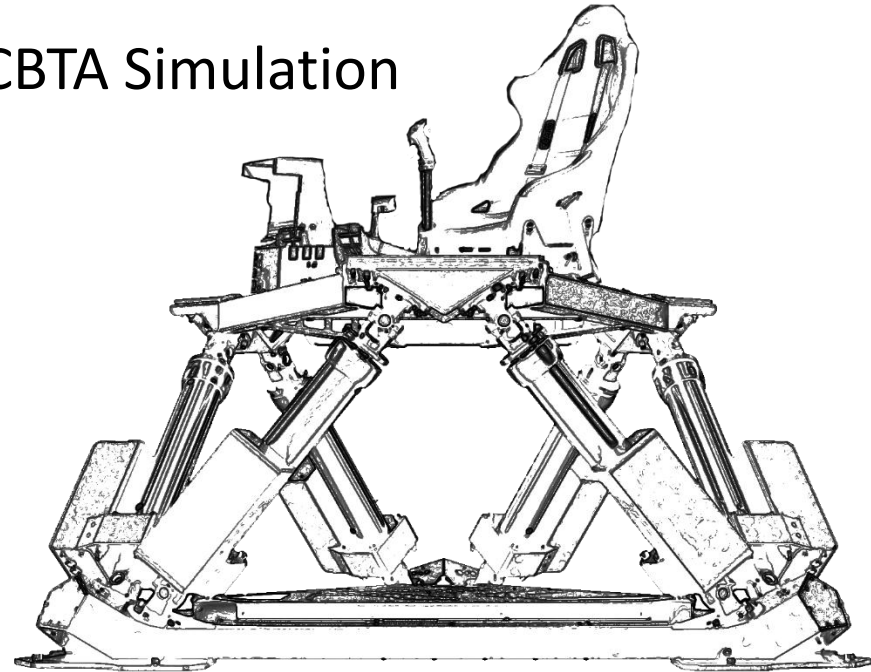


# Projekt MAVerICS

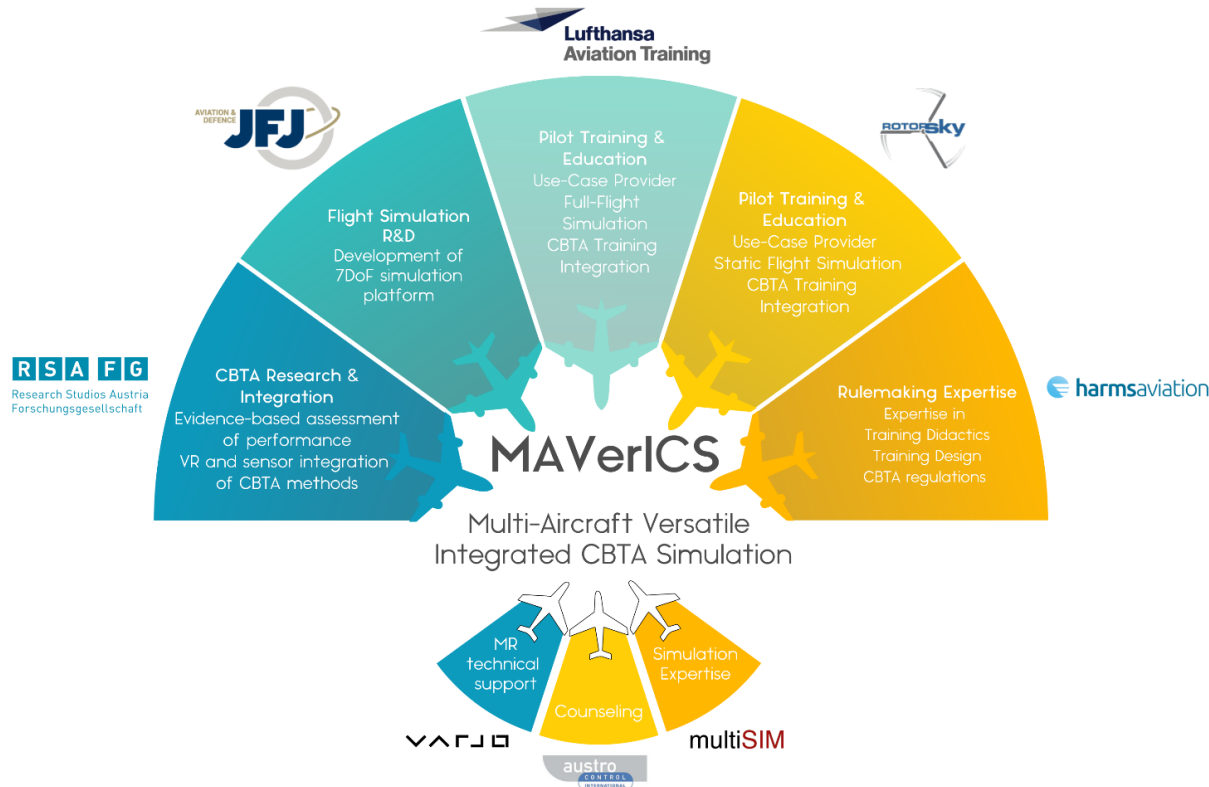
## Multi-Aircraft Versatile Integrated CBTA Simulation

