

# QA of Certification in IVET

## Key findings

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# Overview

- Study aims, scope and methodology
- How is certification understood in different countries
- Quality assurance arrangements – key dimensions
- Key issues and trends identified

# Aims of the study

- to explore the QA arrangements that support the certification process in European countries in IVET
- to provide an understanding of how the shift to learning outcomes influences them and possibly complements traditional input based approaches in certification.
- to develop key messages and to propose recommendations to policy makers and other stakeholders on how to ensure the quality of the certification process with a view to increasing the confidence and relevance of qualifications in initial VET.

# Main research questions

1. What characterises certification processes for initial VET in the selected countries?
2. To which extent and how are certification processes for initial VET supported by systematic quality assurance arrangements?
3. How is the shift to learning outcomes influencing quality assurance arrangements supporting certification?
4. To what extent and how are the experiences from the certification process taken into account when reviewing the overall impact of initial VET – what kind of ‘systemic’ and/or ‘national’ quality assurance is put in place?
5. Which main strengths and weaknesses can be observed in relation to the quality assurance of certification processes and which are the recommendations – to policy makers and practitioners – to be made on this basis?

# Research phases/methods

**Desk research:** literature review and development of analytical model

**12 country reports** (desk research and interviews):

Austria, Denmark, Estonia, Germany, Hungary, Finland, the Netherlands, Portugal, Romania, Spain, Slovenia, UK-England

**10 case studies** (in-depth interviews, focus groups, participant observation):

- Countries: Austria, Denmark, Germany, Hungary, Finland, the Netherlands, Portugal, Romania, Spain, UK-England
- Sectors: ICT, health and care, tourism

**Interviews:**

- Policy level: approximately 50
- Practitioners: approximately 135
- Learners: approximately 30



# Country experts

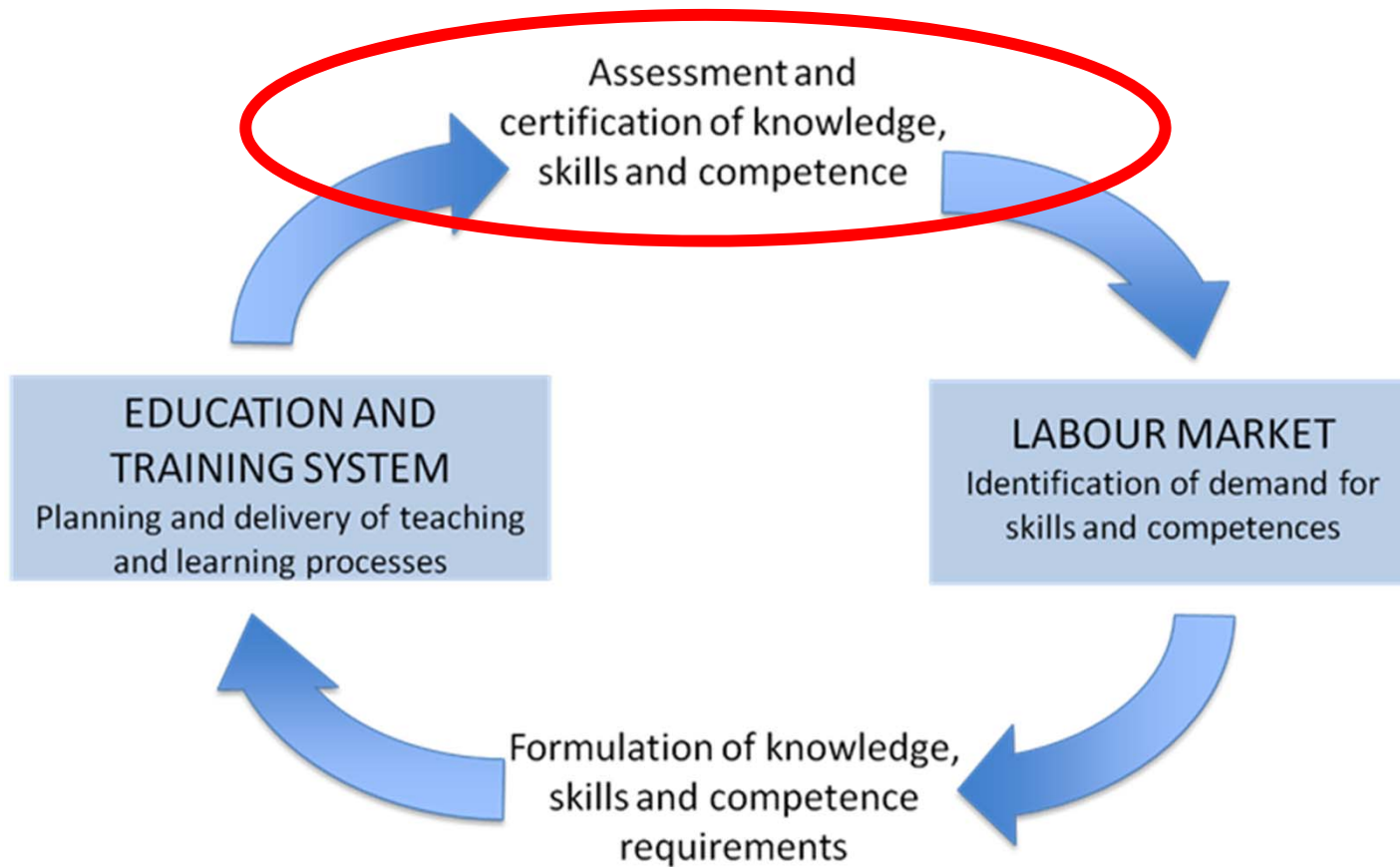
Country	Country experts
AT	Monika Auzinger, Janine Wulz
DE	Franz Gramlinger, Sigrid Hartl
DK	Kim Faurschou
EE	Krista Loogma
ES	Mariya Dzhengozova
FI	Jouko Luomi
HU	Katalin Molnar-Stadler
NL	Patricia Brouwer, José Hermanussen
PT	Maria Emilia Galvão
RO	Dana Stroie
SI	Darko Mali
UK	Keith Brumfitt

