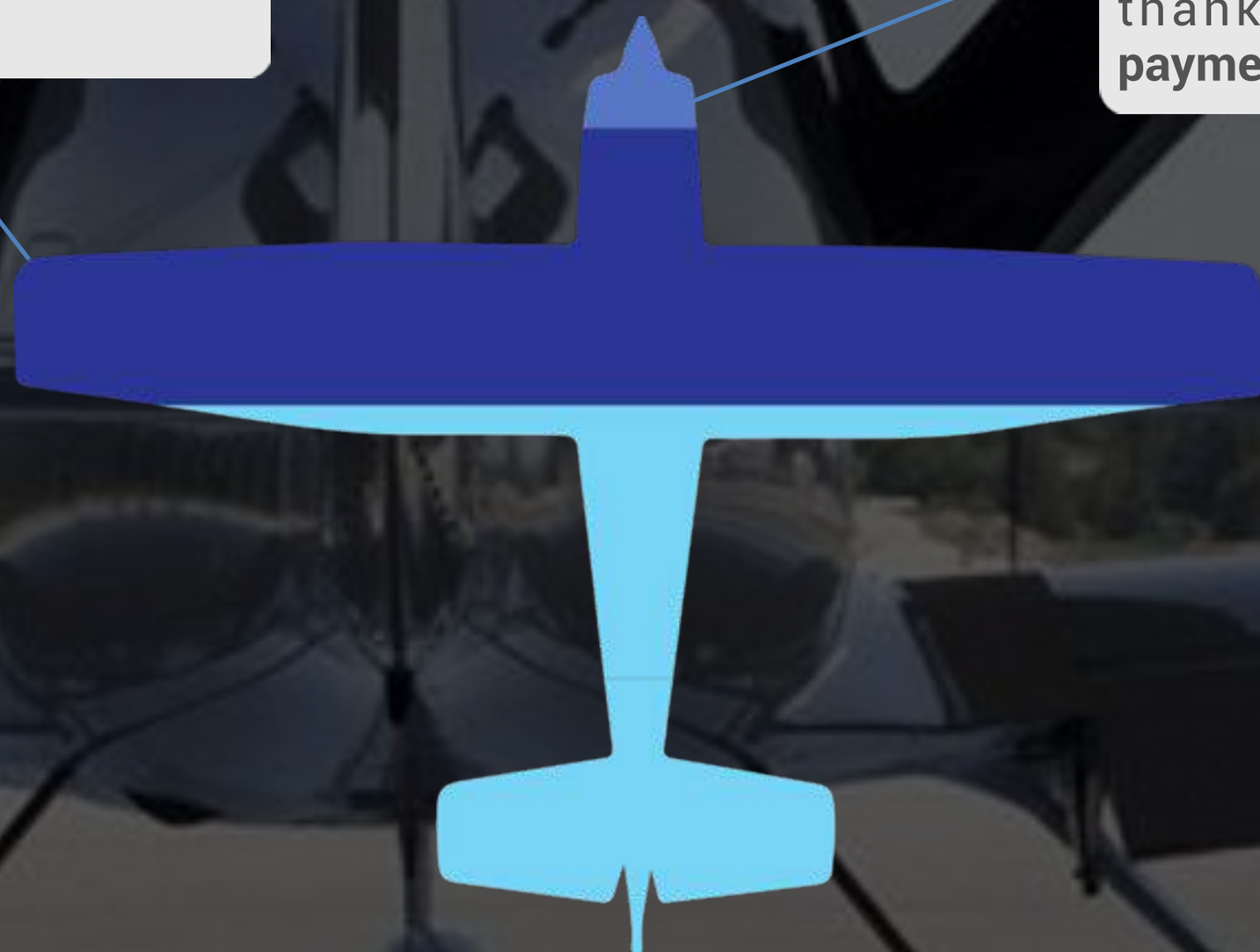
Users

Passengers join a flight and share the cost of it thanks to our **online payment provider**



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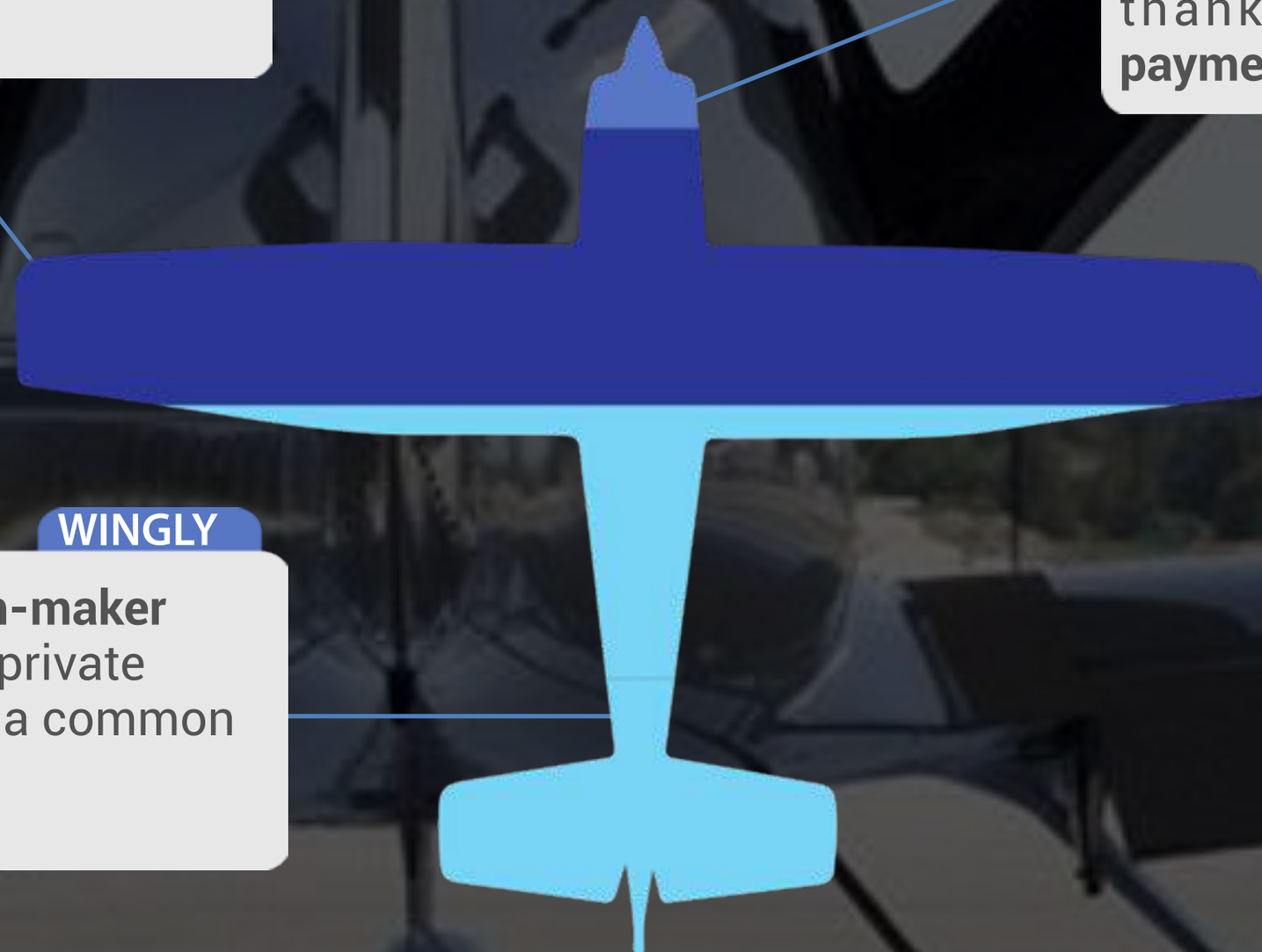

WINGLY

Wingly is a **match-maker**
Wingly connects private individual having a common purpose: **flying**.

