



Airbus in Critical Communication

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AIRBUS



Topics

- Challenges
- Solution strategy
- Cyber Security
- Satellite Imaginary
- Mission Critical Communication
- Application ecosystem



Public Safety challenges

- Explosion of data sources → human resources cannot collect and analyse all of them
- Budget restriction and needs to reduce time allocated to bureaucratic tasks
- Stressful situations → good to have some decision support without emotions
- Lack of human resources for very large events
- Unpredictable and rapidly changing environment



Technologies developing rapidly

- Smart Cities, IoT and connected societies
- Professionals expect same technology level as in their private use
- UX expectations and device usage patterns are rapidly evolving
- Leap in development of tools, apps, services - everything becomes connected



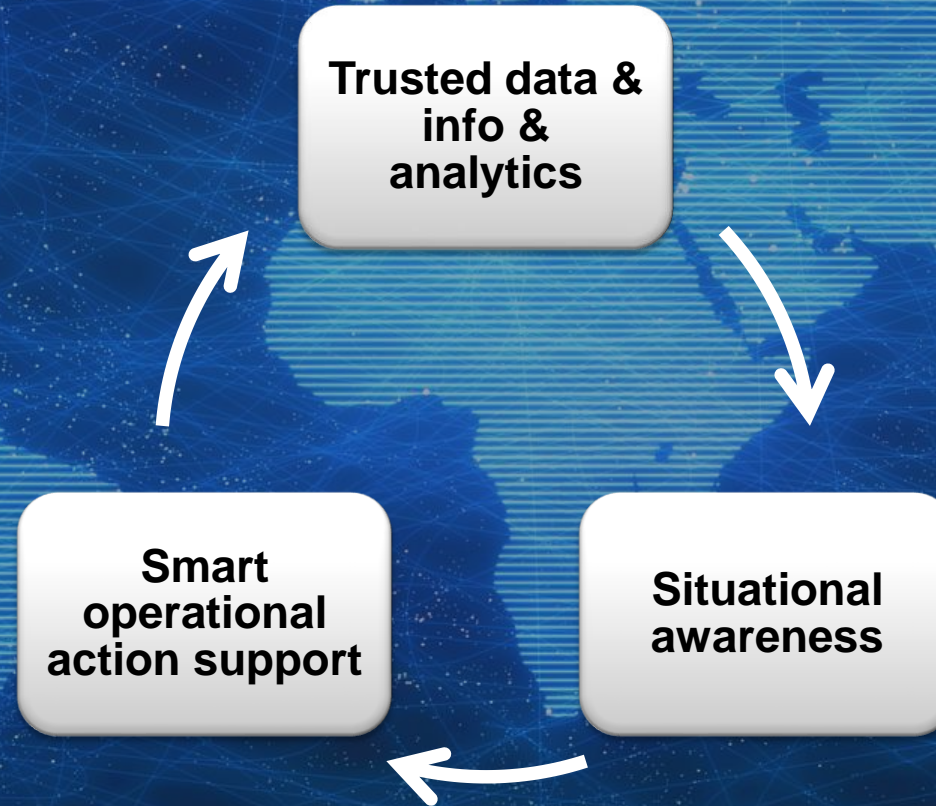
New technology influence also business critical organizations

- Digitalization: information has transformed to digital format, it is easier to use with new digital technologies
- Operational efficiency
- Safety and security
- Regulations
- Business model changes
- Better brand image of organizations/ companies which use new technology

