

CBTA and Beyond,

Shaping the Future of ATS Training

From knowledge transfer to competence development

Agenda

- How we used to train
- What CBTA changes
- What is CBTA
- Why CBTA alone is not enough
- What ATS/FISO training might look like in the future
- How we get there

Our sites



Sweden: Malmö



Hungary: Budapest



Denmark: Copenhagen



Ireland: Dublin, Shannon



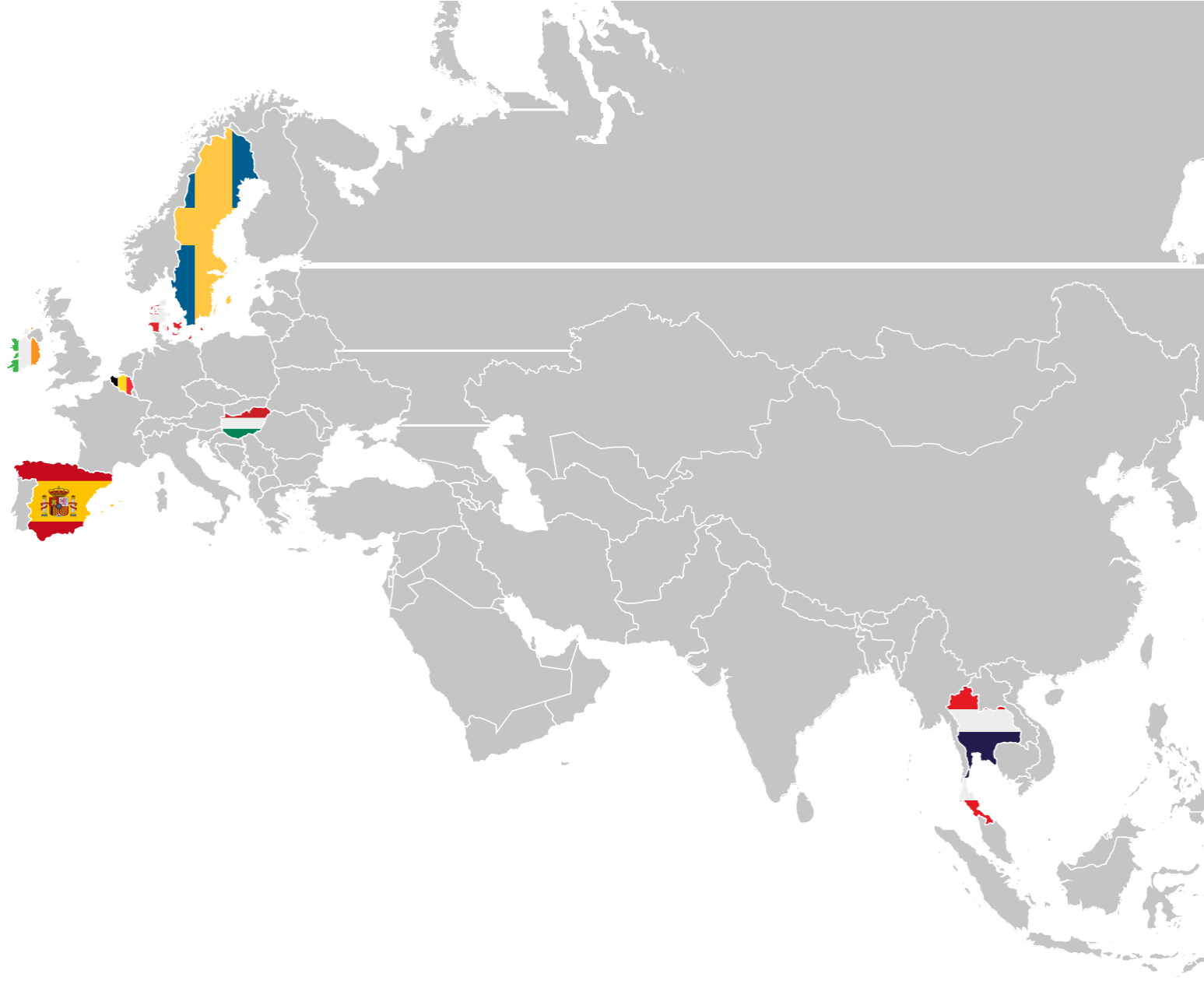
Spain: Madrid



Belgium: Brussels



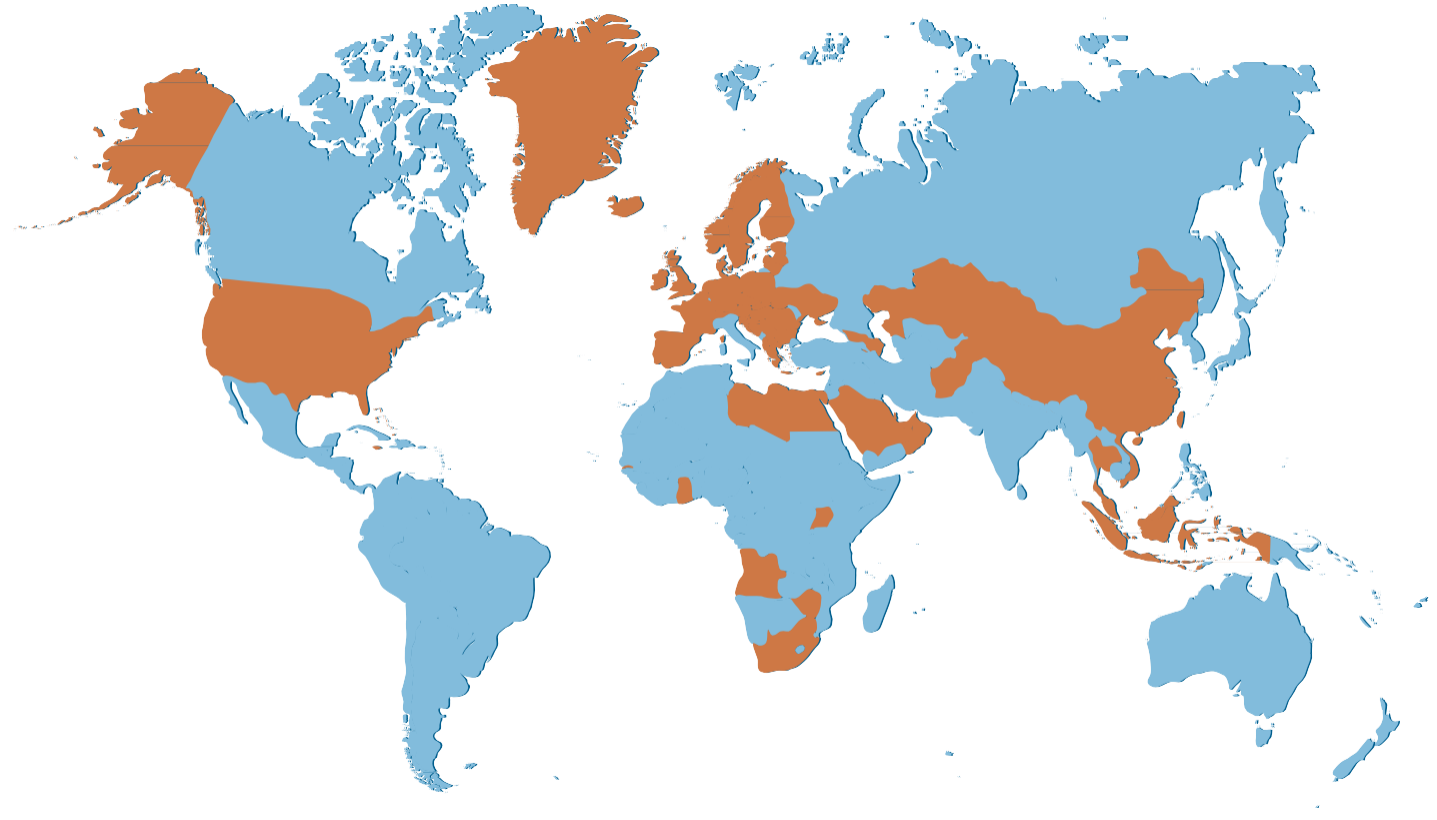
Asia: Bangkok



Global reach and local presence

We provide services to more than **300 customers** from **65 countries**.

