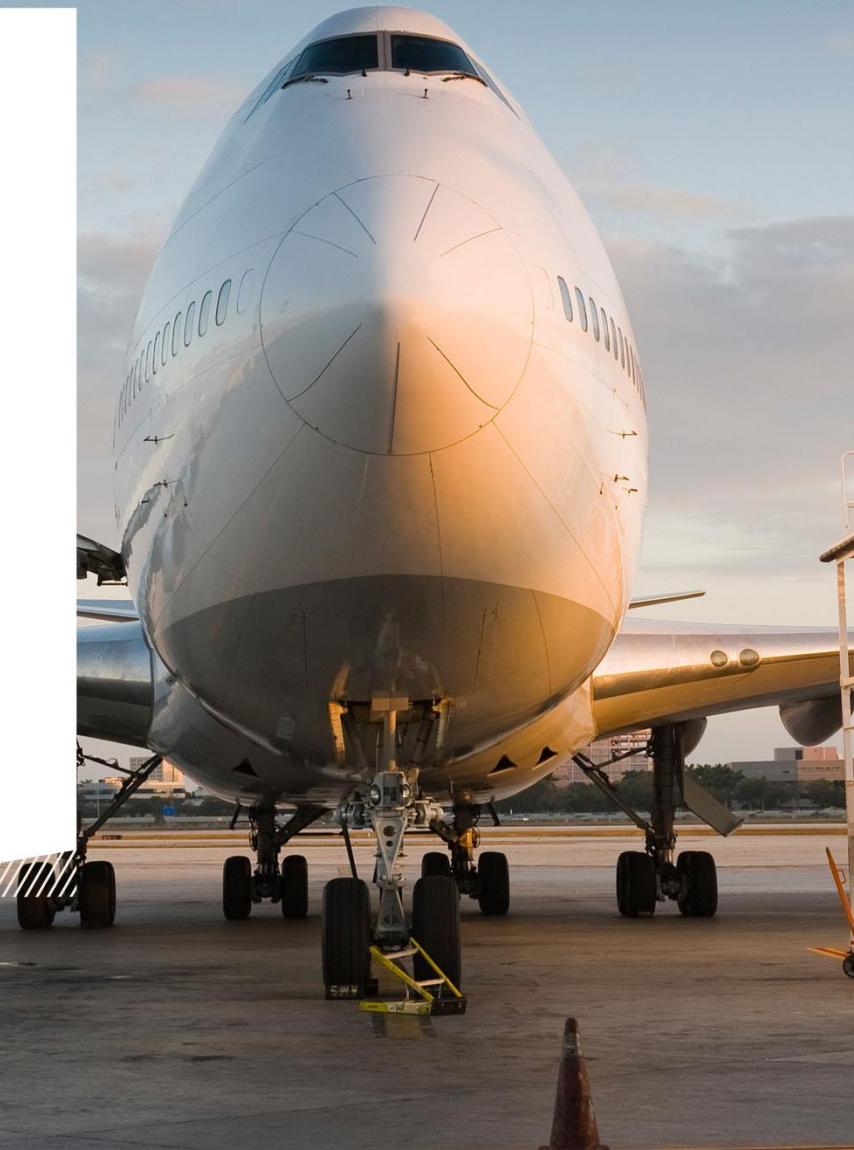


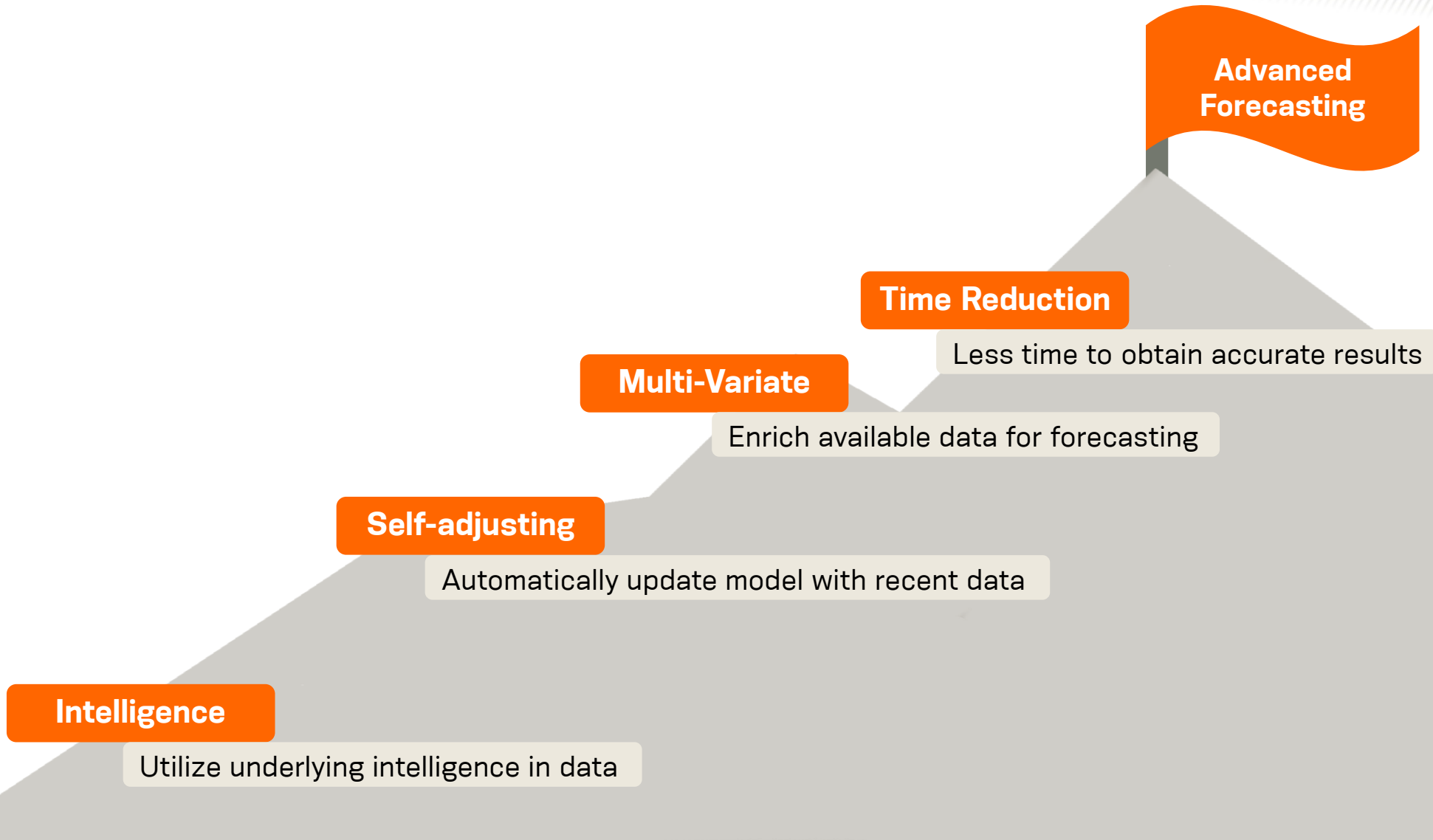
Advanced Forecasting

An intelligent, machine-learning based approach to flight-by-flight passenger forecasting

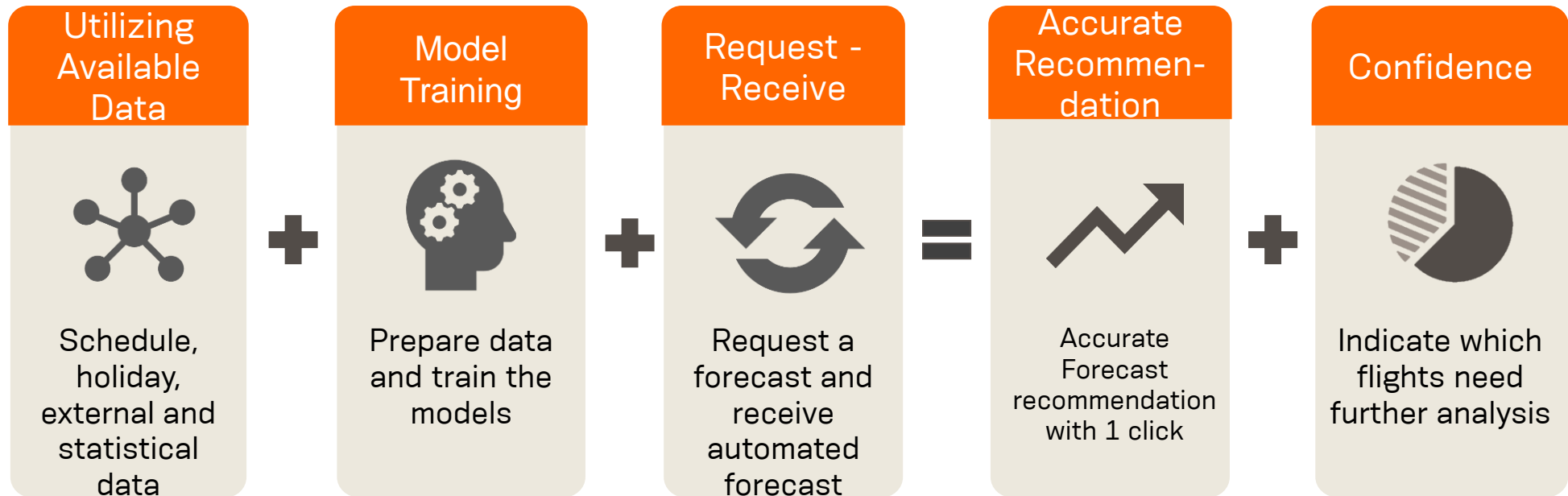
Bert Dijk
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Why Advanced Forecasting?



Advanced Forecasting – how? The BEONTRA Methodology



Our methodology employs the power of the available data and machine learning to determine an accurate forecast recommendation. The approach has specific elements to take care of difficult periods like holidays. Furthermore, flights of which the model is not certain will be indicated to the end user.

Initial Results

Case: Forecast a difficult holiday period (01.04.2017 – 05.05.2017) with advanced forecasting algorithm and compare the results with forecast produced by a customer

Results:



On average a reduction of error of **22%**



30/35 days a **lower** relative average error of passengers predicted per 15 min,
Average absolute passenger missed per flight reduced from 27 to **21**



Automatic forecast received in **less than 5 minutes**



Day Total Error – Consistent underprediction by **1-2 percent** average consistently relative to the customer forecast

Next steps for Advanced Forecasting

Finalize Architecture

- Move from successful prototype towards productized architecture
- Address the remaining (minor) open items

Implementation

- Establish the workflow in our products
- Enable the communication between algorithm and User Interface

Front-end

- Include a forecasting dashboard for users to be informed of the recommendation provided by the algorithm

Test First Version

- After implementation, the first version will be tested and validated against data from various customers and compared to their forecast

Contact

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