

**More inclusive and  
permeable education and  
training systems – Lessons  
learned from Latin America**

**Dr. Wolfgang Schlegel**

**INBAS GmbH**

# Key questions

- Are „competence-based VET systems“ more permeable and inclusive than other education and training systems?
- Why are occupational standards as well as assessment and certification key elements of such systems?
- Which are the decisive factors and minimum standards to ensure the development and sustainability of competence based VET systems?



## Part I: Are „competence based VET systems“ more permeable and inclusive than other education and training systems?

- **What is CBET?**
- **Where does it come from?**
- **What are the main differences to traditional education and training systems?**
- **What are the key elements of a CBET system?**
- **How does CBET facilitate access to and permeability within the education system?**

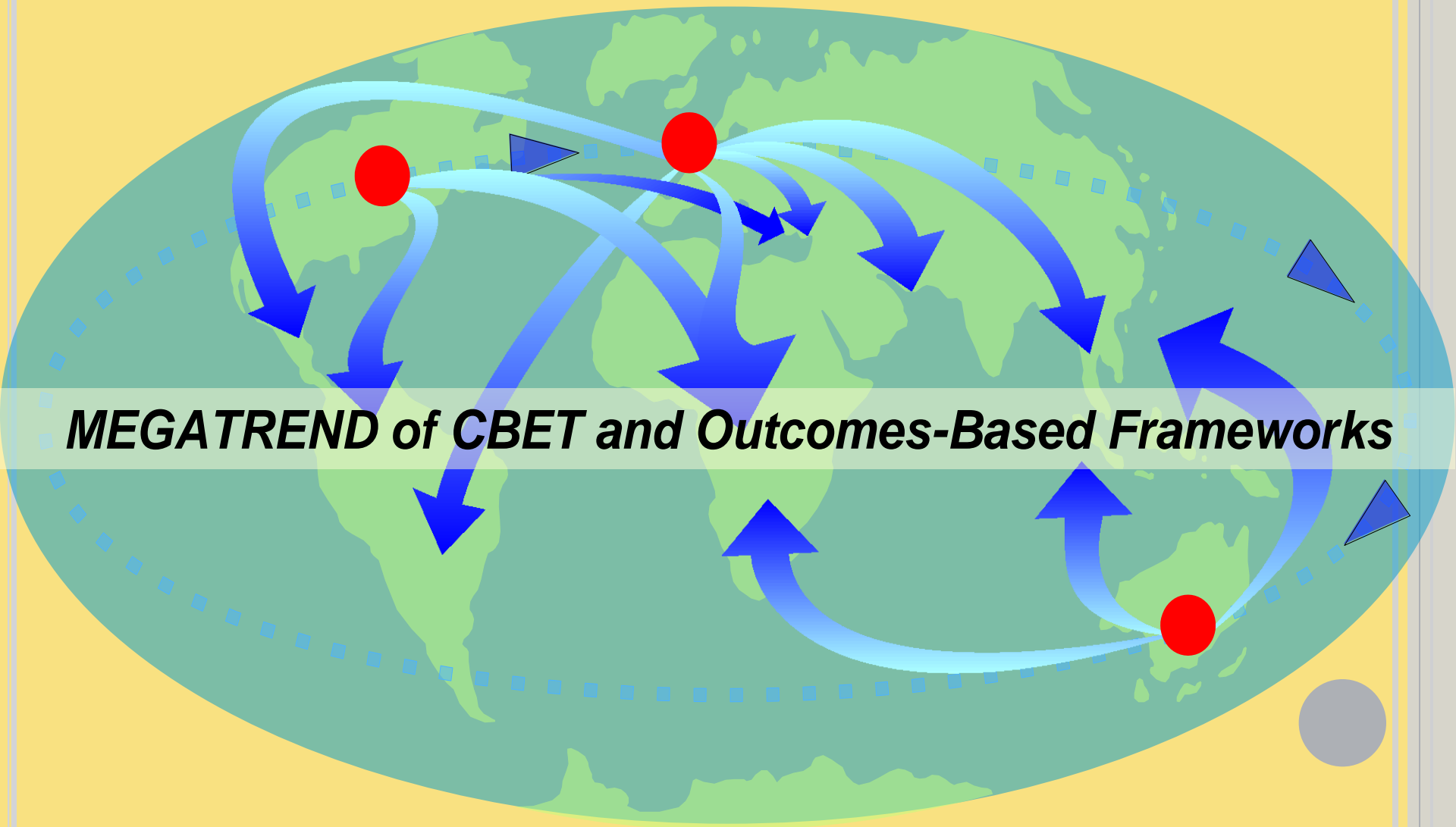


# Competency-based Training – what is it?

- **A new way of teaching and learning and a new way to ensure performance at work**
- **A new way to define Qualifications**
- **A challenge to existing VET systems**
- **Provoking a systems approach = NVQF**



