



Juliett

An aerial, high-angle photograph of an airport tarmac, showing numerous commercial airplanes parked at gates along two long terminal buildings. The image is in grayscale and has a dark, semi-transparent overlay. The text "Aer Labs" is centered in the middle of the image in a white, sans-serif font.

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AerLabs Juliett

4 December 2019

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Prepared for the Digital Sky Challenge



AerLabs Juliett - an operational cost-benefit analysis tool

4 December 2019



High Probability of Delays Expected Madrid Barajas Airport (MAD) (LEMD) on March 7, 2019



Copenhagen Airport

@CPHAirports

Volgen



We're currently experiencing a heavy wind, which can cause delays in air traffic to & from the airport. Keep an eye on departures & arrivals at cph.dk & the CPH app for updates. In case of delays & cancellations contact your airline or tour operator for more info

04:30 - 8 mrt. 2019

Brussels airport: 50% of all flights have been cancelled

📅 11 December 2017

"If your flight was cancelled, you shouldn't come to the airport. You should contact your airline first."

AIR TRAFFIC

One in three Swiss flights delayed

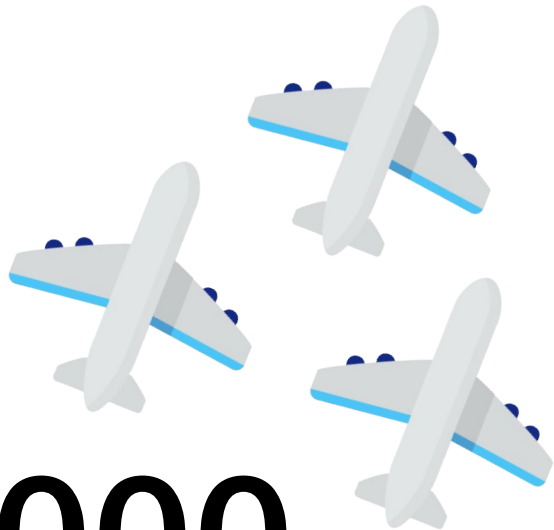
OCT 14, 2018 - 12:58

Weather warning: possible delays and cancellations tonight

**DELAYS AT SCHIPHOL, MORE STORM DAMAGE ON
4TH STRAIGHT DAY WITH WEATHER WARNINGS**

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Impact adverse weather



175,000
delayed or cancelled flights

22 million
passengers impacted



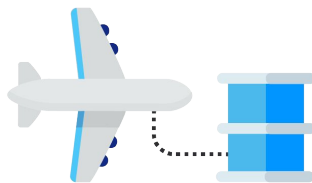
Impact on aviation industry in 2018

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Impact on airlines



2 Billion



100,000
tonnes fuel



316,000
tonnes CO2

Impact in 2018

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Our Solution: Juliett

- Predict impact adverse weather on airport capacity
- Quantify costs of delays and ATC regulations
- Identify threats and propose solutions
- Save money and reduce emissions

