



*ICAO Competency Based Approach to Training  
and Assessment*

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# Outline

- ICAO's competency-based approach
- Update on ICAO initiatives on DG training and testing



# ICAO Competency-based Approach Objective



“Determine what **competencies** a [*insert aviation function*] needs to have in order to perform his/her work.”

# Definition of Competency



“A combination of skills, knowledge and attitudes required to perform a task to the prescribed standard”

ICAO Doc 9868 - PANS-Training

# Competency-based approach



1. Define the end-state first – *competencies to be achieved*
2. Work backwards to design training and assessments based on the end-state

# Benefits

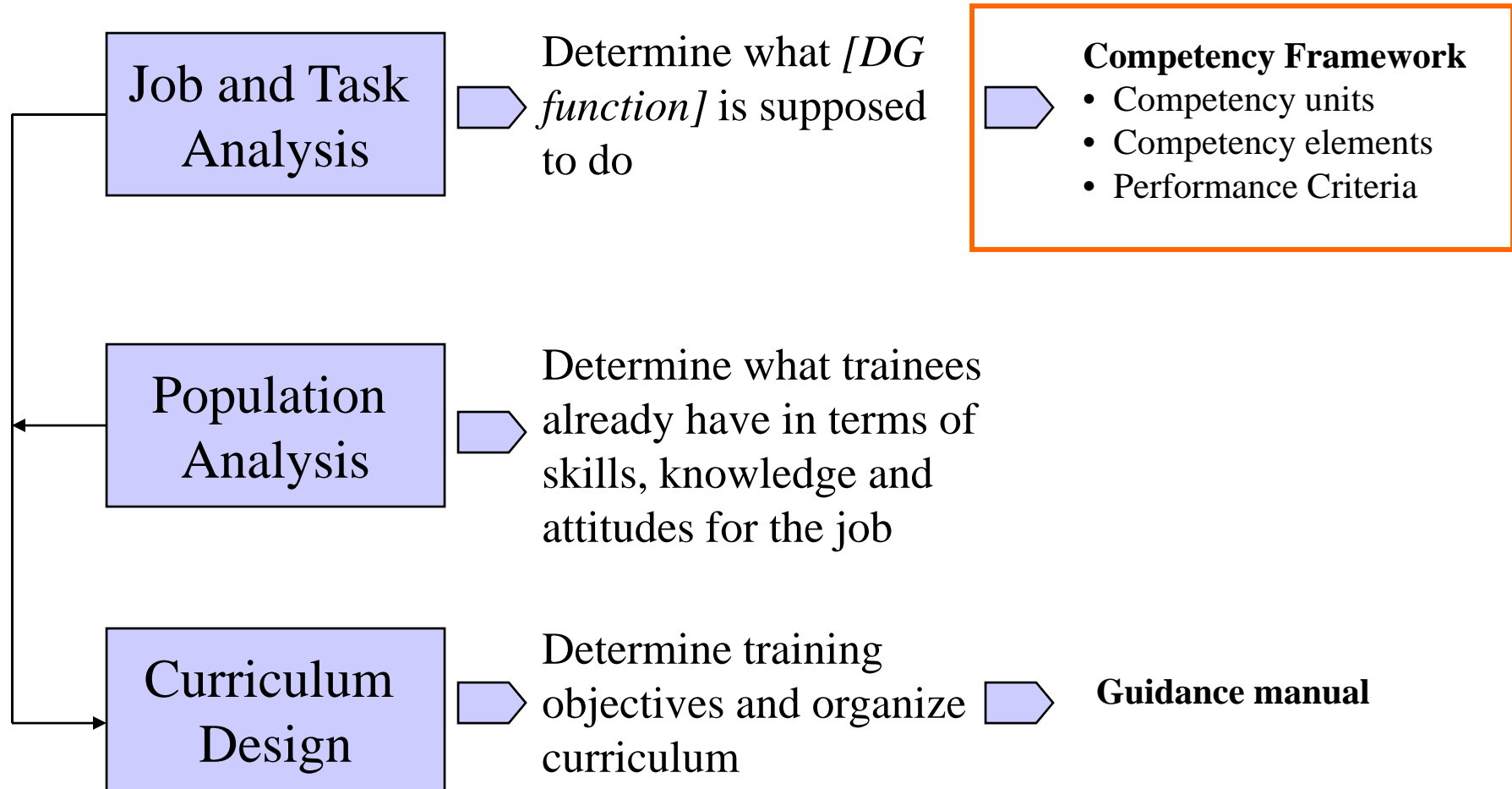
- Focus on:
  - job performance
  - the adult learner
- Observable and measurable
- Adaptable
- Structures and reduces OJT
- Quality control