# Competence-based Education and Training







# CBET – What it claims to be capable of

"The crisis of vocational training" is often highlighted in terms of:

- **Relevance** > training content and skill requirements do not match
- **Funding** > cost is inherently too high
- **Equity** > those with greatest needs do not participate, do not benefit

Grierson (*Where there is no Job*, p11f)

CBET claims to address these issues by the following supposed effects:

-  Stakeholder **participation** in system reform; curricula follow demand and become **relevant** for gainful economic activity
-  Training providers concentrate on best possible outcome and tend to **compete**
-  **Transparent** system of certificates replaces historically grown patchwork
-  **Access** to training and employment is opened up for the "silent majority"; open **access** to assessment allows full recognition of competence, even if acquired outside or without formal training.

# CBET: Main difference to traditional systems

- Traditional education and training systems focus on learning content – the system determines what a *graduate must be able to recall or reproduce in the exam*
- CBET systems focus on learning outcomes – the system determines what a *graduate must be able to do at work*



# Competence-based or not? One degree of freedom is needed in any system!

model	CONTENT	TIME	OUTCOME	instructional setting
1	fixed	fixed	fixed	impossible – nowhere!
2	fixed (syllabus)	fixed (semester)	variable (grades)	primary secondary tertiary
3	fixed (standard-based)	variable	fixed	<b>Competence-Based Training</b>
4	fixed	variable	variable	correspondence courses
5	variable	fixed	fixed	building block system (electives, modules)

**industry  
performance  
standard not  
debatable**

**Variability of time =  
decisive element, but  
difficult to organise.**

**Mastery concept  
(debated by some!)**

# CBET: Implications for curriculum development

- What students must learn is usually determined by **Ministries of Education** in cooperation with the academia (“body of knowledge“ as the key input for curriculum development)
- What students must be able to do at work (learning outcomes) is determined with **strong involvement of world of work** (occupational standards as key input for curriculum development)

