



**Fabi Riesen**

 **Loft Dynamics**





Loft Dynamics

THREE POINT



Loft Dynamics

WE ARE #LOFT

#FUTURE MAKERS

THE NOBEN TEAM



2021

# Virtual reality

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Etymology

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Display resolution

Image latency and display refresh

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In 2020, Oculus released the [Oculus Quest 2](#), later renamed the [Meta Quest 2](#). Some new features include a sharper screen, reduced price, and increased performance. Facebook (which became Meta a year later) initially required users to log in with a Facebook account in order to use the new headset.<sup>[60]</sup>

In 2021, the [Meta Quest 2](#) accounted for 80% of all VR headsets sold.<sup>[61]</sup>

In 2021, [EASA](#) approved the first Virtual Reality based Flight Simulation Training Device. The device, for rotorcraft pilots, enhances safety by opening up the possibility of practicing risky maneuvers in a virtual environment. This addresses a key risk area in rotorcraft operations,<sup>[63]</sup> where statistics show that around 20% of accidents occur during training flights.

In 2022, Meta released the [Meta Quest Pro](#). This device utilised a thinner, visor-like design that was not fully enclosed, and was the first headset by Meta to target mixed reality applications using high-resolution colour video passthrough. It also included integrated [face](#) and [eye tracking](#), [pancake lenses](#), and updated [Touch Pro](#) controllers with on-board motion tracking.<sup>[64][65]</sup>



Robinson R22 Virtual Reality Training Device developed by VRM Switzerland<sup>[62]</sup>



