

ATSEP Competence Assessment

SASI Workshop 4/08 ATSEP Competency
Zagreb 22 – 24 October 2008
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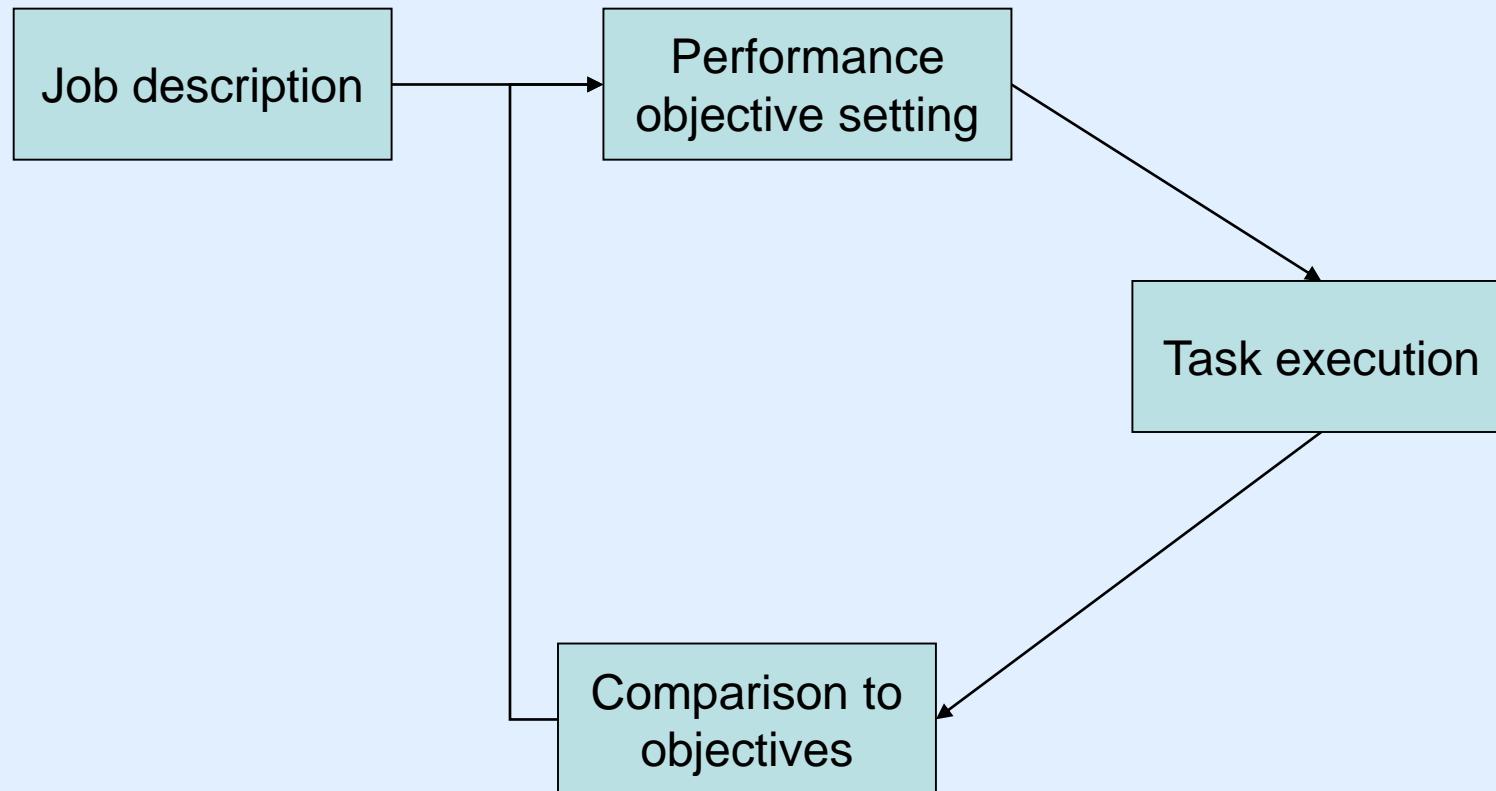
Overview