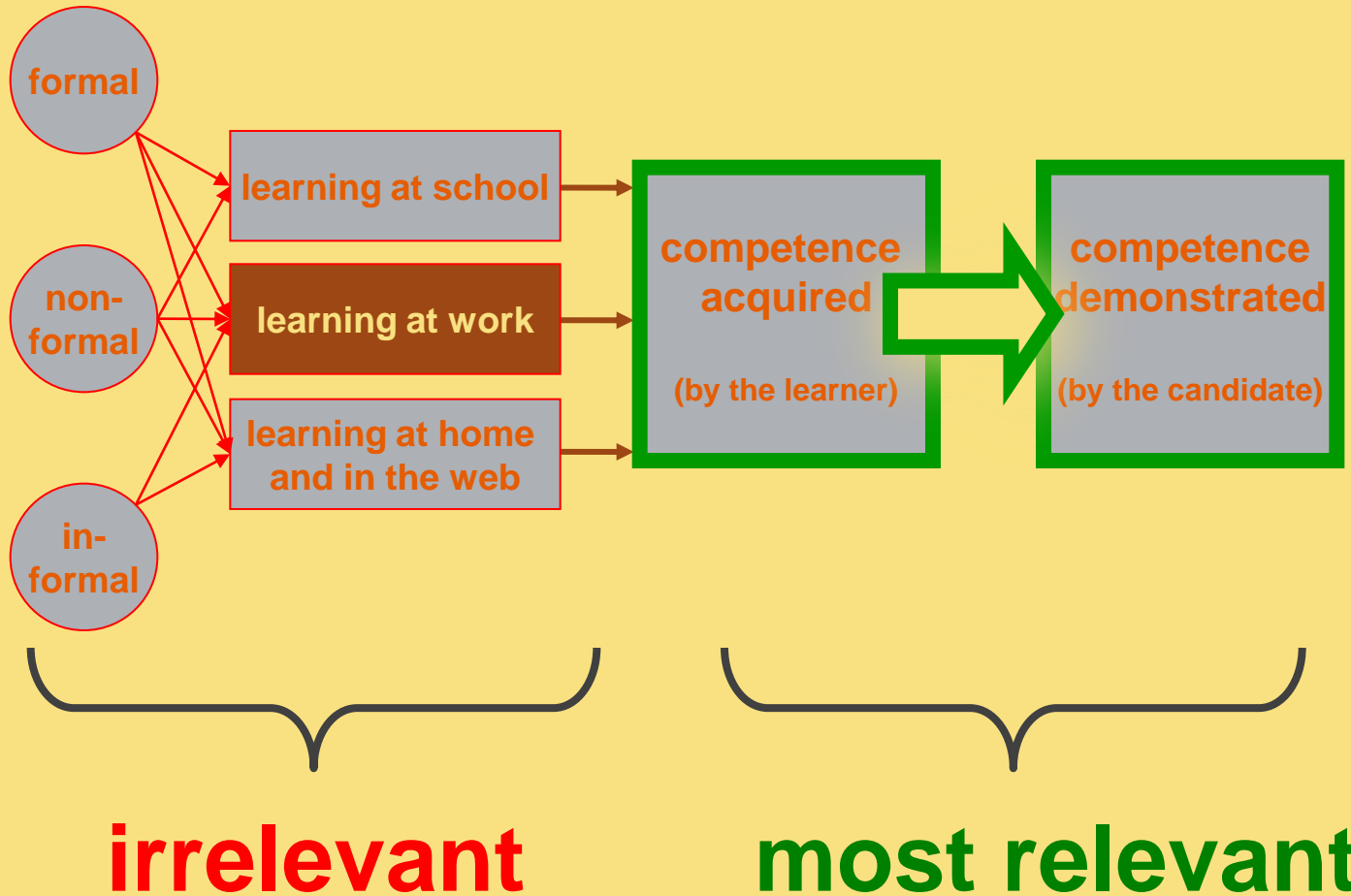


# CBET: Implications for assessment and certification

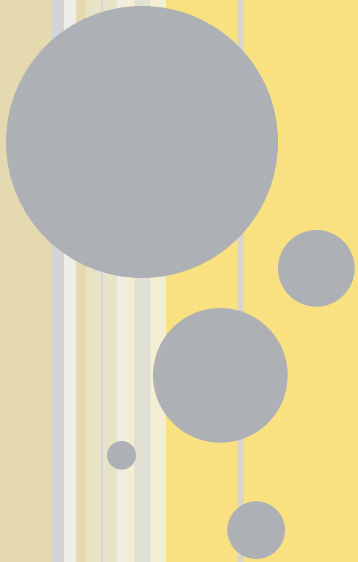
- Traditional systems assess and certify the successful **participation in a course** with defined duration and pre-determined content
- CBET systems assess and certify **competences – regardless of where, how and when** these have been acquired (recognition of prior learning)



