



ICAO



# ICAO TRAINING STANDARDIZATION MEETING

REUNIÃO DE PADRONIZAÇÃO  
DE TREINAMENTO

14-16 • ABRIL • 2025  
HOTEL EPIC SANA | LUANDA, ANGOLA



GOVERNO DE  
**ANGOLA**

**mintrans.gov.ao**  
Ministério dos Transportes





| ICAO



ICAO TRAINING  
STANDARDIZATION  
MEETING

REUNIÃO  
DE PADRONIZAÇÃO  
DE TREINAMENTO

# Developing Future-Ready Aviation Professionals: Competency Mapping and Competency-Development for the AFI Region




# Overview

- Key competencies required for future-ready aviation professionals
- Role of collaboration in developing competency-based training programs for the AFI Region
- Measure the effectiveness of competency-based initiatives on aviation training
- Effective implementation of competency mapping in aviation training programs.
- Workgroup Discussion
- Summary



Key competencies  
required for future-ready  
aviation professionals

solving  
Communication  
awareness  
Continuous situations  
abnormal handover  
Compliance Decision-making making  
Coordination manual  
information Development automation  
policies Teamwork Flight  
Traffic capacity control  
Application Problem path  
non-routine conflict Workload  
Self-management  
RPA Passenger Leadership  
Separation Situational regulations  
decision procedures  
management



# Key competencies required for future- ready aviation professionals

Key Areas:

Technical and  
Operational  
Competency

- Proficiency in evolving technologies
- Safety and Security Management
- ATM and ANS
- Aerodrome Operations and Management
- Aircraft Maintenance and Engineering
- Aeronautical Meteorology



# Key competencies required for future- ready aviation professionals

Key Areas:

## Soft Skills and Cross Functional Competencies

- Problem solving and Decision making
- Communication
- Collaboration
- Adaptability and Resilience
- Critical thinking and Analytical skills
- Interpersonal skills
- Leadership
- Teamwork




# Key competencies required for future- ready aviation professionals

Key Areas:

Digital Literacy and Data  
Analysis

- Data interpretation and Application
- Cybersecurity Awareness
- Digital Communication and Collaboration tools




# Key competencies required for future- ready aviation professionals

Today vs Tomorrow

- Greater emphasis on integration of technology
- Enhanced adaptability and Flexibility
- Stronger focus on Data-driven decision making
- Increased importance of “soft skills”
- Sustainability focused
- Cybersecurity awareness





# Key competencies required for future- ready aviation professionals

## Emerging Trends

- Digital transformation
- Sustainable aviation
- Automation and AI
- Advanced Air Mobility
- Cybersecurity threats
- Evolving Regulatory Landscape
- Traffic growth
- Single African Air Transport Market
- Safety Culture



## Role of collaboration in developing competency-based training programs for the AFI Region

- Pooling of Expertise and Resources
- Addressing regional Specifics
- Harmonization of standards
- Economies of Scale
- Enhanced Relevance and Acceptance



# Role of collaboration in developing competency-based training programs for the AFI Region

Regional Collaboration  
can enhance the  
standardization of training  
programs.

- Joint definition of Competency Standards
- Development of model curricula
- Common Assessment Criteria
- Mutual Recognition of Qualifications
- Sharing of Training Resources
- Sharing of Best Practices



# Role of collaboration in developing competency-based training programs for the AFI Region

## Challenges

- Different Priorities and Needs
- Varying levels of Resources and Infrastructure
- Bureaucracy and Coordination issues
- Resistance to Change



# Role of collaboration in developing competency-based training programs for the AFI Region

## Benefits

- Improved safety and efficiency
- Enhanced Interoperability and Integration
- Cost effectiveness
- Increased Relevance and Quality of Training
- Greater International Recognition



# Measurement of the Effectiveness of competency-based training programs for the AFI Region

## Metrics and Evaluation Methods


- Trainee performance
- Transfer of Learning
- Trainee satisfaction and Engagement
- Return on Investment
- Organisational Impact
- Pre- and Post Training Assessments
- Feedback from multiple stakeholders
- Focus groups and Interviews



# Measurement of the Effectiveness of competency-based training programs for the AFI Region

Feedback from Industry Incorporated into the Evaluation Process

- Surveys and Questionnaires
- Focus Group Discussions
- Advisory Committees
- Participation of Curriculum Development
- Feedback of Graduate Performance
- Industry Forums and Workshops
- Analysis of Industry Trends and Reports