2022

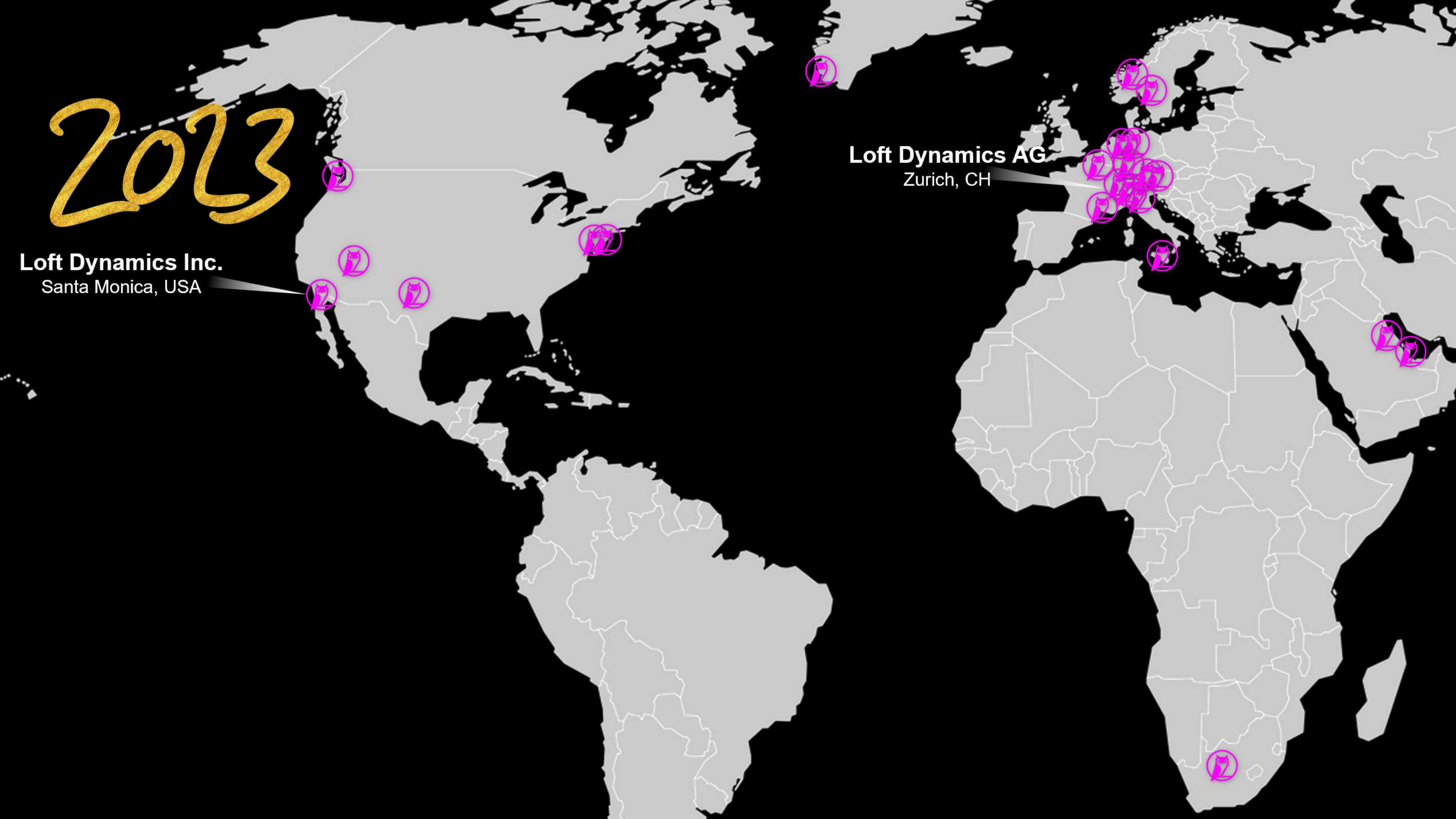




# 2023

**Loft Dynamics Inc.**  
Santa Monica, USA

**Loft Dynamics AG**  
Zurich, CH



2024

# Loft-Suite

Loft reinvents pilot training

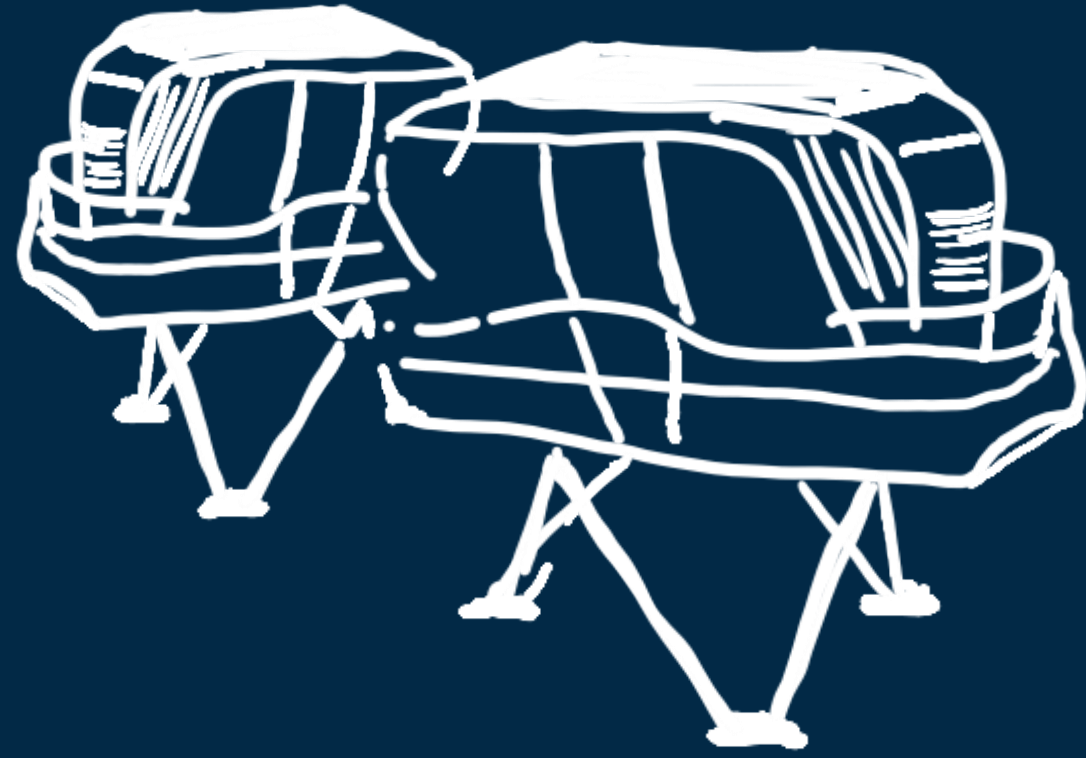


2024





realistic



hard to access

easy to access



not so realistic



realistic



**Virtual Reality**



**FFS-D (Dome Projection)**

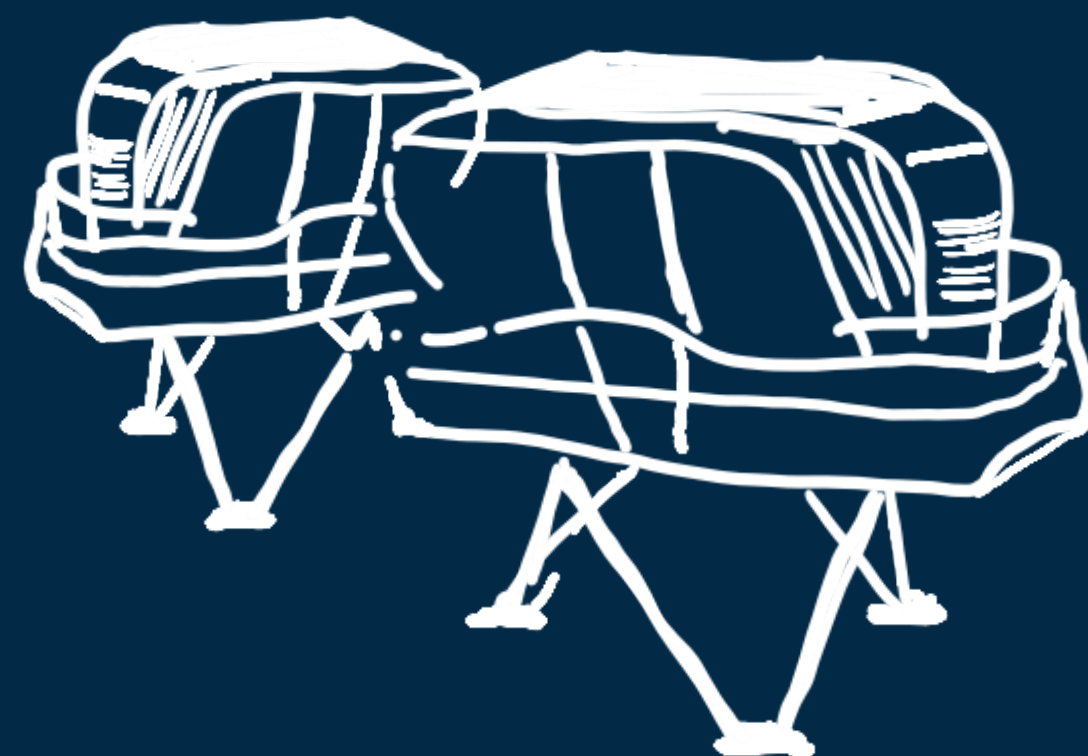
not so realistic





Loft-Suite