- **We deliver training and other services** at our training centres, your site or online.
- Our staff and students come from all over the world. Our **staff** comprises of more than **20 nationalities**.



CANSO

Associate member

IFATCA

Industry partner



Industry partner

IFISA

Honorary member

Training Products

ADR

- Apron Management
- Runaway safety
- Aerodrome safety
- NOTAM training

ATSEP

- Basic training
- Qualification training

ATC

- Basic training
- Rating training
- Transitional training
- Refresher training

FIS

- Basic training
- Rating training
- Transitional training
- Refresher training

Instructor and Assessor Development

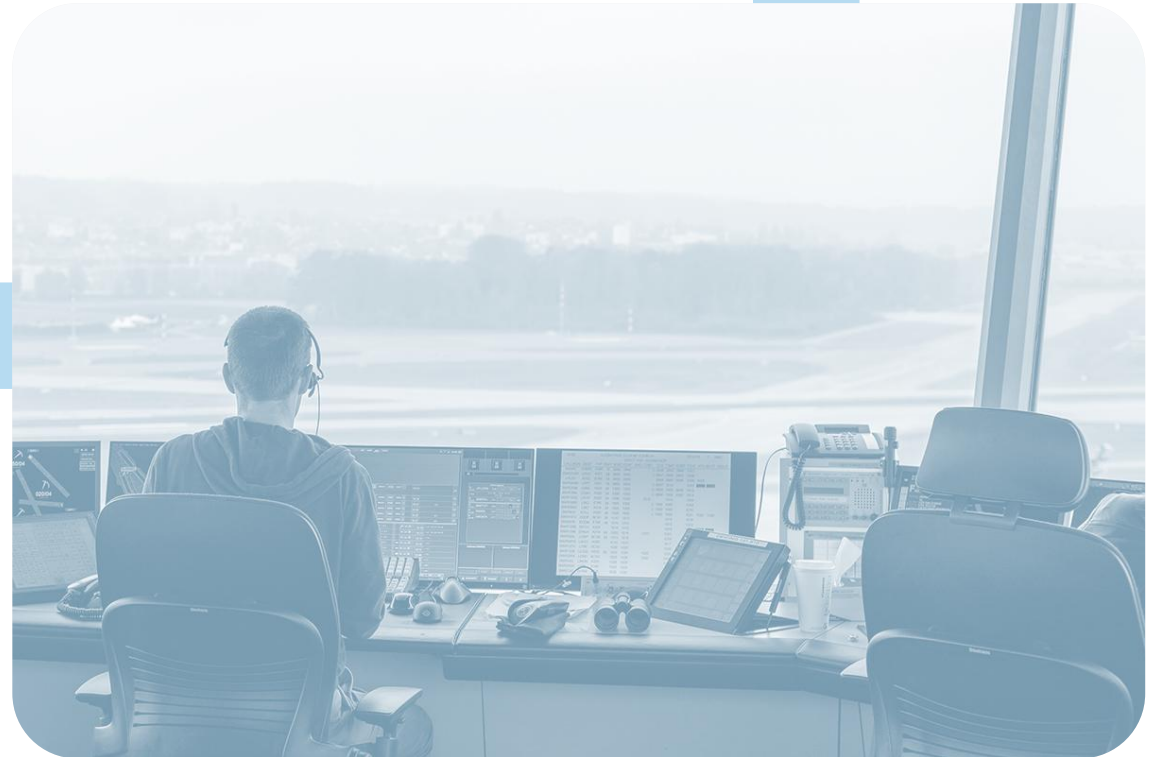
- Practical Instructor Training
- Assessor Training
- Train the Trainer
- Examination and Assessment Tools