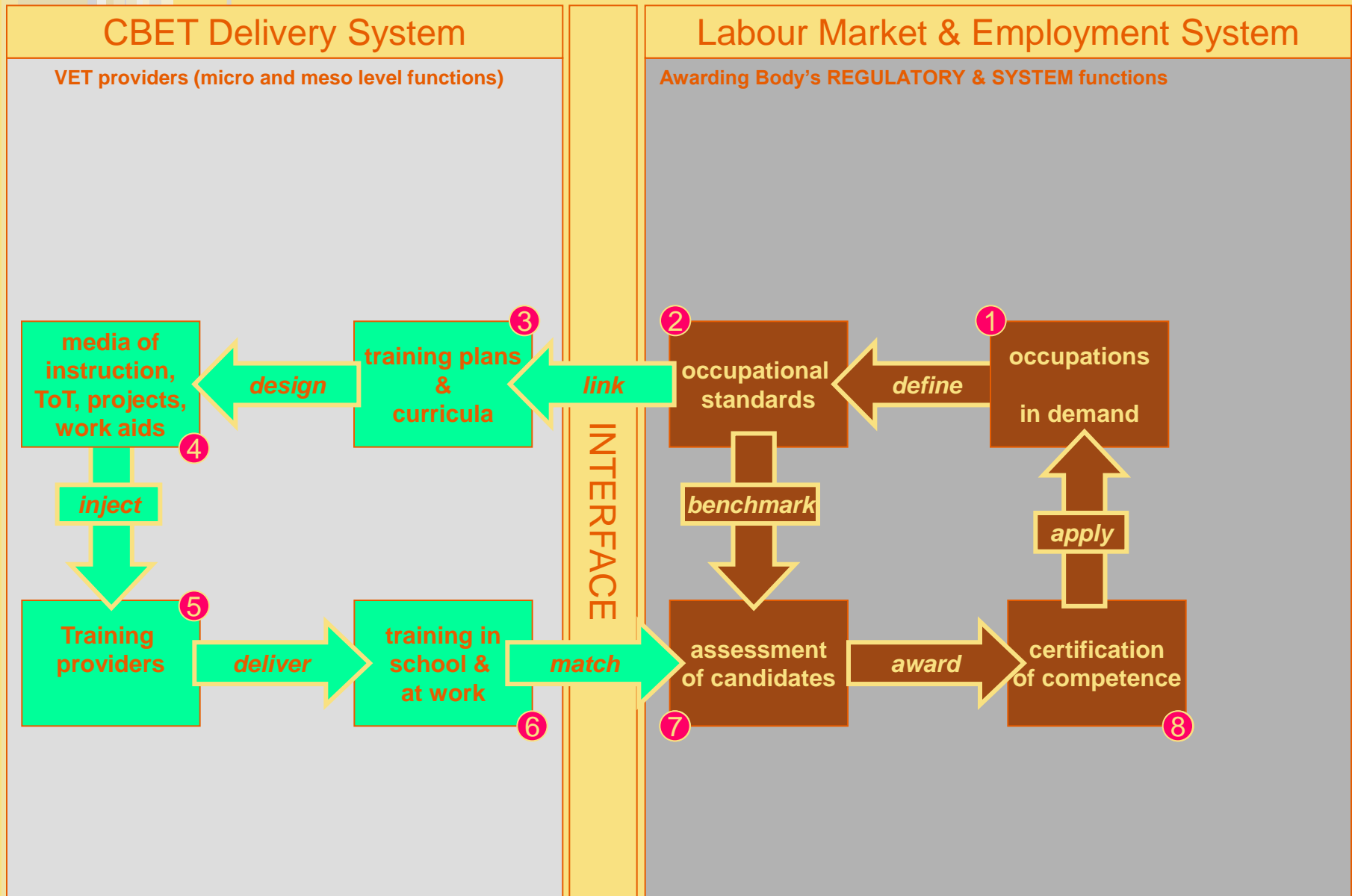
# RPL = Recognition of Prior Learning



# **Working Mechanism of a CBET system at a glance**



# Control Loops in CBET Systems (Linking and Matching)



## Part II: Why are occupational standards as well as assessment and certification key elements of CBET systems?

- What is an occupational standard?
- How is it developed
- What is it good for?
- What is assessment and certification?
- What are approaches that can be applied?
- Why is it so important?



# Occupational standards

- First step in developing an occupational standard (OS) is the development of an **occupational profile**
- An occupational profile is a detailed **description** of an occupation with its duties and related tasks
- Attaching **performance criteria** to the different tasks converts the profile into a standard.



# Developing occupational standards – what methods?

Basically, there are two main internationally recognised methods (with variants):

- **DACUM** - which uses job practitioners in a workshop setting to analyse duties and related tasks of a given occupation as it prevails in the labour market
- **Functional analysis** - which is more academic and delivers a profile of an occupation as it should look like in an ideal world



