

# How new technologies (automation, digital, AI) will support further enhancement of flight safety ?

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Nicolas RANQUE - AIRBUS - Ho Flight Operations Architecture

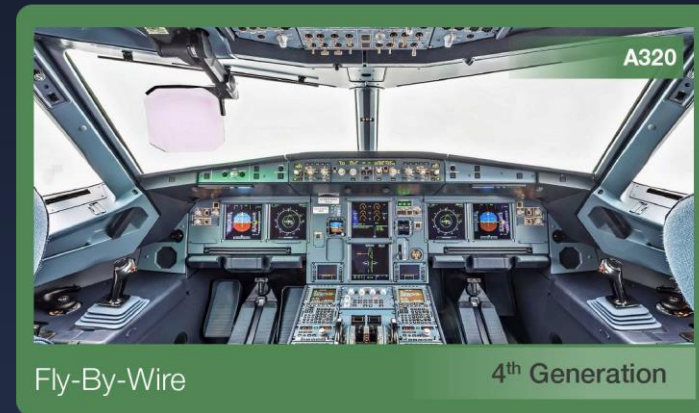
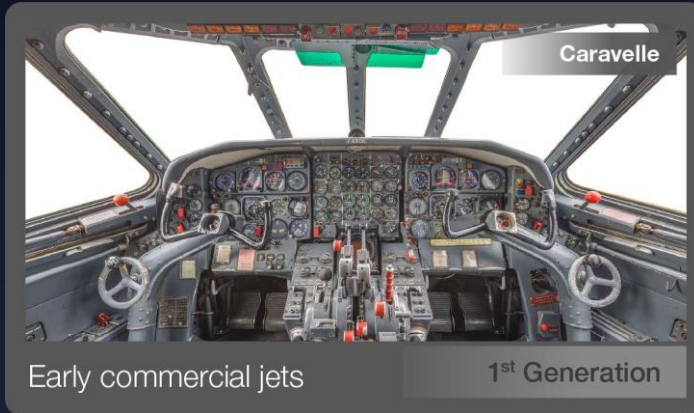


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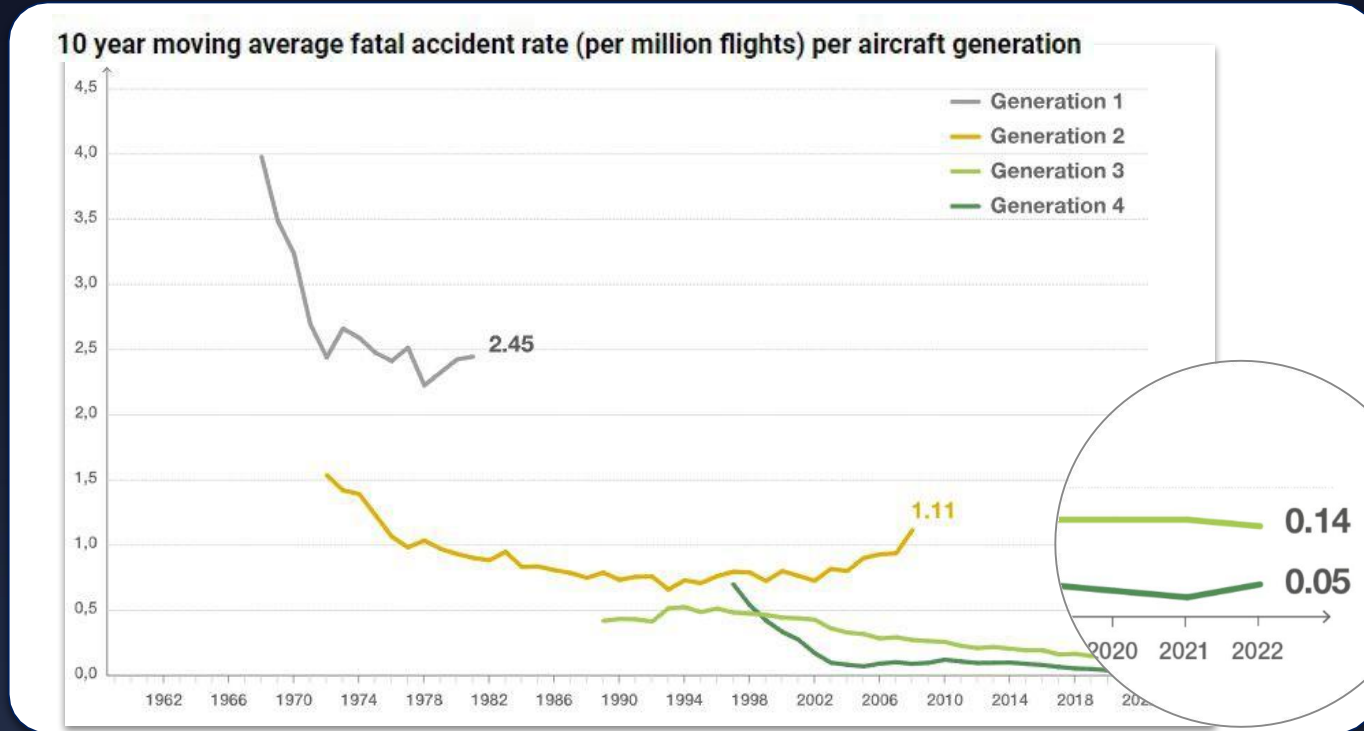
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# Four Generations of Commercial Jet Aircraft