# Components of the analytical model

The analytical model comprises three components:

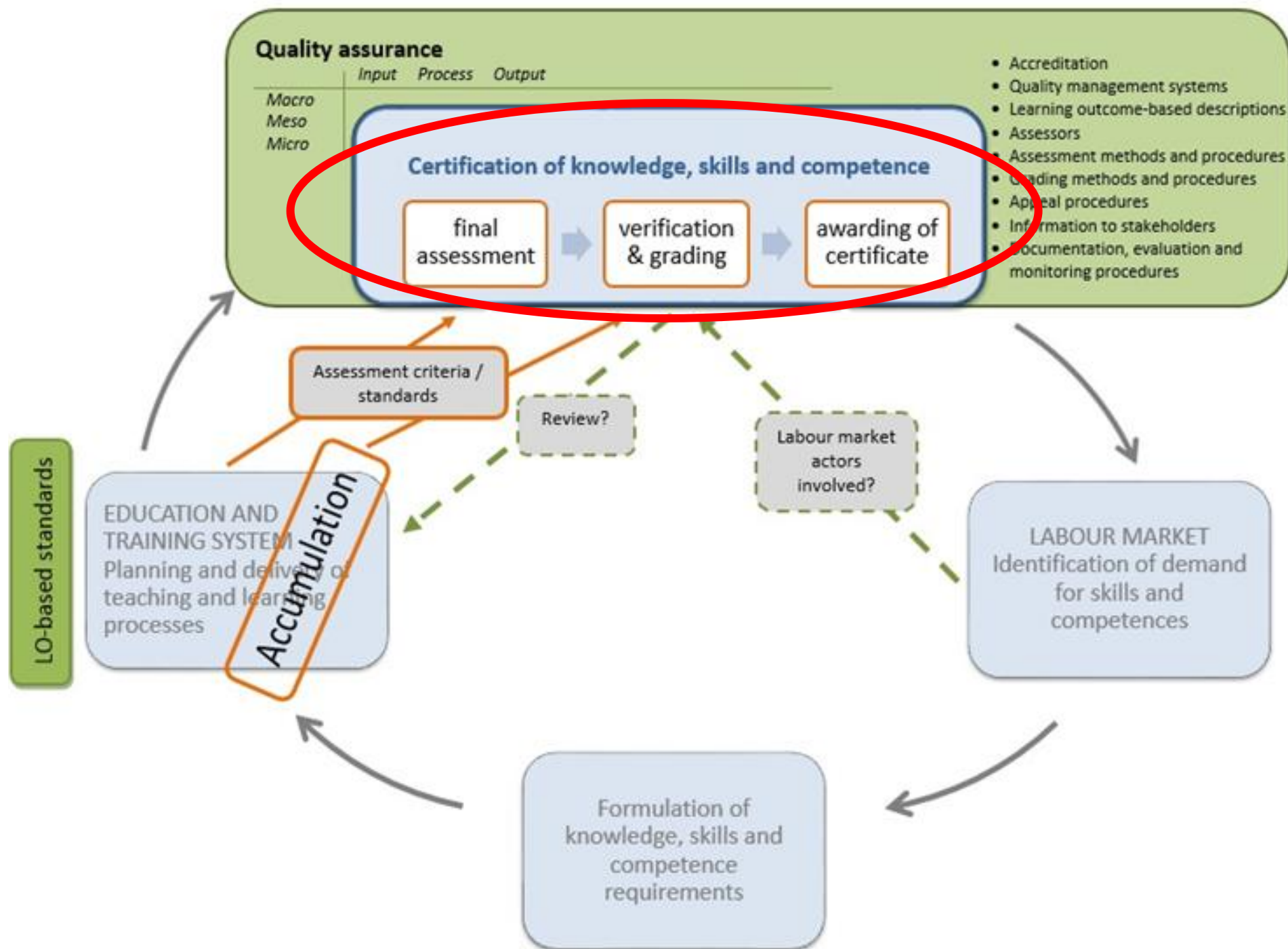
- certification approaches;
- measures used for ensuring quality of certification processes;
- feedback mechanisms between IVET and the labour market.