Simulator services

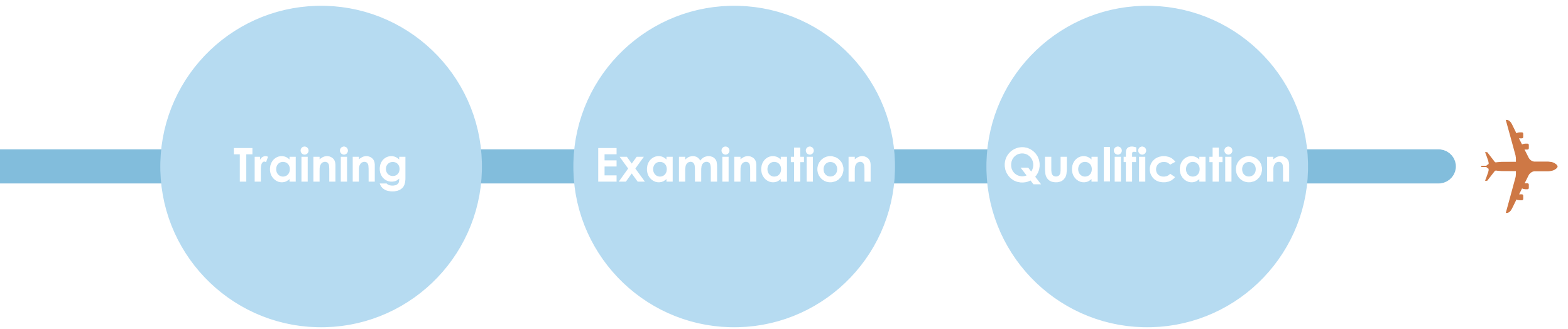
- Tower sim
- Radar sim
- Remote piloting and remote training

What will the FISO training of 2035 look like?

What competencies will be required?



Traditional ATS Training



Characteristics:

- Knowledge-centred
- Hours-based
- Syllabus completion focused
- Success measured by passing examinations

The Fundamental Shift

Traditional

- Focus on inputs
- Hours
- Lessons
- Content
- Exams

CBTA

- Focus on outputs
- Observable behaviour
- Performance
- Competencies
- Evidence

The question changes from:
"What did we teach?" to "What can the trainee do?"

What is CBTA?

- CBTA is not less training.
- CBTA is not easier training.
- CBTA is a **different way of defining success.**

Instead of measuring:
"Was the lesson completed?"
we measure:
"Can the trainee consistently perform in an
operational environment?"



Why Are We Talking About CBTA Now?

- Aviation is becoming more **complex**.
- **Technology** is evolving rapidly.
- Traditional training does not always **predict operational performance**.
- Regulators increasingly focus on **demonstrated competence**.
- CBTA **training requirements** enter into force in the EU for ATCO training 1/1 2029
- The industry faces **recruitment and retention challenges**.



CBTA Competency Model

The CBTA model consists of four components:

- Competencies
- Observable behaviours
- Conditions
- Standards



Competence is the "**what**",
behaviours show "**how**",
conditions define "**where**", and
standards define "**how well**".

The 10 Competencies



Situational
Awareness



Traffic and
Capacity
Management



Separation and
Conflict Resolution



Communication



Coordination



Management of
Non-routine
Situations



Problem Solving
and Decision
Making

Competencies describe what an effective FISO must be **capable of doing** to perform safely and efficiently.

Self Management
and Continuous
Development

Workload
Management

Teamwork

Observable Behaviour



CBTA does not assess whether somebody "has situational awareness".

It assesses whether they **demonstrate behaviours** that indicate situational awareness.