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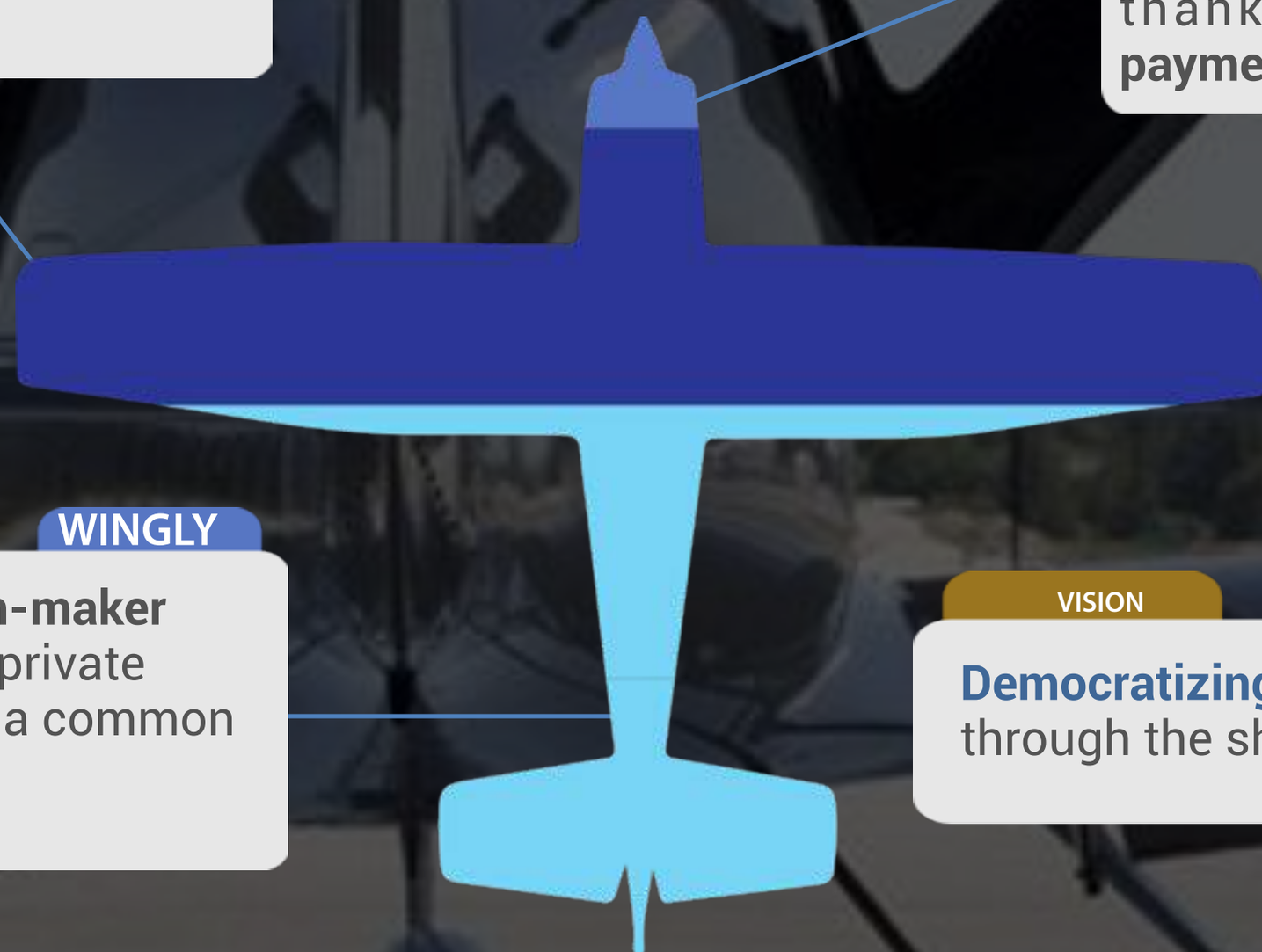

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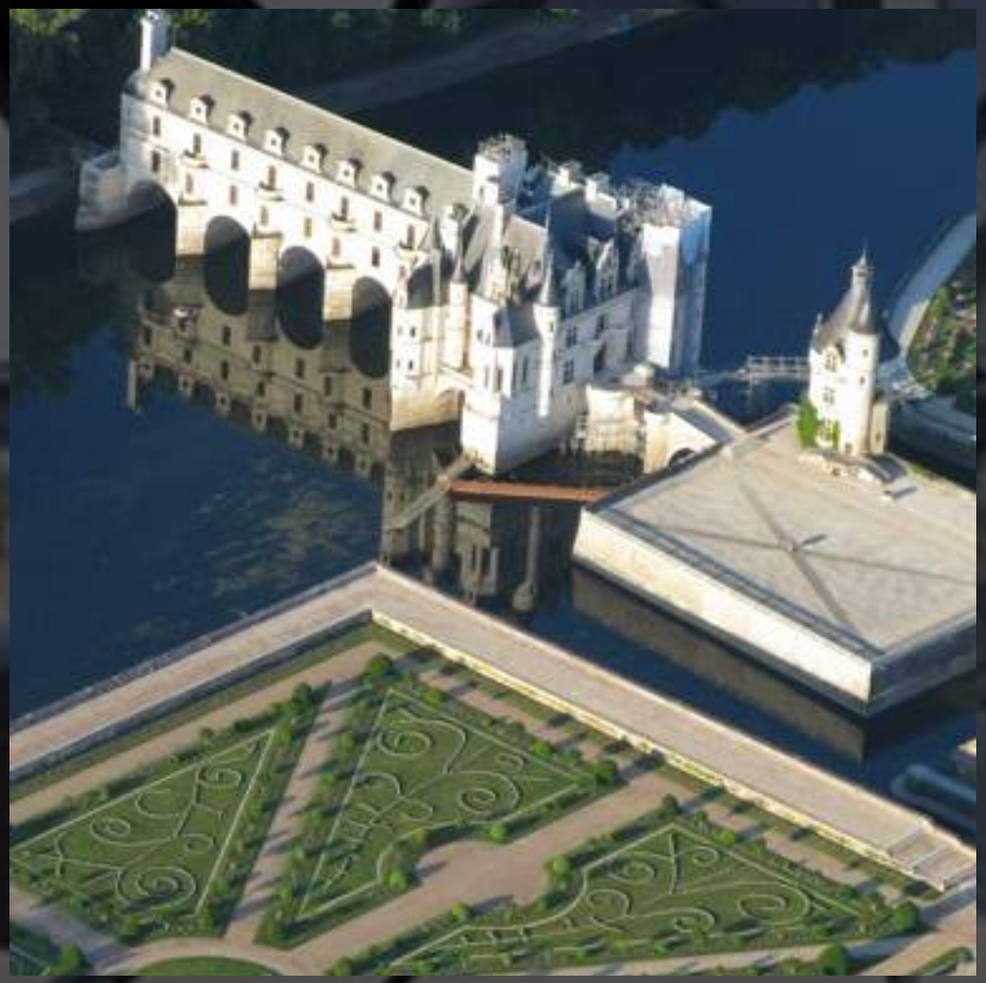
VISION

Democratizing light aviation through the sharing of costs

THE USE CASES

Flight sharing is a leisure oriented activity.



Round flights

A—B Flights

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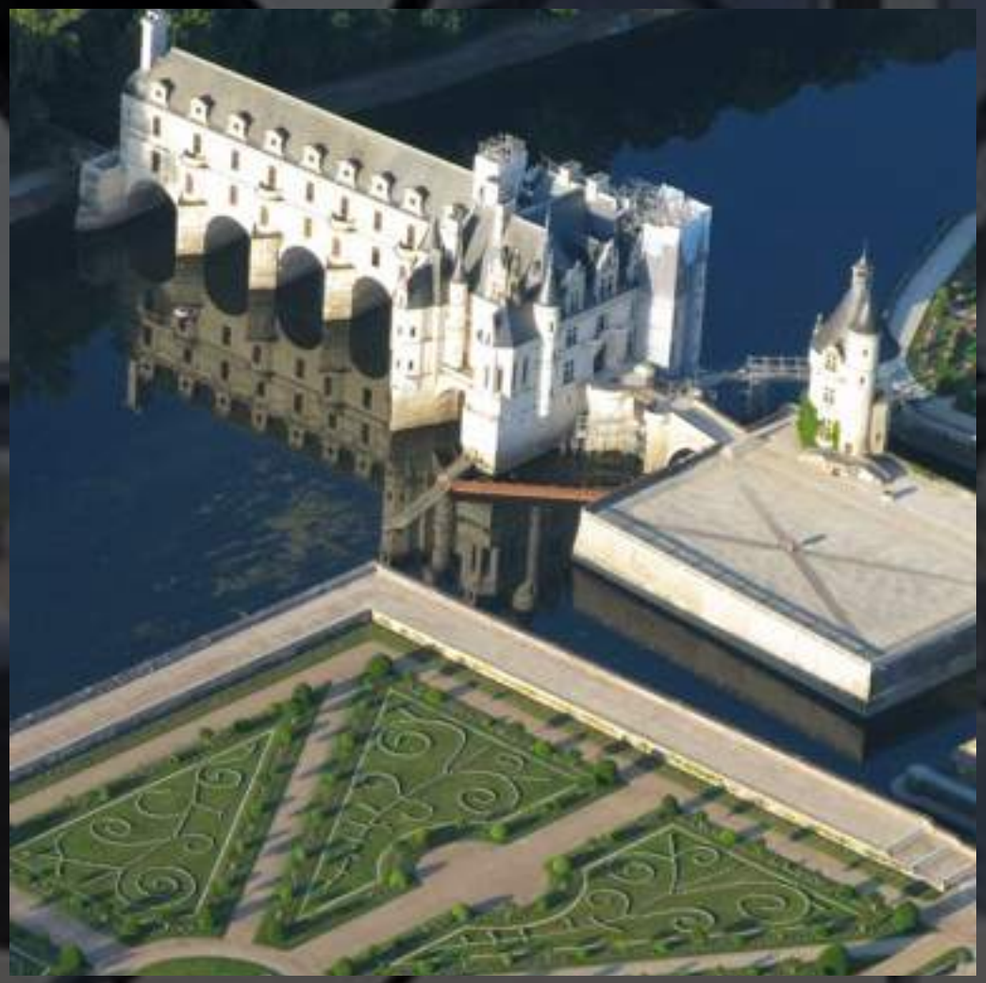

Round flights

A—B Flights

What is new about it?

WHAT'S NEW?

Internet

WHAT'S NEW?

Reach out to more people

Internet

WHAT'S NEW?