# Fatal accident rate evolution



# Opportunities brought by new technologies : automation



AP / TCAS



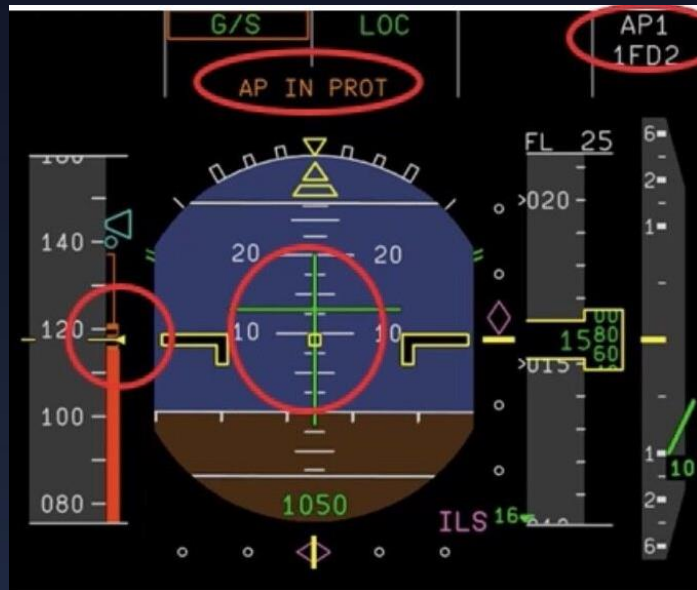
Automated Emergency Descent



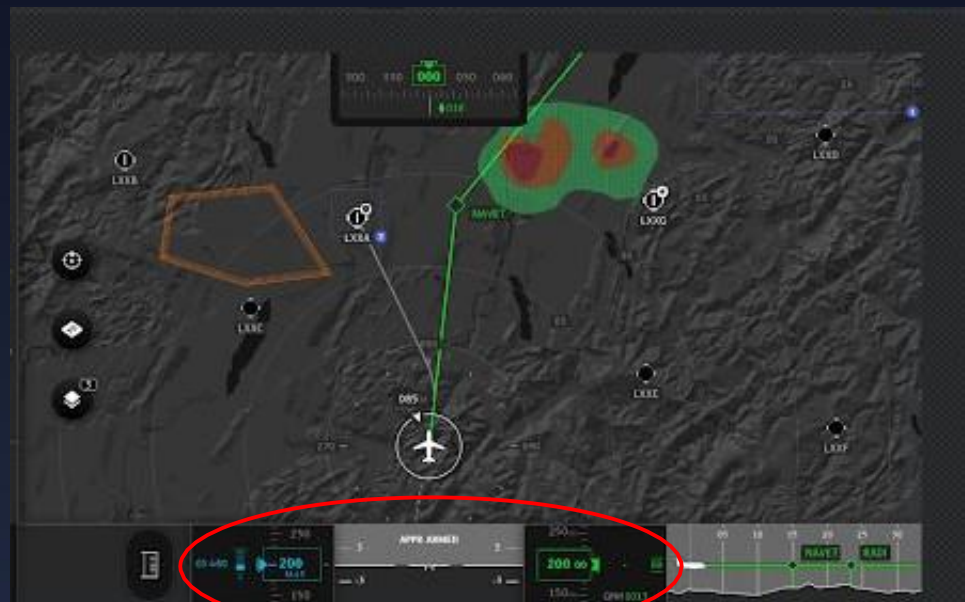
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FLIGHT SAFETY FOUNDATION