# Effective Implementation of Competency mapping in aviation training programs

Competency mapping involves a systematic approach:

- Identify required competencies
- Define performance Standards
- Develop Curriculum aligned with Competencies
- Integrate Competency-Based Assessments
- Provide Feedback based on Competency Achievement
- Personalized Learning paths
- Ensure Instructor Competency
- Continuously Review and Update






# Effective Implementation of Competency mapping in aviation training programs

## Tools and Methodologies

- Job Analysis Techniques
  - Interviews
  - Questionnaires and Surveys
  - Observations
  - Focus Groups
- Competency Frameworks and Models
- Software and Technology
  - Document and organize competencies
  - Create competency profiles for different roles
  - Map competencies to training programs and assessments
  - Track employee competency development
  - Generate reports and analytics on competency gaps
- Assessment Tools
  - Simulator and scenarios-based assessments
- Workshops and Facilitated Sessions



# Effective Implementation of Competency mapping in aviation training programs

Relevant and Up to Date

- Regular Review
- Industry Monitoring
- Stakeholder Feedback Loops
- Gap Analysis
- Incorporating Emerging Trends
- Collaboration and Information Sharing
- Pilot Testing and Validation
- Use of Data Analytics



ICAO



ICAO TRAINING  
STANDARDIZATION  
MEETING

REUNIÃO  
DE PADRONIZAÇÃO  
DE TREINAMENTO

# Workgroup Discussion

## Instructions:

1. **Briefly introduce yourselves and your area of expertise. (2 minutes)**
2. **Discussion.** Engage in a focused discussion of the assigned question. Consider the challenges, opportunities, and innovative approaches relevant to the AFI Region. **(15 minutes)**
3. **Key Points:** Identify the most important insights, conclusions, and recommendations from your discussion. Focus on practical and relevant takeaways. **(8 minutes)**
4. **Assign a Reporter.** Select one member of your group to serve as the Reporter. The Reporter will summarize your group's key points and present them to the full meeting. **(2 minutes)**
5. **Prepare feedback:** The Reporter, in collaboration with the group, will prepare a concise presentation (no more than 5 minutes) of your key findings **(3 minutes)**

**Total Time: 30 minutes**

**Reporting: Each Reporter will present their group's findings to the full meeting in a dedicated feedback session. Each presentation is limited to 5 minutes.**



ICAO



ICAO TRAINING  
STANDARDIZATION  
MEETING

REUNIÃO  
DE PADRONIZAÇÃO  
DE TREINAMENTO

# Workgroup 1

**What are the most crucial competencies that will be essential for Future-Ready Aviation Professionals?** (Please limit it to 3-5 competencies)

**Which two competencies are of paramount importance specifically within the AFI Region?**



ICAO



ICAO TRAINING  
STANDARDIZATION  
MEETING

REUNIÃO  
DE PADRONIZAÇÃO  
DE TREINAMENTO

## Workgroup 2

Identify the three most significant challenges that will arise when collaborative efforts are undertaken to develop competency-based training within the AFI Region.

Propose strategies to effectively address these challenges.



ICAO



ICAO TRAINING  
STANDARDIZATION  
MEETING

REUNIÃO  
DE PADRONIZAÇÃO  
DE TREINAMENTO

# Workgroup 3

**How can we ensure that the competency-development initiatives in the Region will be effective?**

**How can the effectiveness of competency-development initiatives be measured or evaluated in the AFI Region?**



ICAO



ICAO TRAINING  
STANDARDIZATION  
MEETING

REUNIÃO  
DE PADRONIZAÇÃO  
DE TREINAMENTO

# Workgroup 4

**Which tools and methodologies are most effective for competency mapping?**

**How can we ensure that competency mapping remains relevant and effective over time?**



| ICAO



ICAO TRAINING  
STANDARDIZATION  
MEETING

REUNIÃO  
DE PADRONIZAÇÃO  
DE TREINAMENTO

# Thank you!





ICAO



# ICAO TRAINING STANDARDIZATION MEETING

REUNIÃO DE PADRONIZAÇÃO  
DE TREINAMENTO

14-16 • ABRIL • 2025  
HOTEL EPIC SANA | LUANDA, ANGOLA



GOVERNO DE  
**ANGOLA**

**mintrans.gov.ao**  
Ministério dos Transportes

