

Learning outcomes and their role in the review and renewal of VET curricula

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Cedefop work on comparing qualifications (based on LOs)

- The 2016-17 pilot-study ‘*The use of learning outcomes to support labour market dialogue*’ compared 10 VET-qualifications in 10 European countries
- In a joint project with ETF and UNESCO, building on the Cedefop-approach, 4 VET qualifications were compared in 26 countries worldwide
- The 2018-20 study ‘Comparing VET-qualifications- towards a European methodology’ built on the findings of the pilots



EQF level	Volume of additional LO										
	4	high	4	none	4	3	3	3	n/a	4	3&4
Assist patients with daily activities.											10
Speaking — Talking to others to convey information effectively.											10
Adjust positions of patients on beds or tables.											9
Administer therapy treatments to patients using hands or physical treatment aids.											9
Administer basic health care or medical treatments.											9
Give medications or immunizations.											9
Prepare medical instruments or equipment for use.											9
Active Listening — Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.											9
Monitoring — Monitoring/Assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action.											9
Record vital statistics or other health information.											8
Monitor patients to detect health problems.											8
Feed patients.											8
Apply bandages, dressings, or splints.											8
Hold patients to ensure proper positioning or safety.											8
Clean patient rooms or patient treatment rooms.											8
Reading Comprehension — Understanding written sentences and paragraphs in work related documents.											8
Coordination — Adjusting actions in relation to others' actions.											8
Assess physical conditions of patients to aid in diagnosis or treatment.											7
Explain technical medical information to patients.											7
Assist practitioners to perform medical procedures.											7
Operate medical equipment.											7
Collect biological specimens from patients.											7
Move patients to or from treatment areas.											7
Dispose of biomedical waste in accordance with standards.											7
Psychology — Knowledge of human behavior and performance; individual differences in ability, personality, and interests; learning and motivation; psychological research methods; and the assessment and treatment of behavioral and affective disorders.											7
Medicine and Dentistry — Knowledge of the information and techniques needed to diagnose and treat human injuries, diseases, and deformities. This includes symptoms, treatment alternatives, drug properties and interactions, and preventive health-care measures.											7
Social Perceptiveness — Being aware of others' reactions and understanding why they react as they do.											7
Interview patients to gather medical information.											6
Customer and Personal Service — Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.											6
Service Orientation — Actively looking for ways to help people.											6
Transport biological or other medical materials.											5
Therapy and Counseling — Knowledge of principles, methods, and procedures for diagnosis, treatment, and rehabilitation of physical and mental dysfunctions, and for career counseling and guidance.											5
Public Safety and Security — Knowledge of relevant equipment, policies, procedures, and strategies to promote effective local, state, or national security operations for the protection of people, data, property, and institutions.											5
Critical Thinking — Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.											5
Stock medical or patient care supplies.											4
English Language — Knowledge of the structure and content of the English language including the meaning and spelling of words, rules of composition, and grammar.											2
Education and Training — Knowledge of principles and methods for curriculum and training design, teaching and instruction for individuals and groups, and the measurement of training effects.											2