# Feedback loop



Cedefop 2013





# Elements of the certification process

No specific definition of ‘certification process’ used in most countries

Working definition for the study:

‘certification process’ describes the multiple (and sometimes interrelated) processes (starting with the assessment of individual learners) that lead to the awarding of a qualification

⇒ Not all aspects of the IVET system – focus on the ‘final stage’: What kind of requirements have to be fulfilled by an individual in order to receive a qualification (certificate)?

⇒ Assessment of learners is a key element in this process – different approaches to assessment

# Approaches to assessment

A. Qualification is awarded based on accumulation without final assessment at the end of a training programme	B. Qualification is awarded based on 'final assessment' (or 'certification exam') at the end of a training programme:
<p>ES (school-based education and training programmes/cycles)</p> <p>FI (curriculum-based, competence-based qualifications, apprenticeship)</p> <p>UK/England (college- or school-based, apprenticeship)</p>	<p>AT (apprenticeship and school-based VET<sup>1</sup>)</p> <p>DE (apprenticeship and school-based<sup>2</sup>)</p> <p>EE (school-based)</p> <p>DK (General IVET - a mix of school and apprenticeship)</p> <p>HU (school-based)</p> <p>NL (work-based/school-based incl. apprenticeship training; dual system)<sup>3</sup></p> <p>PT (apprenticeship, school-based VET courses and school-based Education &amp; Training courses)</p> <p>RO (school-based)</p> <p>SI (school-based)</p>

<sup>[1]</sup> This study focuses on VET schools with three to four years' duration and VET colleges. There are also VET schools of one or two years' duration. They only provide learners with partly completed vocational training and have thus been excluded.

<sup>[2]</sup> In some cases, there is no final assessment in school-based VET.

<sup>[3]</sup> Assessment can be done in the course of the period when learner is in school but mostly this is done by the end of the course/ training programme.

# Approaches to assessment and stages or elements of the certification process

<i>A. Qualification is awarded based on accumulation without final assessment at the end of a training programme</i>	<i>B. Qualification is awarded based on final assessment at the end of a training programme:</i>
Accumulation of units/modules/credits based on learning process (acquisition of knowledge, skills and competence) and assessment	Admission procedure to final assessment (e.g. admission is based on successful completion of learning process)
	Final assessment
Verification of accumulated credits (and decision on grading)	Verification of the assessment and decision on grading
Awarding of qualification (certificate)	

# Assessment, verification/grading, awarding

**Assessment** is understood as the process of establishing the extent to which a learner has attained particular knowledge, skills and competence. In case of ‘final assessments’ (or ‘certification exam’), specific requirements may be laid down for gaining admission to the exam.