Peter FRITZ  
Research Studios Austria  
Wien, 22.1.2026

project  
**MAVERICS**



# Kurzdarstellung der Konsortialpartner





### International Standard Compatibility

Validation by upcoming FTSD standards  
In line with EASA task-to-tool methodology



### Versatile Immersive Simulation

Recreate fixed-wing + rotary wing aircraft  
High fidelity simulation + aircraft physics model



### Motion VR Platform

7DoF hexapod + turntable motion system  
VR headset with integrated eye tracking  
Vibration + sound cueing



### CBTA Integration

Modeling of pilot state + competency  
Track attention behavior + cognitive load  
Evaluate performance in CBTA methodology

# Basis für das Projekt

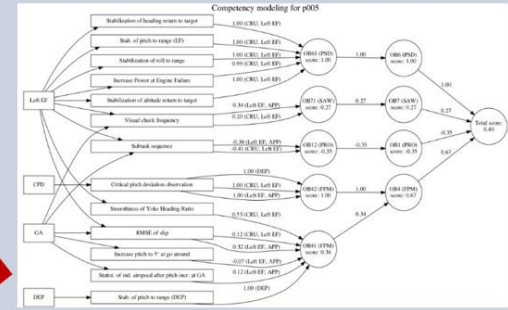
## Competency-based Training and Assessment (CBTA) and Technological Opportunity



Simulation Environments



Eyetracking and Simulator Data Analysis




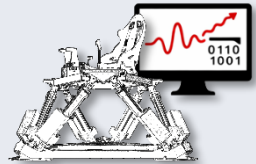

**Modeling Behavior, Perception, and Cognition of Pilots in a Real-time Training Assistance Application**

CHRISTIAN THOMAY, Research Studios Austria FG, Austria  
 PETER FRITZ, Research Studios Austria FG, Austria  
 BENEDIKT GOLLAN, Research Studios Austria FG, Austria  
 CARSTEN MANGASSER, Lufthansa Aviation Training Switzerland AG, Switzerland  
 MICHAEL MATSCHERKO, Research Studios Austria FG, Austria  
 HARALD SCHITNIG, Economics Institut für Wirtschaftsforschung, Austria

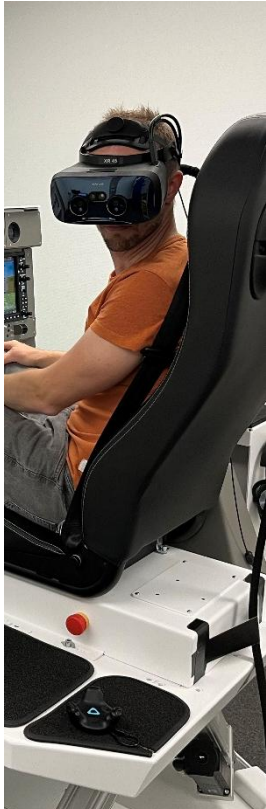
Competency modelling



# Arbeitsplan/Zeitplan/Umsetzung

<b>PY1</b>	<ul style="list-style-type: none"><li>• Functional/Hardware Requirements Definition for Simulation Platform</li><li>• Pilot Assessment and Evaluation Scenario Requirement Definition</li><li>• Platform Design/Planning/Development and Assembly</li><li>• Pilot Modelling Framework Development and Sensor Integration</li></ul>	
<b>PY2</b>	<ul style="list-style-type: none"><li>• Data Interface CBTA Software Module Integration</li><li>• Platform Evaluation and Validation Studies<ul style="list-style-type: none"><li>• QTG, FSTD Comparison, Pilot Evaluations</li></ul></li><li>• Competency Measurement Scheme Development</li></ul>	
<b>PY3</b>	<ul style="list-style-type: none"><li>• CBTA Assessment System Validation</li><li>• Scientific Dissemination</li><li>• Deployment Strategies for Training and Regulatory Requirements</li></ul>	

## Angestrebte Verwertung



- > Reference Platform/Prototype for VR/MR-based Multi-Aircraft Flight Training Simulation Devices based on FSTD Capability Signature
- > Scientific Results on Competency-based Training and Assessment (CBTA) combined with modern Training Devices
- > Documentation and reference on the implementation and integration of CBTA and Task-to-tool approaches into training environments considering regulatory compliance

## Kontakte

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 **EmPACT** Project Demo