<https://www.cedefop.europa.eu/en/publications/3090>

<https://www.cedefop.europa.eu/en/publications/5582>

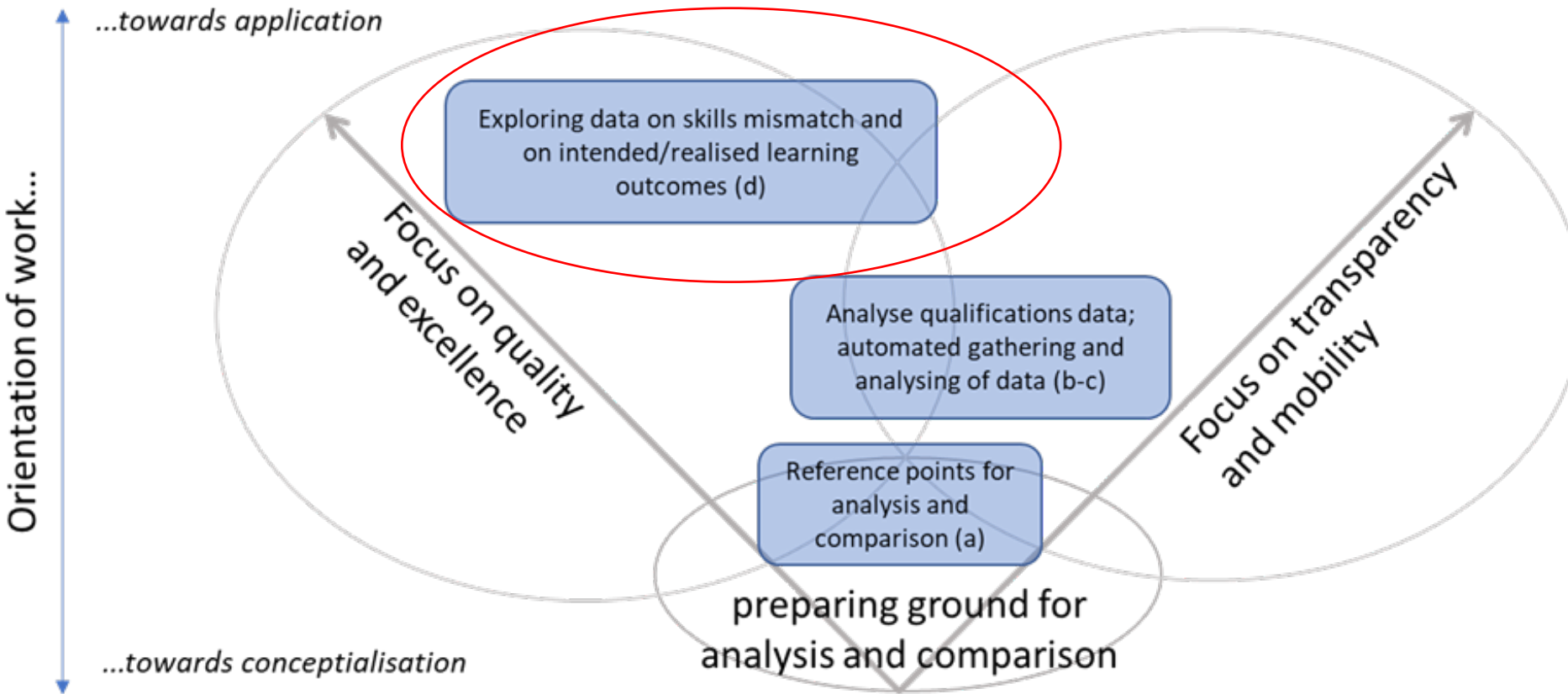


Intended and realised LOs



- comparison of VET qualifications and their **intended learning outcomes** (as documented in qualifications descriptions): mutual learning – , inspiration, starting point for improving and further developing VET qualifications
- could be complemented by an analysis of how the *intentions* of the education and training system match the *expectations* and *needs* of employees and employers in a given context, and to what extent they are satisfied with the **achieved learning outcomes** (as applied in the work context) – collecting feedback from employers