Competencies themselves cannot be observed directly. **What we can observe are behaviours.**

Competency:

Situational Awareness

Observable Behaviours:

- Monitors aerodrome activity continuously
- Identifies developing conflicts
- Anticipates the effects of weather changes
- Maintains awareness of all relevant traffic

Example (ICAO Doc 9868)

ICAO COMPETENCY FRAMEWORK FOR AIR TRAFFIC CONTROLLERS

Note.— This framework needs to be adapted to the local context of the organization. The competencies and observable behaviours in the table below are not listed according to any pre-defined priority. Observable behaviours may include, but are not limited to, the observable behaviours listed in the table below.

Competency	Definition	Observable behaviours (OB)
<i>Situational awareness</i>	Comprehend the current operational situation and anticipate future events	OB 1.1 Monitors air traffic in own area of responsibility and nearby airspace OB 1.2 Monitors the meteorological conditions that impact on own area of responsibility and nearby airspace OB 1.3 Monitors the status of the ATC systems and equipment OB 1.4 Monitors the operational circumstances in nearby sectors to anticipate impact on own situation OB 1.5 Scans all available sources of information OB 1.6 Acquires information from available surveillance and flight data systems, meteorological data, electronic data displays and any other means available OB 1.7 Integrates information acquired from monitoring and scanning into the overall picture OB 1.8 Analyses the actual situation based on information acquired from monitoring and scanning

Conditions

Performance must always be evaluated within defined conditions.

Context

- Traffic levels
- Traffic complexity
- Type of traffic
- Environmental context (weather, sectors etc.)

Tools and systems or equipment

- Tools, equipment and/or systems available under normal operating conditions
- Whether the performance takes place in a simulated or live operational environment

Level of support or assistance from the instructor or assessor

- Support related to the stages of training

Knowing what to do is not enough. Competence is demonstrated when performance remains effective under operational pressure. CBTA recognises that competence must be demonstrated **under realistic operational conditions.**

Standards

Standards define the required level of performance.

They answer questions such as:

- How accurately?
- How consistently?
- How safely?
- How independently?

Standards ensure assessors evaluate performance against **common expectations** rather than personal opinions.

A Simple FISO Example

Imagine a vehicle enters the manoeuvring area unexpectedly.

Competencies:

- Situational Awareness
- Management of Non-routine Situations
- Problem Solving and Decision Making

Observable Behaviours:

- Detects the hazard promptly
- Prioritises actions appropriately
- Communicates clearly
- Coordinates with relevant stakeholders

Conditions:

- Moderate traffic
- Reduced visibility
- Time pressure

Standard:

- Maintains safe traffic flow
- Provides correct information
- Takes action within required timeframes
- No procedural deviations

Milestones

Divide training into pedagogical parts

In traditional training, progress is often measured by:

- Hours completed
- Lessons completed
- Examinations passed

In CBTA, progress is measured by the trainee's demonstrated competence.



Rather than asking:
"Has the trainee completed enough training?"
the question becomes:
"Has the trainee demonstrated the required level of
performance to progress further?"

Time

“In competency-based training, **time is flexible**, but **competence is fixed**.”

Meaning:

- People may learn at different speeds
- But everyone must reach the same standard

This makes CBT:

- Fairer (judged on ability, not speed)
- More practical
- More relevant to real work



Competency Based Theory Training

Start here:

What must the learner be able to do in the operational environment, and how can theory support that performance?

For each competency:

1. Identify the required behaviours
2. Define the performance criteria.
3. Determine the operational conditions under which performance is expected.
4. Identify the **underpinning knowledge needed to support those behaviours**.



In CBTA, theory is not preparation for competence. Theory is the first stage of competence development.

Traditional objective:
State the contents of a NOTAM.

CBTA-oriented objective:
Evaluate the operational impact of NOTAM information on flight operations and determine what information should be prioritised to pilots.

From Assessment Events to Continuous Development



Traditional model:

Course → Assessment → Qualification



CBTA model:

Training → Assessment → Feedback
→ Development → Assessment

Benefits of CBTA



Safety

More realistic performance assessment

Consistency

Clear performance expectations

Efficiency

Focus on training needs

Adaptability

Training evolves with operational demands

Adapted Competency Model

The competency model adapted to your local operational environment and challenges.