Our solution: Juliett



Adverse Weather



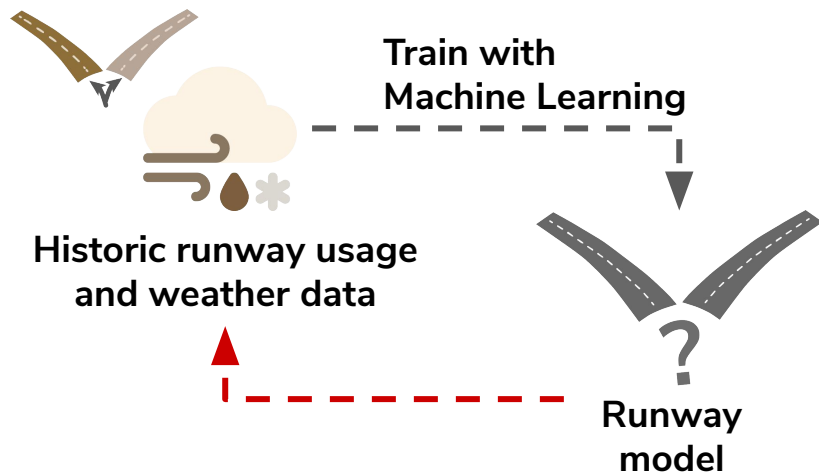
Runway Configuration



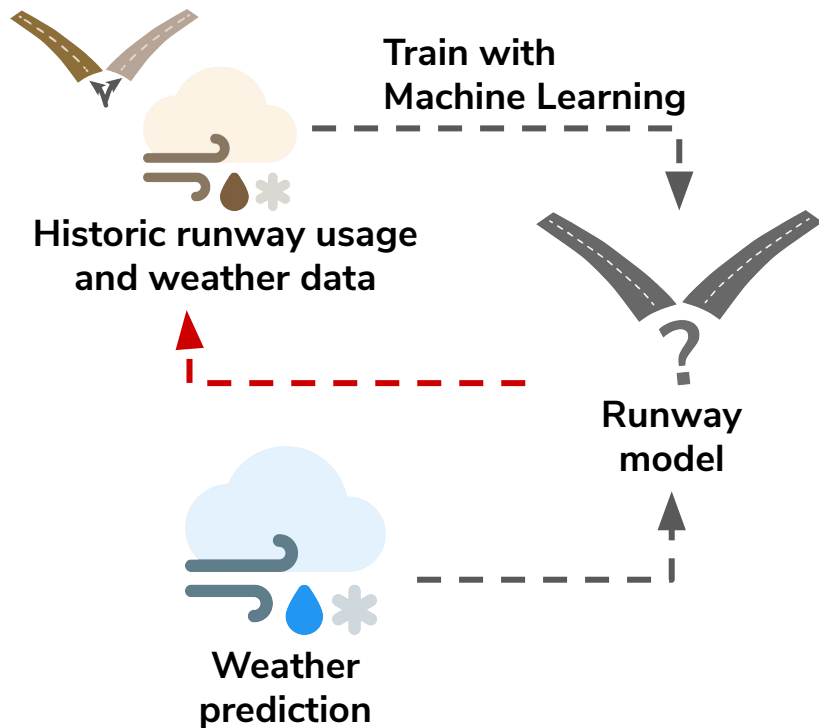