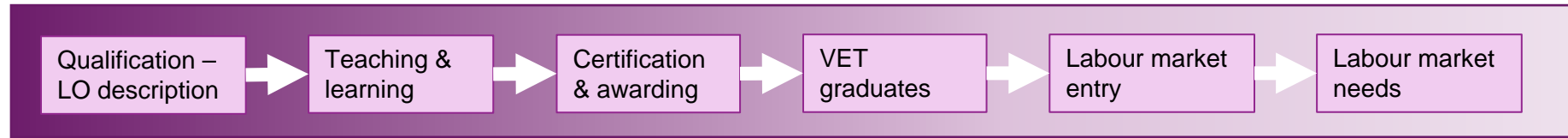
Overview research project

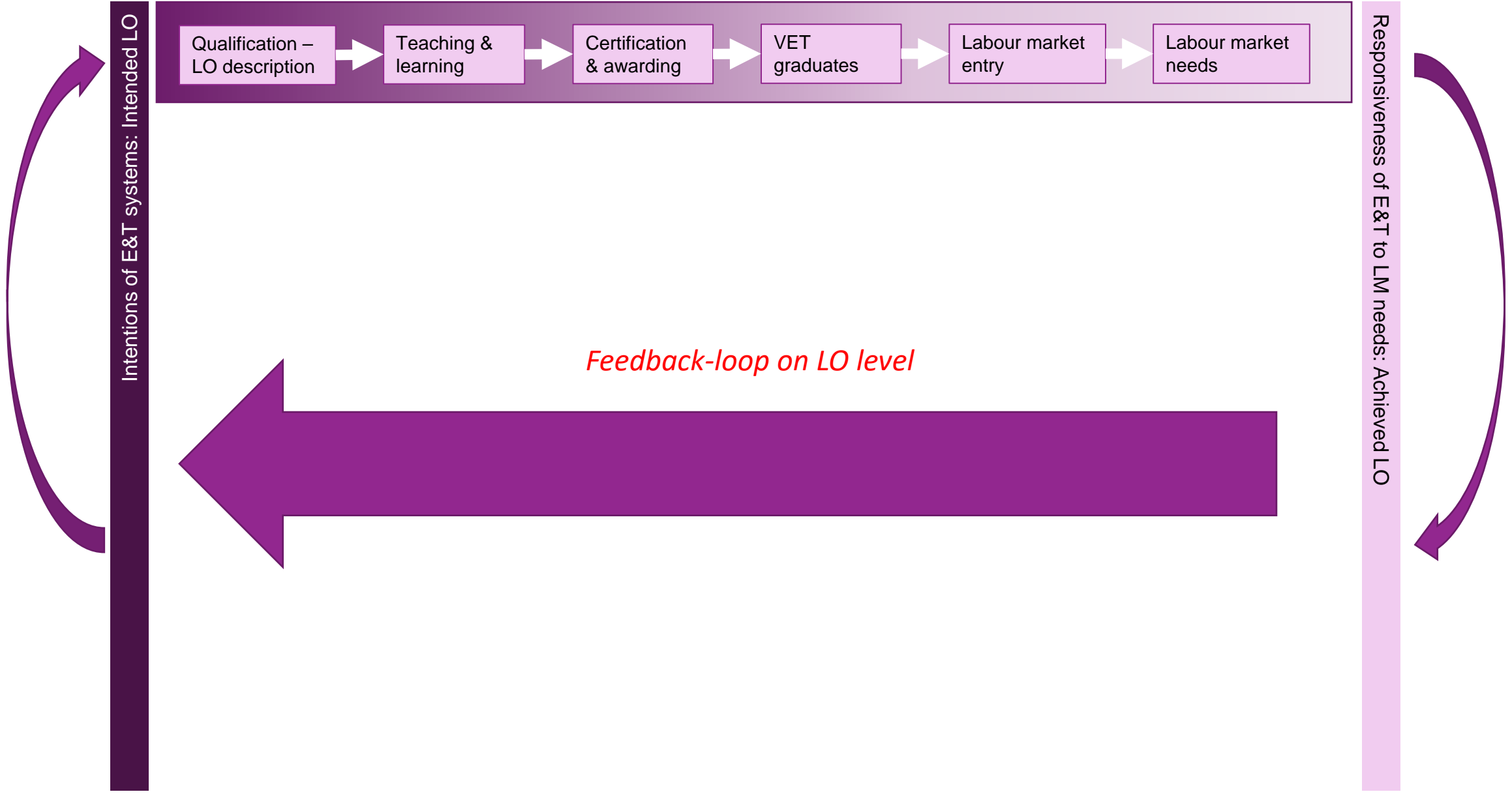


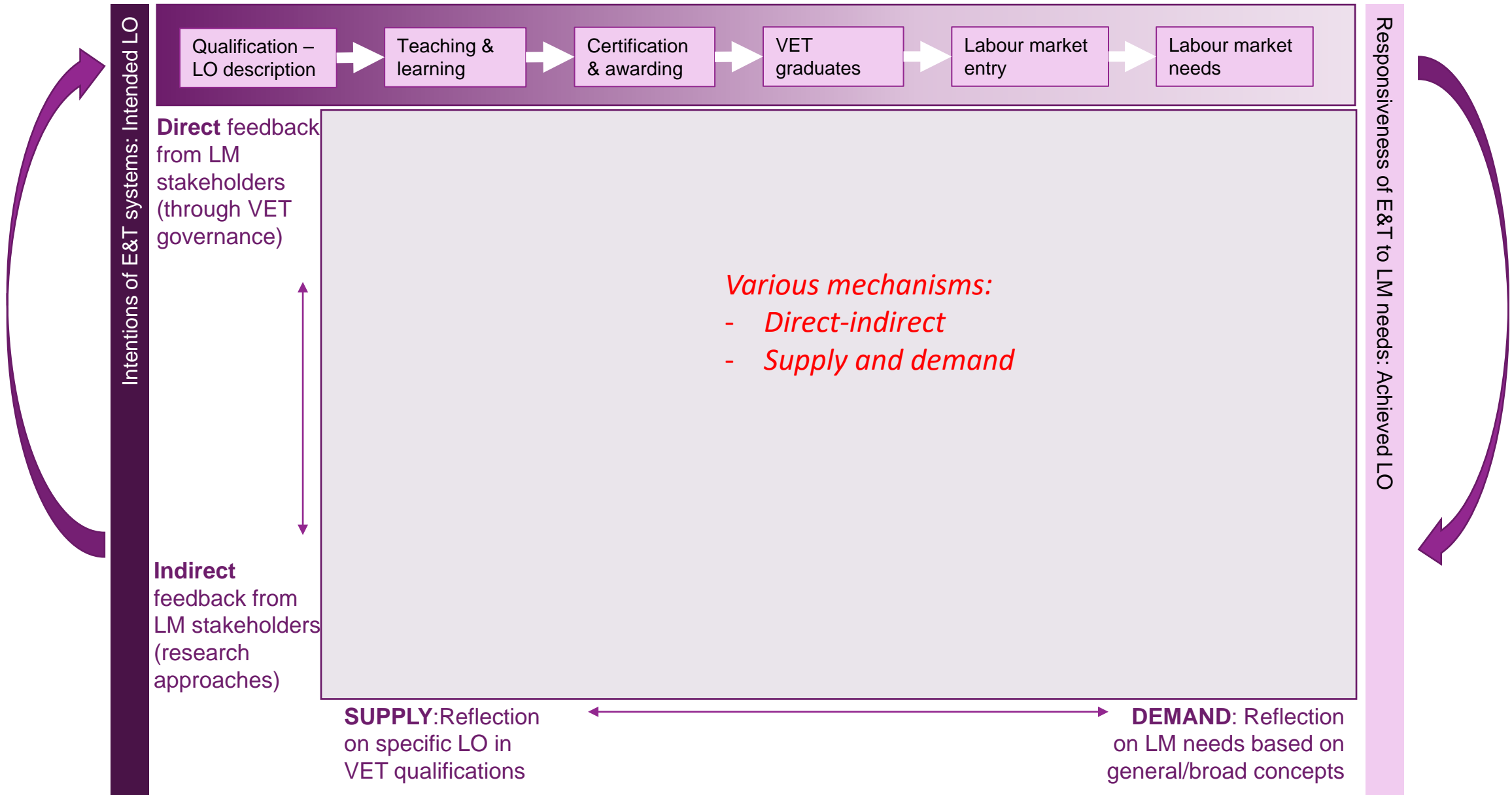
Guiding questions for PLF

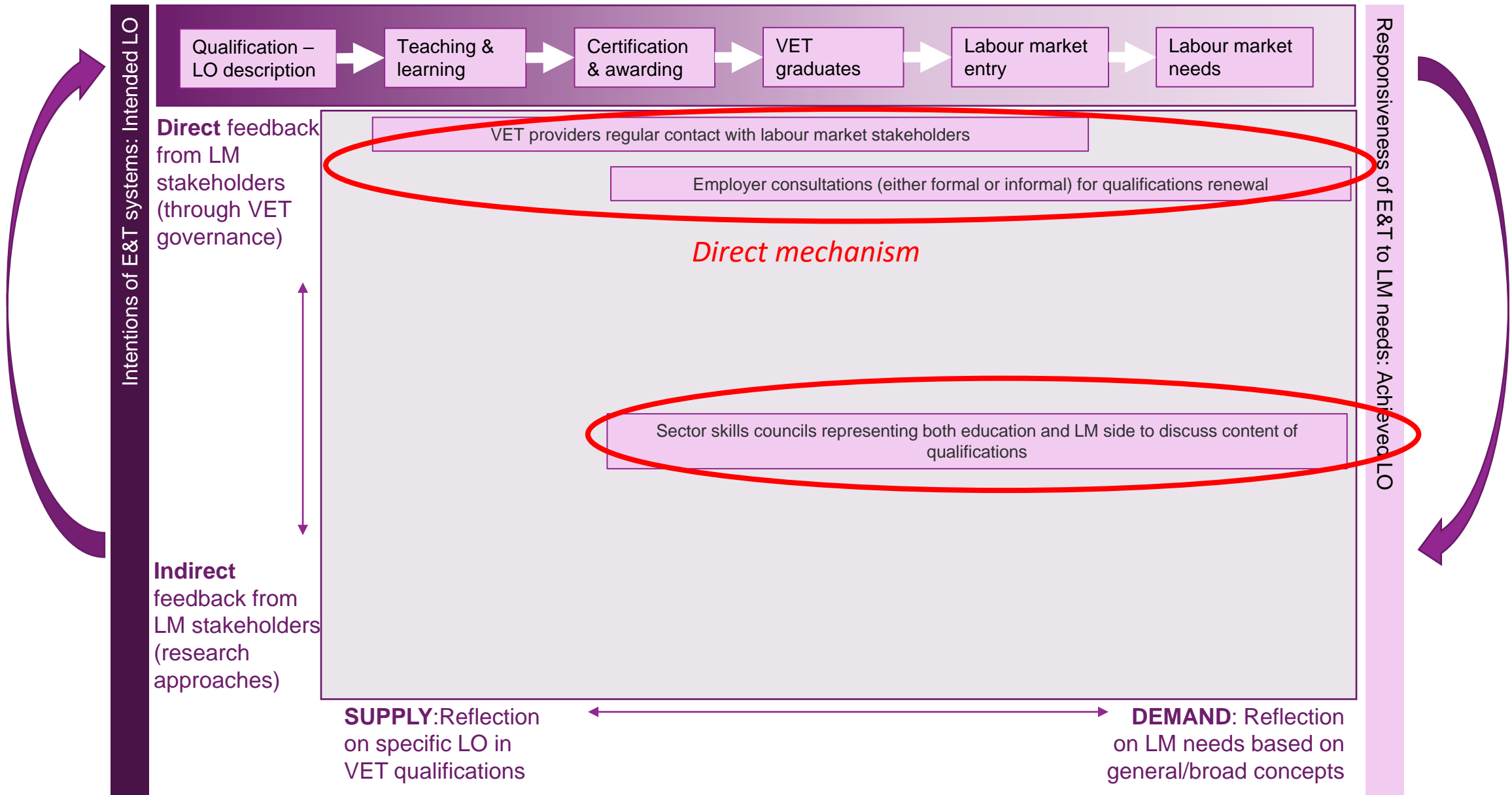
1. When and how different stakeholders intervene in the review of national curricula?
2. To what extent are learning outcomes used as a common language in the dialogue between VET providers and labour market stakeholders?
3. In the review and renewal of national curricula, which are the priorities of VET providers and labour market stakeholders respectively?