- Competence Assessment – Generic Competence Management Model
- Competence Assessment Methods
- Organisational Issues
- ATSEP Competence Scheme - EUROCONTROL

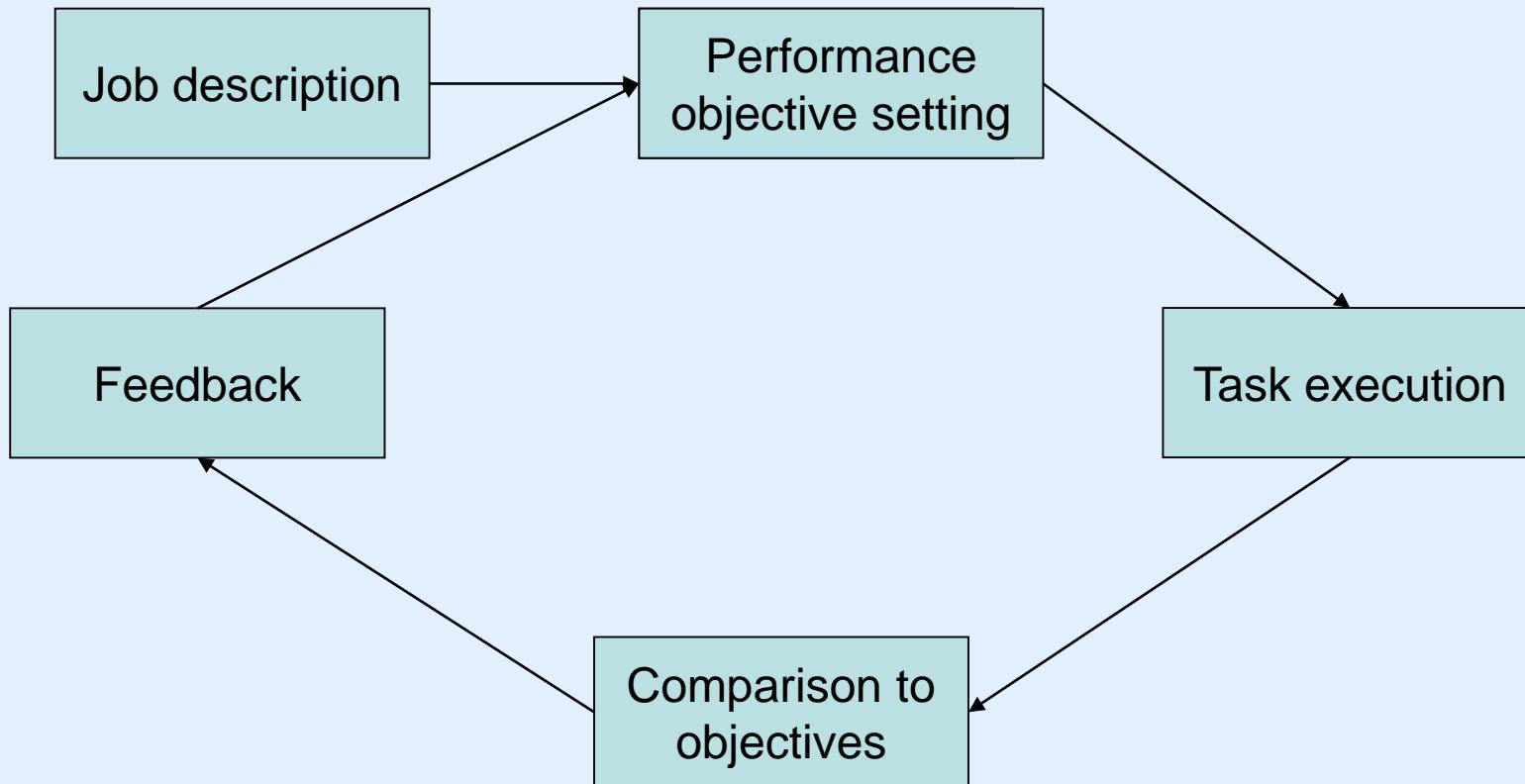
Part 1

- Competence Assessment – Generic Competence Management Model
- Competence Assessment Methods