Reach out to more people

A new way of communication

Internet

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Enables the authorities to keep an eye on cost shared flights

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Internet

Reach out to more people

A new way of communication

Enables the authorities to keep an eye on cost shared flights

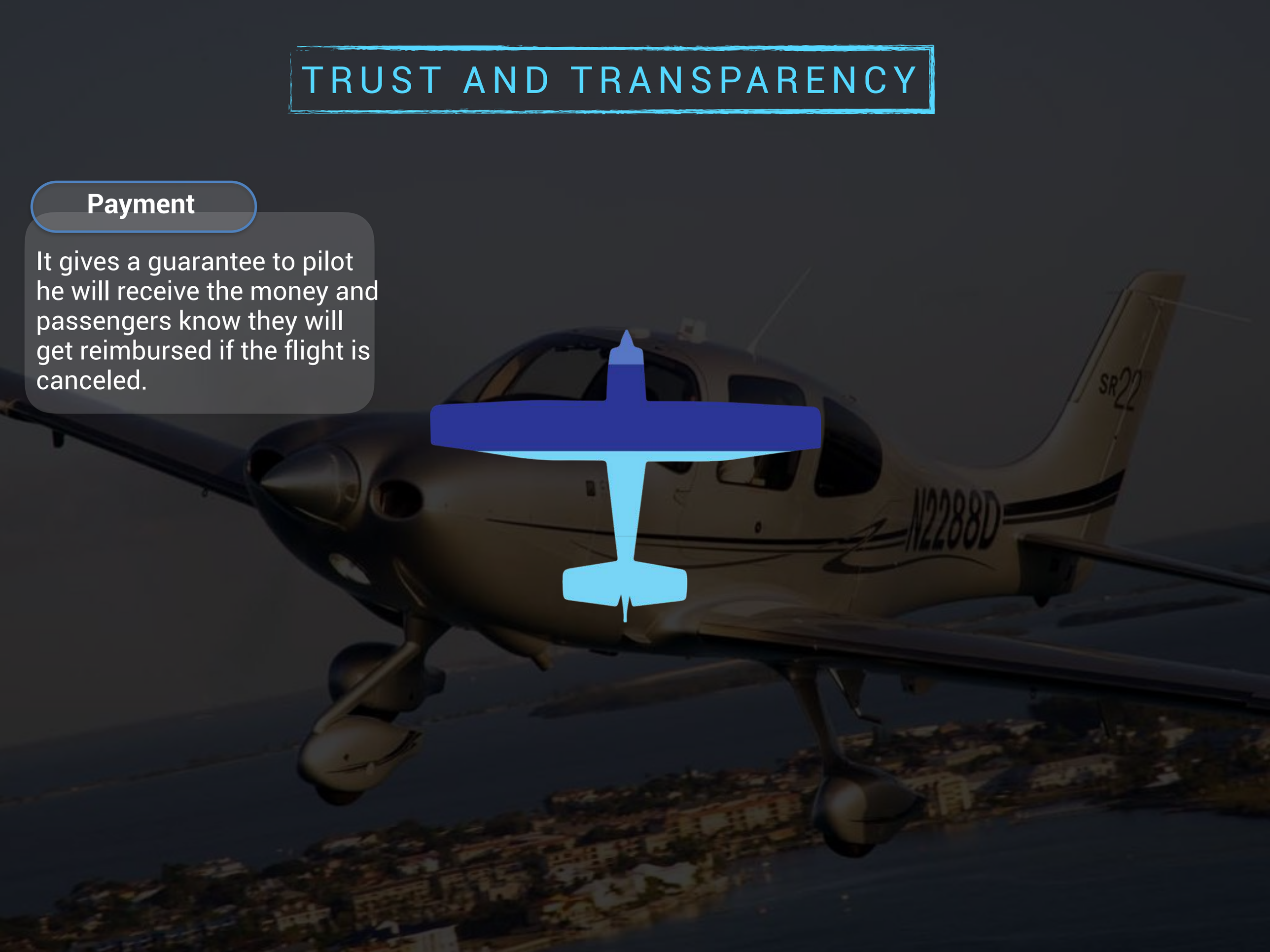
Create a community of trust

TRUST AND TRANSPARENCY

TRUST AND TRANSPARENCY

Payment

It gives a guarantee to pilot he will receive the money and passengers know they will get reimbursed if the flight is canceled.



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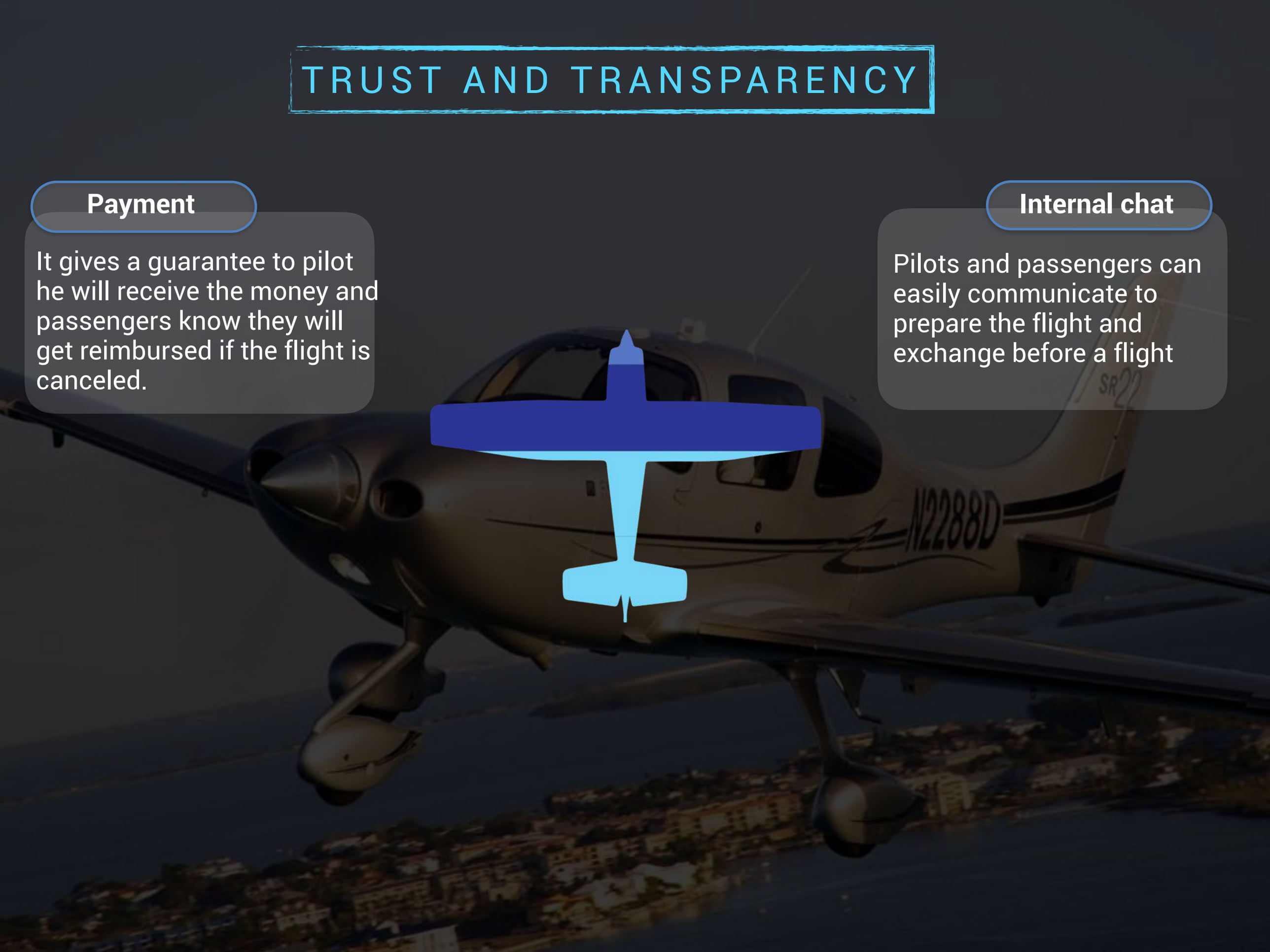
Internal chat

Pilots and passengers can easily communicate to prepare the flight and exchange before a flight



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Public profile

Users can check each others profile with pictures, ratings, descriptions.