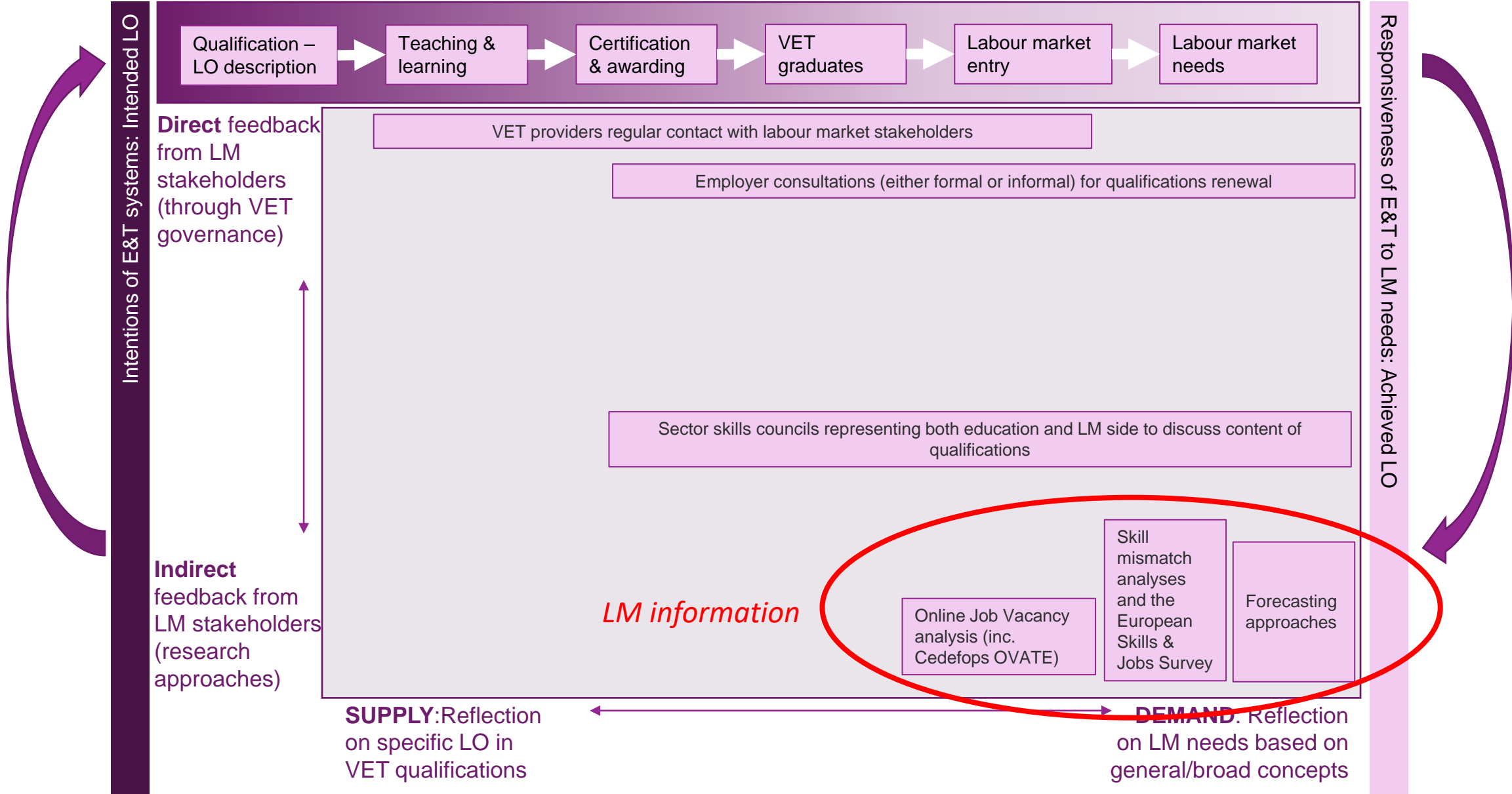
*TVET value
chain*

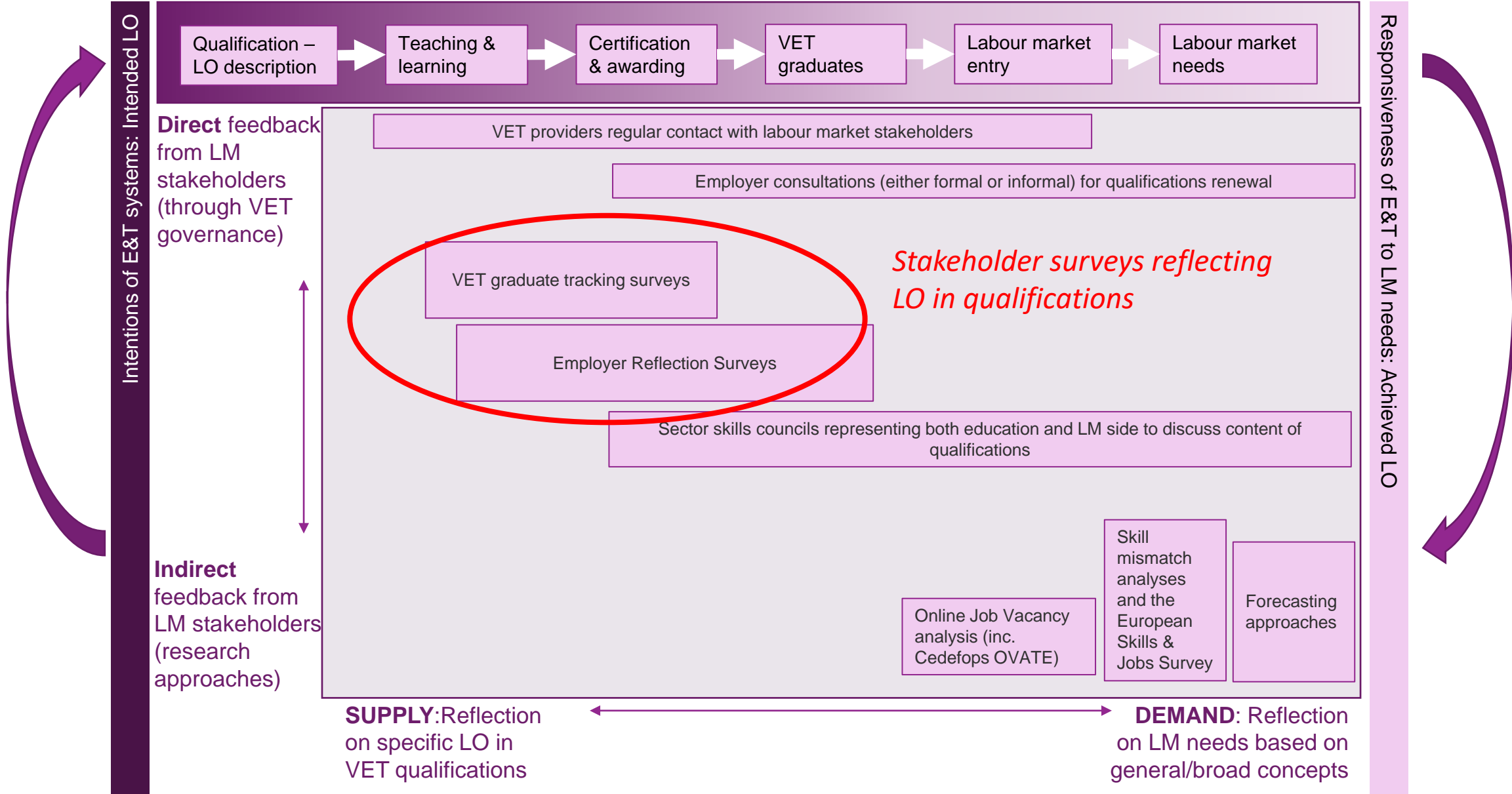


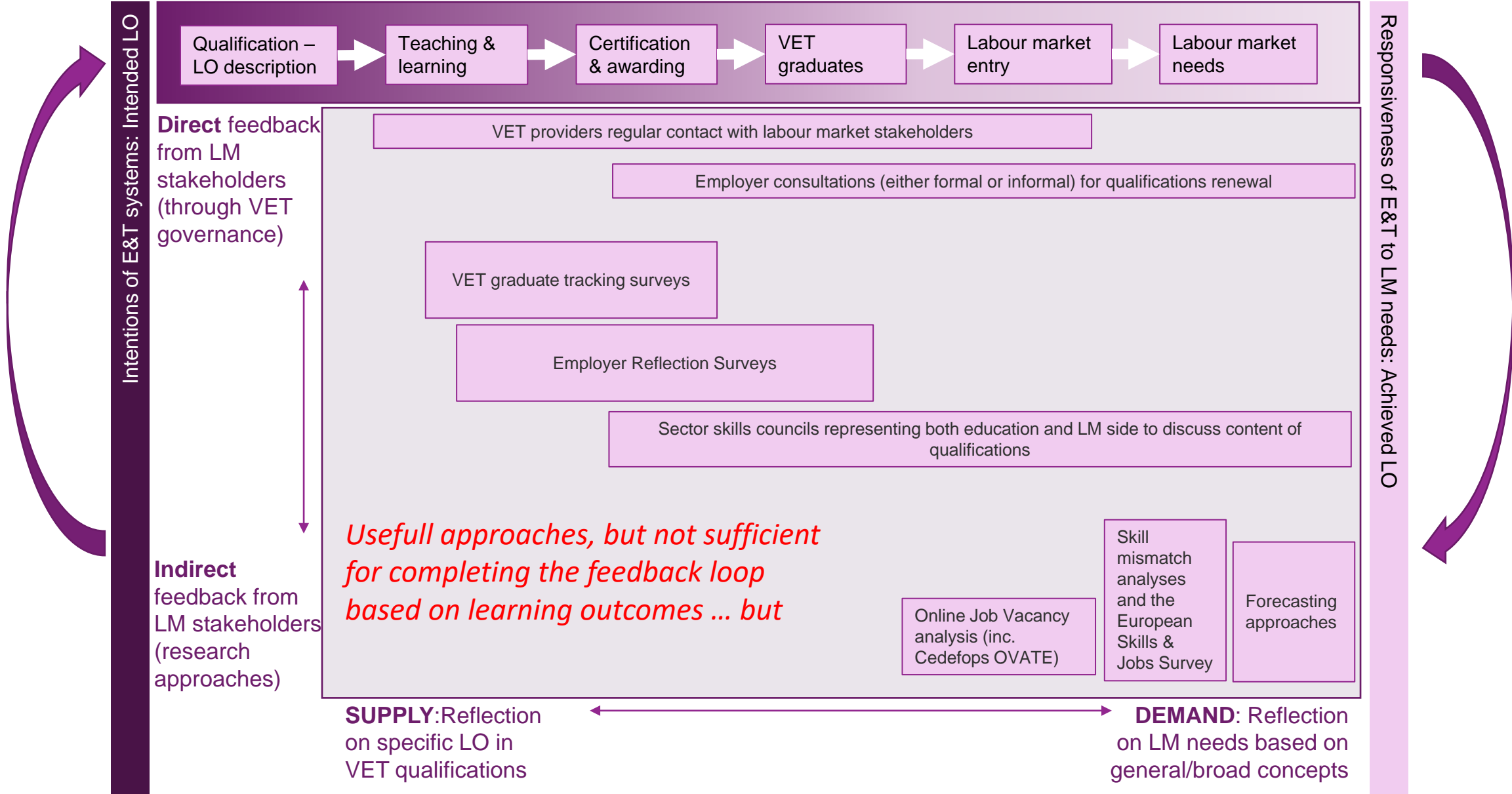


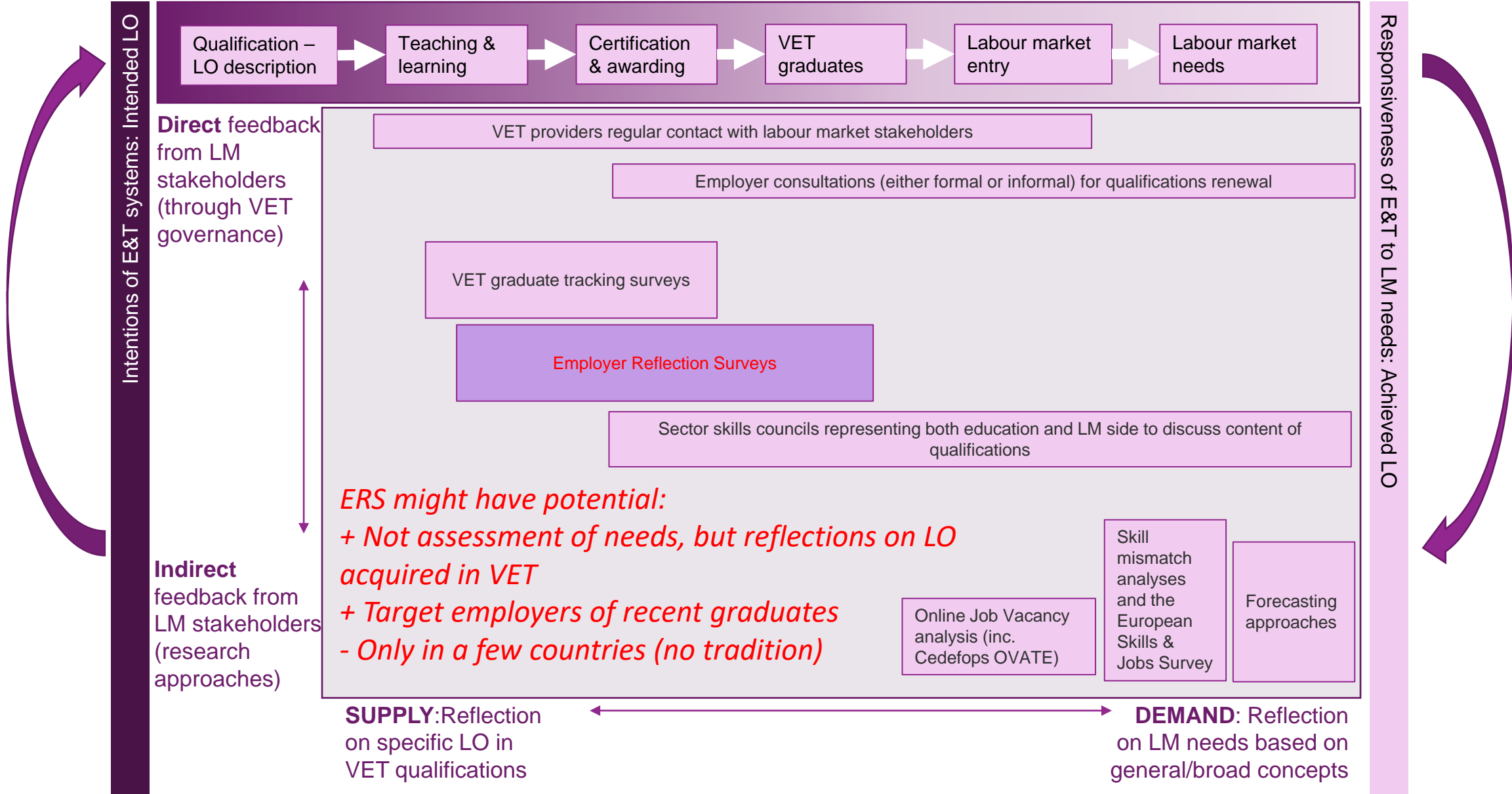












The workflow of the ERS

- **Step 1: VET provider**
 - Select VET providers
 - The VET provider fill in questionnaire for VET provider
- **Step 2: Inviting graduates and employers**
 - The VET provider sent the link to the questionnaire to the graduates.
 - Graduates fill in questionnaire for graduates
 - The VET provider compiled a list of employers that potentially hired graduates from the programme and sent the invitation-link
 - Employers fill in questionnaire for employers.
- **Step 3: Interviews and dialogue**
 - The researchers interviewed employers on their experience with the survey.

2 profiles

- *healthcare assistant*
- *ICT service technician*

2 countries: NL and LT

1. In relation to each skill, to what extent do you believe that the VET programme has provided them to the graduate for effective work in a company/organisation?

I believe the VET programme provided this skill...