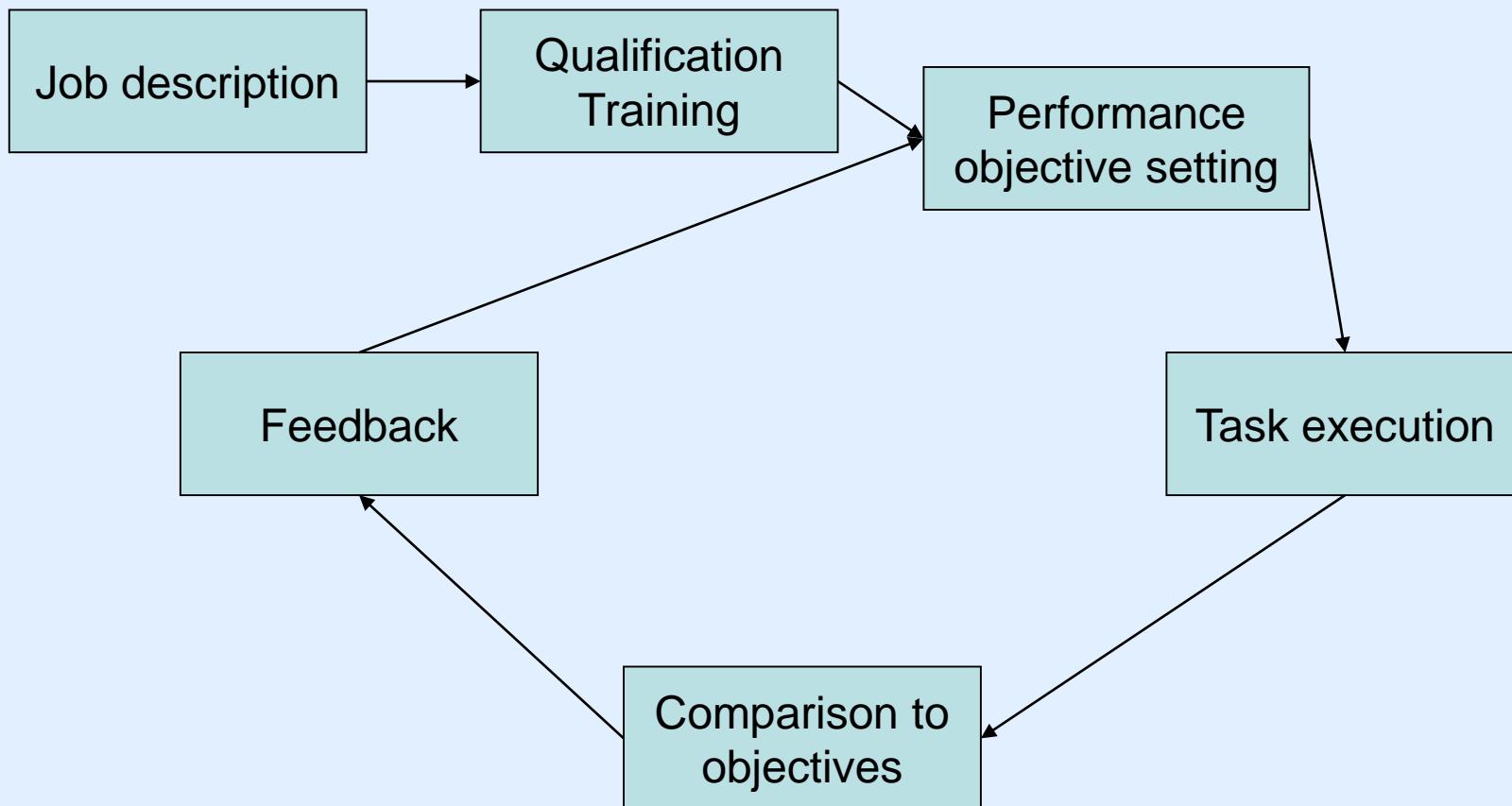
Competence Management Model



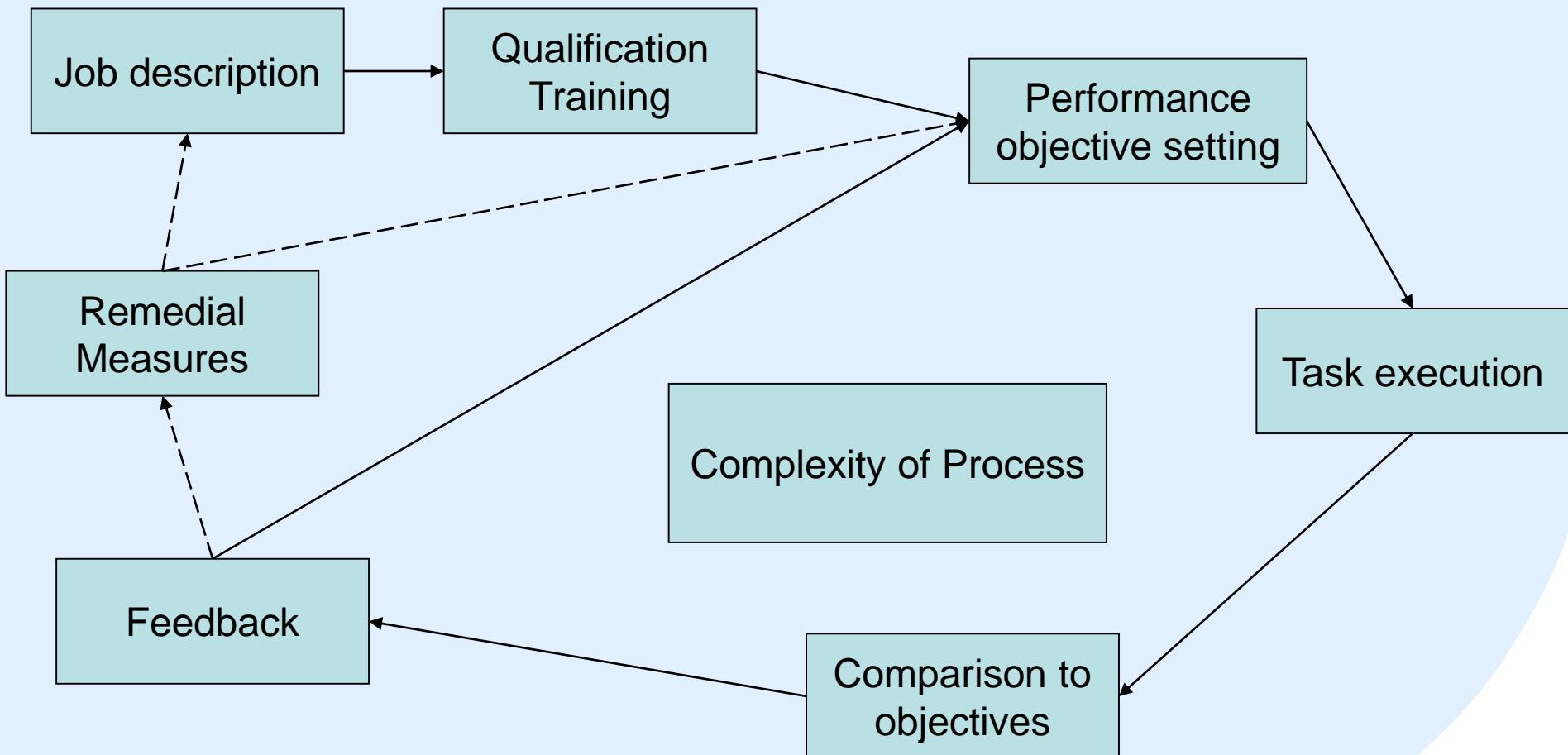
Competence Management Model



Competence Management Model



Competence Management Model



Job Description

- Stripping down jobs into detailed tasks, into their components
- Task analysis
 - Objective and Task
 - Organisation of tasks
 - Mechanical level
 - Cognitive level
 - Inputs
 - Processing
 - Output
 - Control of result
 - Joint effort job holders and human factors specialists

Qualification Training

- Job relevant
 - ATSEP Working Group

Objective Setting

- Quality and quantity
- SMART
 - Specific – clarity, details
 - Measurable
 - Achievable – tools, conditions
 - Relevant – linked to job description
 - Time bound