The competency model must be adapted to:

- Type of service provided
- Technology used
- Operational complexity
- National requirements
- Organisational culture
- Future operational needs

A competency model provides the structure.
An **adapted competency model** makes that structure **relevant to a specific operational reality**.

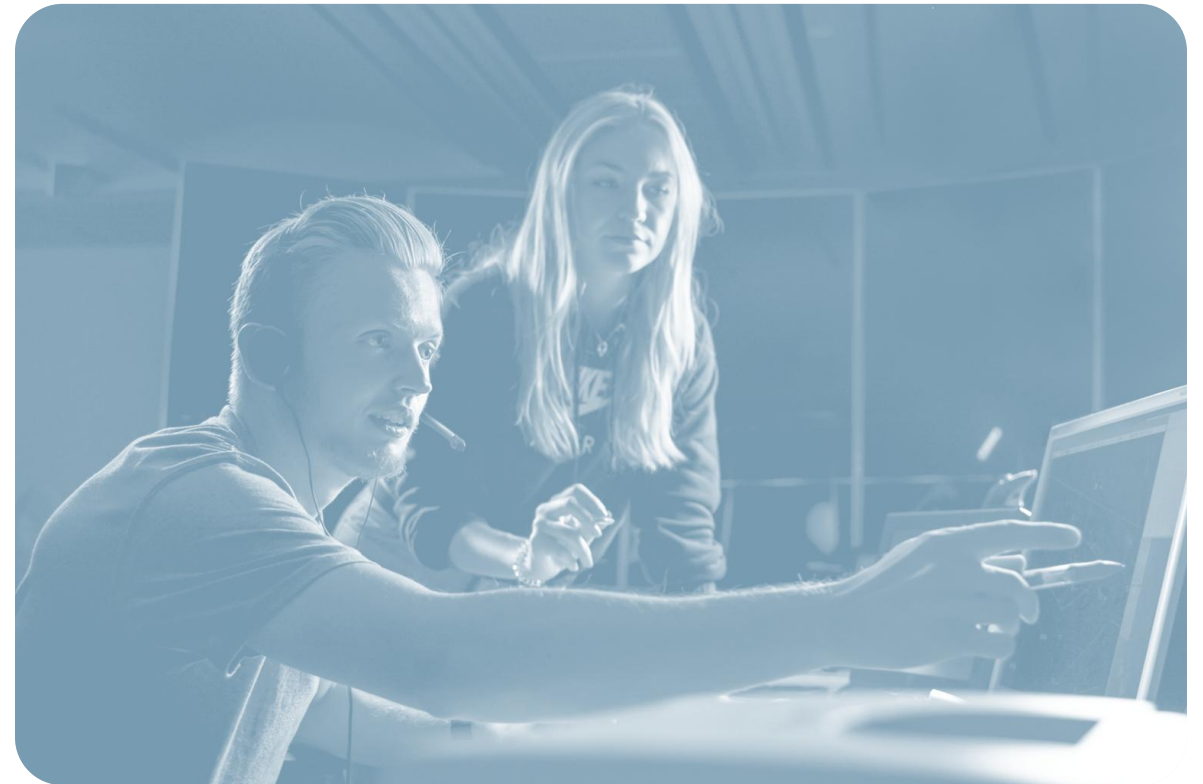
Challenges You Might Face

- Instructor adaptation
- Assessment consistency
- Competency interpretation
- Resource requirements
- Cultural resistance

Changing training **documentation** is easy.
Changing training **culture** is hard.

Current Challenges in FISO Training (2026)

- Knowledge Overload
- Assessment Consistency
- Instructor Competence
- Training Resource Constraints
- Human Factors and Resilience
- Bridging the Gap to Operations
- Lack of regulation/diverse regulation



Beyond CBTA: The Next Evolution

CBTA answers:
How should we train?

Future training must also answer:
What should we train?