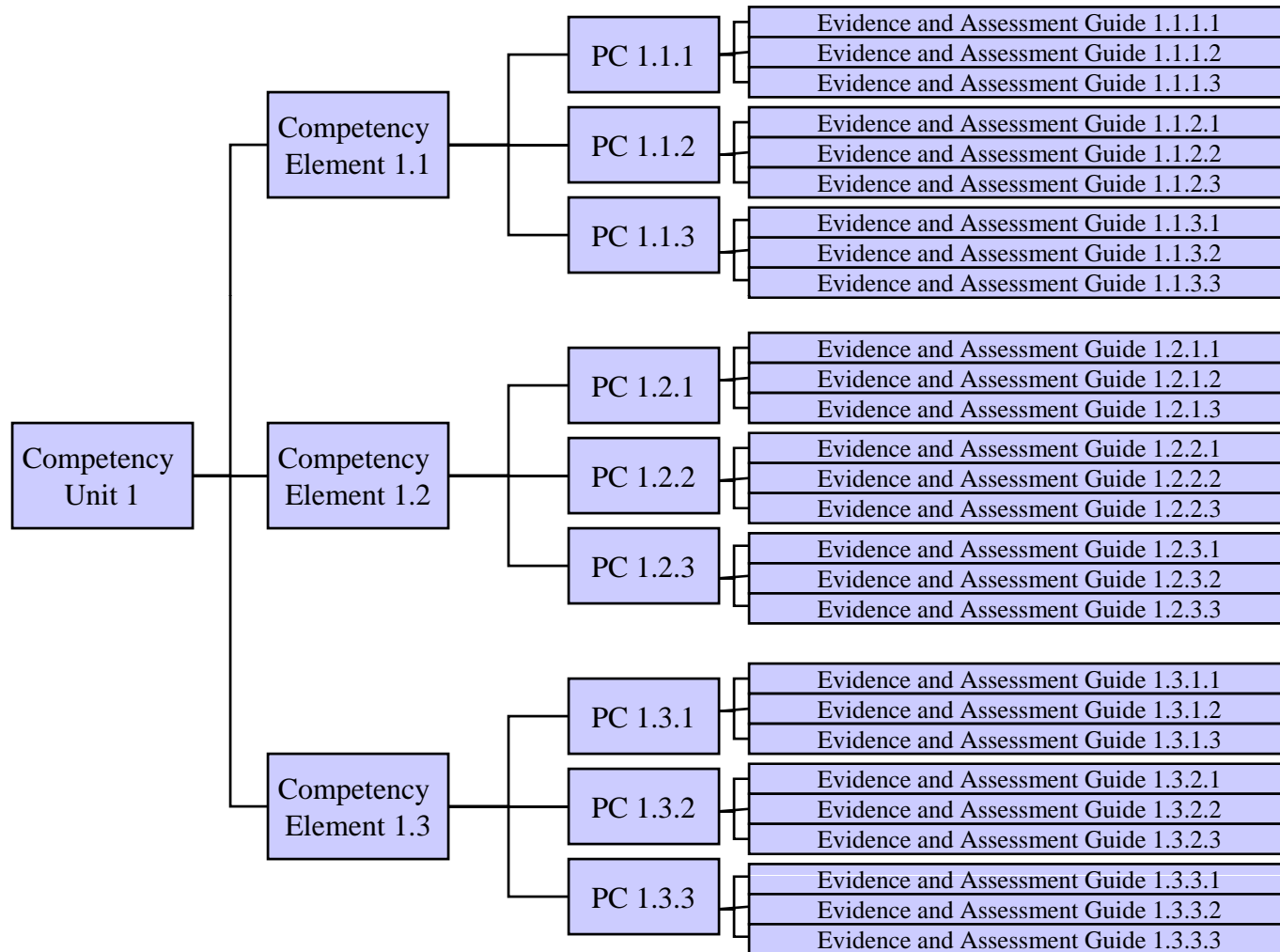
# Process

*Purpose*

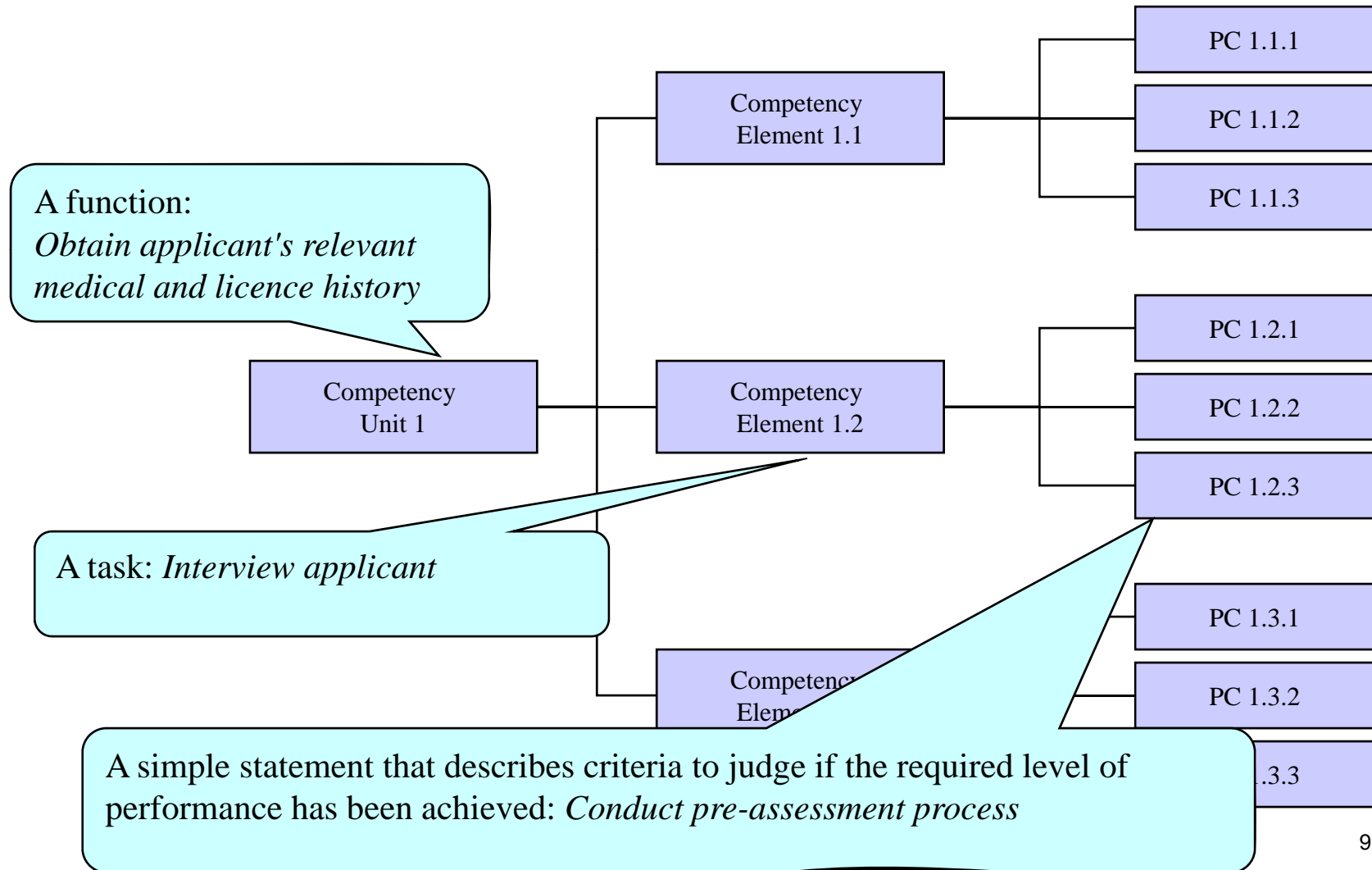
*Outcome*



# Competency Framework



# Definitions & DME Example



# Examples

- MPL
- Flight Procedure Designers
- Aircraft maintenance mechanic/technical/engineer (AMMTE)
- Flight validation pilots
- Controllers
- Other pilot licences
- DG functions



B	C	D	E
<b>Competency Unit - Perform Take off</b>			
of competency elements and performance criteria			
<b>Recognize, assess and manage potential threats and errors</b>			
			<b>Observation</b>
<b>Perform pre-take off and pre-departure preparation</b>	<b>Reference</b>	<b>Duty</b>	satisfactory
checks and acknowledges line up clearance	Ops. Manual	PF/PNF	
checks correct runway selection	Ops. Manual	PF/PNF	
verifies validity of performance data	Ops. Manual	PF/PNF	
checks approach sector and runway are clear	Ops. Manual	PF/PNF	
verifies all checklists and take off preparations completed	Ops. Manual	PF/PNF	
positions the aircraft on centerline without losing distance	Ops. Manual	PF	
checks weather on departure sector	Ops. Manual	PF/PNF	
checks runway status and wind	Ops. Manual	PF/PNF	
<b>Perform take off roll</b>	<b>Reference</b>	<b>Duty</b>	satisfactory

**Design approach procedure**

Design a VOR or NDB FAF procedure

- 1 Collect, validate and incorporate electronic/paper data for VOR or NDB FAF procedure
- 2 Apply criteria for VOR or NDB FAF procedure
- 3 Establish Minimum Sector altitudes (MSA)
- 4 Document and store VOR or NDB FAF procedure
- 5 Conduct ground validation of VOR or NDB FAF procedure
- 6 Conduct flight validation of VOR or NDB FAF procedure
- 7 Promulgate VOR or NDB FAF procedure
- 8 Maintain a VOR or NDB FAF procedure