Task Execution

- work

Comparison to Objectives

- Method
 - Continuous assessment
 - Dedicated practical check
 - A combination and
 - Oral examination
 - Written examination
 - Computer-based training test
- Frequency
 - Once per period
 - Continuous

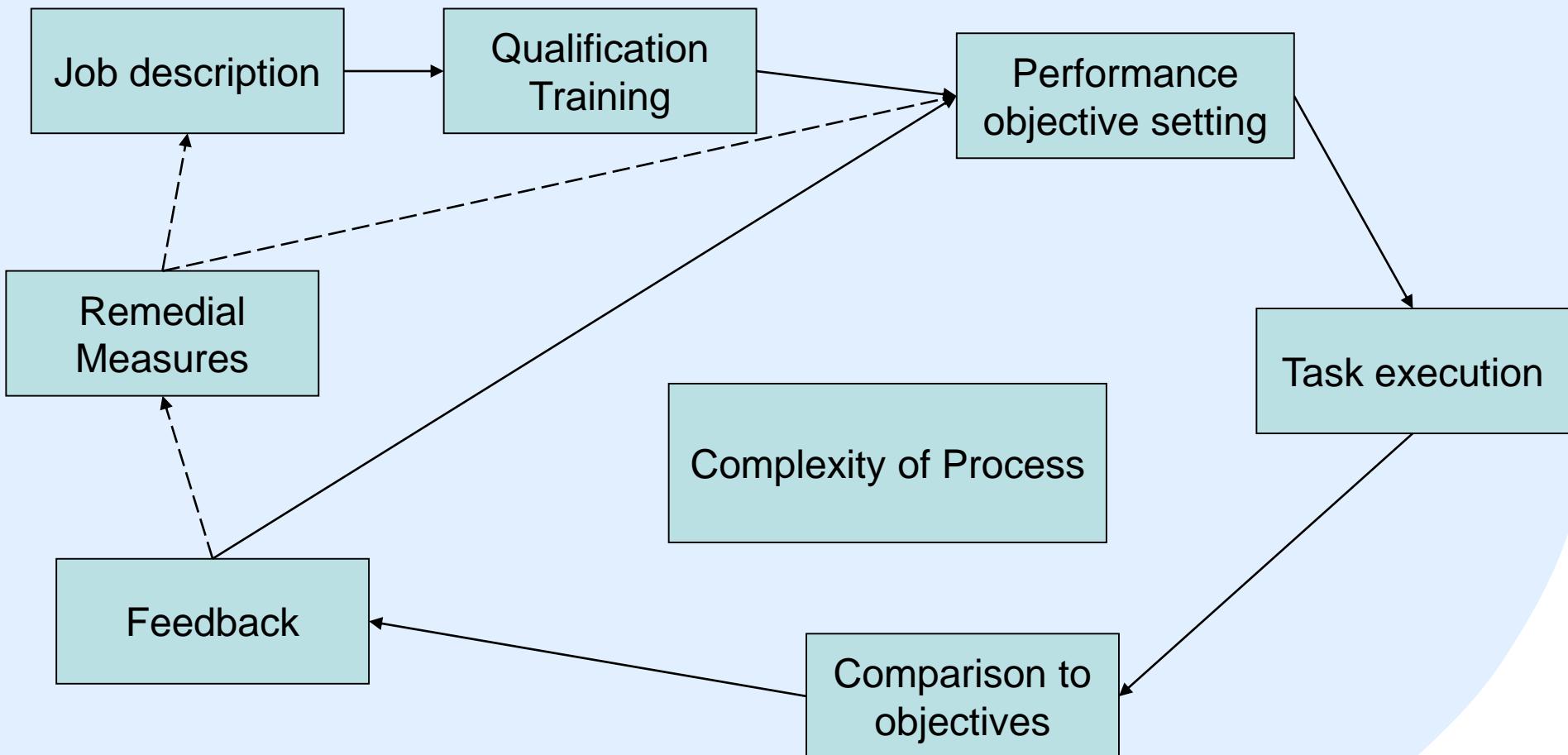
Feedback

- Direct
- Indirect

Remedial Measures

- Retraining
- Reduction or increase of the complexity of the job
- Adaptation of objectives
- Eliminate errors in process – comparison to objectives
 - Double loop learning