THE PROBLEM

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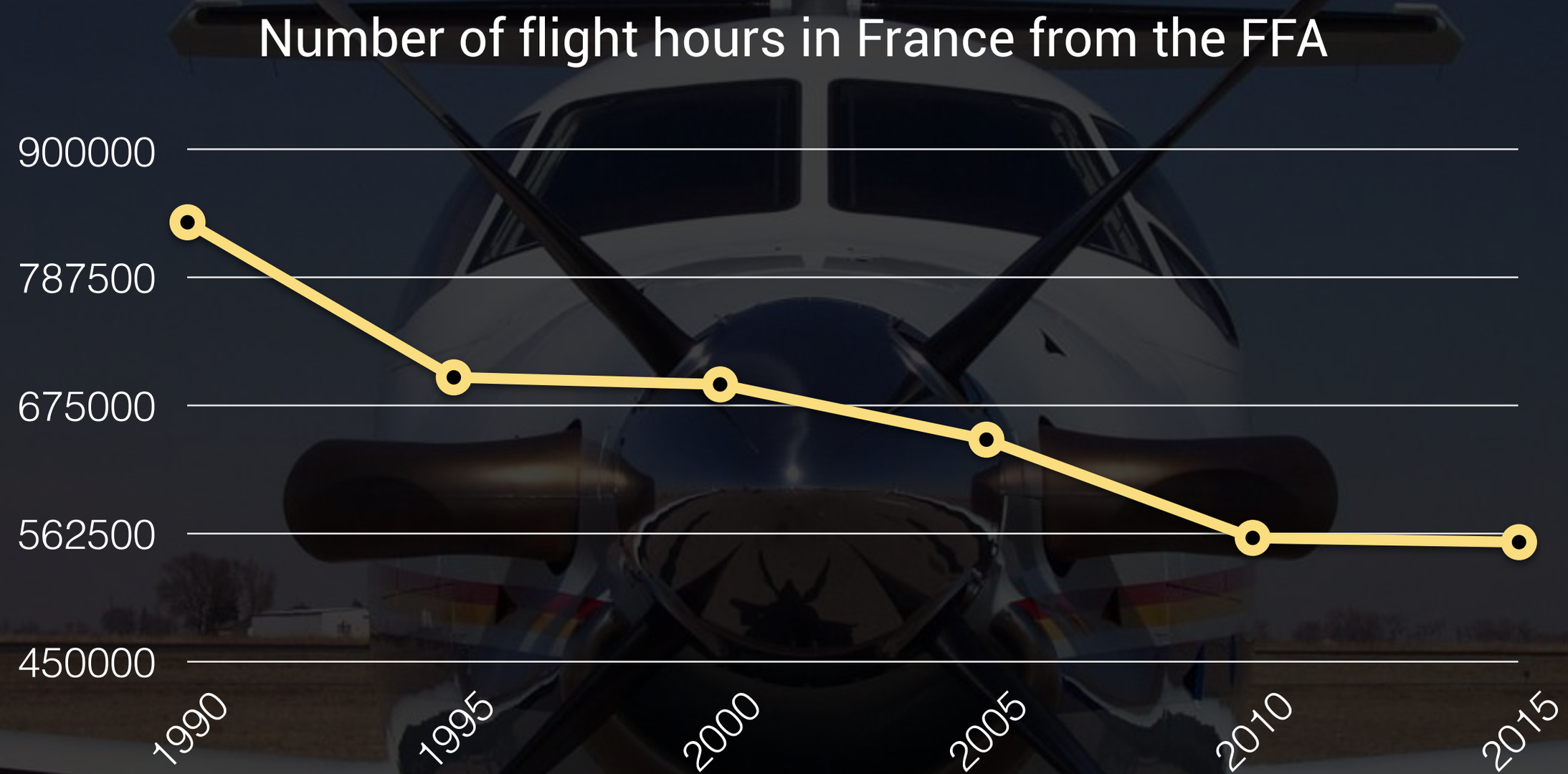
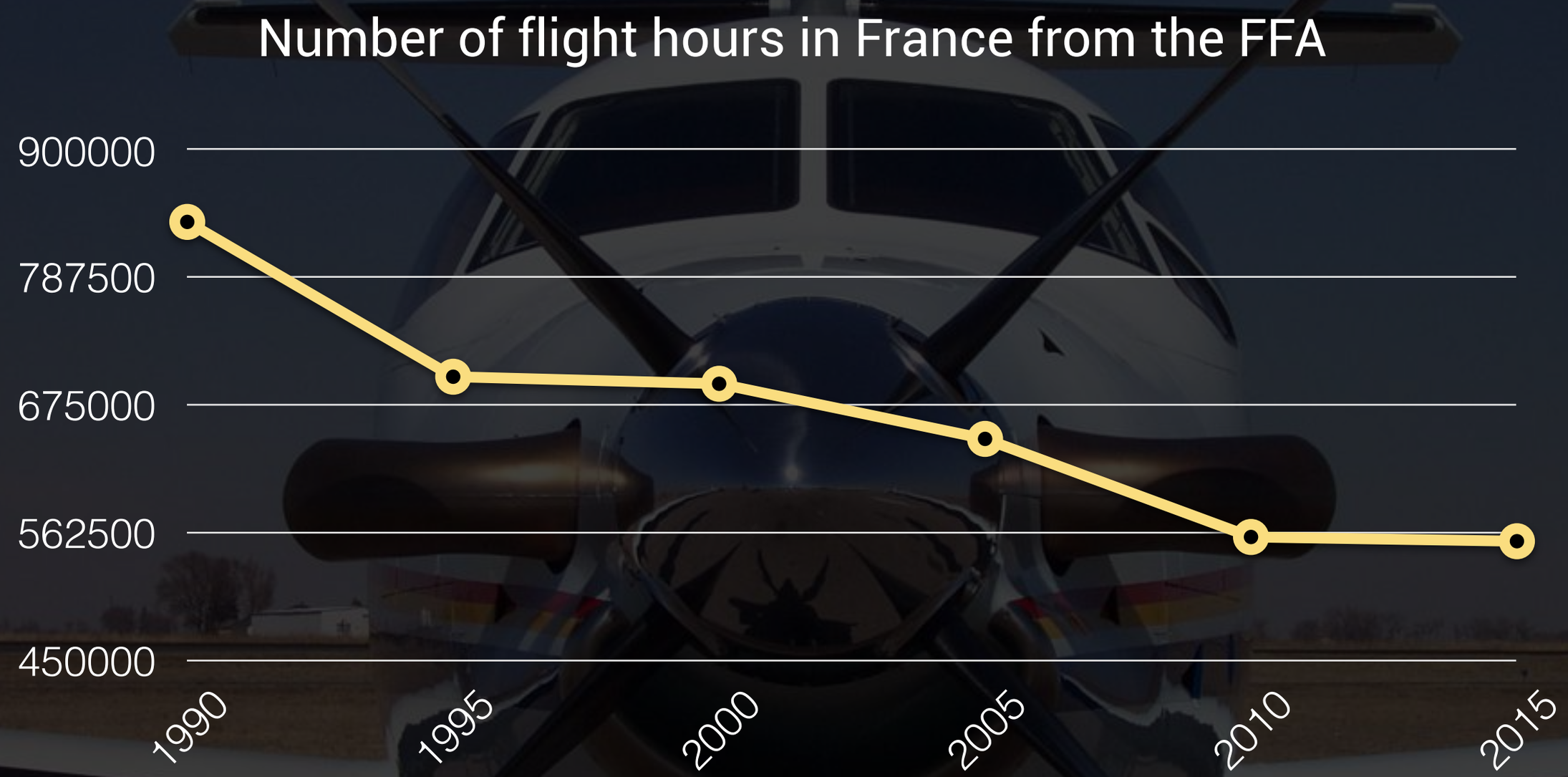

Number of flight hours in France from the FFA
900000
787500
675000
562500
450000
1990
1995
2000
2005
2010
2015

THE PROBLEM



Flight hours have decreased by 15% since 2005

THE REASON

Pilots

Passengers

THE REASON

Pilots

€

Passengers

THE REASON

Pilots

We help the pilot fly for less expensive

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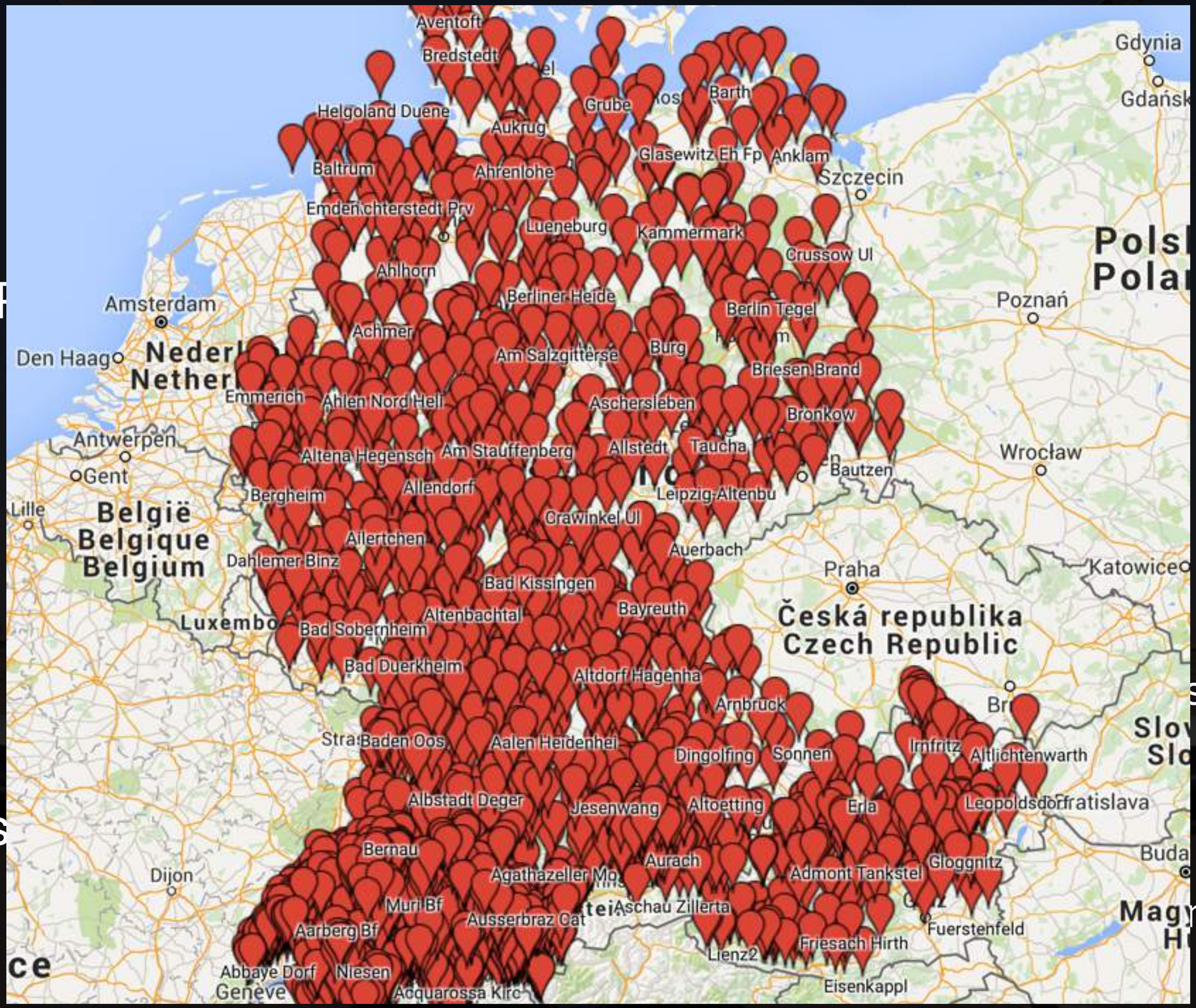
We show the potential of light aviation