realistic



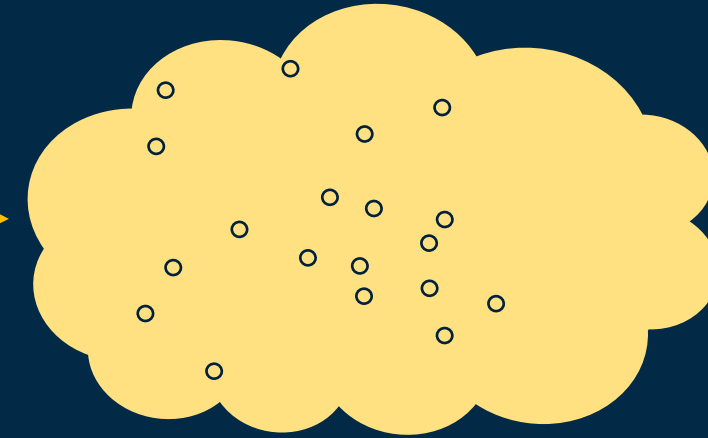
hard to access

easy to access



not so realistic





Loft-Suite



EASA

✓ QUALIFIED

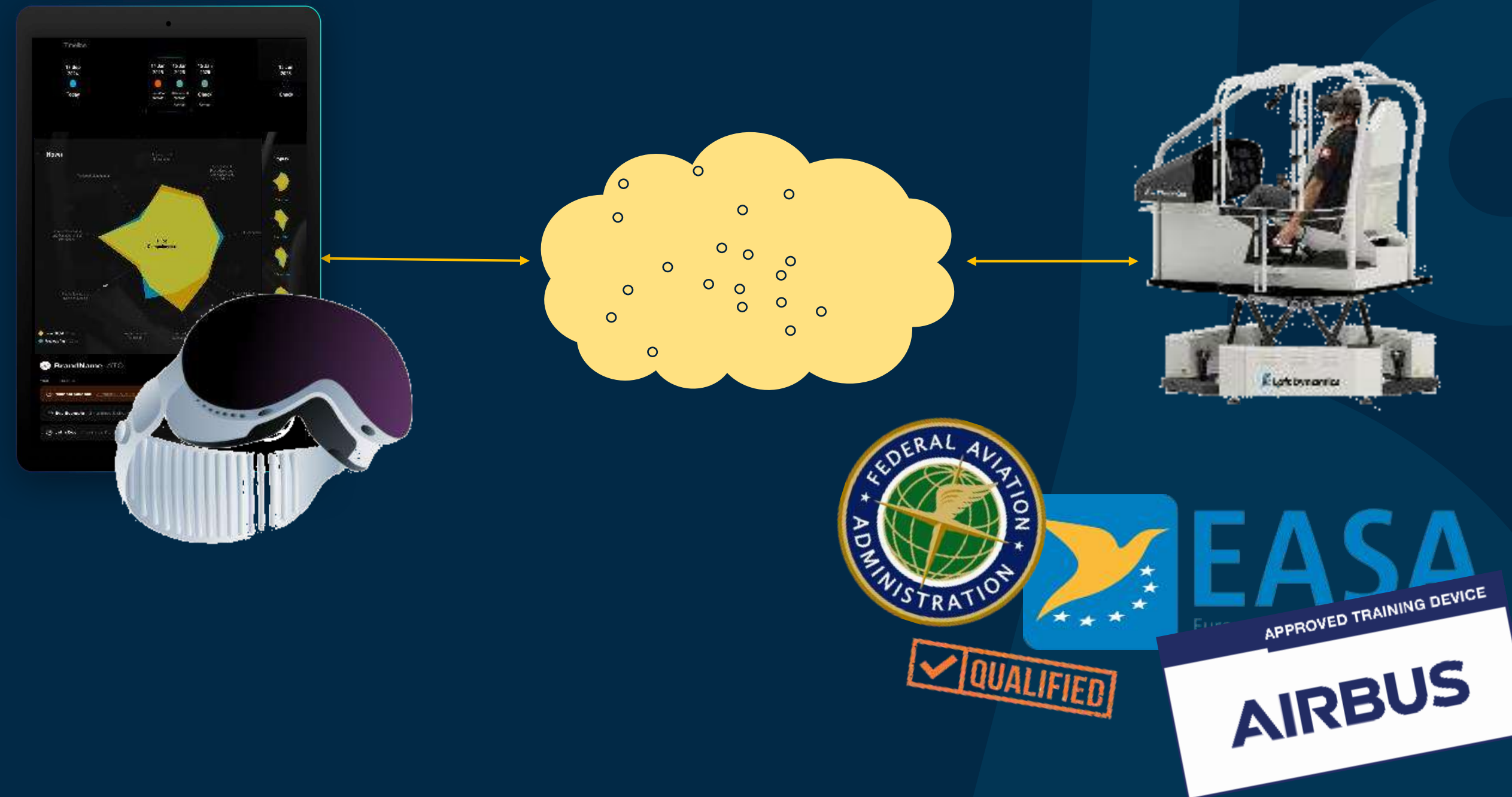
APPROVED TRAINING DEVICE  
**AIRBUS**



Unqualified

Qualified









Loft-Home Kit



Loft-Cloud



Loft-SimNet





Loft-Home Kit



Loft-Cloud

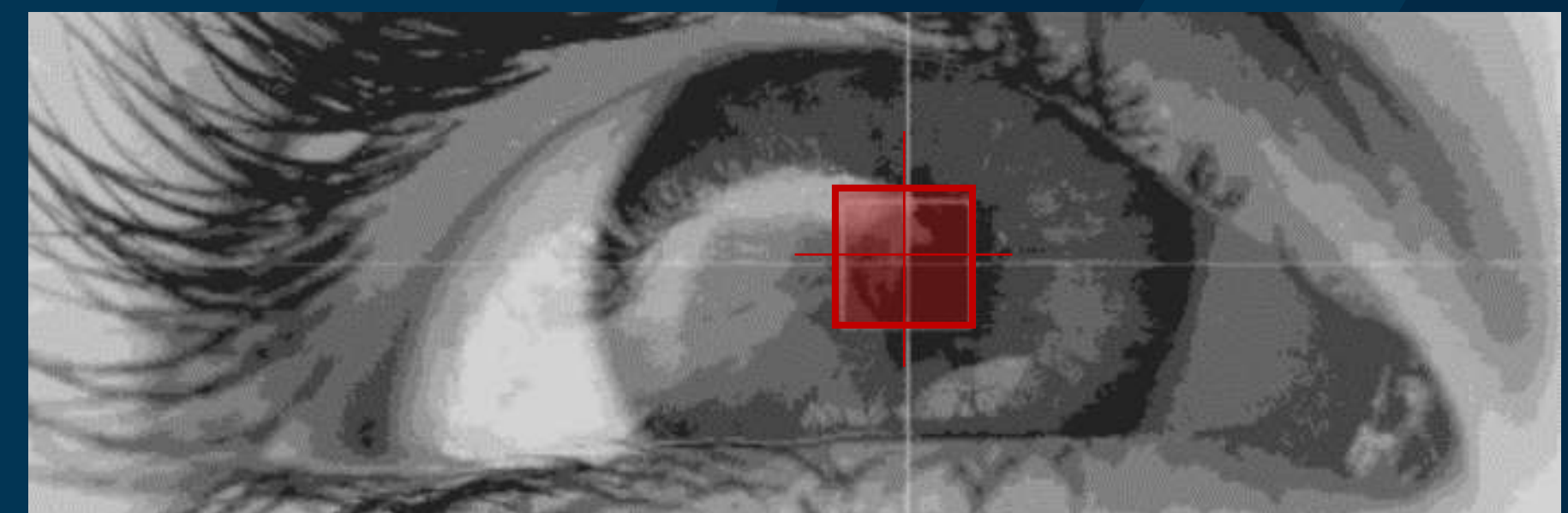
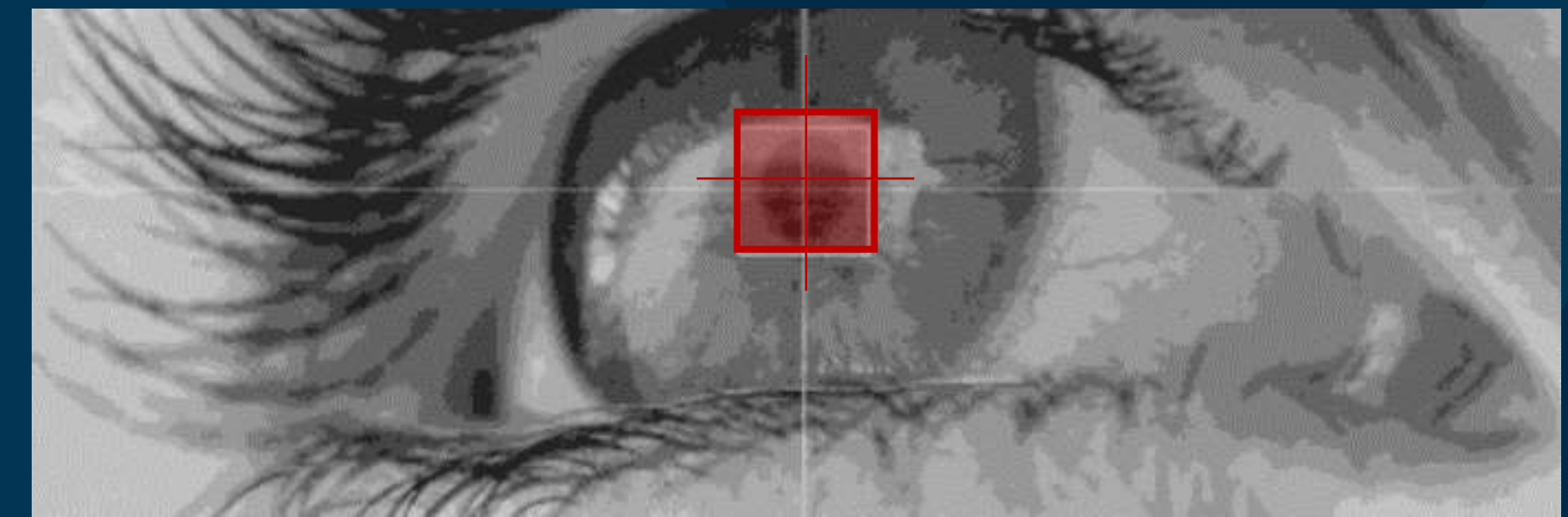
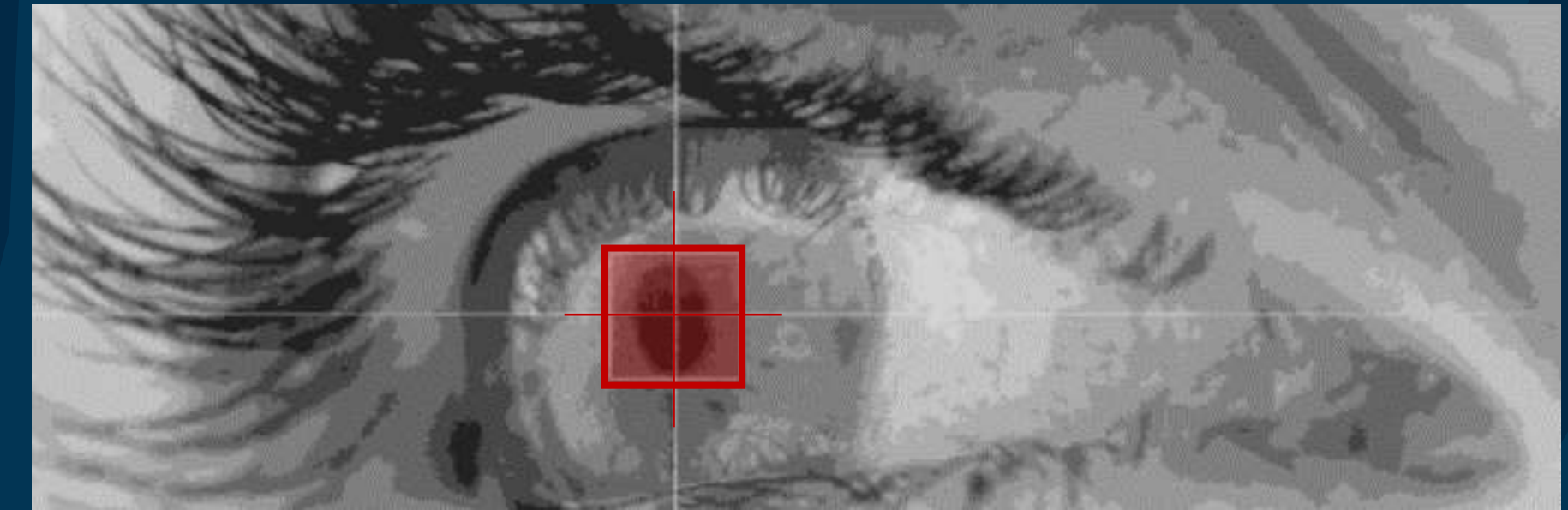