Competence Management Model



Summary - Purpose of competence assessment

- Affirm competence and identify areas in need of improvement either in the individual or in the system within which the individual works

Methods of competence assessment

- Continuous assessment
- Dedicated practical check
- A combination of the two above - and
- Oral examination
- Written examination
- Computer-based training test

Assessment and examination

- Definitions - Assessment
 - The procedure of observation by which the professional qualities currently being demonstrated by an individual are determined
- Definitions – Examination
 - An in-depth inspection of a person' knowledge. It is a highly formalised test for a qualification using written or oral questioning

Continuous assessment

- Observing the standard of the service provided during normal duties
- With insufficient opportunity for observation, a dedicated practical assessment can be requested

Dedicated Practical Check

- Sole purpose of observing quality of work and checking against the standard
- Ethical behaviour
 - Individual needs to be aware that check is conducted
 - Relevant feedback within reasonable delay

Oral and Written Examinations; Computer Based Tests

- Oral examinations to complement assessments
 - To confirm understanding of key performance objectives
 - To gather evidence for scenarios not assessed
 - To clarify actions observed
- Written examinations
 - To test knowledge of procedures and material

Advantages and Disadvantages of Methods of Competence Assessment

Weaknesses of Competence Assessment Model Presented So Far

- Quality of process depends on quality of assessors
 - Consistency
 - Remedial actions
- As a consequence: Qualification programme for competence assessors
 - Profile
 - Training
 - Competence maintenance

End of Part 1

- Questions?
- Comments?

Part 2

- Organisational Issues

Why does an ANSP do competence assessments

- Legal obligation – ESARR 5 and EC legislation
- Business sense
- Efficiency and effectiveness

Safety Requirements EC Regulation 2096/2005

- Art 8
- With regard to the provision of air traffic, communication, navigation or surveillance services, the national supervisory authority ... shall
 - Issue appropriate safety rules for engineering and technical personnel who undertake operational safety-related tasks
 - Ensure adequate and appropriate safety oversight of the engineering and technical personnel assigned by any operation organisation to undertake operational safety-related tasks
 - On reasonable grounds and after due enquiry, take appropriate action in respect of the operating organisation and/or its technical and engineering personnel who do not meet the provisions of Annex II part 3.3

Annex II part 3.3

- With regard to the personnel involved in safety related tasks ... the provider of air traffic services shall document
 - The adequacy of the competence of the personnel;
 - The rostering arrangements in place to ensure sufficient capacity and continuity of service,
 - The personnel qualification schemes and policy
 - The training policy
 - Training plans and records
 - As well as arrangements for the supervision of non-qualified personnel

Business Sense

- Purpose of the organisation
 - Exe: Write down what is the purpose of your organisation
- Organisations out there to make money because this means survival of the organisation – our organisations out there to provide safety to the public and ensure so its survival
- Safety is a fragile good – take care of it
- Balance between safety and production

Efficiency and Effectiveness

- Difference efficiency and effectiveness
- Achieve objective of organisational strategy, no waste