# Sample DACUM Chart – « Cook »

**DUTIES**

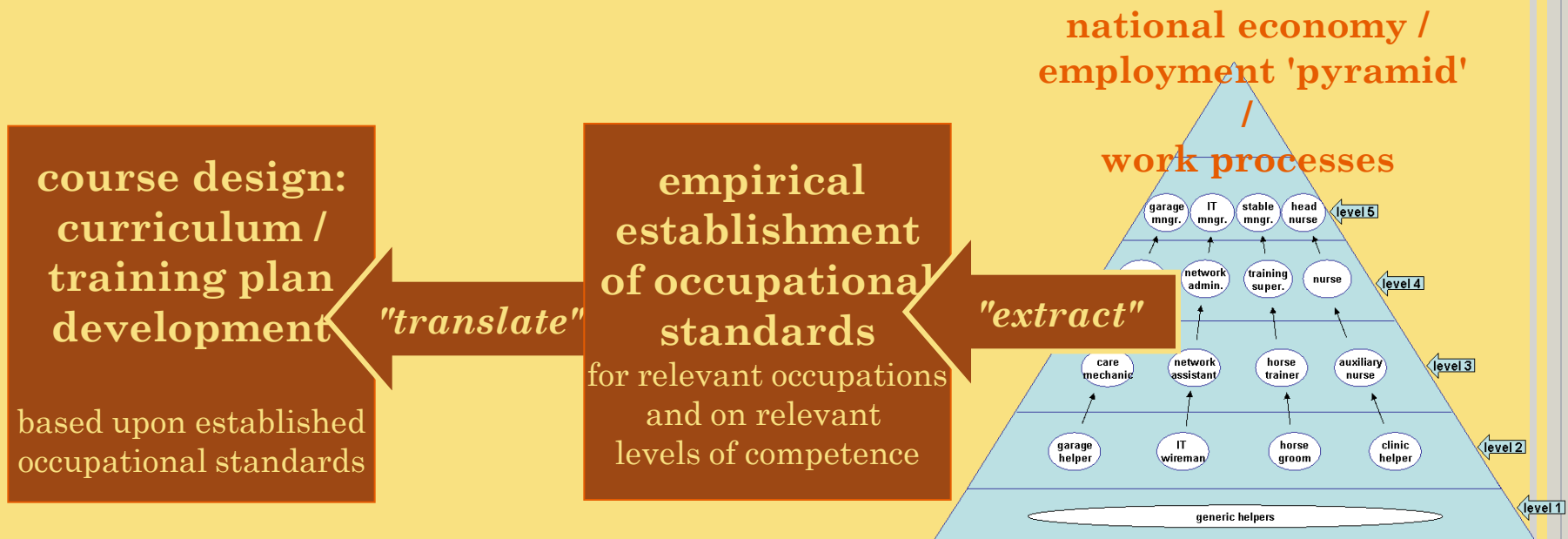


**TASKS**



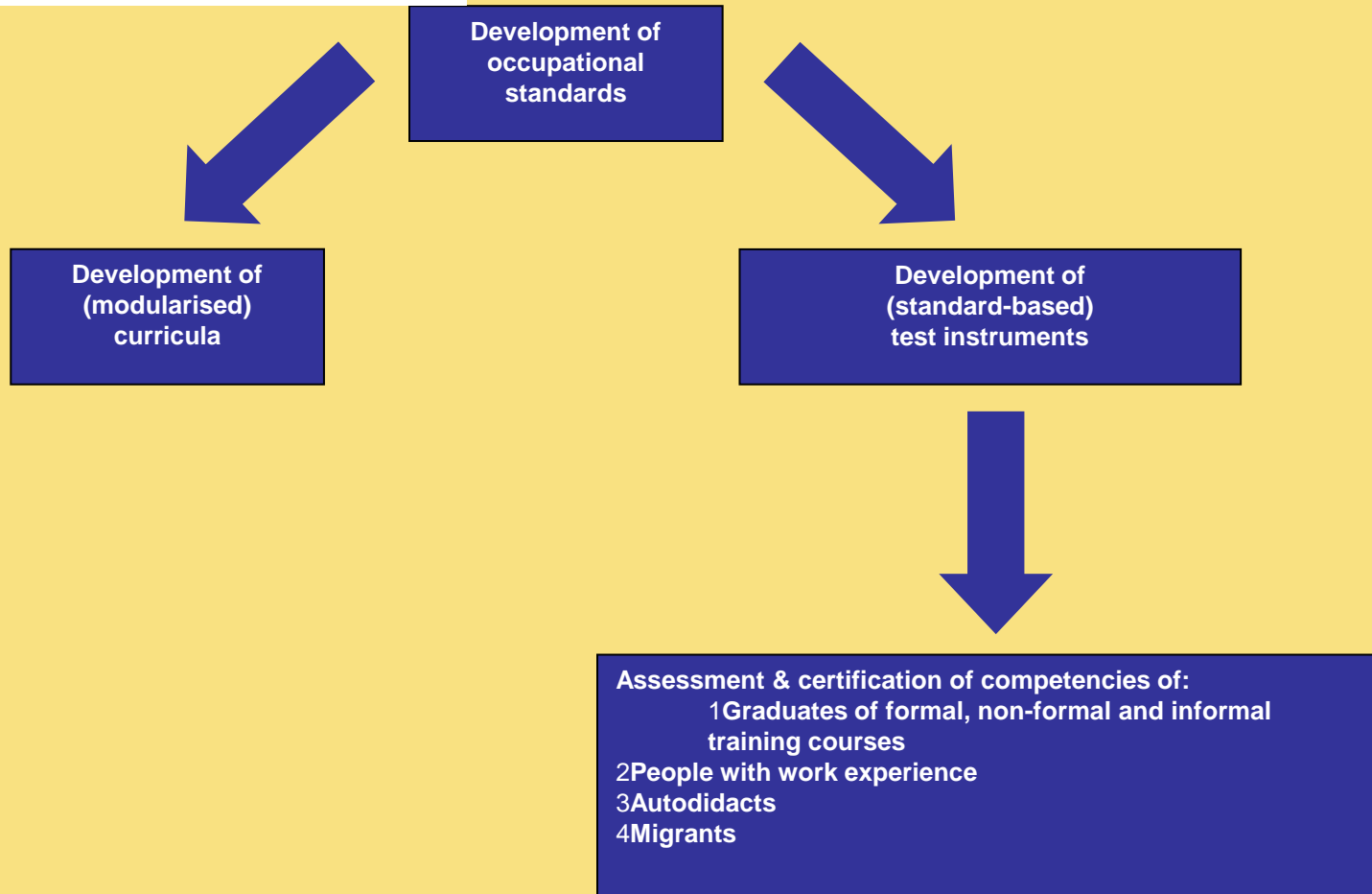
<b>A</b>	<b>Organize work process</b>	<b>A-1</b> <b>Apply professional gear (e.g. bonnet, gown, apron etc.)</b>	<b>A-2</b> <b>Prepare work place</b>	<b>A-19</b> <b>Monitor cooking process</b>
	<b>Prepare salads and starters</b>	<b>B-1</b> <b>Rinse ingredients (e.g. fruits, vegetables, eggs)</b>	<b>B-2</b> <b>Boil ingredients (e.g. fruits, vegetable, eggs)</b>	<b>B-20</b> <b>Prepare assorted platters (e.g. of meat, fish, cheese, vegetable, fruits, pickles)</b>
	....	....	....	....
<b>I</b>	<b>Upgrade occupational skills</b>	<b>I-1</b> <b>Study new recipes</b>	<b>I-2</b> <b>Experiment new technologies and recipes</b>	<b>I-7</b> <b>Train apprentices</b>