- (a) Not at all
- (b) To some extent
- (c) To a moderate extent
- (d) To a large extent
- (e) To a very large extent
- (f) Not applicable

2. From the list of skills, please select the **five most important and the five least important ones**.

A. General occupation-related skills and competences as exercised in the workplace

- | | |
|---|---|
| 1) Applying professional knowledge to job tasks | 4) Maintaining professional standards |
| 2) Using technology effectively | 5) Observing ethical standards |
| 3) Applying technical skills in the workplace | 6) Using research skills to gather evidence |

B. Specific occupation-related skills and competences as exercised in the workplace

For ICT service technician:

- 1) Provide technical documentation
- 2) Perform ICT troubleshooting
- 3) Use repair manuals
- 4) Configure ICT system
- 5) Administer ICT system
- 6) Maintain ICT server /system
- 7) Perform backups
- 8) Repair ICT devices
- 9) Implement ICT recovery system
- 10) Manage ICT legacy implication
- 11) Use precision tools

For Healthcare assistant

- 1) Monitor basic patients' signs
- 2) Communicate with nursing staff
- 3) Empathise with the healthcare user
- 4) Interact with healthcare users
- 5) Provide basic support to patients
- 6) Identify abnormalities
- 7) Support nurses
- 8) Ensure safety of healthcare users
- 9) Convey medical routine information
- 10) Manage healthcare users' data
- 11) Conduct cleaning tasks

these lists of 10-15 items are based on the learning outcomes mapping conducted in WA1. The ESCO KSCs are selected that: are included in many countries (at least 8 out of the 10); are not already covered in the full list (i.e. they are occupation-specific skills)

C. Teamwork and interpersonal skills as exercised in the workplace

- | | |
|--|---|
| 1) Working well in a team and working collaboratively with colleagues to complete tasks | 4) Ability to follow instructions |
| 2) Getting on well with others in the workplace and understanding different points of view | 5) Ability to instruct and/or lead others |
| 3) Ability to interact with co-workers from different or multicultural backgrounds | 6) Ability to handle conflicts |