**Verification and grading** is understood as the process following assessment. It is about confirming that certain assessed learning outcomes achieved by the learner correspond to specific learning outcomes which may be required for a qualification or a part of it. It usually includes the decision on the specific grades learners will receive for their performance.

**Awarding** of a qualification is understood as the process of officially attesting achieved learning outcomes by issuing a certificate to an individual.

# Assessment, verification/grading, awarding

These elements can be identified in all countries/contexts.

But:

- Not many countries explicitly use the term ‘certification‘.
- The elements cannot always be clearly distinguished as separate processes.
- Not always as stages or clear chronological steps to be followed .

Also in those cases where a final assessment is (core) part of the certification process: assessment activities *during* the training programme are considered as very important for ensuring the quality of the certificate to be awarded.

# QA arrangements supporting certification process

- Quality dimensions (input, process, output)
- At three levels (macro, meso, micro)

	input	process	output
macro			
meso			
micro			

(Fischer 2013, 2014)

# QA arrangements supporting certification process

**Input** quality refers to, for example, laws and standards for certification, technical and personnel infrastructure, training for assessors/examiners, guiding handbooks and materials which are foreseen at different levels (macro, meso, micro level).

**Process** quality means the *implementation* of the certification process and how it is executed within certifying organisations.

**Output** quality is about the *quality of the results* of the certification process; the question is, if improvement measures are implemented on the basis of these results.

(Fischer 2013, 2014)



# Key quality dimensions

- a) Quality assurance arrangements concerning certification within accreditation procedures;
- b) Role of certification procedures within quality management systems/frameworks;
- c) Provision of learning outcomes-based descriptions;
- d) Quality assurance of assessment methods and procedures;
- e) Quality assurance of grading methods and procedures;
- f) Selection, requirements and training of assessors;
- g) Providing information to stakeholders involved regarding requirements/regulations related to certification processes (e.g. provider, assessors, learners);
- h) Appeal procedures (appealing against the results of a certification process);
- i) Documentation, evaluation and monitoring of certification procedures.

# Assessment methods and procedures

- ‘How are candidates assessed within certification procedures?’
- concerning the macro level, assessment procedures and methods vary across countries between:

**Legal regulation for the use of certain assessment methods**



**Provision of framework with general methodological principles**

- typical examples for general methodological principles defined within regulations refer to validity, reliability, comparability but also manageability and minimisation of bias, objectivity, fairness and transparency

# Assessment methods and procedures

QA arrangements include:

- centrally, (partly) standardised final exams in IVET
- a double check of methods and assignments
- joint development of assessment tasks in cooperation with labour market stakeholders

Two aspects seem to be common in ensuring quality of assessment methods and procedures:

- a) Combination of assessment methods and procedures**
- b) Creation of (semi) authentic assessment settings**

# Assessment methods and procedures

## a) **Combination of assessment methods and procedures**

- e.g. implementation of ‘theoretical’ and ‘practical’ exams by applying different methods (e.g. standardised written tests in combination with skills demonstration or integrated in complex assignments)
- Multiplicity of methods: written & oral exams, production of work piece, role plays, simulations, portfolios, project presentations
- well established practice in many countries
- allows candidates to show their competences in different settings
- allows assessors to gain manifold impression of candidates performances

# Assessment methods and procedures

## **b) Creation of (semi) authentic assessment settings**

- intention of this approach is to ensure equivalence of IVET to labour market needs
- only few IVET schemes were identified where assessment is carried out in authentic work settings (ES, FI, NL)
- in many contexts: semi-authentic settings are created for simulating real-working life situations or real work assignments are developed

# Selection, requirements and training of assessors

- ‘Who is allowed to assess candidates?’
- Legal regulations controlling the selection and required competences of assessors are in place at macro level
- Quality arrangements include:
  - a) **Selection of assessors**
  - b) **Regulations concerning competences of assessors**
  - c) **Composition of examination boards**
  - d) **Provision of guidance material**
  - e) **Training of assessors as well as sharing of experiences between assessors**