Emerging Challenges

- Automation Monitoring
- Artificial Intelligence
- U-space and New Airspace Users
- Cybersecurity
- Faster Operational Change
- Competency Decay Management
- Instructor Workforce Sustainability



Future Competencies for FISOs

Possible competency areas:

- Operational Decision Making
- Situational Awareness Management
- Human Performance
- Team Collaboration
- Information Evaluation
- Automation Supervision
- Resilience and Adaptability
- Safety Culture



Which competency will become more important?

Vision: FISO Training in 2035

Training that is:

- Competency-driven
- Data-informed
- Technology-enabled
- Operationally relevant
- Human-centred



Data-Informed

Training Data: The Untapped Resource

- Simulator performance data
- Assessment data
- Training trend analysis
- Predictive support



The future may not be competency-based training.

The future may be:
data-informed competency development.

Technology-enabled

Artificial Intelligence and ATS Training



Opportunities:

- Personalised learning
- Scenario generation
- Feedback support
- Training analytics

Risks:

- Over-reliance
- Reduced critical thinking
- Data quality concerns

Operationally Relevant Training

Competencies that determine success in live operations.

Operations are not a memory test.

Trainees must practise:

- Prioritisation
- Judgement
- Decision making
- Adaptation

Knowledge

Train and assess the part of the iceberg that determines performance.

Judgement
Decision making
Communication
Situation awareness
Resilience
Adaptability
Workload management



Human-Centred Training

Human-centred training is not about what students do but about who they become.

Training needs to provide students with:

- Stress tolerance and stress management tools
- Psychological resilience
- Cognitive fitness awareness

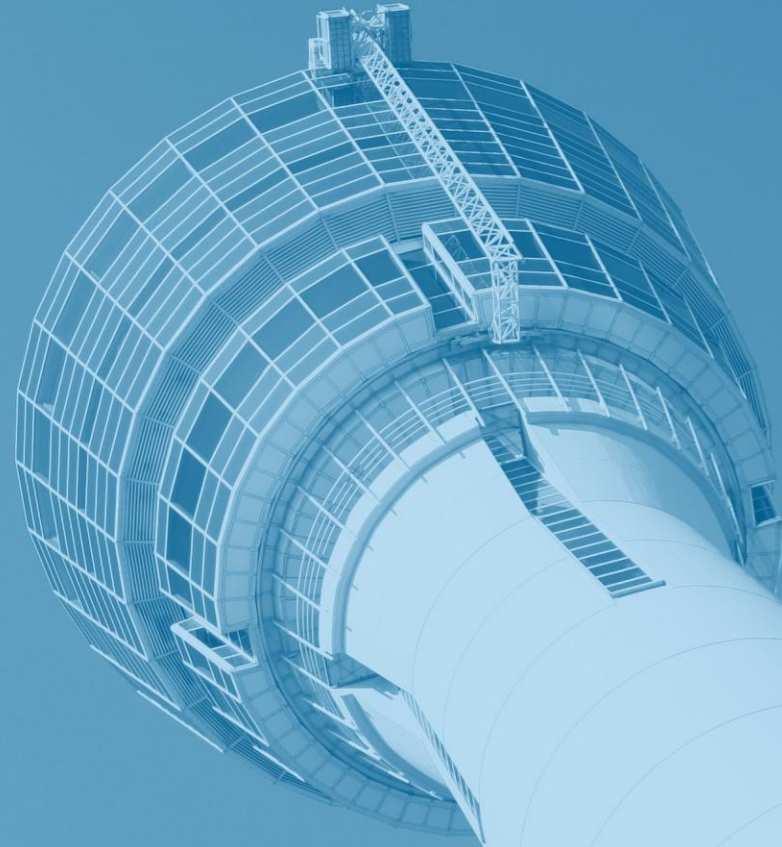


Key Takeaways

- CBTA changes the focus **from teaching to performance.**
- The real challenge is **cultural, not regulatory.**
- Future ATS roles will require **new competencies.**
- Data and technology will transform training.
- The future belongs to **organisations that continuously develop competence.**



Thank you!



+46 406 944 300
info@entrypointnorth.com
entrypointnorth.com