# Opportunities brought by new technologies : automation



AP in protections



Pilot focus on mid term thanks to fully automated “fly”

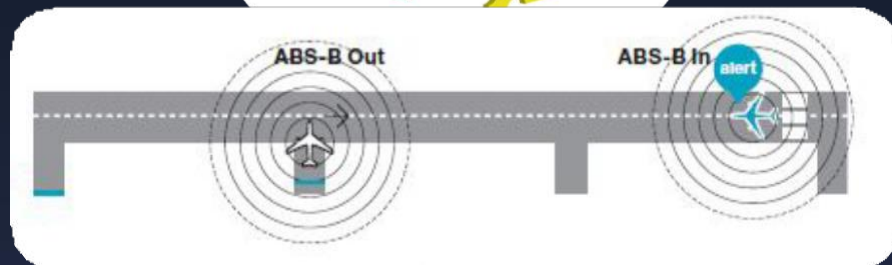
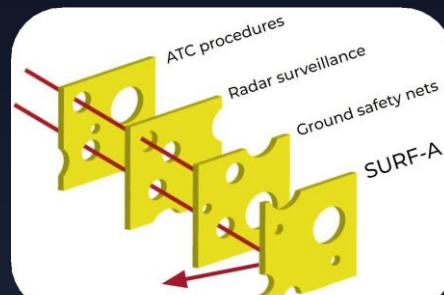


# Opportunities brought by new technologies : digital & connectivity



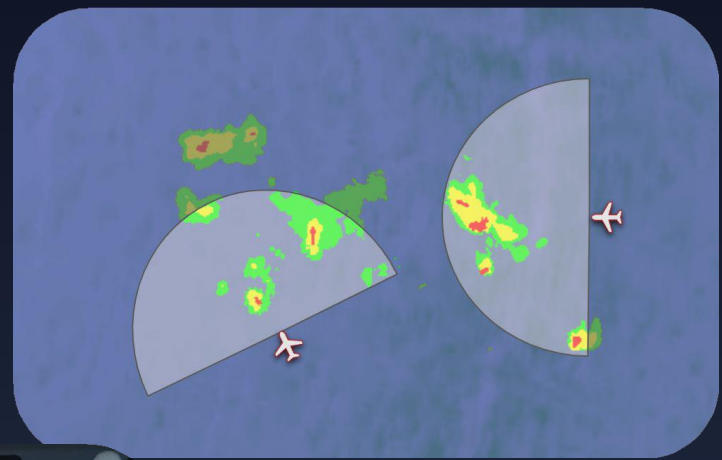
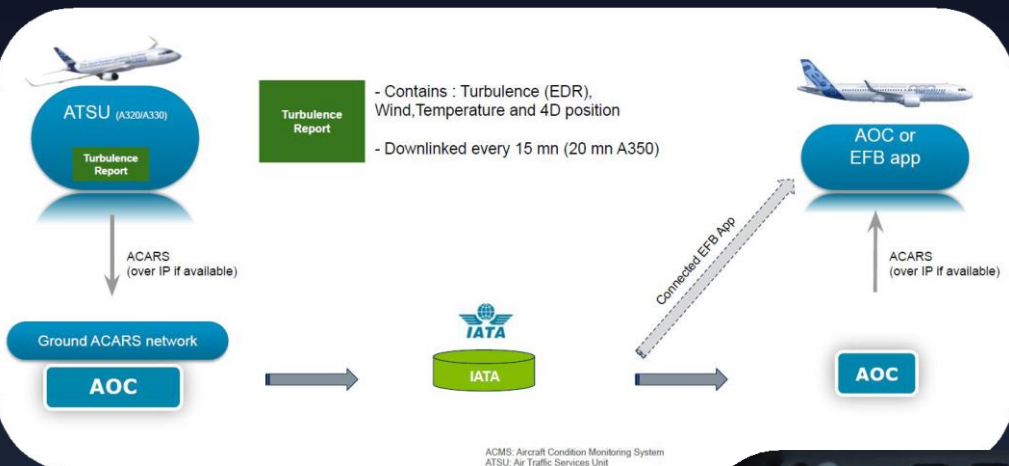
Predictive maintenance