Loft-SimNet



# Eye Tracking

## Stress Management Analysis





# Eye Tracking

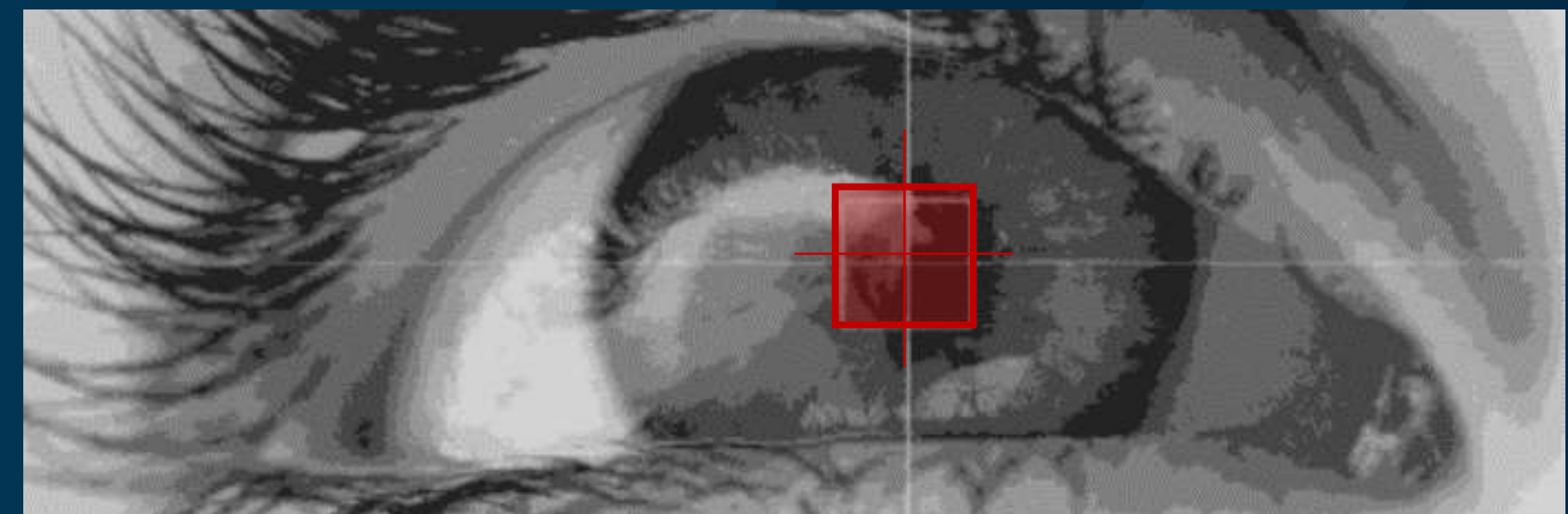
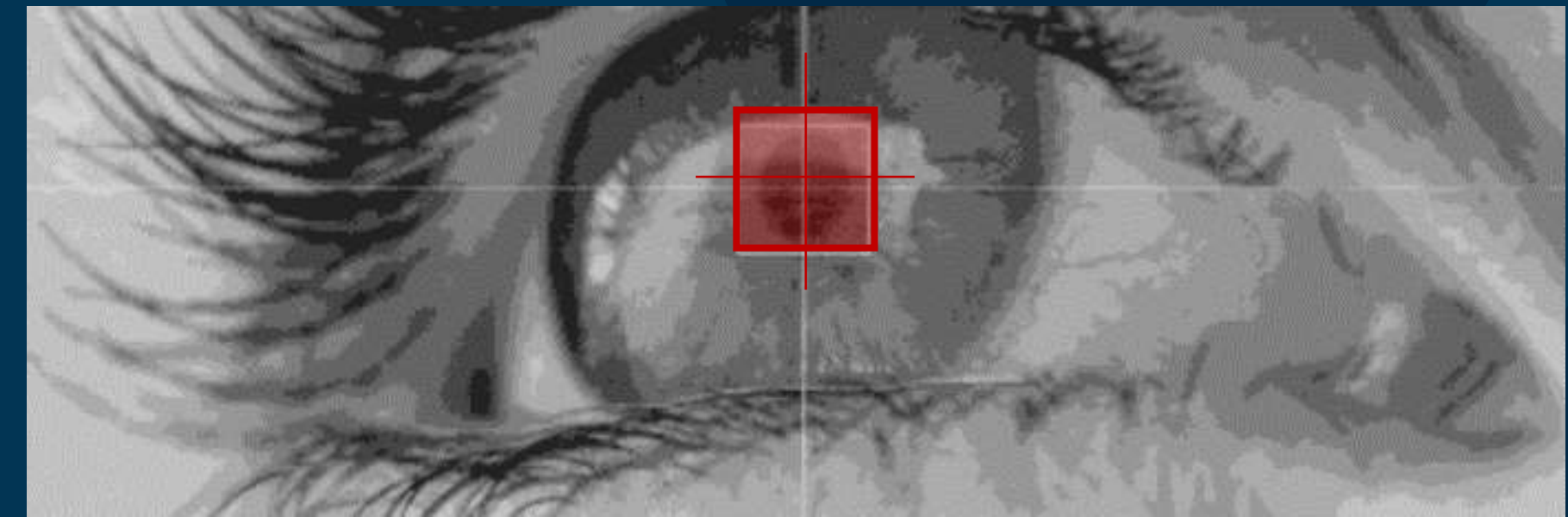
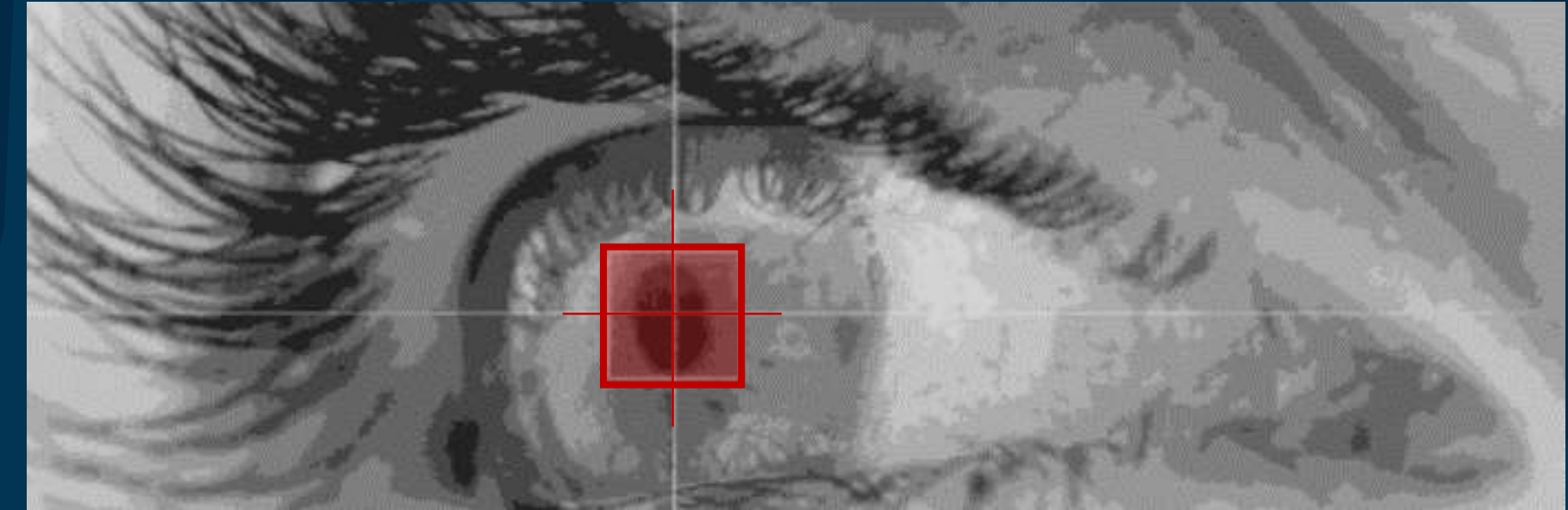
With Virtual “Heat Map”