Design a VOR/NDB no FAF procedure

- 1 Collect, validate and incorporate electronic/paper data for VOR/NDB no FAF procedure
- 2 Apply criteria for VOR/NDB no FAF procedure
- 3 Establish Minimum Sector altitudes (MSA)
- 4 Document and store VOR/NDB no FAF procedure
- 5 Conduct ground validation of VOR/NDB no FAF procedure

# ICAO DG Training and Testing



- ICAO Safety Oversight Audit findings clearly point to the need for competent and qualified DG inspectors
- Using competency-based approach to ensure effective training and testing

# ICAO DG Training and Testing



- Revision and update of ICAO Document 9375
  - Using a competency-based approach
  - Updating in line with latest amendments to TIs
- Publication of revised Document 9375 planned for December 2009

# Revised ICAO Document 9375

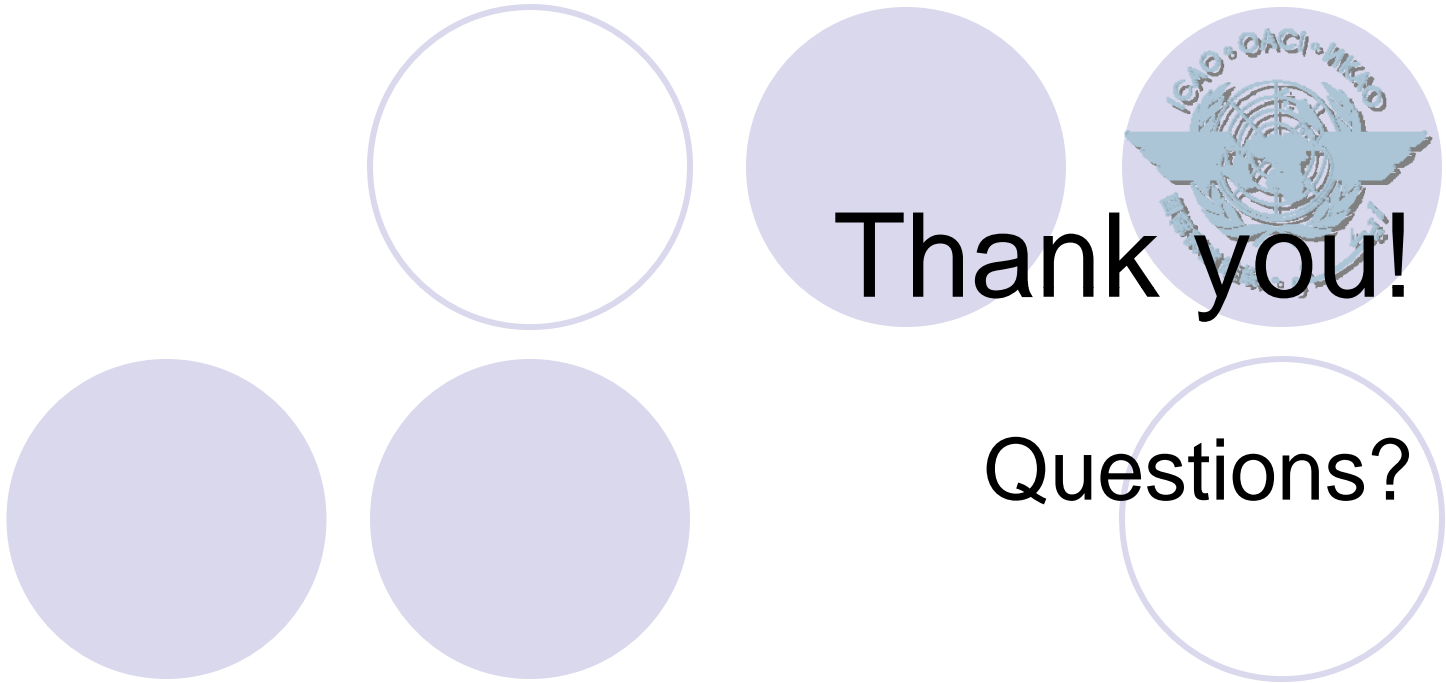


- Will provide the basis for ICAO classroom training as requested by States
- Will provide the basis for ICAO DG Testing initiative

# To conclude

- Implementation of competency-based approaches in several aviation disciplines, including DG functions
- A means to ensure safety through competent technical personnel
- Work underway on ICAO DG training and testing for inspectors
- Cannot be done without a collaborative approach of all stakeholders





**Thank you!**

**Questions?**