Runway Capacity

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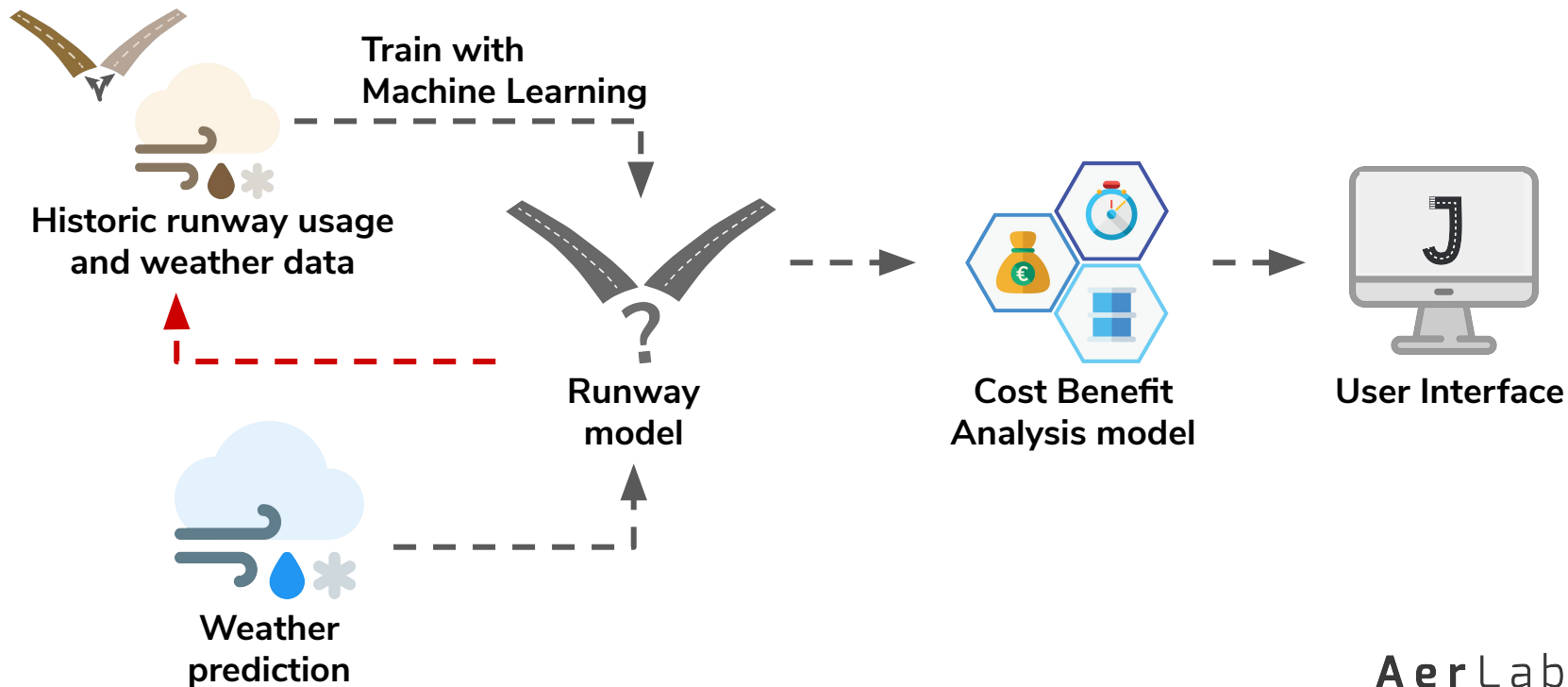
How it works