Organisational Competence Scheme

- Questions such a scheme has to answer

Organisational Competence Scheme

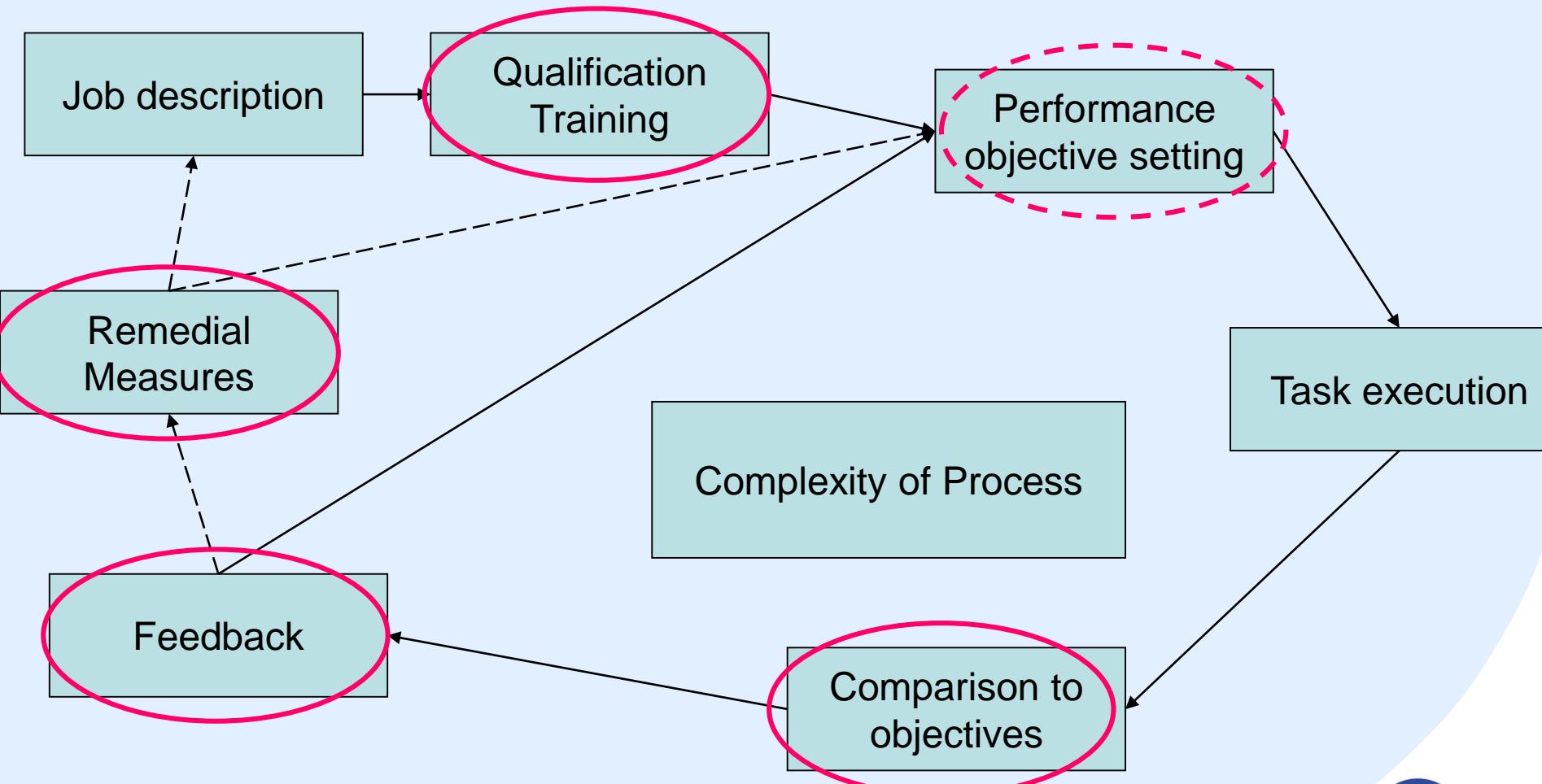
- Questions such a scheme has to answer
 - What does competence mean?
 - Who is subjected to such a scheme?
 - Who are the accountable managers for safety related functions?
 - Who owns the scheme?
 - Who is responsible for the quality of the scheme?
 - How to record?
 - How frequent?
 - What methods?
 - How to gain competence?
 - How to maintain competence?
 - How to ensure the competence of the competence assessors?

