



AI in Public Safety Operations

5G Momentum – 5G and AI
17 December 2020

DEFENCE AND SPACE

Tapio Savunen
Director, Strategic Marketing

AIRBUS

AIRBUS
COMMERCIAL AIRCRAFT

AIRBUS
DEFENCE AND SPACE

AIRBUS
HELICOPTERS



**CONNECTED
INTELLIGENCE**



**MILITARY
AIRCRAFT**



**SPACE
SYSTEMS**



**UNMANNED
AERIAL SYSTEMS**

**Secure Land
Communications**

Intelligence

Cyber Security

Security Solutions

Secure
Communications

Two business units,

**Secure Land
Communications**

and

Intelligence,

form the core of
Airbus' local
activities in Finland.

AIRBUS

Airbus is not just a European but also a Finnish technology provider for defence, security and space

2002

Virve - nationwide critical communications Network

2012

Satellite Communications services

2015

Multi-Sensor Tracking system for real-time air situation picture

2007

C295 tactical transport aircraft

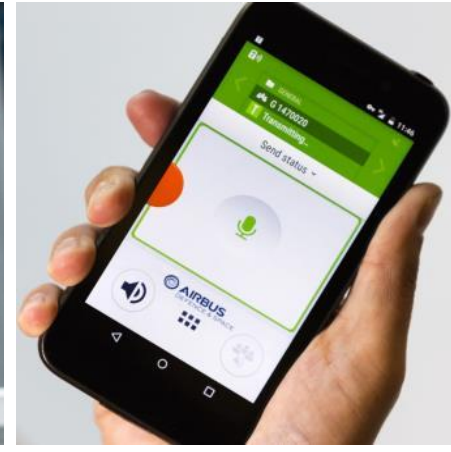
350 employees based on two locations, Helsinki and Jyväskylä

The company is one of the 30 largest R&D investors in Finland with annual investments of ca. **€30 M**.

Airbus receives annually ca. **€80 M** worth of goods and services from Finnish companies.

AIRBUS

When the Seconds Counts, the most Reliability is Must



What to consider when planning to use AI in Public Safety?

Ethics and people

- Machine Learning can only be used in a controlled way in Public Safety

Legitimacy and Trust

- Transparency - Artificial Neural Networks are “black boxes”
- Why a particular decision was made?

Data Protection Regulation



AI Example #1 – Virtual Assistant for field operations

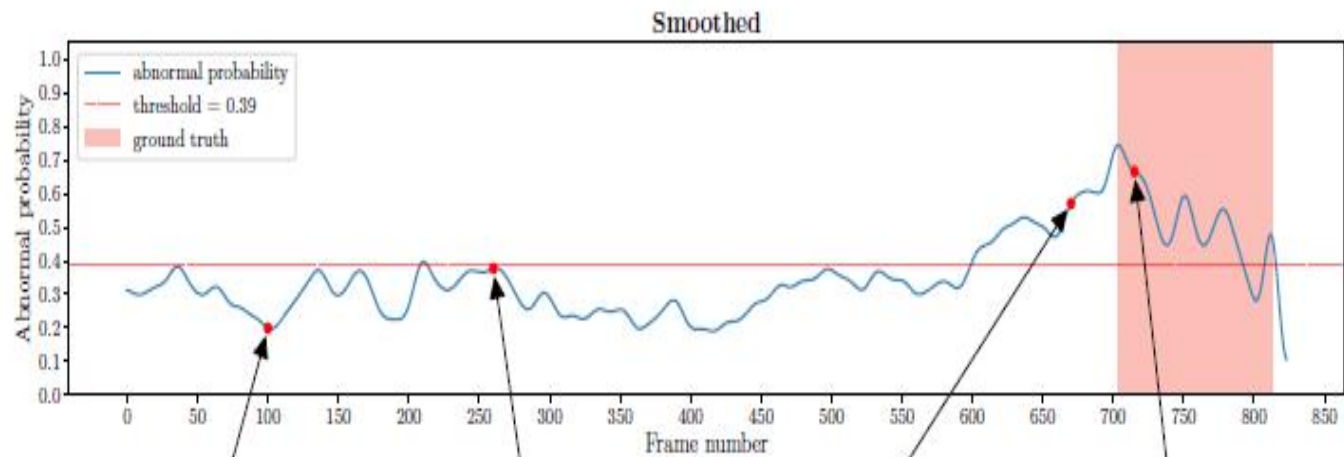
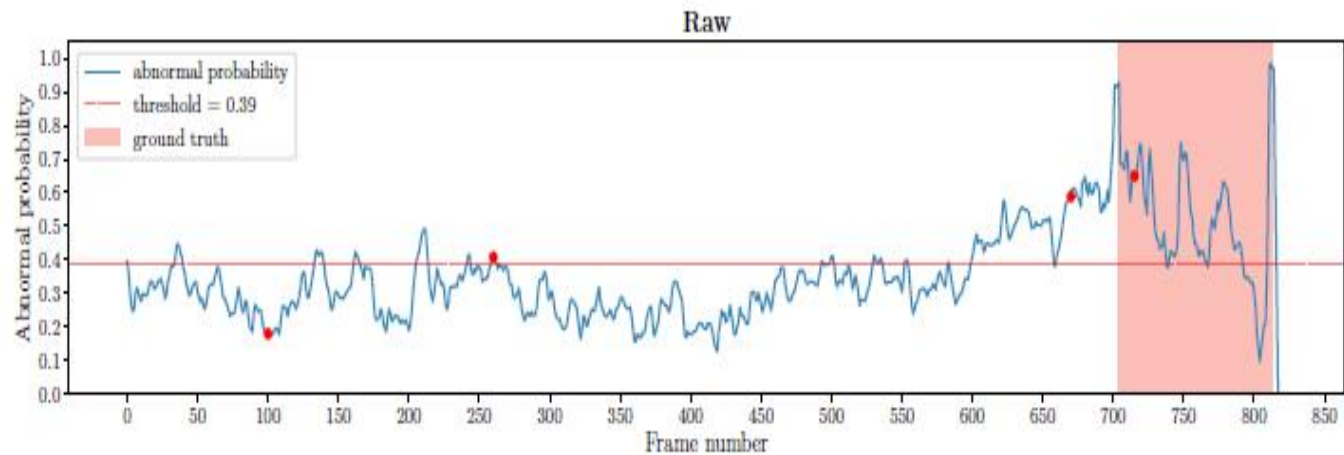
Enables hands-free operations

Integrated into radio communications

Voice commands and voice response

Database queries – license plates,
hazardous materials, vehicle rescue
sheet data, ...

Speech recognition in a noisy
environment



AI Example #2 – Abnormal crowd event detection in videos

Research on the use of AI to detect
abnormal behavior in crowds

Could help with laborious urban
video surveillance

Ege Can, Özer, 2020; “Two-stage sparse
representation based abnormal crowd event
detection in videos”

<http://urn.fi/URN:NBN:fi:hulib-202005202217>

Thank you

Confidential and proprietary document.

This document and all information contained herein is the sole property of Airbus. No intellectual property rights are granted by the delivery of this document or the disclosure of its content. This document shall not be reproduced or disclosed to a third party without the expressed written consent of Airbus. This document and its content shall not be used for any purpose other than that for which it is supplied.

Airbus, its logo and product names are registered trademarks.