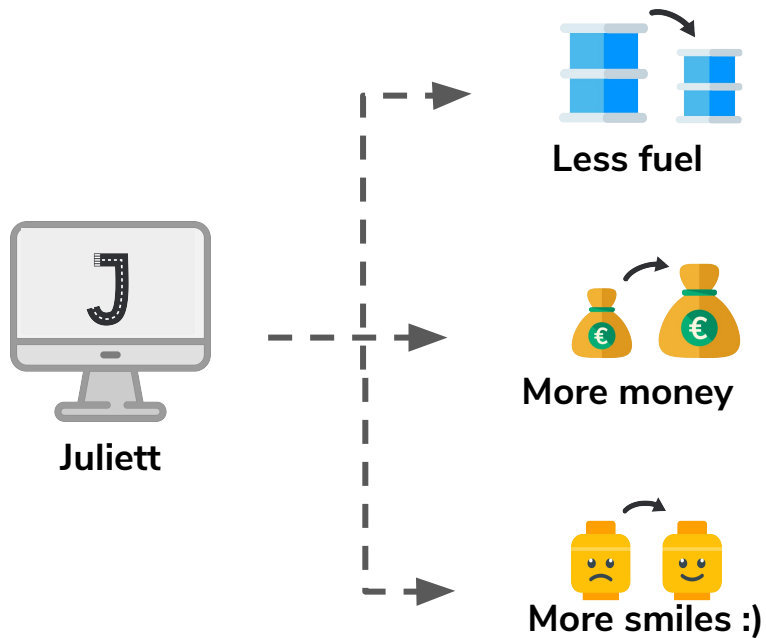
How it works



How it works



Our Solution: Juliett



Forecast Timepoint

10min

0min

10min

h

Capacity Forecast



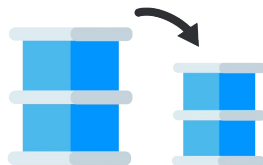
Capacity Reduction Probability



Clean skies and happy passengers



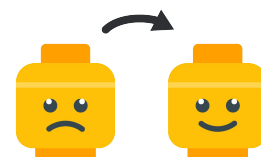
Reduce cost
€6,000,000



Reduce fuel
1,600 tonnes



Reduce emissions
5,000 tonnes CO2



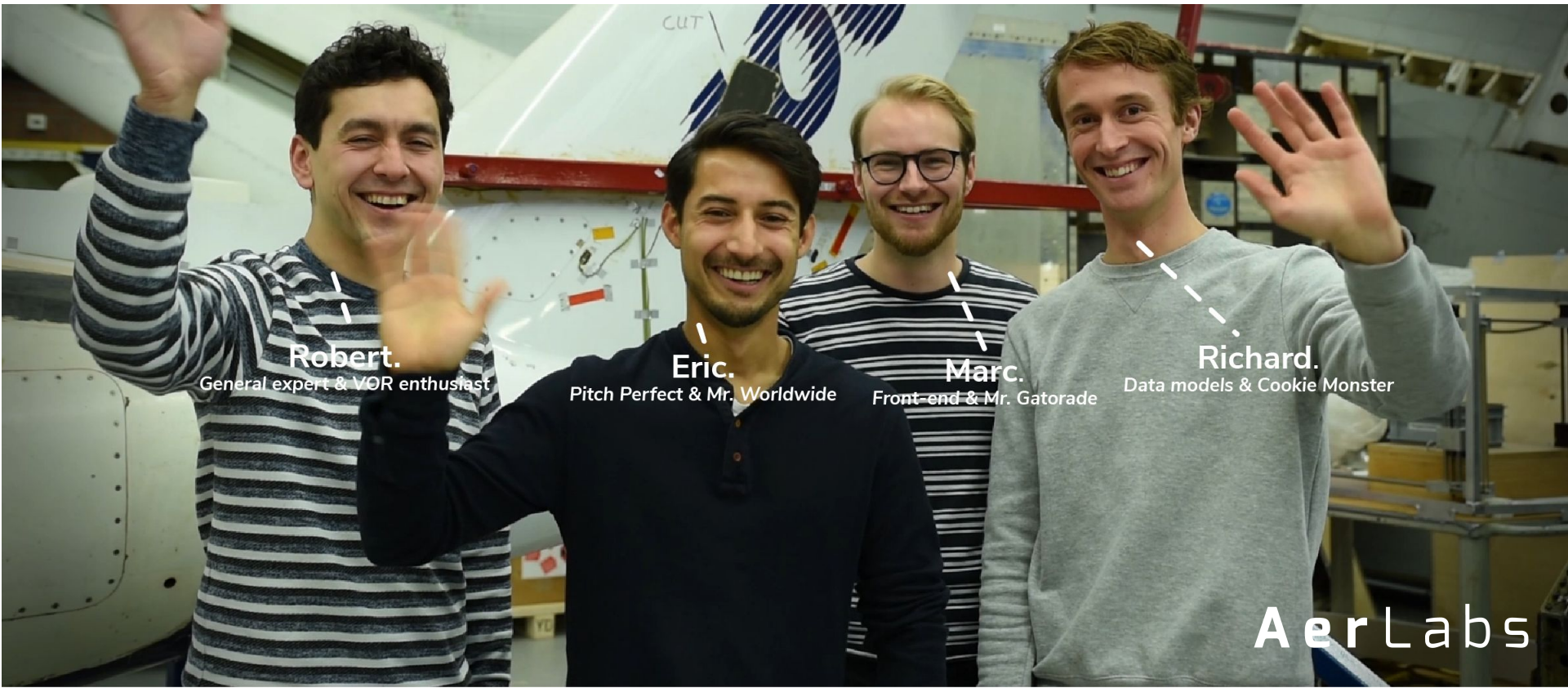
Happier passengers
125,000 PAX

Lufthansa estimated savings in 2020

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Thank you!

Visit us at www.aerlabs.com



Robert.

General expert & VOR enthusiast

Eric.

Pitch Perfect & Mr. Worldwide

Marc.

Front-end & Mr. Gatorade

Richard.

Data models & Cookie Monster

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