LATAM

Maintenance Innovation

Everton Amieiro – Operational Support

...we commonly think of innovating as simply adding technology to the operation, but innovating is related to the idea, and in the Idea, we add technology...

...the innovative idea makes people's lives simple and efficient...

- **Implemented Innovations**
  - Autonomous Logistics
  - Advanced tooling
  - Drone inspection
  - SmartGlass
- **Challenges & Barriers**
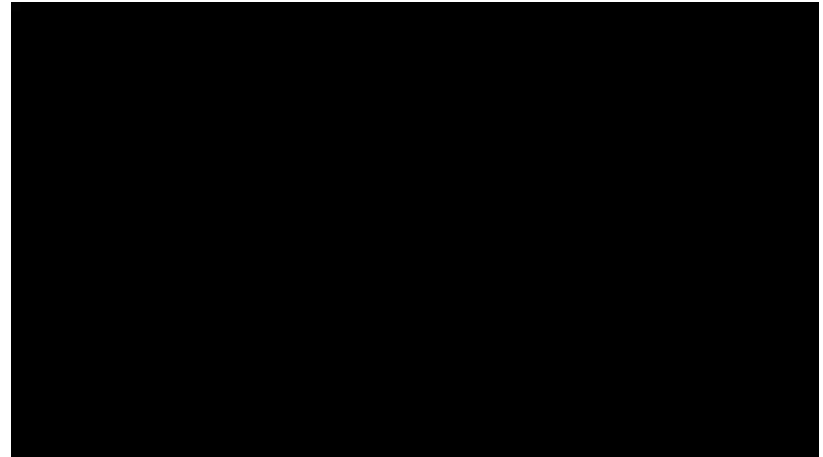- **Benefits & Results**

Autonomous Logistics

Problem Situation

- Time wasted moving

- Workplace accident due to collision with the vehicle

Solution Idea

- Autonomous distribution robot

- Automatic Deviation Control

- Best route machine learning

Advanced tooling

Problem Situation

- Time wasted moving

- Time lost for tool removal

Solution Idea

- Tools around the aircraft

- Forescast of day to day needs

- Increased accuracy of base line tooling

- Better control of resource distribution and position

Drone inspection

Problem Situation

- Lots of time to do GVI
- Risk of working at heights
- High cost with height equipment
- Inaccurate perception of damage

Solution Idea

- Inspection from the ground
- Reduce inspection time
- Increase accuracy through machine learning
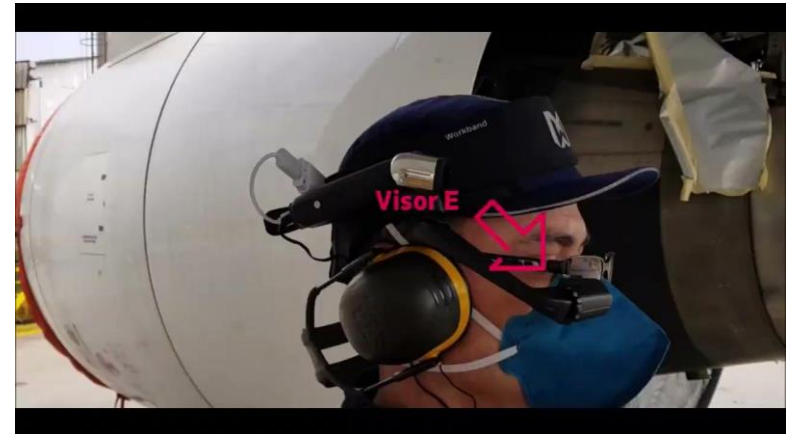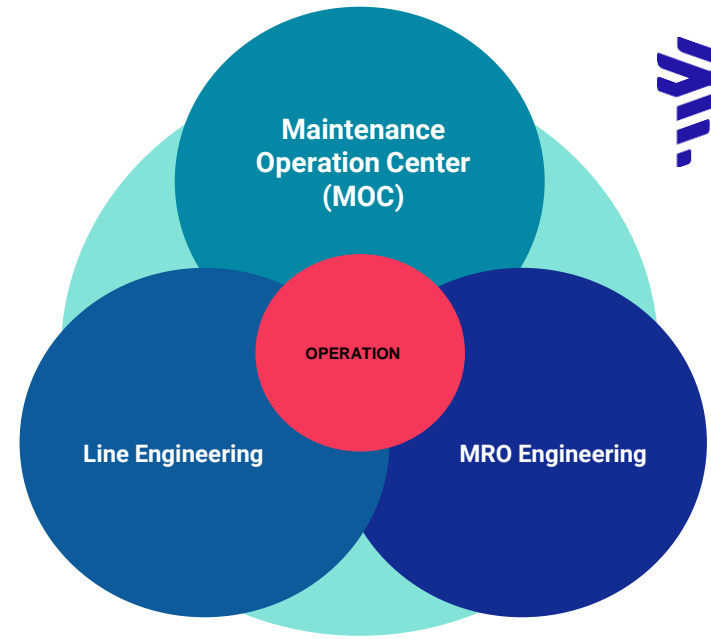
SmartGlass

Problem Situation

- Errors in complex tasks
- Long AOG recovery
- Difficult support profile (MOC, Engineering, etc)

Solution Idea

- See what the technician sees
- Automatic Support Registration
- AMM and TSM always at hands on

Maintenance Operation Center (MOC)

OPERATION
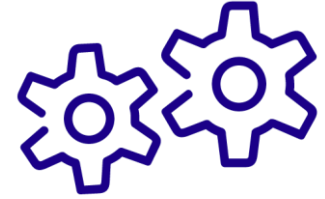
Line Engineering

MRO Engineering

Challenges & Barriers

- Fear of Change
- Lack of knowledge of the technology
- Not believing in the gain

- High development costs for some technologies
- Economic Situation
- Payback Time

- Aeronautical Authorities
- Transversality in several areas of the company

Benefits & Results

Innovations	Cost Savings	Quality Increase	Increased Safety
Autonomous Logistics	No Cost Saving	Operational Stability	Zero collision accidents
Advanced tooling	600KUSD/Year	No Quality Changes	No Safety Changes
Drone inspection	180KUSD/year	Reducing error by perception	Reducing Work-at-Height Exposure
SmartGlass	1,2MMUSD/Year	Increased accuracy of Trouble Shooting and MEL Release	No Safety Changes