



GOVTECH CHALLENGE SERIES 2.0

HOW TO AUTOMATICALLY LOG PLANE MOVEMENTS IN THE AIRPORT?



Lithuanian Airports

GOVTECH LAB





CONTEXT

CURRENT SITUATION

- Currently, data on plane movements at the airport is collected manually and stored in spreadsheets or other systems;
- The data is then „cleaned“ and is sent manually or through radio waves to responsible institutions.

SCOPE

- The problem is affecting all of the institutions working at the airports;
- The problem is encountered on a global scale too.

PROBLEM

- Collecting information manually can lead to human error, human resources are wasted and data collected is limited in its quality and extensiveness;
- Without the necessary information, decision-making takes longer, planes are forced to stay idle. In other words, the fact that operations in the airport are organized with a static schedule and not an ad-hoc dynamic system is detrimental to the effectiveness of the airport;
- Moreover, there is no automated control of illegal movements in the airport (especially in the vulnerable takeoff area).

Lithuanian Airports



LIETUVOS ORO UOSTAI
VND KUN PLQ





CHALLENGE

We seek to automate tracking of plane movements and procedures using visual material from available cameras at the airport.

Lithuanian Airports



LIETUVOS ORO UOSTAI
VNO KUN PLQ





SOLUTION

KEY FUNCTIONS

- The identification of the plane number, status recognition for when the plane touches the ground and ends landing, data collection on the duration of movement on the ground, the end of movement, parking, engine turn-off and turn-on, boarding, refuelling, filling the baggage, charging, standby, takeoff and other information - all in an automated manner, using video cameras;
- Collected data is sent to other relevant service systems;
- The algorithms will detect risks and inform relevant airport services;
- A dashboard displaying KPIs, passthrough and the advancement in the execution of operations and standalone events;
- A system allowing the comparison of airline and service efficiency;
- The system has a built-in AI which teaches itself and proposes suggestions and signals for improvements in operation;
- The system is a source of inspiration of A-CDM implementation.

METRICS FOR SUCCESS

- Optimization of human resources;
- Amelioration of idle times for planes;
- Minimization of security risks;
- Optimization of report preparation.

IMPORTANT ASPECTS

- GDPR and cybersecurity requirements must be in line with appropriate standards.

Lithuanian Airports



LIETUVOS ORO UOSTAI
VNO KUN PLQ





OPPORTUNITIES

INSTITUTION

- This project is part of a larger digital transition strategy, which is an integral part of the road towards optimization that the airport is taking;
- The project is incorporated into the implementation of the operations control center and the project is expected to be funded in the upcoming few years.

MARKET

- The problem exists in every airport around the world, thus the market is very large.

Lithuanian Airports



LIETUVOS ORO UOSTAI
VNO KUN PLQ

