
# Overcoming the challenges in embracing digital technologies

EATS 2023 Workshop

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# Technological breakthrough: the world of simulation





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# Technological breakthrough: the next level

Exploring VR with haptic opportunities: Lufthansa Aviation Training


Multi users: Courtesy of PACE Aerospace & IT GmbH/PACE GmbH



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# The benefits: beyond expectations

Higher learning effect

Competency driven outcomes

Trainee engagement/ high interaction

ROI



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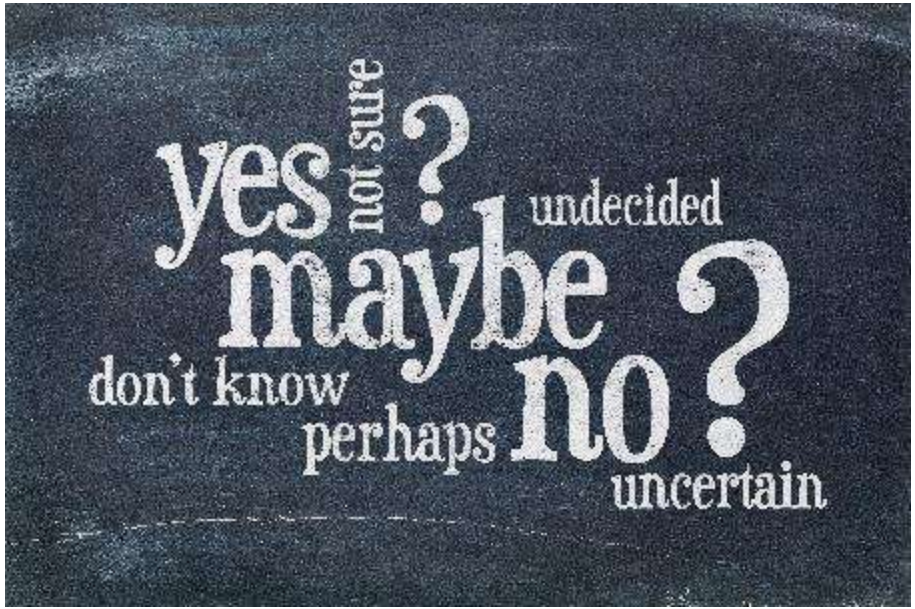
# Reluctance to apply new technologies

Regulation

Mind set




Expertise

How to?

# Scenario analysis

You are requested to analyse a particular training requirement to explore future opportunities within the world of new technologies such as XR to enhance the overall training from the trainee and organisation's perspective.

Use the provided template to describe the following for the allocated training element:

- Training objectives;
- Competencies to develop and demonstrate;
- Present method of training this training element;
- Possibility of implementation in XR
- Description and justification of your choice for the method selected incl. any added value



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# Training element 1:

Operation of the aircraft type specific electrical systems relevant to cabin crew as installed on board such as but not limited to:

- evacuation alarm systems;
- emergency lighting;
- smoke detection systems etc.

# Training element 2:

Evacuation procedures including crowd control incorporating situations such as but not limited to:

- Management of passengers, re-direction of passenger flow;
- Exits becoming unusable during the evacuation;
- Evacuation of passenger onto the slide raft in a ditching incl. post evacuation actions such as disconnection of the slide raft etc.



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# Training element 3:

The location of all safety and emergency equipment to ensure that cabin crew can immediately locate the required equipment in a non-normal and emergency situation such as but not limited to:

- firefighting and protective equipment;
- oxygen equipment;
- medical equipment;
- survival equipment etc.

# Training element 4:

Familiarisation with the aircraft environment and its equipment such as but not limited to:

- the flight deck;
- the whole cabin incl. but not limited to:
  - cabin crew stations;
  - lavatories;
  - galleys, galley security and water shut-off system;
  - cargo areas if accessible from the passenger compartment during flight;
  - circuit breaker panels located in the passenger compartment;
  - crew rest areas etc.



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# Training element 5:

Realistic and practical training in the use of all fire-fighting equipment, including protective clothing, representative of that carried in the aircraft.

Drills covering firefighting techniques for various sources of fire such as but not limited to:

- Oven fire;
- Lavatory fire;
- Fire behind panelling;
- Overhead bin fire;
- Lithium battery fire on the flight deck and in the cabin etc.

**Training element:** securing of the cabin

**Training Objectives:** Apply procedures in securing the cabin compartment for take-off, landing and turbulences

**Competencies to develop and demonstrate:**

Ability to apply the operator's procedures for verifying and securing the cabin such as passengers incl. infants, cabin baggage, service items, galleys, lavatories etc. Develop competencies such as situation awareness and decision making through identification of non-compliance issues and take actions. Manage passengers, apply communication skills and manage workload to accomplish tasks within given time restrictions.

**Present method of training this training element:**

Explain the contents in theory and the trainer demonstrate the task to the trainees while using a cabin environment or on the actual aircraft

**Possibility of implementation in XR:**

Enable each trainee to practice the task, identify non-secured items and take necessary actions.

**Description and justification of your choice for the method selected incl. any added value:**

Each trainee would have the opportunity to practice applying the skills in a more realistic environment since various critical elements could be digitally integrated into the scenario compared to empty cabin environment, galleys etc.

Scenarios involving non-secured items could be simulated to assess trainee's ability to identify such items and enable them to take appropriate actions.

Such skills could be rehearsed and applied within restricted time for a realistic size of the cabin, galley etc.

Complex situations could be integrated with respective passenger response e.g. seating requirements at exit rows, securing of infants etc.

# Thank you
# for your attention

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