End of Part 2

Part 3 – The ATSEP Competence Scheme

- Guidelines for the competence assessment of air traffic safety electronics personnel
 - EUROCONTROL Ed. 1.0 04 Apr 2006
- Current EC legislation leads to divergence in harmonisation
 - Need to amend to achieve required level of harmonisation
- Request for support from European Commission under SES framework agreement
 - Upgrade Guidelines (for competence assessment and training) to EUROCONTROL specifications

Competence Management Model



- Personnel who operate and maintain ATM equipment approved for operational use. ESARR 5
- Technical and engineering personnel including personnel of subcontracted operating organisations who operate and maintain ATM equipment approved for its operational use
EC Regulation 2096/2005 Annex 2, Art. 3.3

Specifications for Competence Assessment of ATSEP

- Draft exists
- Little exposure to ATSEP community
- Deadline Jan 2009 (EC deadline 31 Dec 2009)
- Slow, thorough process (EUROCONTROL Regulatory Framework)

Presentation of Draft (1)

- Operating organisations need unit competence assessment scheme
 - *Allows for variations between units*
- Scope
 - Unit competence assessment scheme should be fully documented and include the following information:
 - A clear definition of the roles and responsibilities of staff involved in assessing ATSEP ongoing competence
 - The process for assessing ongoing ATSEP competence
 - Process for the selections and training of the unit competence assessors
 - The process for recording ATSEP ongoing competence
 - The process for maintaining ATSEP competence records; and
 - The process for the review of the Unit competence assessment scheme.
 - *Minimum scope, could have more – if so, what?*

Presentation of Draft (2)

Introduction of “mentors” in the definitions

Mentored training: during the whole system/equipment rating training process, and in particular during the OST phase, the ATSEP is under the guidance of a qualified ATSEP. The mentors can be instructors or experienced colleagues

Is this ok? Should an experienced colleague be allowed to supervise? Or what does qualified ATSEP with regard to OST (on site training) mean?

Presentation of Draft (3)

Assessments:

- Before working unsupervised
- After conversion training (change in job category, environment or system)
- Development training – OSTI
- Ongoing competence maintenance – every 3 year
- OSTI and CA – ongoing competence assessment – every 3 years suggested
- *Is every three years sufficient*

Presentation of Draft (4)

To maintain competence: provision of continuation training

- Refresher training – existing knowledge and skills
- Degraded system training – unusual situations
- Conversion training – change in job category, environment, system
- Training topics
 - Just culture
 - Human factors
- Assessment after refresher and conversion training, feedback after degraded system training

Presentation of Draft (5)

Medical fitness

- Not to undertake safety-related tasks if they know or suspect that their physical or mental condition renders them unfit to undertake such tasks
- *Should a link to psycho-active substances be made? Can you still consider yourself fit?*

Language Proficiency

- ESARR 5 – proficient in English where required
- *Examples?*

Presentation of Draft (7)

- Ongoing competence assessment
 - Carrying out minimum amount of time on system/equipment they are rated on. Minimum time determined by OO for each system/equipment and approved by NSA
 - Appointment of competence assessors
 - Need to have ratings themselves
 - Number depending on ATSEP to be checked and number of ratings at unit
 - Method of assessment
 - CA may request dedicated practical check
 - Oral or written or computer based check every three years
 - Procedure in case of insufficient result
 - Declining performance – *discuss with ATSEP, determine remedial action? Dedicated check?*

Presentation of Draft (8)

- Suspension from specific task
 - OO expected to withdraw ATSEP from performing safety related tasks
 - Review – remedial action
 - Safety related tasks only under supervision of qualified OSTI
 - New competence assessment

Presentation of Draft (9)

- Development training
 - System Monitoring and Control (2 paths)
 - On-Site training instructor
 - Course and course content
 - Assessed performance at end of course
 - Training competence assessed by OSTI-CA 3 years *or more?*
 - Competence assessor
 - Course and course content
 - Assessor competence assessed by qualified person
 - *Time frame of assessment?*

Presentation of Draft (10)

- Administration and records
 - Legal requirement
 - Recording system demonstrating the process
 - Maintain records, safely and securely filed and stored
 - Made available for audit
 - CA should keep personal comprehensive records. Security! Used for continuous assessment.
 - Example of ATCO licensing data base – presentation next day.

Open Issues

- How prescriptive should the specifications be? Should vs shall
- What needs to be shall? What can be should?
- How to deal with small units – 1 person doing all. Who should check his competence?
- What is the role of the individual staff member's manager?
- What is the role of the safety manager?
- Missing points?

Thank you

- Updated draft sent to people present
- Similar process to here with ATSEP Training WG 18 December
- Release of Draft Specification end Jan 09 – formal consultation