# Selection, requirements and training of assessors

## **a) Selection of assessors**

- by different institutions – depending on the governance of IVET schemes and distribution of responsibilities for certification;

## **b) Regulations concerning competences of assessors**

- in most countries assessors are required to have specific competences, but regulations differ from ‘quite low’ to ‘very strict’ requirements for assessors;
- typical requirements for assessors are: pedagogical training and/or the vocational specialisation in the respective profession, (defined minimum time of); professional experience or defined minimum age
- examination board as a whole – not each single member;

# Selection, requirements and training of assessors

## **c) Composition of examination boards**

- joint assessment which is conducted by different stakeholders is understood as a powerful driver for quality assurance of assessment in many countries;

## **d) Provision of guidance material**

- related to further explanations of national regulations, to manuals or guidelines on how to prepare examinations or design assessment assignments, how to prepare, inform or involve candidates and other stakeholders (such as labour market stakeholders) and how to act in assessment situations in order to comply with main quality principles.



# Selection, requirements and training of assessors

## **e) Training of assessors as well as sharing of experiences between assessors**

- training for assessors is in most cases voluntary, in some countries compulsory (e.g. HU, RO, England)
- training is provided mostly at meso level and by different institutions, very often by VET providers
- special training programmes for assessors are provided on voluntary basis (e.g. in FI)
- assessors have the possibility to share their experiences in all countries studied on different occasions but only in few contexts the exchange is organised in a systematic and formal way, for example, as regular part of formal meetings (e.g. 'calibration procedure' in Basque country, ES)

# Trust in certification

- Principles to be taken into account include:
  - transparency,
  - validity,
  - reliability,
  - impartiality or fairness,
  - fitness for purpose.
- In some contexts they – or at least some of them – are explicitly addressed in quality arrangements.
- In many contexts they can be identified in the design of the assessment methods and procedures.
- Different ways of addressing these principles have their limitations and also tensions between them can be observed: enhancing one principle might have a negative effect on another one.

# Trust in certification

- **Validity:** e.g. assessment tasks based on real work assignments, authentic context  $\Rightarrow$  variations in time and tasks cannot be avoided, replication is problematic and this undermines reliability.
- **Reliability:** e.g. centrally developed and standardised exams  $\Rightarrow$  difficult to use in assessments in real working-life situations.

$\Rightarrow$  Balancing tensions!

# Trust in certification

- Multiplicity of methods and instruments
- Assessment approaches that last over a period of time
- Feedback from different parties: from teachers and trainers, workplace instructors, peers as well as self-assessment
- Well defined qualification requirements and assessment criteria
- Provision of training and supporting material and ensuring continuous professional development of assessors
- Learning outcomes as common reference points

