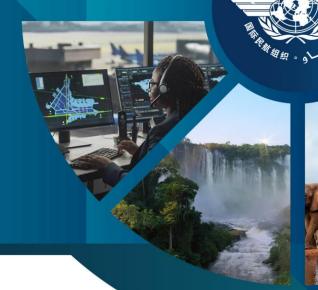




ICAO TRAINING STANDARDIZATION MEETING

REUNIÃO DE PADRONIZAÇÃO DE TREINAMENTO

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















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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

situations Continuous abnormal handover Compliance Decision-making making Coordination manual information Development automation policies Teamwork Flight
Traffic capacity control Application Problem Path Workload conflict non-routine Self-management
RPA
Passenger Le Passenger Leadership Situational Situations 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 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 Al
- Advanced Air Mobility
- Cybersecurity threats
- Evolving Regulatory Landscape
- Traffic growth
- Single African Air Transport Market
- Safety Culture

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

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

Challenges

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

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







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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.







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?







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.







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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?







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?







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Thank you!





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