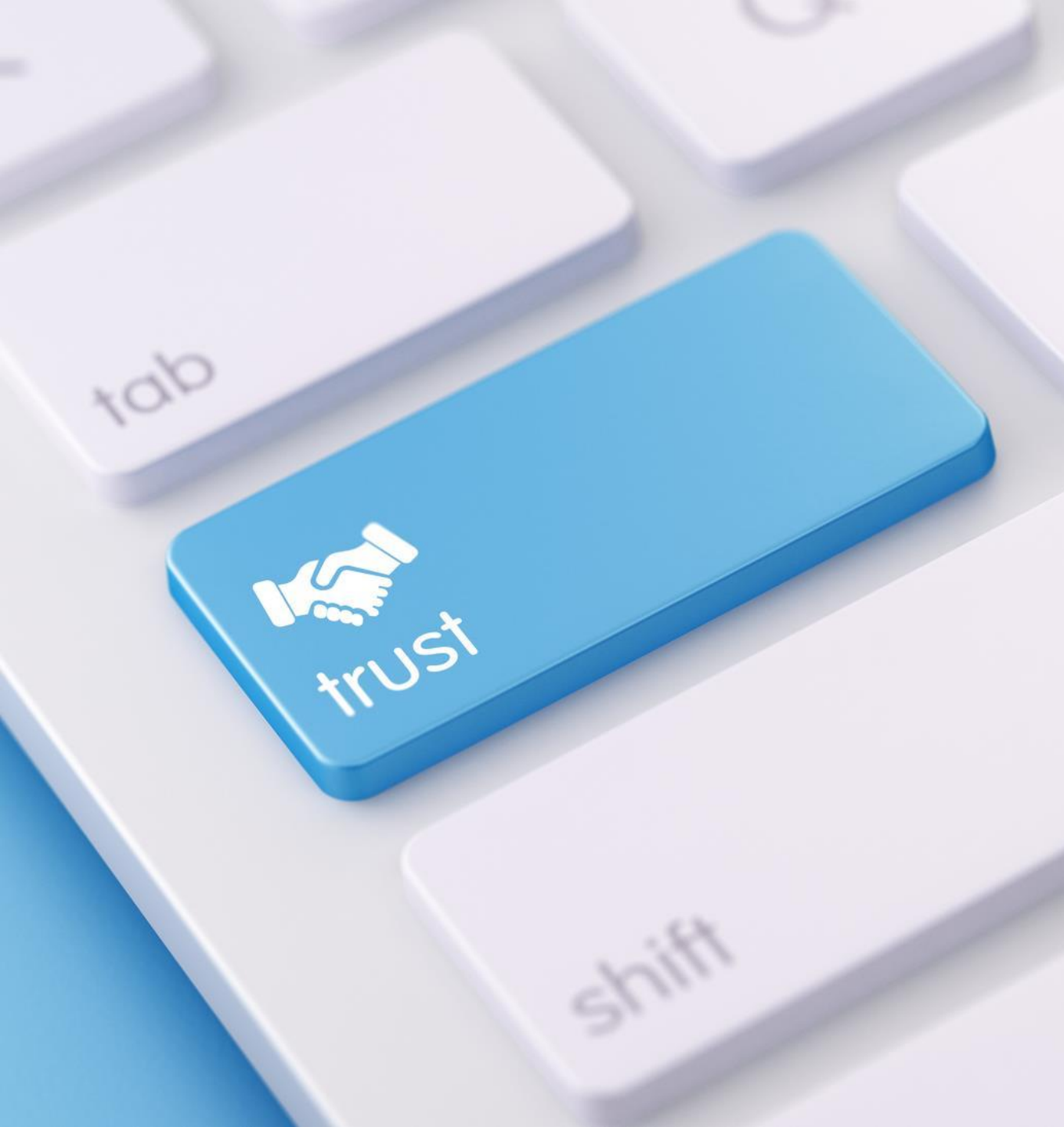
A firefighter in a yellow helmet and red jacket is pointing at a smartphone held by a woman in a high-visibility vest. The background is a blurred industrial setting. The entire image has a blue overlay.

Strategy for the Solutions

Solution should be based on trusted data and analytics for *situational awareness* which is used in operational actions



E2E securely connected and cyber protected



Trusted data and information

- Connect people & critical sensors
- End to end encryption in communication
- Secured application services in cloud



