Socio-economic Challenges

Context

- AI potential to enhance aviation safety and efficiency is significant.

- Beyond ensuring accuracy, technical robustness and adequate interaction capabilities of AI systems, it is also essential to **assess the ethical impact of AI**.

- One related burning question is the **impact on aviation jobs.**

Socio-economic Challenges

"Assistance AI" impact on aviation jobs

- **Level 1 AI (Human assistance)** is expected to have little impact on operational jobs.

- Yet Level 1 AI applications are an **opportunity to integrate news jobs** in data science and machine learning and **drive smoothly the preparation of organisations** developing and using AI.

- Higher levels of AI will have a much stronger impact on the roles: w**e should jointly prepare for this transition** to ensure it is happening under the auspices of continued (or even increased) safety.

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Socio-economic Challenges

"Human-AI teaming" and job evolution

- Whether virtual copilots in cockpits or virtual co-controllers in ATC, **an evolution of the jobs is anticipated with Level 2 AI (Human-AI teaming).**

- **To be safe and successful** this transition should be as seamless as possible**: end users remain at the centre of the operation** and should by no means face more difficulty to perform their tasks than in current operations

- **EASA AI Concept Paper guidance** is built in the spirit of **human agency and oversight.**

HUMAN-AI TEAMING

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Socio-economic Challenges

"Ethics-Based Assessment" and human impact

- EASA has invested in building a proportionate, pragmatic approach for an **Ethics-based assessment of AI applications in aviation**, addressing risks related to attachement, privacy, unfairness, environmental impact, deskilling and accountability.

- Early 2024, EASA has also initiated a **survey to aviation professionals** to gather feedback on those ethical matters.

- Example, focusing on the **risk of deskilling**:
  - This risk is not new but largely emphasized through the possibilities opened with Level 2 AI and advanced automation.
  - Like competence management in general this risk can be mitigated through continuous education and training programs but requires also strong design principles.

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Socio-economic Challenges

Conclusion and perspective

- **Human AI teaming and advanced automation** are very likely to have an **impact on current jobs and to create new ones**.

- The **key is to ensure an ethical adoption of AI in aviation**: AI systems development should respect ethical guidelines, including transparency, human oversight and accountability, as included in EASA's trustworthiness framework.

- The preparation for AI-driven change will **require collaboration between industry, workers, and regulators** to ensure fair, transparent, and inclusive transitions in the aviation workforce.