# Eye Tracking

## Stress Management Analysis







**EASA**  
European Aviation Safety Agency

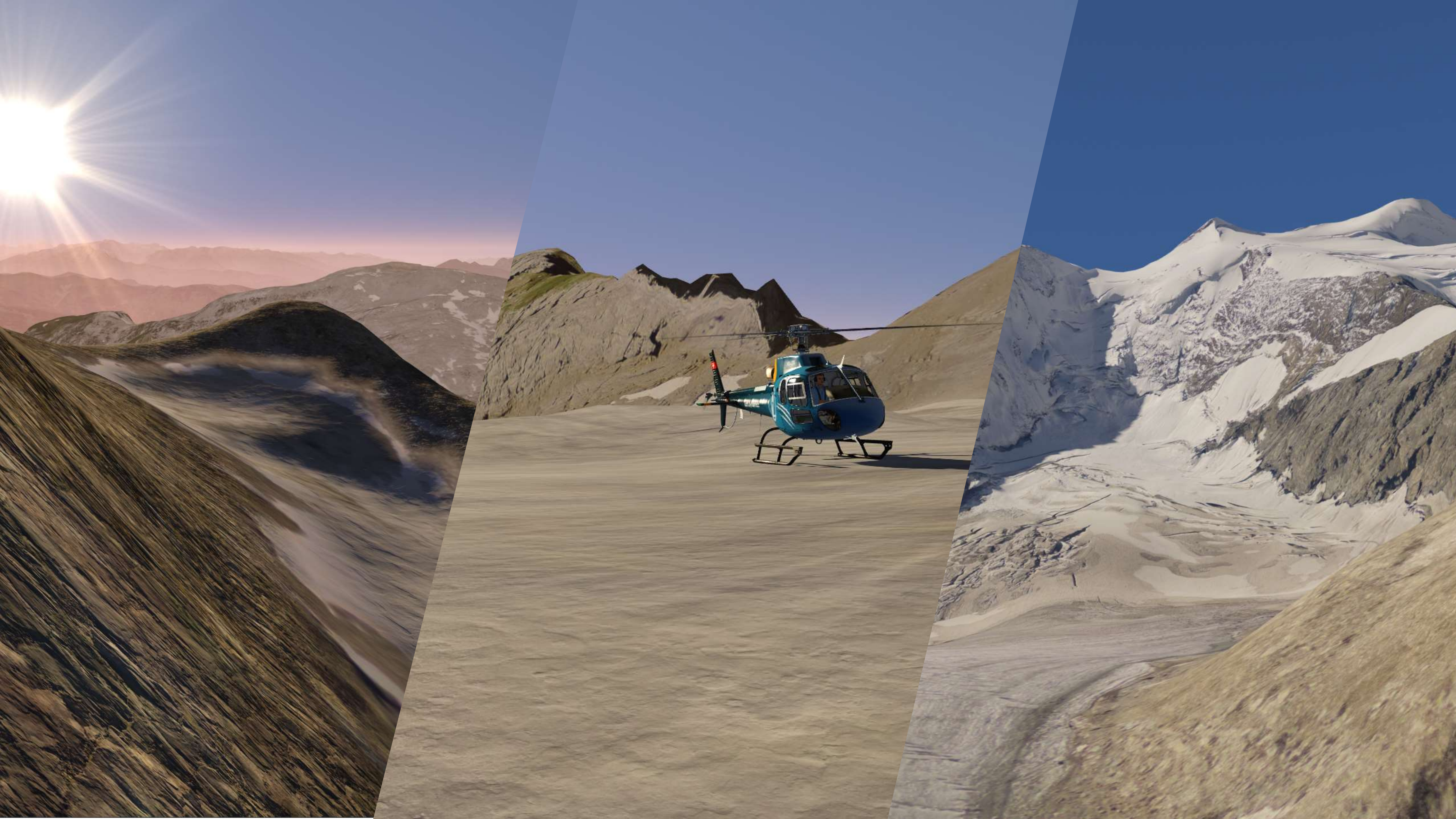
✓ QUALIFIED















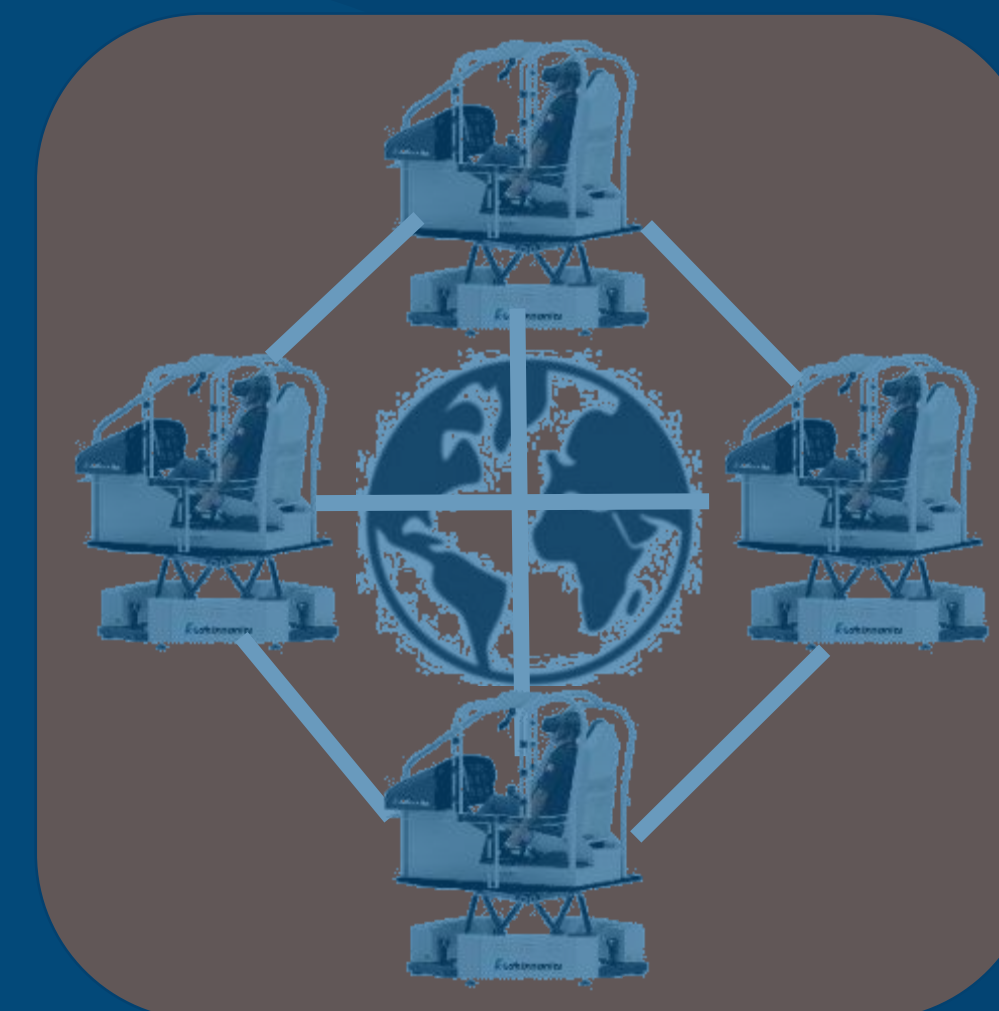




Loft-Home Kit



Loft-Cloud



Loft-SimNet





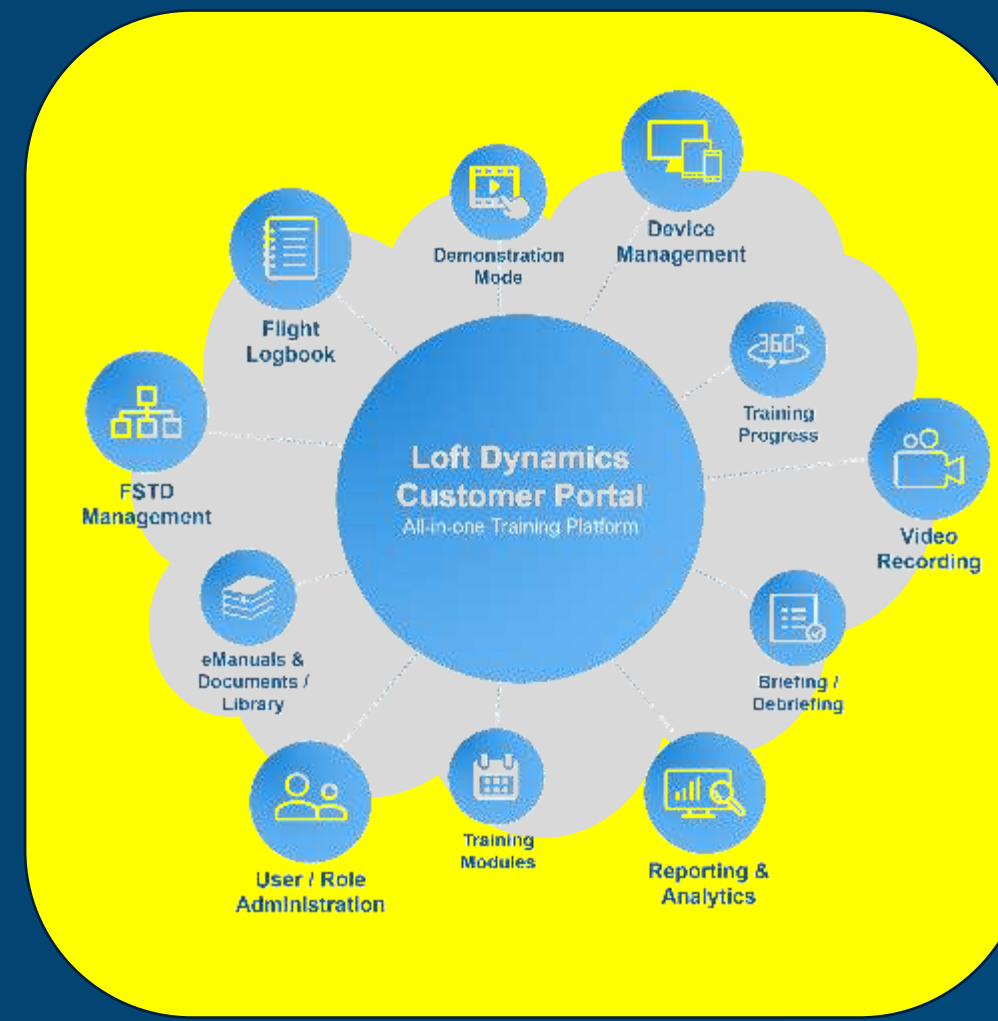




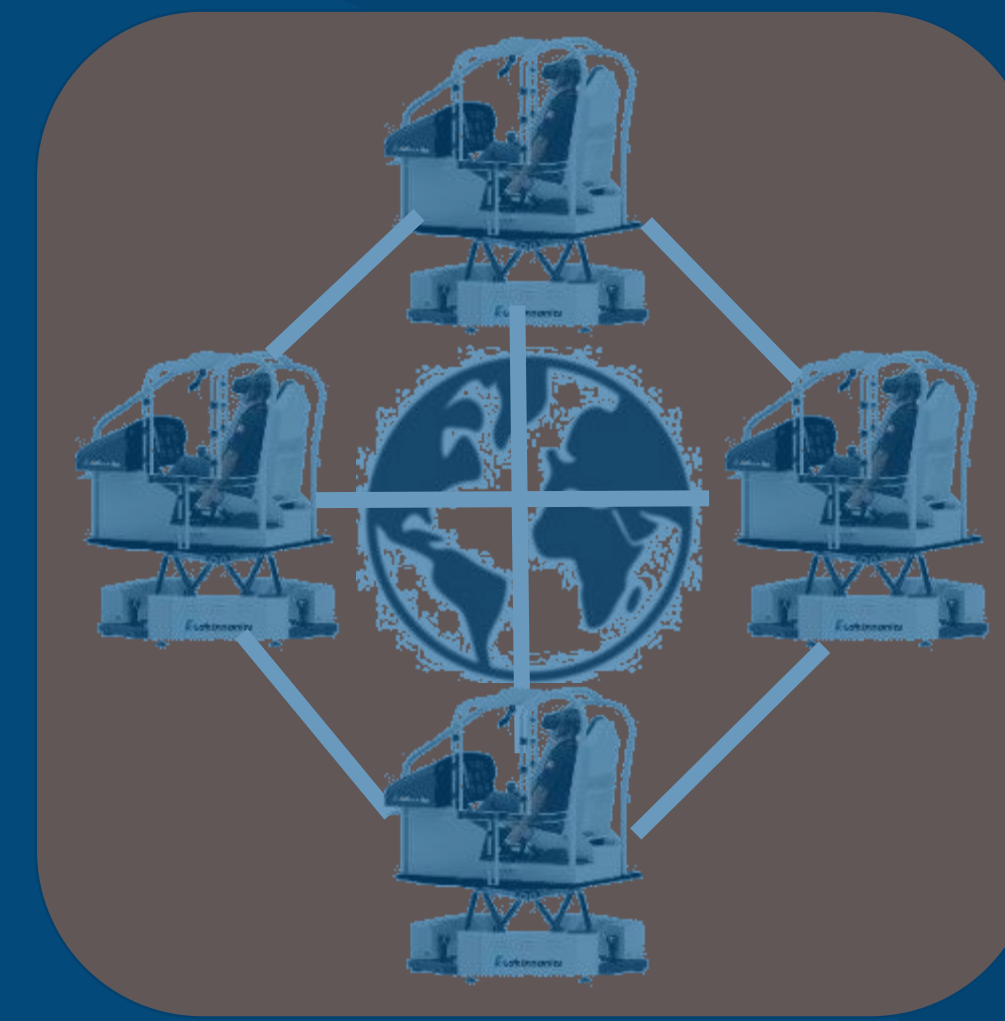




Loft-Home Kit



Loft-Cloud

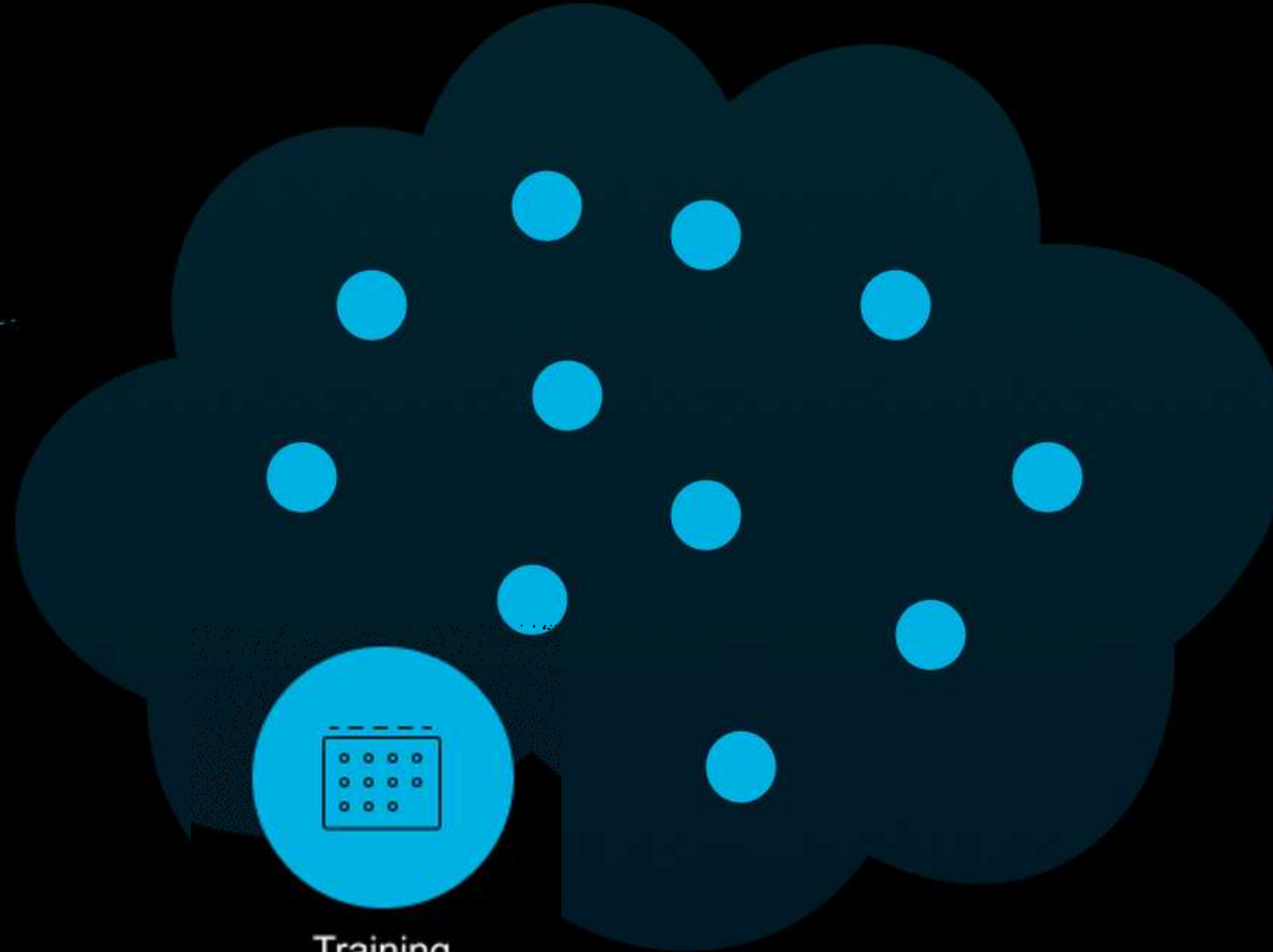
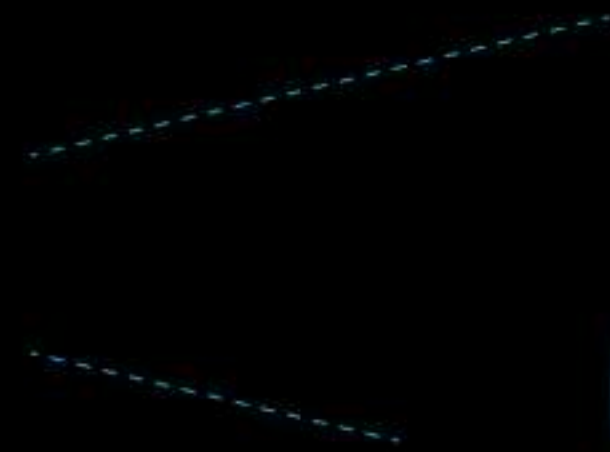


Loft-SimNet





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Training  
Modules





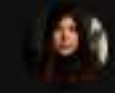


**BrandName** ATO

## Flight instructors



**Michael Beispiel** [3 trainings & checks](#) [12 sessions](#) **3 days left**



**Eva Eempio** [2 trainings & checks](#) [5 sessions](#) **3 months left**



**John Doe** [4 trainings & checks](#) [7 sessions](#) **4 months left**

## Pilots



**Anna Exemple** [2 trainings & checks](#) [24 sessions](#) **6 days left**



**John Doe** [4 trainings & checks](#) [7 sessions](#) **12 days left**



**Eva Eempio** [2 trainings & checks](#) [4 sessions](#) **4 months left**







**John Doe** Pilot

[Switch role](#) [See past sessions](#)

### Upcoming Trainings & Checks

**Training** Simulator session Not booked **Mandatory**

**Training** Theoretical session Zermatt 15 Jan 2025 **Mandatory**

**Check** Zermatt 15 Jan 2025 **Mandatory**

**Simulator session** Not booked **Optional**

### Timeline

17 Sep  
2024



Today

14 Jan  
2025



Simulator  
session

15 Jan  
2025



Theoretical  
session  
Zermatt

15 Jan  
2025



**Check**  
Zermatt

15 Jun  
2025



**Check**

15 Jan  
2026



**Check**

15 Jun  
2026



**Check**







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**John Doe** Pilot

[Switch role](#) [See trainings & checks](#)