Situational awareness

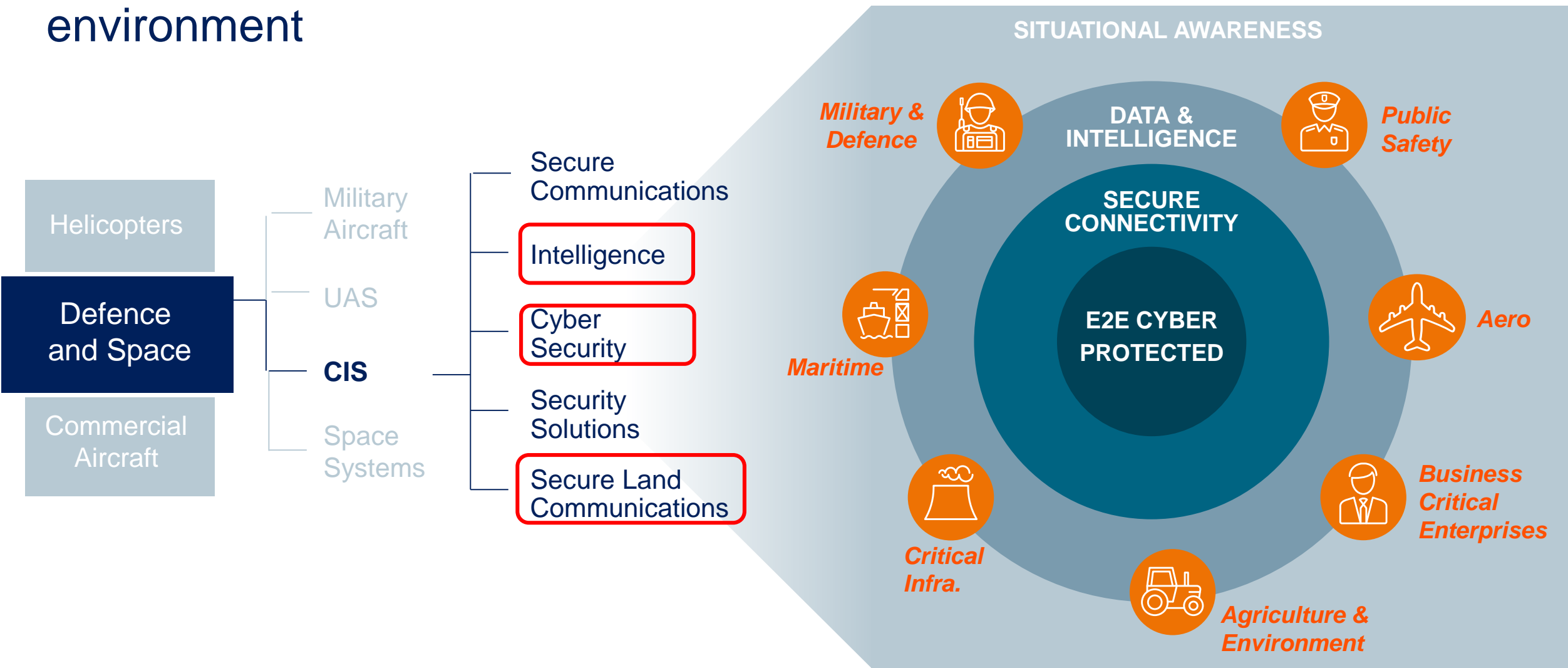
- **Create real time awareness** by mastering the toolset to
 - Process
 - Validate
 - Analyse
 - Predict
 - Represent



Smart action support

- Give timely actionable recommendations
- Several communication technologies and possibilities

Supporting critical decision making for protecting people, societies and environment





End-to-End Cyber Security



Airbus Cyber Security capabilities

- More than 600 experts in Europe
- 3 Cyber Defence Centres in EU (24/ 7)
- Self-developed European technology solutions
- Cooperation with leading technology manufacturers (national and international)
- Target markets: governments, defence, aerospace, operators of critical infrastructure, industry

Airbus - Cyber Security



Prevention

Protect oneself against cyber attacks

The prevention of cyber attacks through IT security concepts, technologies and permanent monitoring of the IT-infrastructure is essential.

Airbus product and service portfolio provides extensive and effective safeguard.



Detection

Fast detection of cyber attacks

Using a combination of voluminous cyber threat intelligence, advanced analysis methods, own tools as well as real-time monitoring, a fast detection is possible.

Airbus specialists` expertise in the Cyber Defence Centre enables detection, analysis and deduction of recommended actions in case of a cyber attack.