Aventoft
Bredstedt
Helgoland Duene
Aukrug
Grube
Barth
Gdynia
Gdańsk
Baltrum
Ahrenlohe
Glasewitz Eh Fp
Anklam
Szczecin
Emden
Lueneburg
Kammermark
Crussow Ul
Ahlhorn
Berliner Heide
Berlin Tegel
Poznań
Amsterdam
Achmer
Den Haag
Am Salzgitterse
Burg
Briesen Brand
Emmerich
Ahlen Nord Heli
Aschersleben
Bronkow
Antwerpen
Altena Hegensch
Am Stauffenberg
Allstedt
Taucha
Wrocław
Gent
Bautzen
Bergheim
Allendorf
Leipzig Altenbu
Lille
Crawinkel Ul
Ailertchen
Auerbach
Dahlemer Binz
Praha
Katowice
Bad Kissingen
Bayreuth
Altenbachtal
Bad Sobernheim
Česká republika
Czech Republic
Bad Duerkheim
Altdorf Hagenha
Arnbruck
Baden Oos
Aalen Heidenhei
Dingolfing
Sonnen
Irnfritz
Altlichtenwarth
Albstadt Deger
Jesenwang
Altoetting
Erla
Leopoldsdorf
Bernau
Aurach
Gloggnitz
Dijon
Agathazeller Mo
Admont Tankstel
Muri Bf
Aschau Zillerta
Ausserbraz Cat
Aarberg Bf
Fuerstenfeld
Friesach Hirth
Lienz2
Abbaye Dorf
Niesen
Genève
Acquarossa Kirc
Eisenkappl

Belgique
Belgium
Luxembourg
Plymouth
Guernsey
Jersey
Wiesbaden
Mannheim
Karlsruhe
Stuttgart
Konstanz
Basel
Schweiz
Suisse
Svizzera
Switzerland
Milano
Torino
Genova
Monaco
Montpellier
Marseille
Toulon
Carcassonne
Bilbao
Vitoria-Gasteiz
Pamplona
Burgos
Logroño
Palencia
Valladolid
Zaragoza
Lleida
Girona
Andorra
Gdynia
Gdańsk
Eisenkappl

Pas

Pas

Benbecula
Plockton
Invernes
Dallachy Old Gl
Aberdeen
ÉCOSSE
Barra Uk
Aboyne Gld
Trevors Trees
Coll Ballard
Arbroath Gld
Colonsay Wrong
Édimbourg
Cumbernauld
Glasgow
Milfield Gld
Campbeltown
Ballkelly
Royaume-Uni
IRLANDE DU NORD
Carlisle
Currock Hill Gl
Belfast City
Durham Tees Val
Île de Man
Barrow Walne Gl
Bagby Thirsk Pr
Blackpool
Breighton
Galway
Dublin
Irlande
Bryngwn Bach Gl
Camphill Gld
Strubby Gld
Limerick
Ashbourne
Llanbedr
Cromer Northrep
Alconbury
Beccles
Cork
Bidford
Haverfordwest
Andrewsfield
Abingdon
Cardiff
Biggin Hill
Boscombe Down
Dunkeswell
Southampton
Lydd
Bembridge
Plymouth
Belle Vue Ul
Culdrose

THE FUTUR

In the next two years, we expect an impact on the light aviation sector of:

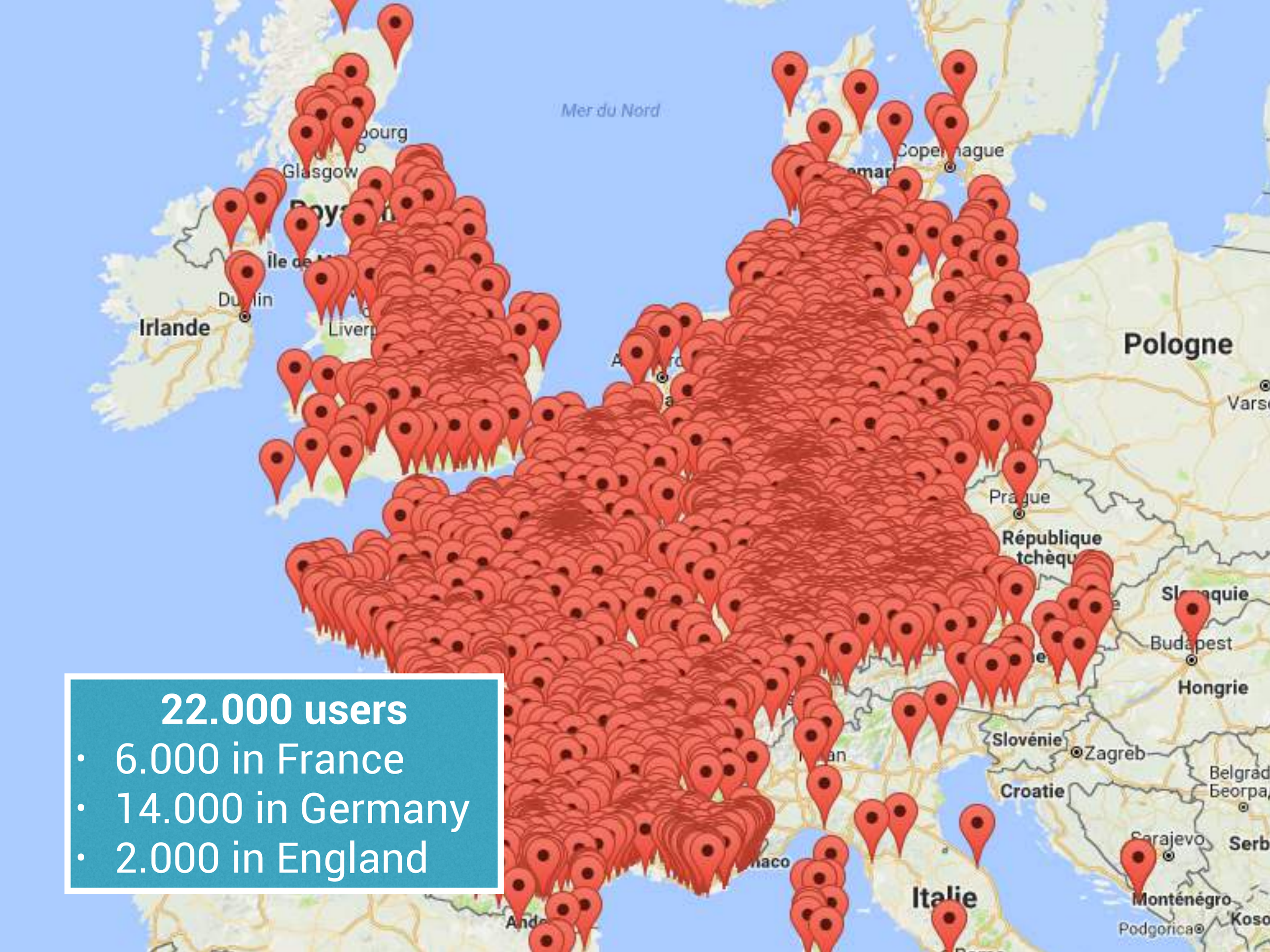
+10% plane renewal

+20% new PPL pilots

- 40% non renewed licenses

+30% hours of flight

Flight sharing will bring back the dynamism in the light aviation sector and help it grow again.