### Past Sessions

**Training session** 17 Sep

A

Santa Monica



**Training session** 22 Jul

A

Zermatt



**Examination Session** 3 Apr

A

Mönchengladbach



**Training session** 12 Feb

A

Zermatt



**Training session** 13 Jan

A

Bern-Belp



**Training session** 14 Dec 2023

A

Dübendorf



**Training session** 29 Sep 2023

A

Zermatt

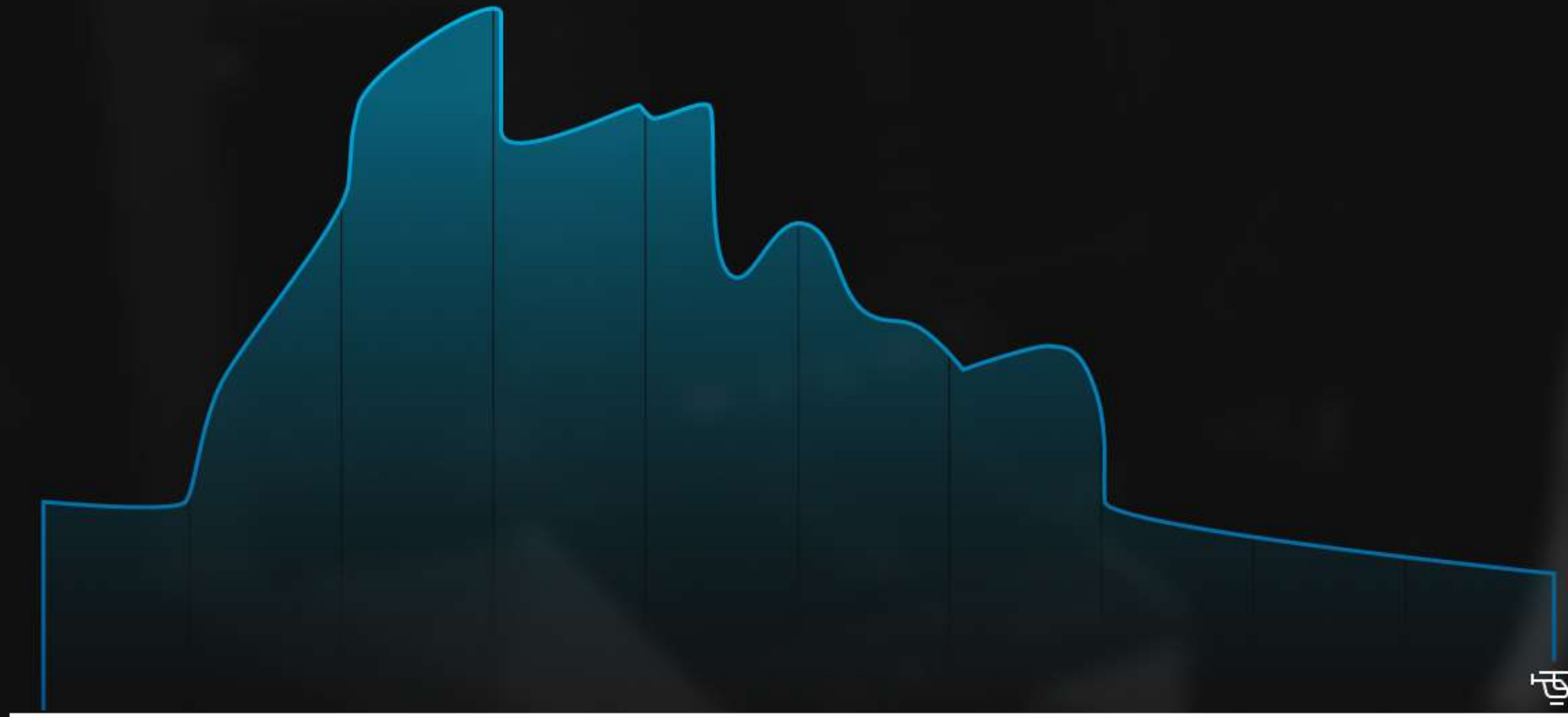






← Training session 17 Sep

Santa Monica



Start-up

Hover

Transition  
hover to  
forward flight

Climbing

Level-off

Autorotation

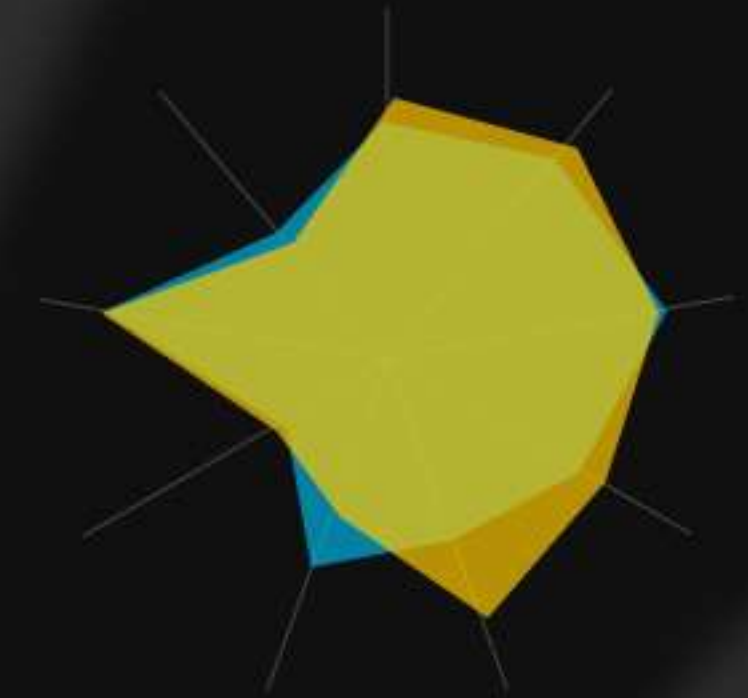
Descending

Transition

Approach to  
hover

Slope landing

## Pilot Competencies



[See details](#)

## Next Session

Recommendation based on  
lowest competencies rates



Maneuver B

27%



Maneuver G

29%



Maneuver A

33%

[Book session](#)

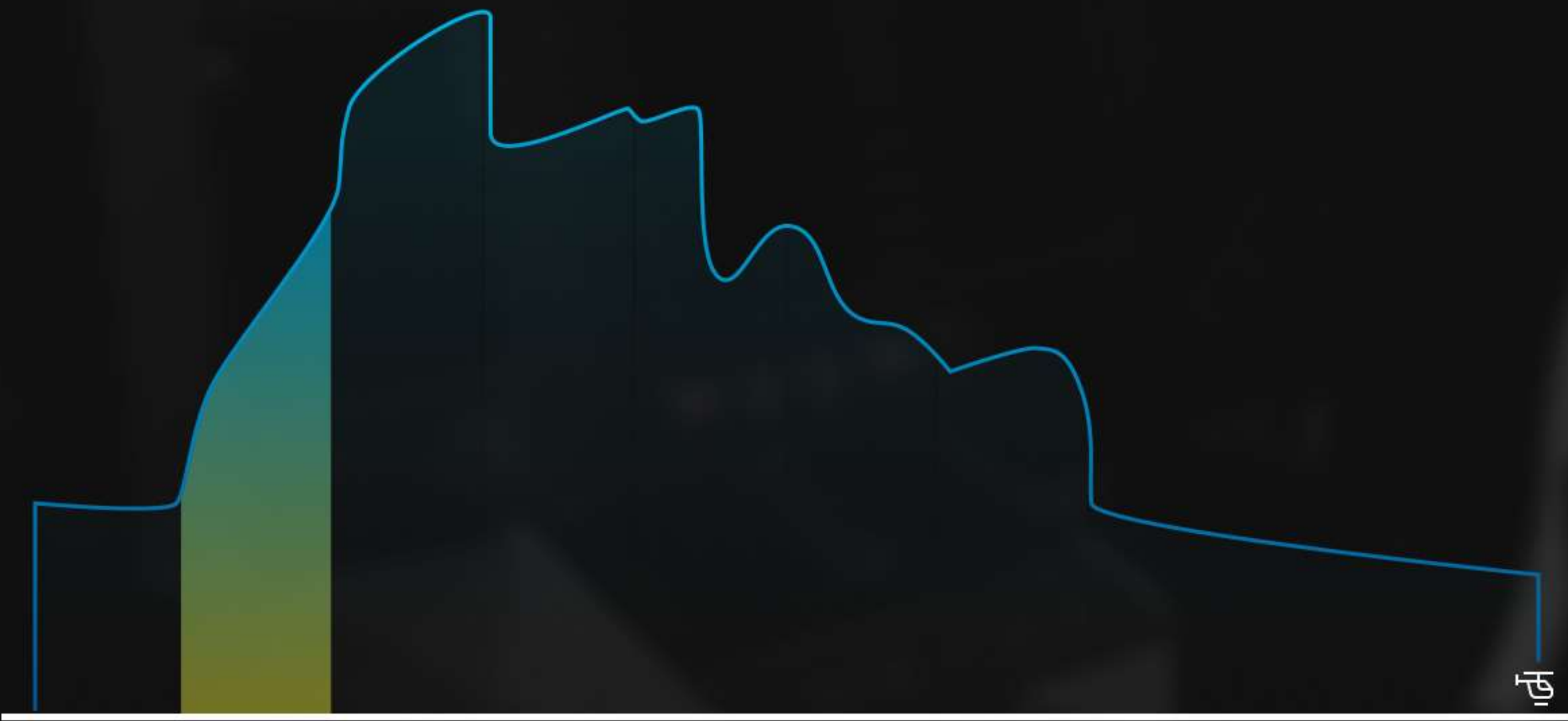






← Training session 17 Sep

Santa Monica



Start-up   Hover   Transition hover to forward flight   Climbing   Level-off   Autorotation   Descending   Transition   Approach to hover   Slope landing

Pilot Competencies



[See details](#)

Next Session

Recommendation based on lowest competencies rates

	Maneuver B	27%
	Maneuver G	29%
	Maneuver A	33%

[Book session](#)