# Required competences drive desired content and methodology The industry – institutions interface



# Importance of occupational standards

## The key elements



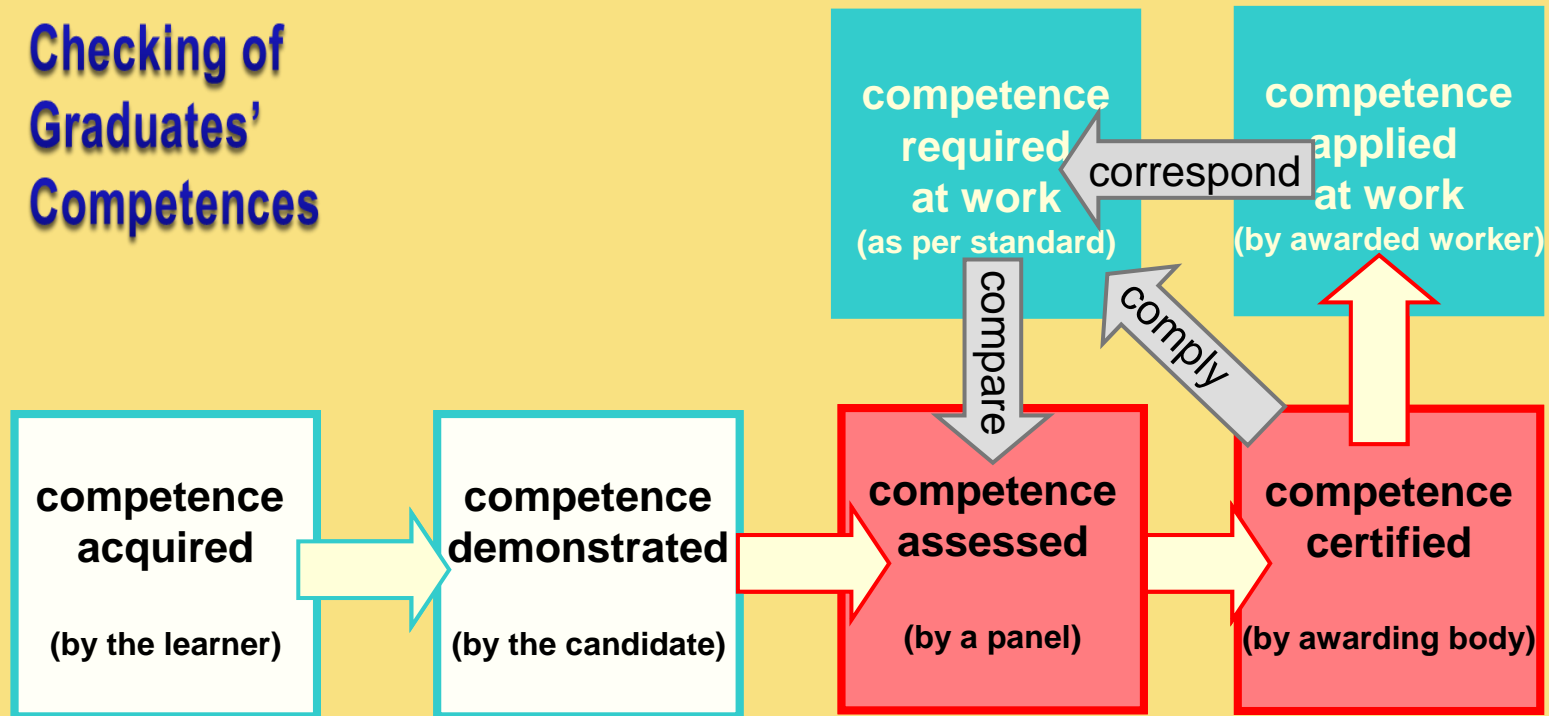
# Other functions of occupational standards

- Occupational standards are an important **reference for vocational orientation and guidance** because they can be used for the elaboration of detailed descriptions of occupations;
- Occupational standards are an important **instrument for labour exchange and placement services** because they help companies to better express their demand for skilled labour and the unemployed to better describe the competences they have and the kind of job they are looking for;
- Furthermore, occupational standards provide the basis for the establishment of the so-called **National Qualifications Frameworks**, which are a kind of hierarchically organised matrix of occupational standards.



# Assessment and Certification

## Checking of Graduates' Competences



# Assessment and Certification – Main approaches

There are **two main approaches** applied in VET systems:

- The Anglo-Saxon approach that uses **assessors and verifiers**
- The traditional approach that uses (theoretical and practical) **tests** (e.g. The dual training systems in Switzerland and Germany)

Both approaches have **advantages and drawbacks.**



# Assessment and Certification – the Anglo-Saxon approach

- Professional assessors observe candidates at the workplace and / or analyse their occupational records and portfolios. The assessors are supervised by verifiers.
- The advantages of this approach are its **flexibility** and the **low level of stress** for the candidates
- Disadvantages are the **exclusion of graduates and unemployed people** and the relatively high **costs**



# Assessment and Certification – the Swiss and German approach

- In dual training systems like in Switzerland and Germany assessment and certification are based upon **theoretical and practical tests**.
- The advantages of this approach are its **universal applicability** and relatively **low costs**.
- Drawbacks are the **stress for candidates** and the significant **preparatory work** it requires.



# Assessment and Certification – Lessons learnt in Latin America

- The selection of the appropriate approach depends very much on the context
- If the target group are people who already have a job, the Anglo-Saxon approach is viable and meaningful
- If the target group are recent graduates or unemployed people, the application of tests is more appropriate.