22.000 users

- 6.000 in France
- 14.000 in Germany
- 2.000 in England

350+ flights currently offered

- 85% in Germany
- 10% in France
- 5% in the UK

1 500 passengers

Don’t hesitate to visit our website
www.wingly.io

And contact us at
emeric@wingly.io

Alternative Means of Compliance is the new black

EASA Annual Safety Conference

Bratislava 25-26 October 2016

Arvid Müllern-Aspegren

Scheduling Safety Specialist, Jeppesen

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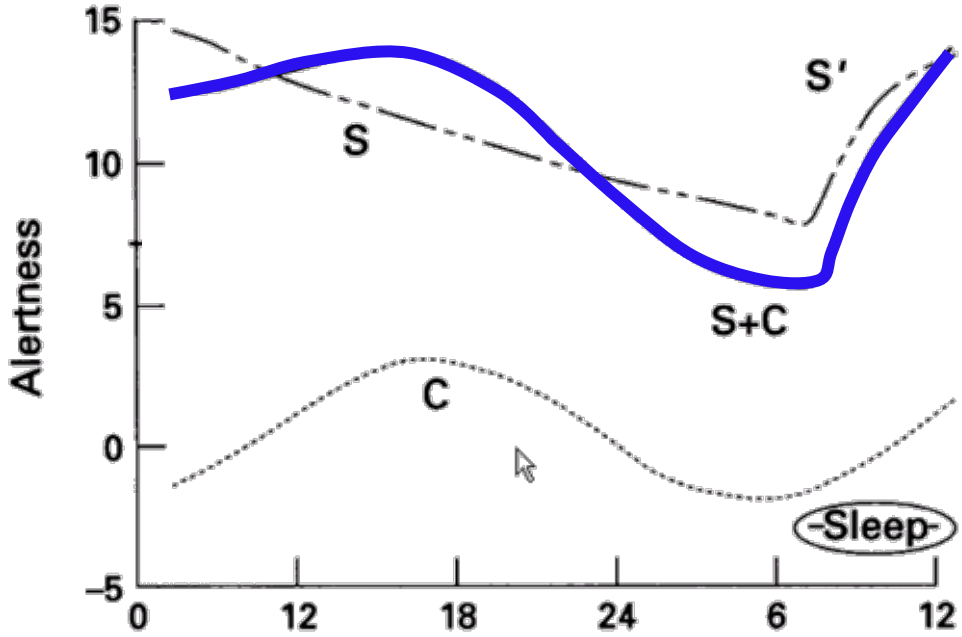
Jeppesen Crew and Fleet Solutions

- Part of Boeing Digital Aviation
- Main office in Göteborg, SE
- Products and Services for Crew and Fleet Planning
  - Manpower Planning
  - Pairing / Rostering
  - Crew Tracking
  - Crew Bid / Exchange
  - Tail Assignment
  - Fleet Tracking
  - Fatigue Risk Management

Jeppesen Crew Solutions touches some 350,000 crew every day

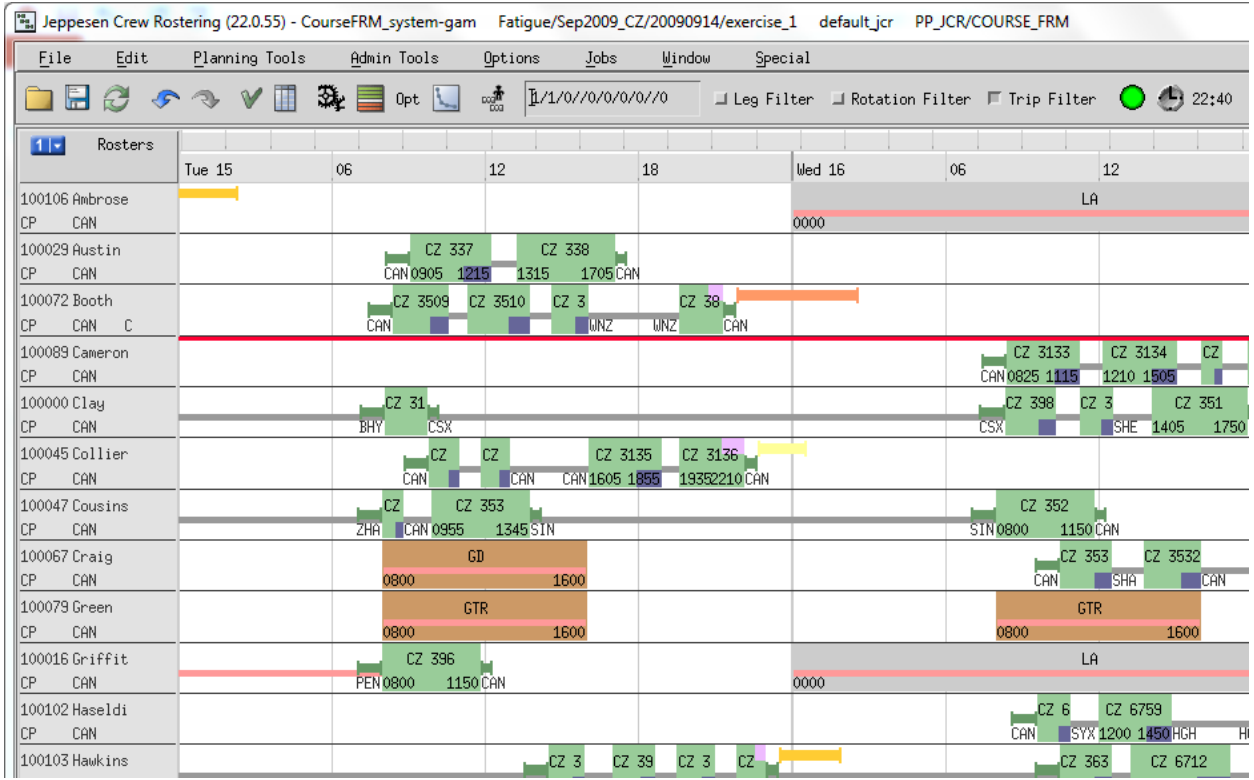
www.jeppesen.com/frm

Bio-Mathematical Models (BMM) of Sleep and Fatigue



S + C (+ other effects) are summed to predict alertness as a function of prior work and sleep history

Crew Rostering



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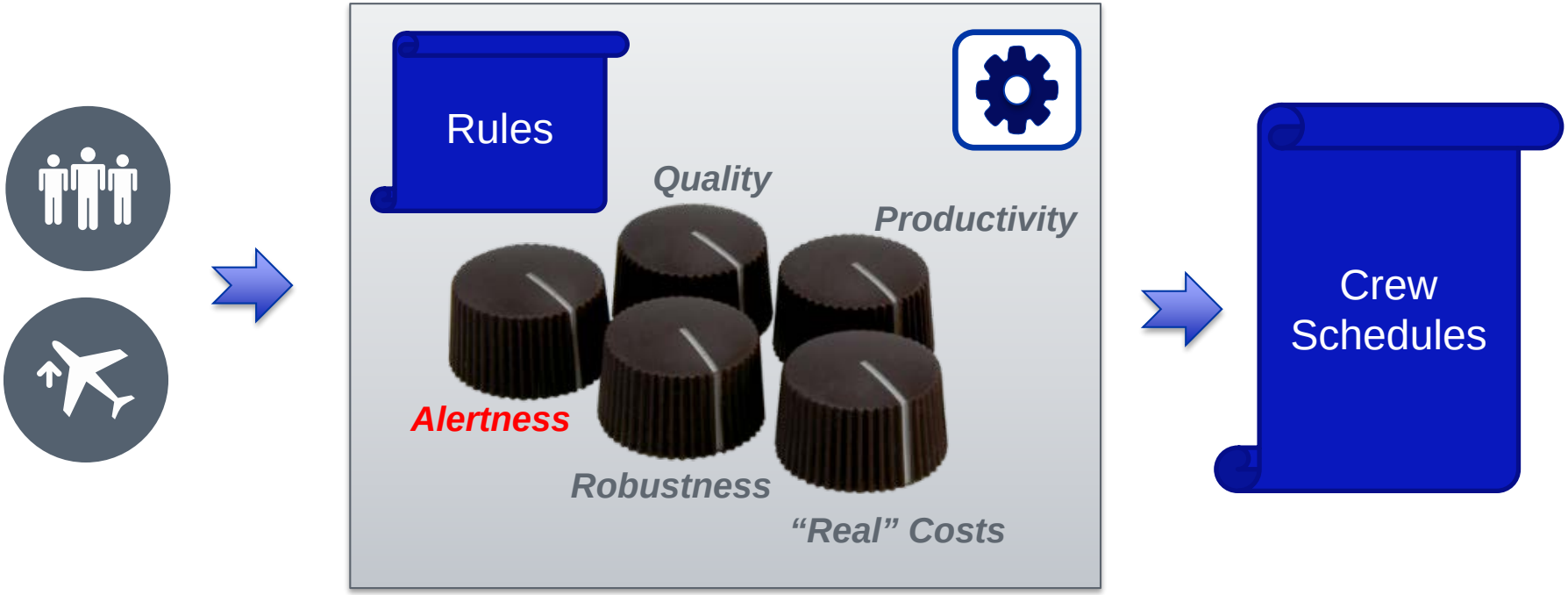
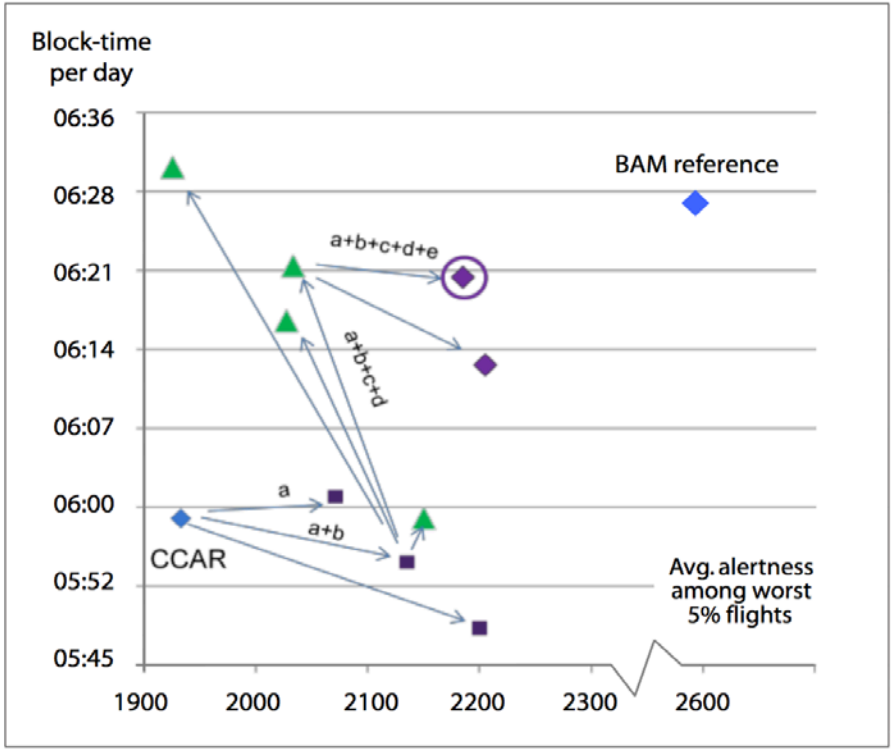
Rostering Crew with Optimization