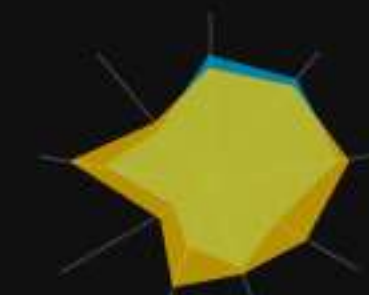




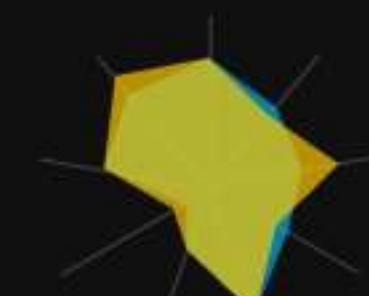
← **Hover**



### Progress



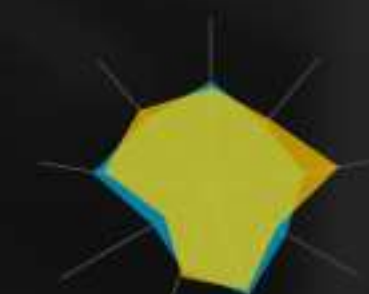
22 Jul vs. 3 Apr



3 Apr vs. 12 Feb



12 Feb vs. 13 Jan



13 Jan vs. 14 Dec 2023



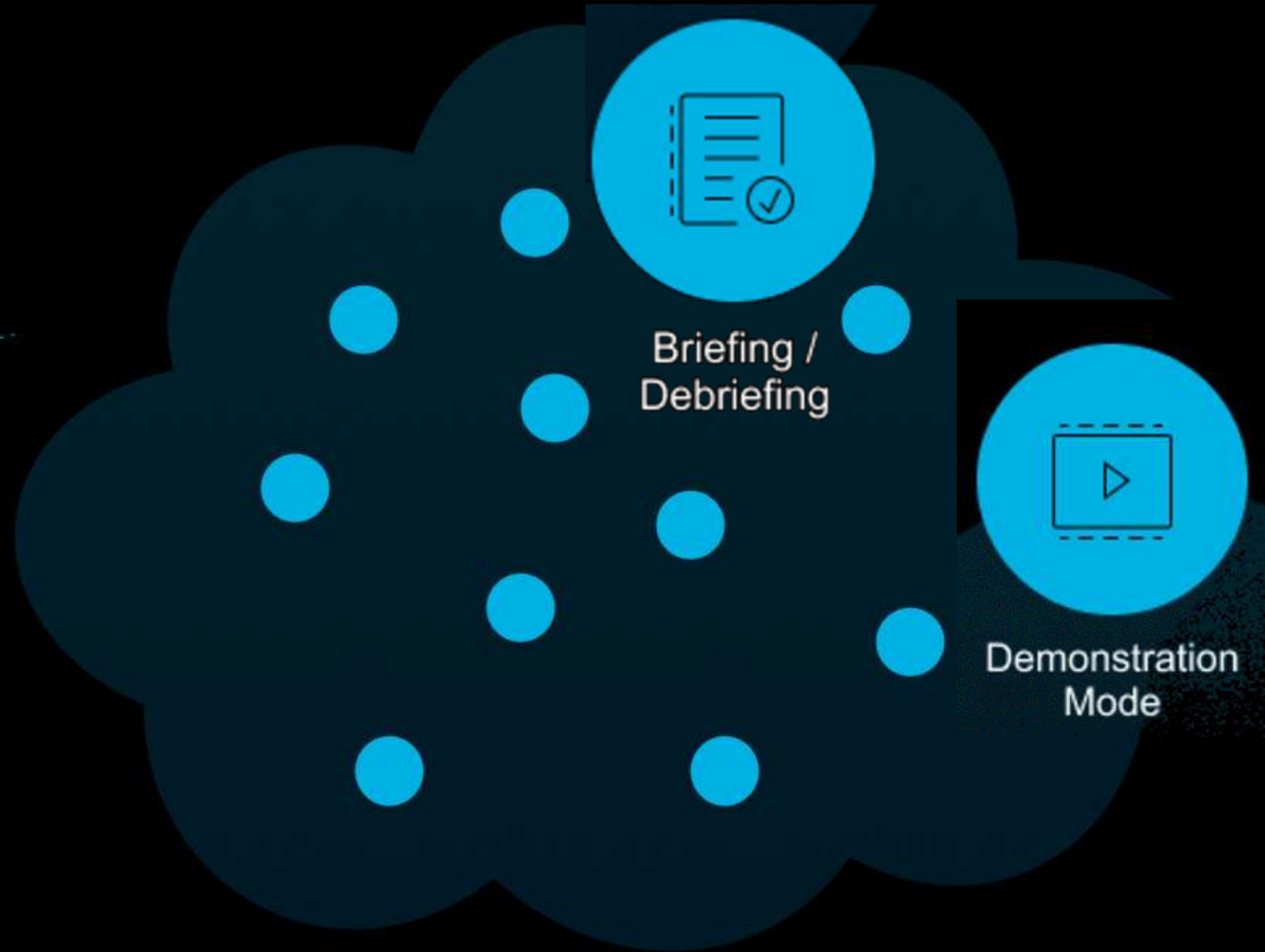
14 Dec 2023 vs. 29 Sep 2023





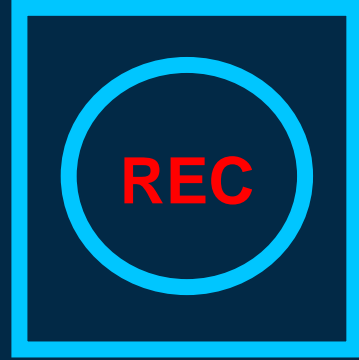


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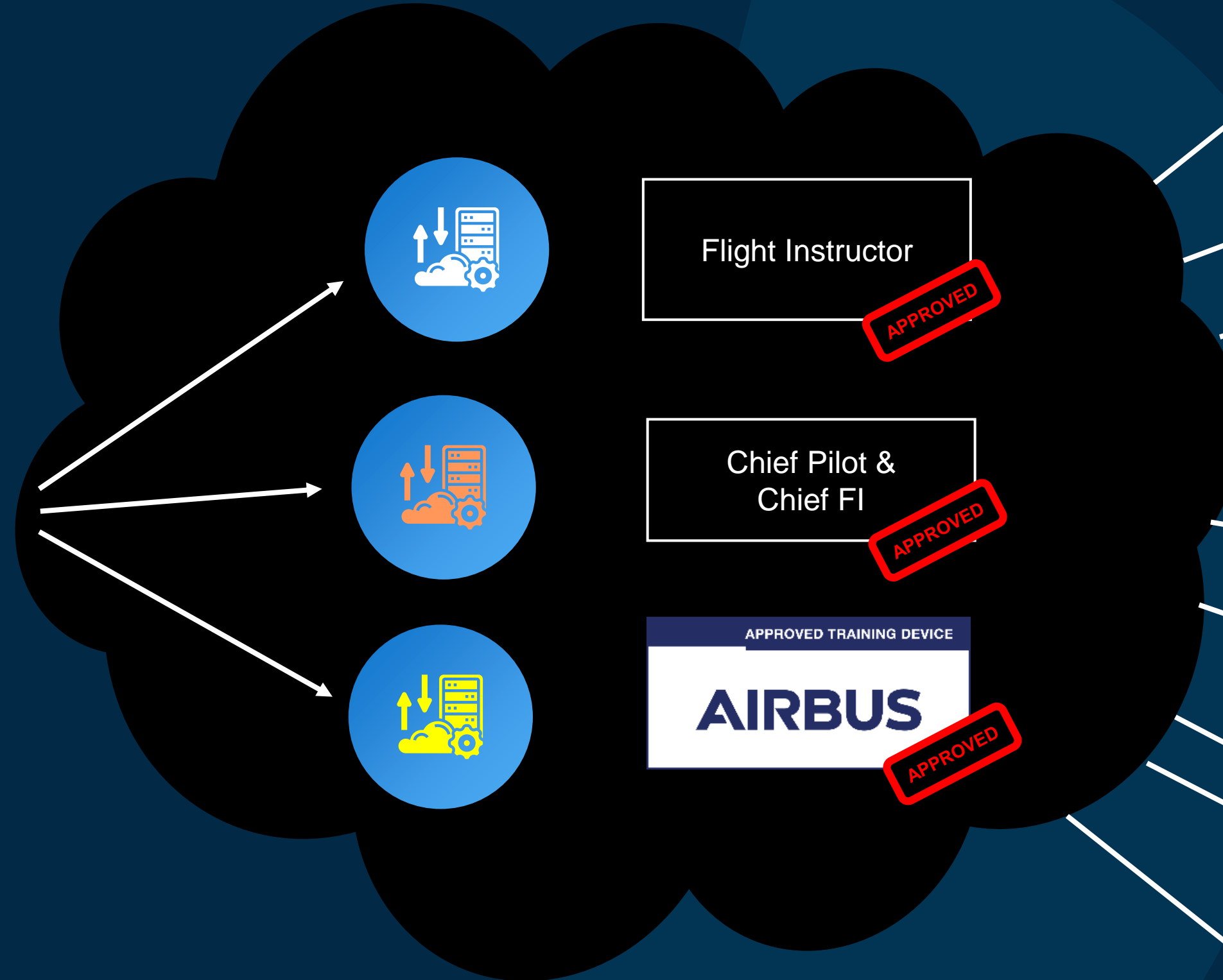
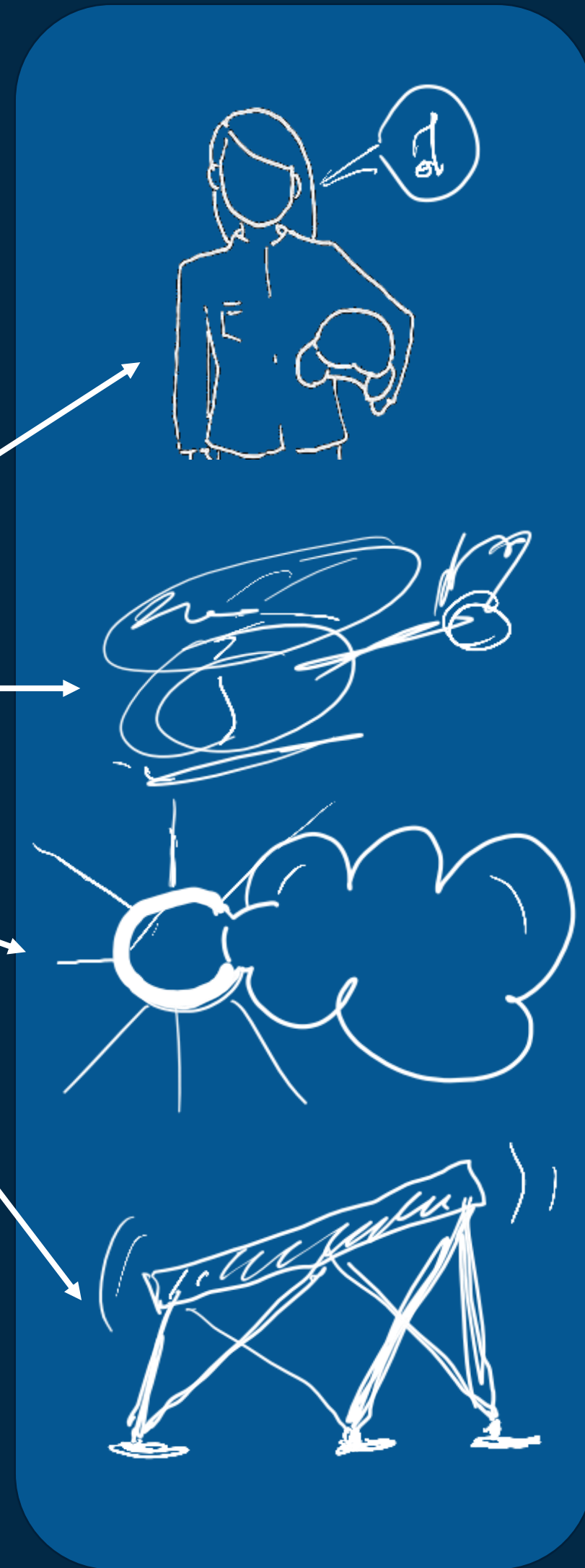




# LofTWIN



Instructor Pilot

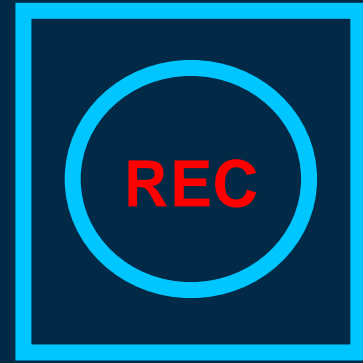


Student Pilot(s)