# Assessment and Certification – What is it good for?

- It facilitates the **recruitment** of staff by companies since they can more easily understand the meaning and value of certificates and can better identify the staff they need
- It facilitates **placement** by labour exchange offices because there is a common language that can be applied when communicating with companies (“we need an electrician with a level 3 certificate”)
- It facilitates the labour market integration of young people who graduate from an institution with less prestige because it is the certificate that counts and not only the training provider
- It facilitates internal **labour mobility** because certificates are known and recognised at national level



# Assessment and Certification – What is it good for?

- It facilitates legal **migration** to other countries because the certificates are based on appropriate and transparent occupational standards;
- It allows increased **permeability** between formal and non-formal VET by establishing rules and regulations for equating certificates;
- It increases the **appreciation of VET** by young people and their parents because it offers more and better opportunities for both employment and further education and training;
- The results of assessment of their graduates provide the training providers with **feedback** and stimulate the **improvement and assurance of training quality**;
- It provides unbiased **evidence of the quality of training providers**, which helps **protect consumers** and is a key reference for the **accreditation of training centres**.



# Assessment and Certification – What is it good for?

- There are two more interesting aspects directly related to trends in the economy:
- In many countries small companies that deliver goods or services to bigger companies are coming under more and more pressure from their clients to acquire **quality labels**, for example ISO 9000. In this context, the level of (certified) skills of their staff plays an important role;
- A similar effect can be observed when big international companies decide where to **locate new factories**. Amongst the many criteria they apply in selecting the most appropriate country or region, the skills level of the local labour force plays an ever more important role.



# Recognition of prior learning– What is it good for?

- The recognition of prior learning contributes to the **self-esteem** of employees, supports their **motivation for life-long learning** and facilitates their **access to further training**;
- The assessment and recognition of available competences of unemployed people helps in the design of **tailor-made training courses** for them;
- It implies the **extension of non-formal and informal training** because it enables the certification of competences acquired in different ways – at the workplace, in self-employment or via self-learning activities;



# Recognition of prior learning– What is it good for?

- It facilitates the **labour market integration of returning migrants** who have an opportunity to get certification for competencies that they acquired abroad;
- It facilitates the **placement of legal migrants** going to a country that attracts a foreign labour force because they can get their competences assessed and certified before leaving their home country;
- It facilitates the **labour market integration and tailored training of immigrants** who do not have a recognised qualification.



## Part III: Which are the decisive factors and minimum standards to ensure the development and sustainability of competence based VET systems?

- **Industry involvement (ownership)** in development of OS and assessment and certification
- Readiness of **Ministries of Education to accept power shift** and to let industry take the driver's seat
- Sufficient **financial resources** to develop and regularly update OS and test items and to subsidise assessment and certification



# CBET systems – decisive factors and minimum standards

- **Integrated approach** that covers OS development, assessment and certification, and training delivery in parallel (sector-based approaches are recommended rather than an ambitious comprehensive system reform)
- **Opportunities for practical, work-based training** (the Swiss and German dual training systems is widely compatible with a CBET approach)
- Motivated and well-trained teachers and instructors with sufficient practical skills



# CBET systems – decisive factors and minimum standards

- The **decisive factor** for success and sustainability of an assessment and certification system is its **credibility**. Therefore:
- The assessment should not be conducted by people who are involved in the training process of the candidates but by **independent assessors**.
- The certificates should **not be issued by the institutions that have trained the candidates**.
- The procedures have to be **transparent and controlled**, in order to reduce the risk of corruption, loss of credibility and, finally, the devaluation of the certificates.



# CBET systems – decisive factors and minimum standards

- The **value of the certificates on the labour markets** (impact on remuneration, promotion, etc.) have to be agreed upon - as far as possible - between the social partners, and should be made transparent.
- The **value of the certificates in the (lifelong) education system** (access to further training programmes, reintegration into the formal education and training system) has to be agreed upon – as far as possible – with the Ministry of Education and the training institutions, and should be transparent.
- The **requirements** for participation in the assessment have to be clearly defined and **access** should be possible at equal terms in all regions and at **affordable costs** for the candidates.



Thank you very much for  
your attention