# Centralised – de-centralised approaches

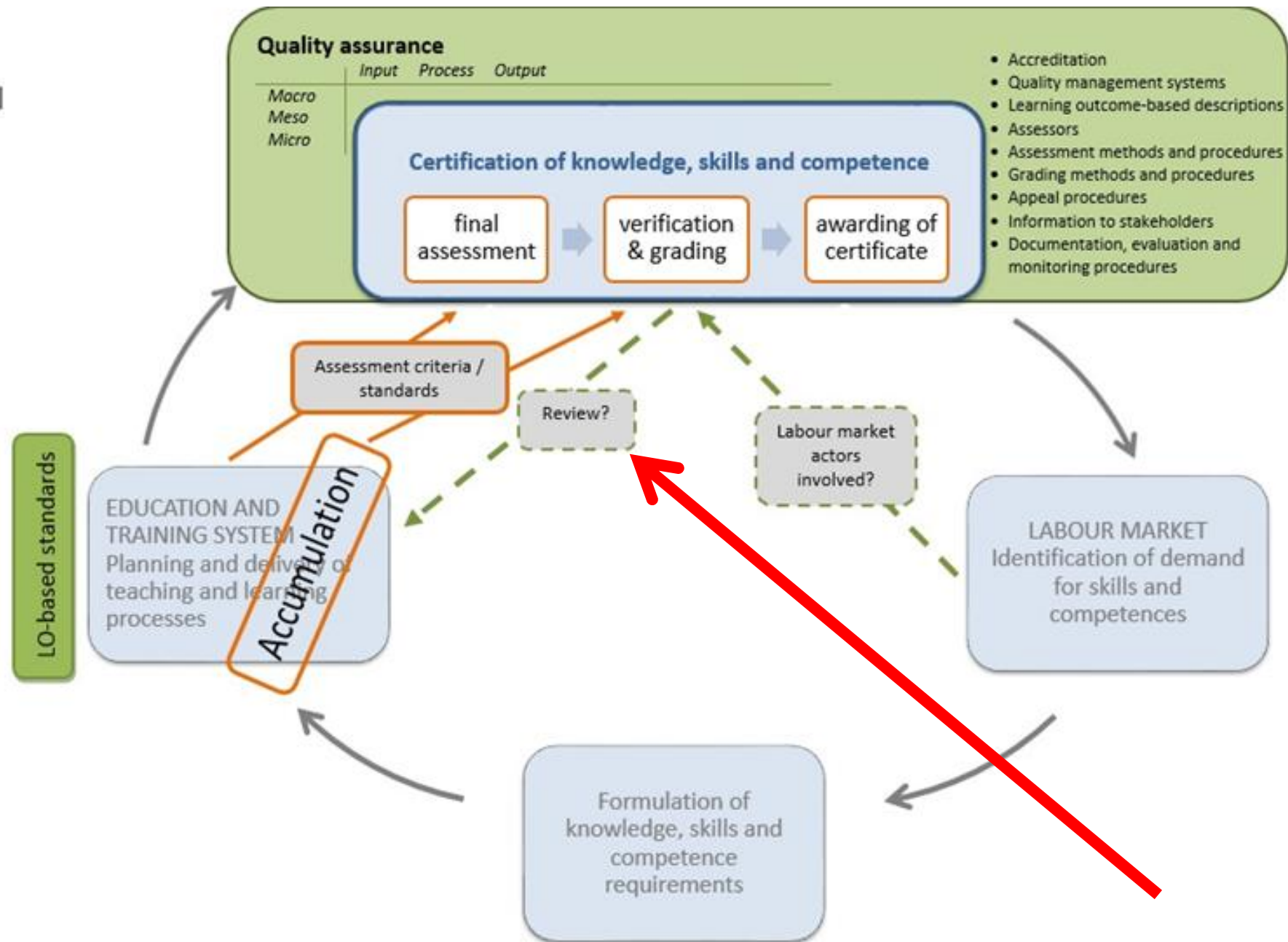
- Certification processes in all IVET contexts studied have some kind of ‘centralised’ components (e.g. requirements or standards set for assessment)
- ‘Compromises’ to resolve the tension between these two approaches, e.g.;
  - combination of standardised and non-standardised approaches: exams are divided into two parts: in a centralised and in a decentralised one
  - common elements which run through the diverse tasks and assignments, e.g. standardised assessment grids, centrally defined learning outcomes (ensuring consistency and providing room for flexibility)

# Use of certification results to review IVET

- Collecting and analysing certification results could provide important information for different levels and purposes: individual learners, VET providers, system level
- Learning on the basis of results and experiences from certification – for improving certification processes, provision of teaching and learning, learning outcomes-based standards
- Requires documentation and monitoring of all phases as well as collection of feedback (e.g. from learners and assessors) and the implementation of evaluation procedures
- Different certification processes and in particular different assessment approaches require different procedures

# Use of certification results to review IVET

- IVET schemes with standardised final examinations:
  - monitoring of the results of certification processes and their communication to the system level can also be done in a standardised way
  - comparison of data is possible and the results can be used to inform education policy at local (provider), regional or national level
- Contexts with de-centralised and more individualised approaches, in particular when assessment is carried out in real working life contexts, this is possible only to a limited extent – but:
  - involvement of labour market representatives can ensure that the assessment fosters and evaluates competences that are needed in professional practice
  - shortcomings in the provision of training reflected in mismatches between competences acquired by students and required at the work place as well as emerging competence needs can be identified





# Thank you!

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