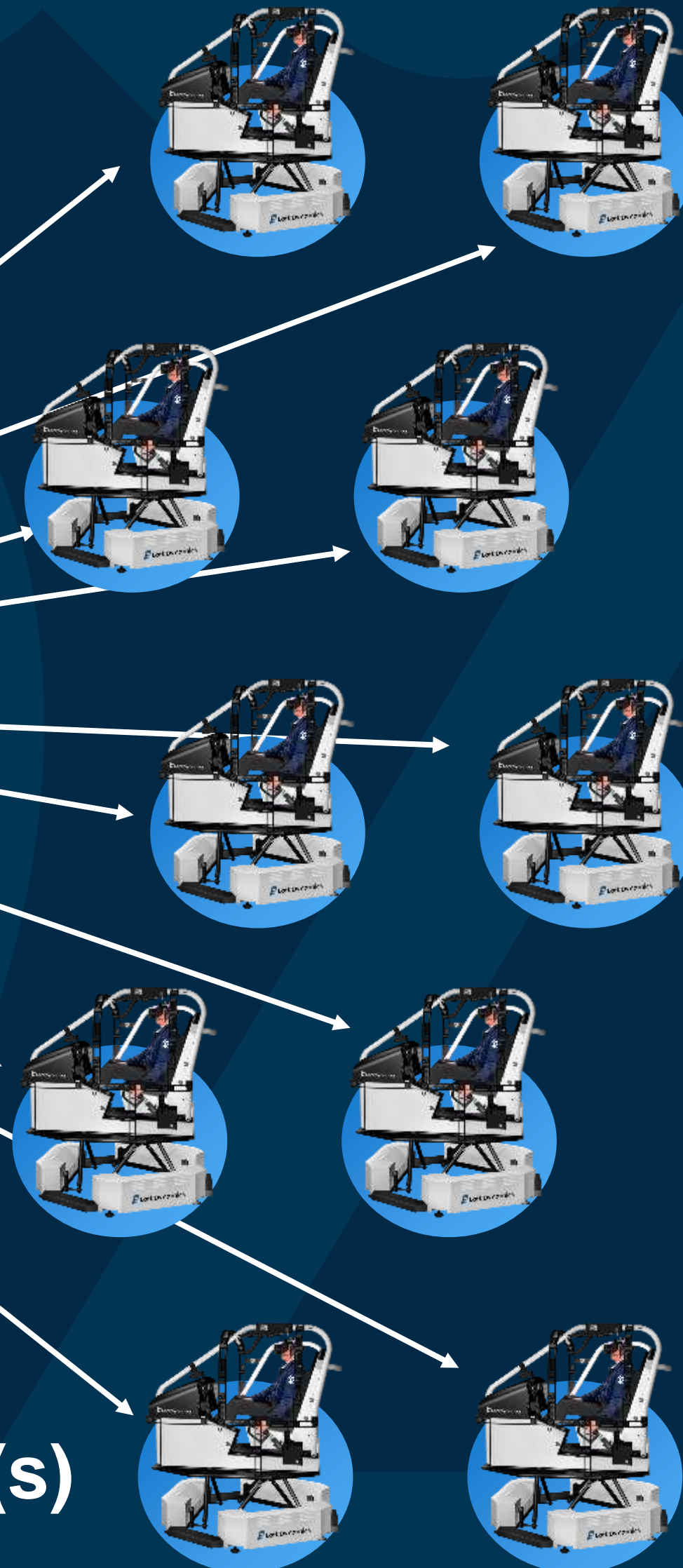
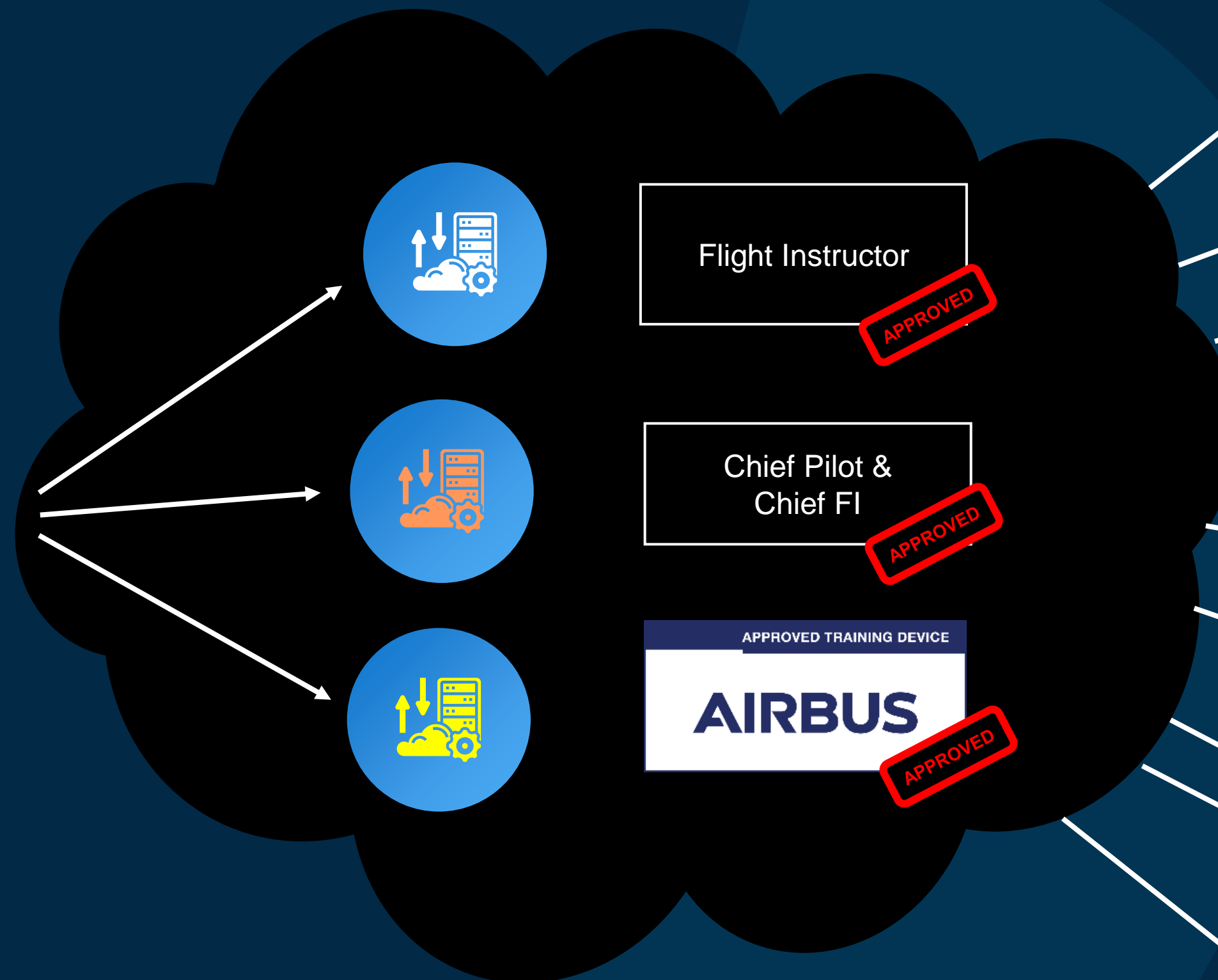
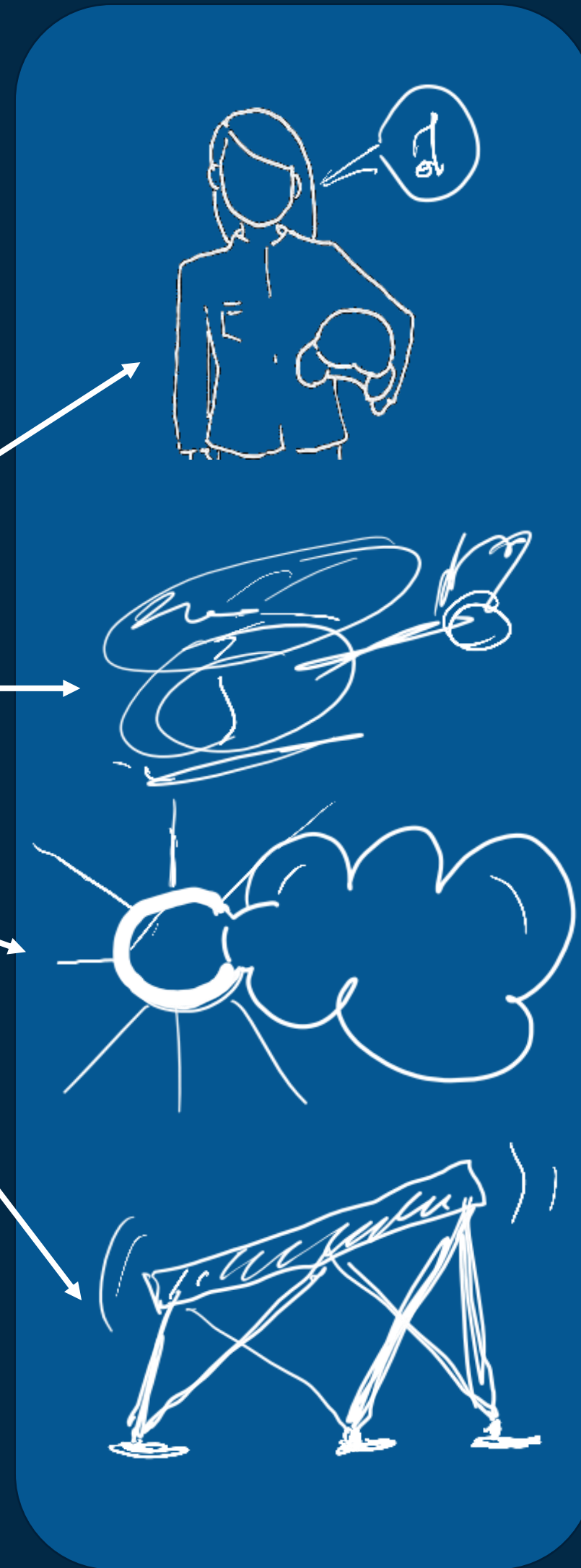




# LofTWIN



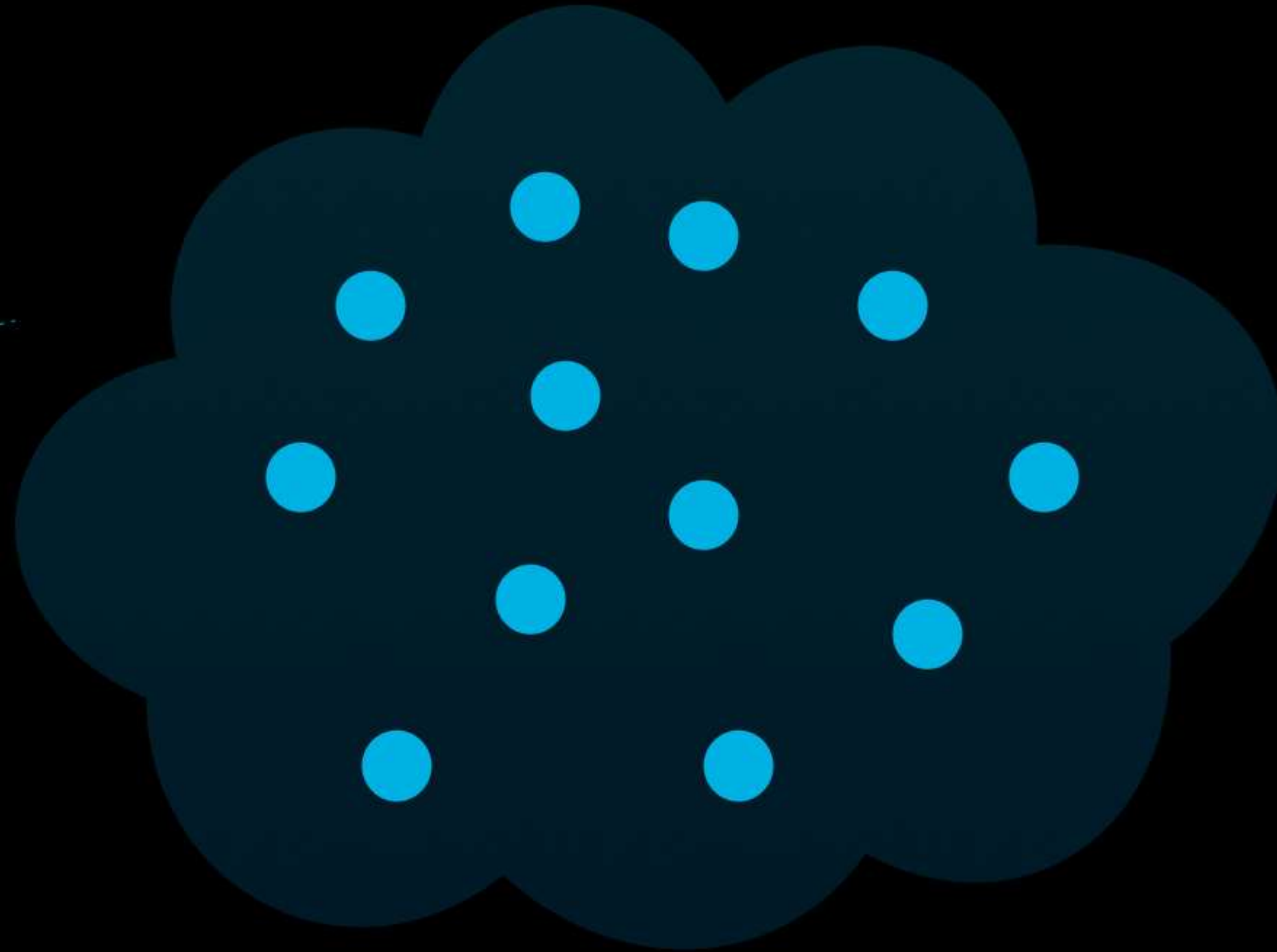
Instructor Pilot



Student Pilot(s)



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Loft-Home Kit



Loft-Cloud



Loft-SimNet









THANK YOU!