## Runway incursion awareness



TRAFFIC ON RUNWAY,  
TRAFFIC ON RUNWAY!

# Opportunities brought by new technologies : digital & connectivity



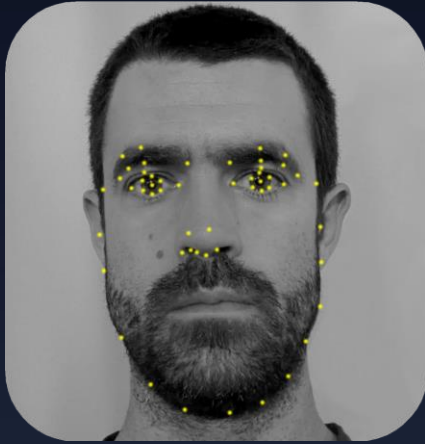
Collaborative Turbulence Map

Collaborative weather threats awareness

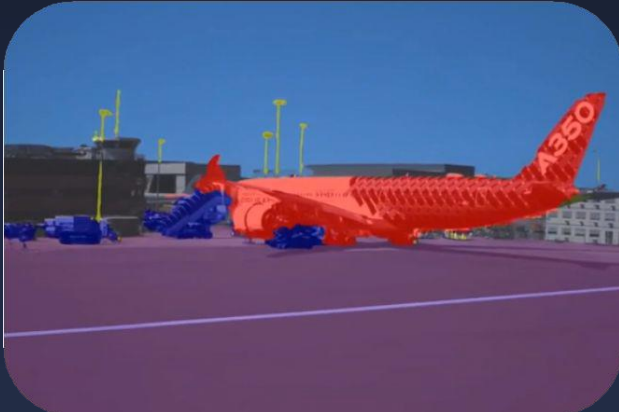
Collaborative runway state report



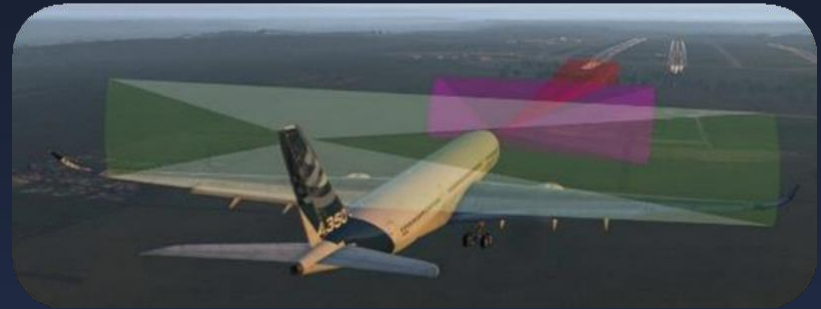
# Opportunities brought by new technologies : AI (machine learning)



Pilot vigilance system



Ground anti-collision



Automated vision based landing



# A collaborative work

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Regulation