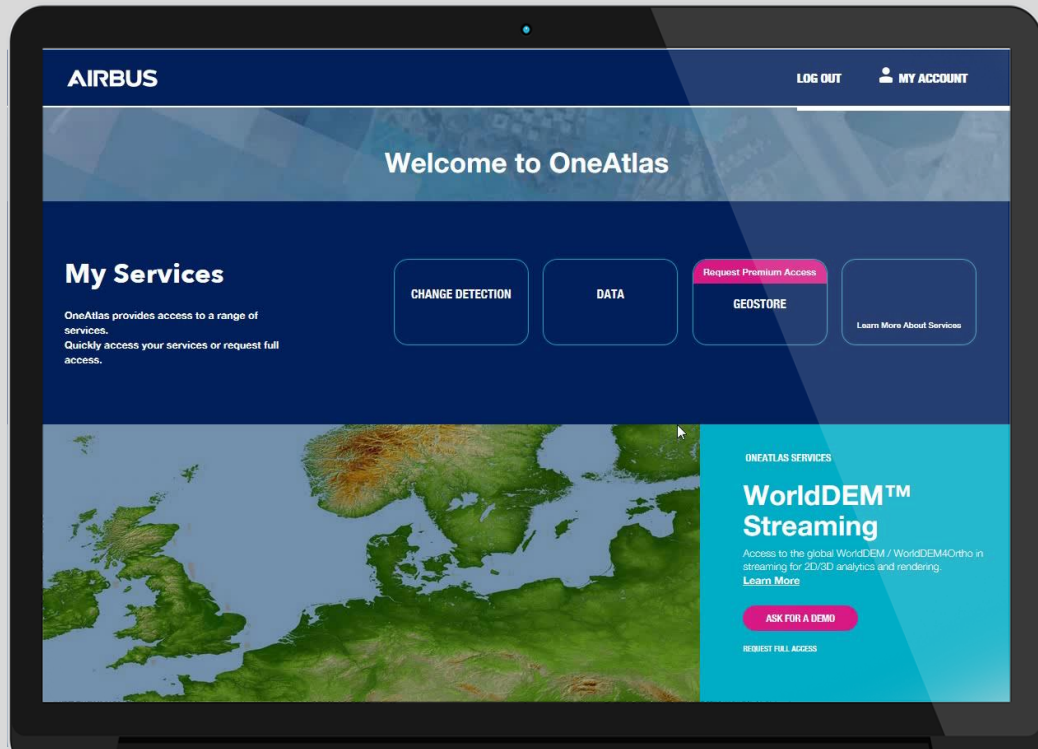
Response

Immediate reaction to cyber attacks

Airbus diversified expertise and the network of three Cyber Defence Centres in Europe provide accelerated incident response, profound and client-agreed investigation as well as the launch of countermeasures.

A firefighter in a yellow helmet and red jacket is pointing at a smartphone held by a woman in a yellow safety vest. They are both looking at the phone. The background is a blurred outdoor setting.

Satellite imagery (optical/ radar) and geospatial services



OneAtlas Data

- Unique place for quick and easy access to updated imagery and layers
- IMAGERY - Living Library
- LAYERS – Basemap, WorldDEM, Streaming
- ANALYTICS - Change Detection
- Mobile Application

A person's hand is shown holding a stalk of grain, likely wheat or barley, in a field. The background is a blurred landscape with hills under a twilight sky. The entire image has a blue color overlay.

Airbus - Serving Agricultural Institutions


Solutions for a Sustainable and Productive Agriculture

Case Examples

FAO uses Airbus Imagery
to Estimate Rice Areas
in Afghanistan

The Pakistani Ministry of
Agriculture Uses a SPOT
DRS to Set Up and Monitor its
Agriculture Policy

Tracsa, the Engineering
Department of the Spanish
Ministry of Agriculture, uses
Airbus images to improve
water use in Leon region

A firefighter in a yellow helmet and red jacket is pointing at a smartphone held by a woman in a high-visibility vest. They are both looking at the screen. The image is overlaid with a dark blue semi-transparent filter.

Hybrid solution - Networks, devices and Apps



Critical Communication Hybrid Solution

- Combination different communication channels
- Uncompromised security and reliability voice + data
- Mission/Business critical apps

Data driven applications

- Situational awareness
- Field commanding
- Assets & resources tracking
- Group messaging
- Mobile office
- Camera & video recording
- Next Gen 112

NEW TECHNOLOGIES

- Artificial Intelligence
- Virtual Reality
- Augmented Reality



Tactilon Agnet – Modern Collaboration for Teams

- End to end solution for professional group communication for smartphones, Android and iOS
- Modern, touch screen based user interface
- Secure connection, secure messaging
- Operates over commercial or dedicated IP networks, such as LTE



Tactilon Dabat

- Smart. Strong. Secure.
- More than a smartphone, more than a TETRA radio
- The most secure option when compared to any other smartphones or hybrid devices
- Robust design to withstand mission and business critical use

A firefighter in a yellow helmet and red jacket is pointing at a smartphone held by a woman in a high-visibility vest. They are both looking at the screen with interest. The background is slightly blurred, showing what appears to be an industrial or construction setting.

Critical App Challenges and Hackathons



SmarTWISP ecosystem

Airbus facilitates SmarTWISP ecosystem operations

Partner programs for apps software companies

- API/ SDK, simulation and testing tools
- Technical support
- Testing and certification process
- Voice + Data apps
- Certificated apps for mission and business critical users

Welcome to Critical App Challenge

#CriticalAppChallenge

With Google Developer Workshop
Paris, 10-11 October 2018

Airbus Critical App Challenges

In Germany, Feb 2018

In Benelux, Sept 2018

In Middle East and Africa, Oct 2018

In Hungary, May 2019

In Nordic, Sept 2019

#CriticalAppChallenge



Airbus Critical App Challenge in Nordic/ 2019

- Target was identify apps for customers in Sweden, Norway, Finland, Estonia, Denmark
- Tens of proposals received
- 10 companies selected for Jury day
- 3 winners selected
- Continued journey with Airbus in GTM

Thank You