Throwing compliance to the wind

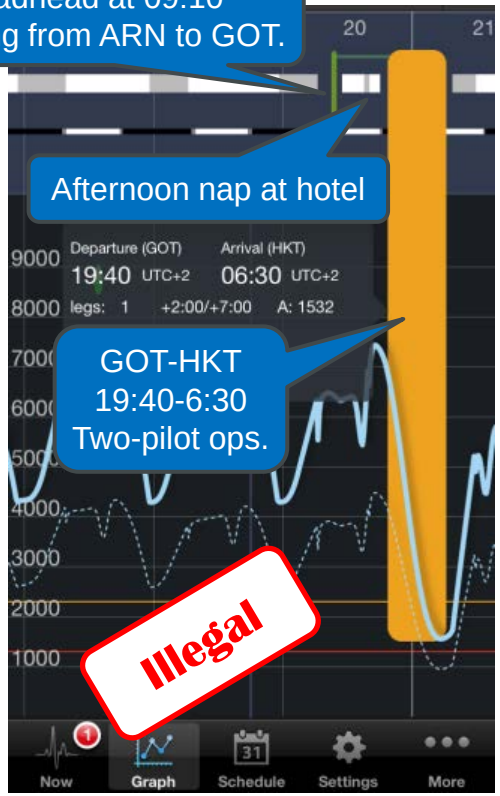
- Run the optimizer using only the guidance of the BMM and an incentive for productivity
- Powerful tool for identifying regulatory bottlenecks.
- Given that an approved FRMS is in place, a good starting point for building a derogation business case.



Unintended consequences of a rule-based approach

A deadhead at 09:10 positioning from ARN to GOT.

Afternoon nap at hotel

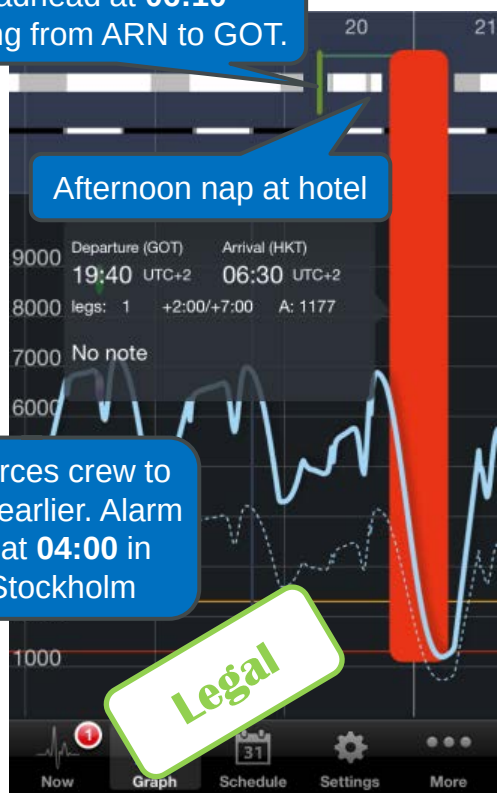


GOT-HKT
19:40-6:30
Two-pilot ops.

Illegal

A deadhead at **06:10** positioning from ARN to GOT.

Afternoon nap at hotel



12h rest forces crew to dead-head earlier. Alarm clock set at **04:00** in central Stockholm

Legal

There will be an increased interest in derogations

- Ever more airlines acquire access to advanced optimization technology and BMM:s
- With the new ease of finding candidates for AMC, more are likely to be pursued
- Applying optimization and BMM in the early phases of planning will stimulate interest in hypothetical AMC:s

Wideroe Among the First with FRMS and a Derogation

Wideroe, the largest regional airline in Scandinavia with 3,000 staff and 41 Dash-8 aircrafts, has become one of the first operators in Europe to gain approval for their FRMS.

"*The Boeing Alertness Model is one of the cornerstones of our FRMS, providing us with an additional layer of safety on top of regulation. Using BAM we have been granted a derogation by EASA to allow 70 hours duty per seven da instead of the 60 hours stipulated in the new FTLs. This derogation is based on ou additional precautions introduced to exceed the equivalent level of safety*", says Aleksander Wasland, Chief Pilot, at Wideroe.

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Thank you for your time!

Jeppesen is the world leader in Crew Planning optimization, and the integration of Bio-Mathematical Models with optimization technology. Among many other things.

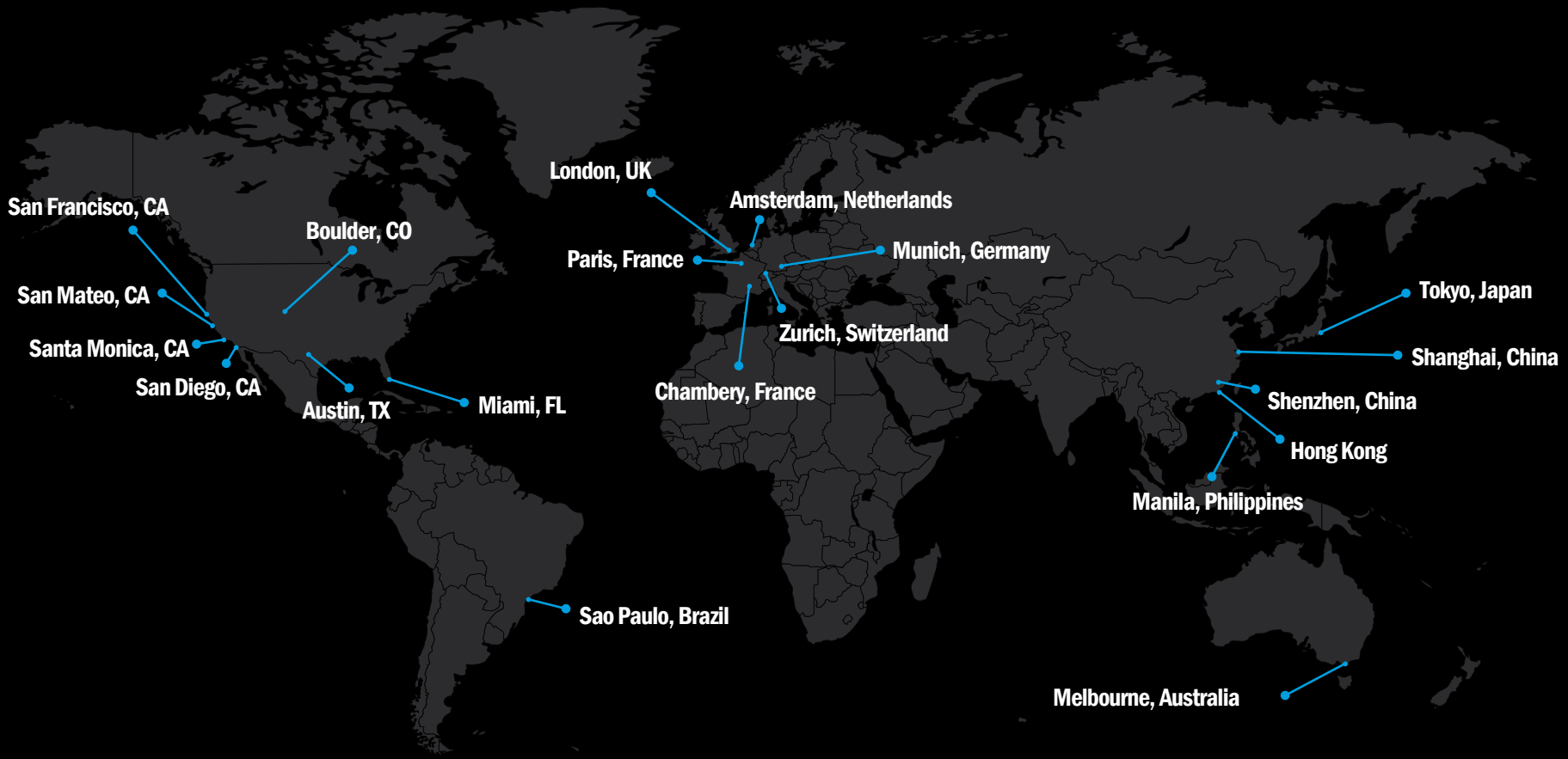
JEPPESEN®
A BOEING COMPANY

New Business Models:

Technological Innovations Challenging Legacy Concepts

Trish Fritz, Director, Global Public Policy

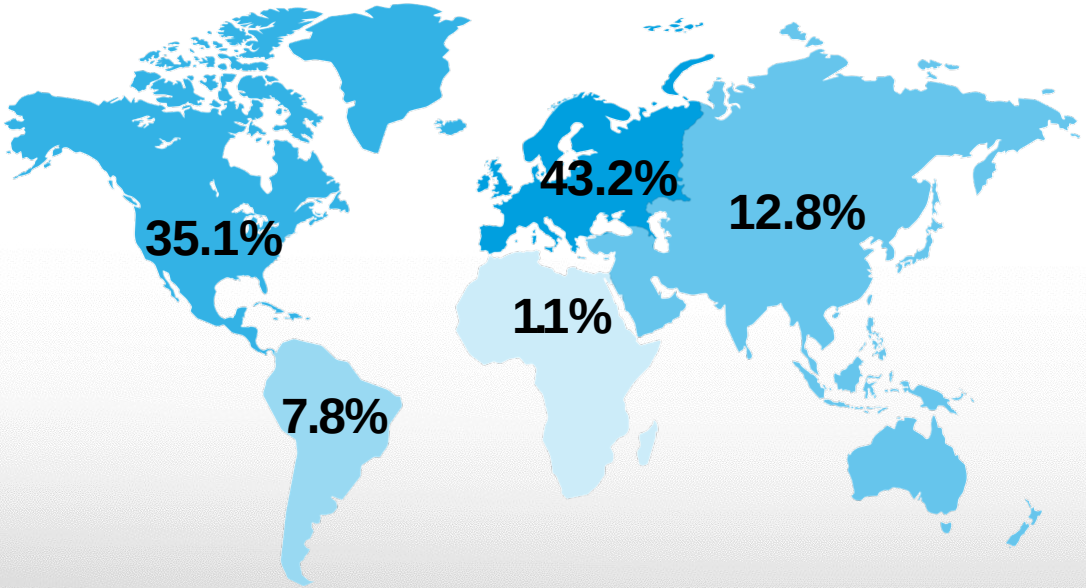
GoPro Locations



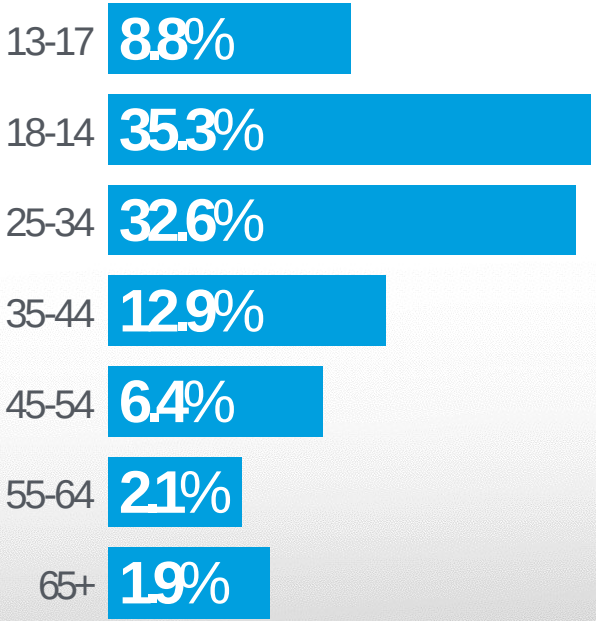
THE GOPRO COMMUNITY

IS A GLOBAL ONE

GEO



AGE



*Percentages basedon YouTubeviewership.

AUDIENCE

1.76B+

minutes watched on YouTube
559M in 2015 YTD

9.6M+

fans on Facebook

8.6M+

followers on Instagram

1.5M+

followers on Twitter

1.7M+

downloads of The GoPro Channel App on Xbox Live

+

Expanding content across social platforms around the globe

Why is GoPro on the EASA stage?

KARMA

More than a drone.

Regulatory Concerns

01 Registration

Creating accountability and responsibility.

02

Know Before You Fly

Clear and concise rules of operation

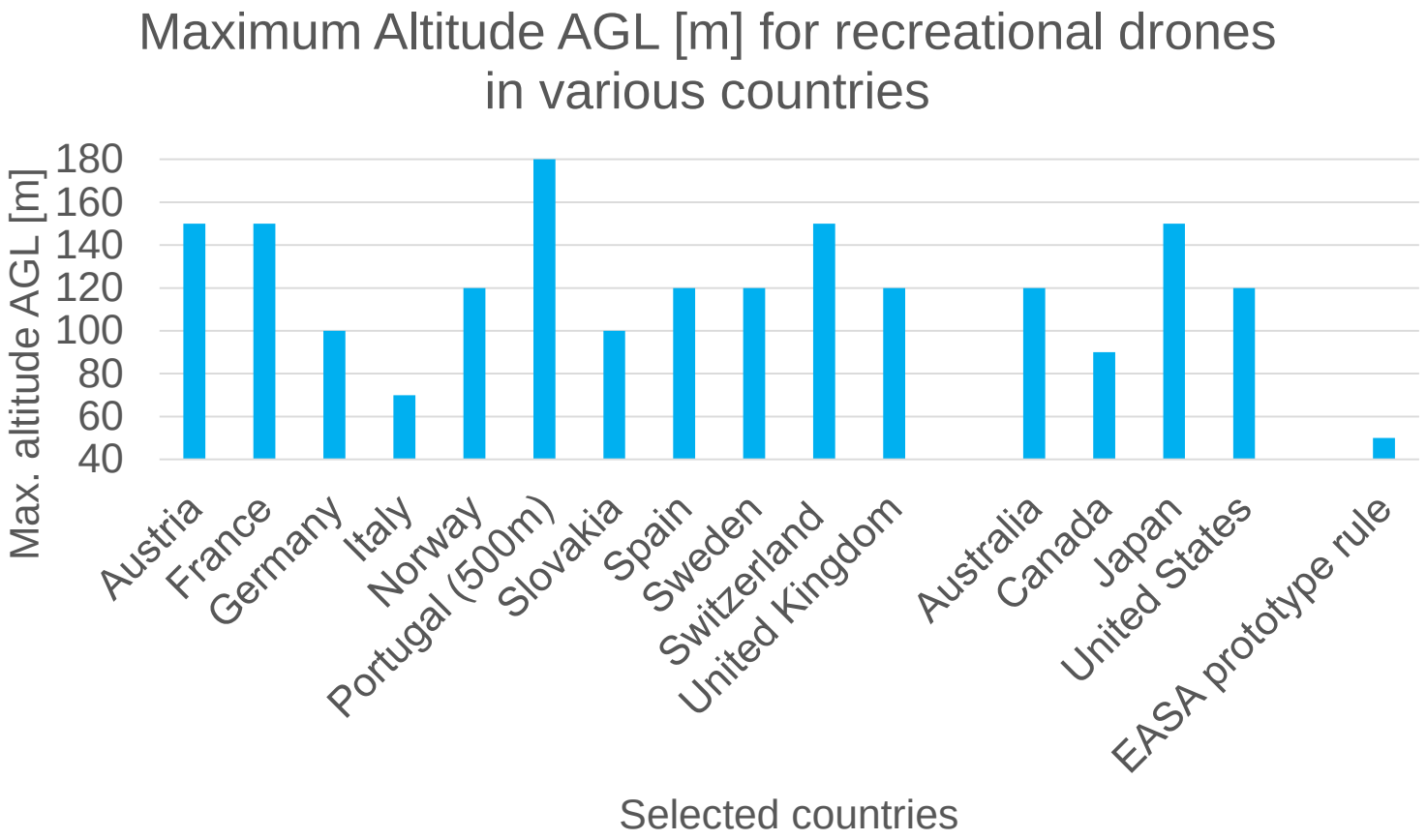
03

Performance Limitations

Transparent decision making

- Altitude restrictions
- Geo-fencing
- e-Identification
- Age limitation

Example: Altitude restrictions by selected CAAs



EASA
European Aviation Safety Agency

Questions?

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An agency of the European Union