D. Employability and enterprise skills as exercised in the workplace

- | | |
|--|---|
| 1) Ability to work under pressure | 8) Demonstrating initiative in the workplace and show sense of initiative |
| 2) Reflect work processes and procedures | 9) Ability to solve problems |
| 3) Capacity to be flexible in the workplace | 10) Oral communication skills |
| 4) Ability to meet deadlines | 11) Written communication skills |
| 5) Understanding the nature of your business or organisation | 12) Foreign language skills |
| 6) Ability to manage processes/ projects | 13) Working with numbers |
| 7) Taking responsibility for personal professional development (keep up to date) | 14) Persistence and endurance |
| | 15) Critically reflect on own role and place in society |

Results of the pilot: healthcare assistant in Tilburg (NL)

Characterisation of the healthcare assistant level 3 programme by the VET provider

Most (green) and least (orange) important skills

Level at which the skill was provided (low, medium, high). The greener the higher

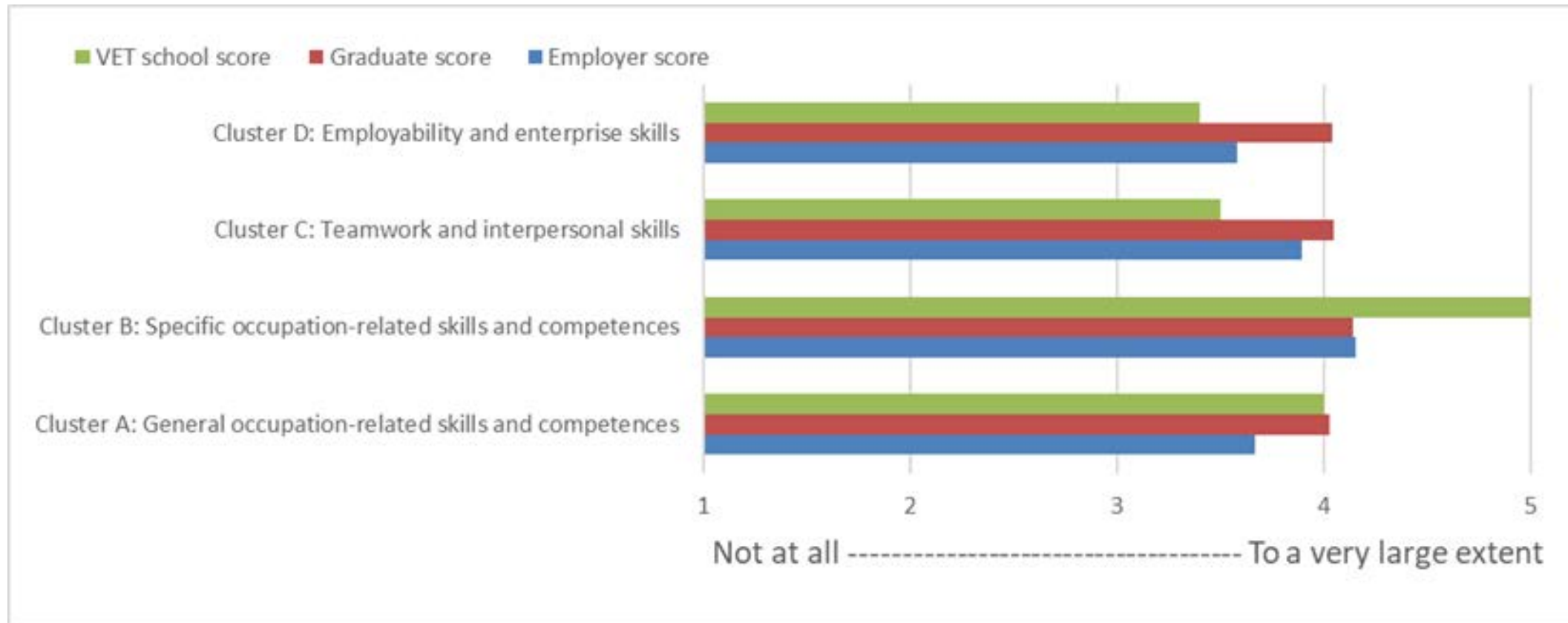
Skills are recognised in the graduate (not at all – large extent)

	Skills (and indication of priority (most and least important))	The VET programme provided the skill at...	Skills are recognised in the graduate (by VET provider) (1=not at all; 5 = to a very large extent; 0 = not applicable)
Cluster A: General occupation-related skills and competences	1) Applying professional knowledge to job tasks	(b) the sufficient level enabling autonomous execution of the work tasks with some supervision and quality control	5
	2) Using technology effectively	(b) the sufficient level enabling autonomous execution of the work tasks with some supervision and quality control	3
	3) Applying technical skills in the workplace	(b) the sufficient level enabling autonomous execution of the work tasks with some supervision and quality control	3
	4) Maintaining professional standards	(a) the basic level enabling work with intensive supervision, assistance and guidance of more experienced employee	5
	5) Observing ethical standards	(b) the sufficient level enabling autonomous execution of the work tasks with some supervision and quality control	4
	6) Using research skills to gather evidence	(b) the sufficient level enabling autonomous execution of the work tasks with some supervision and quality control	4
Cluster B: Specific occupation-related skills and competences	1) Monitor basic patients' signs	(a) the basic level enabling work with intensive supervision, assistance and guidance of more experienced employee	5
	2) Communicate with nursing staff	(c) high level enabling completely independent execution of tasks by assuming the responsibility of their quality control	5
	3) Empathise with the healthcare user	(c) high level enabling completely independent execution of tasks by assuming the responsibility of their quality control	4
	4) Interact with healthcare users	(b) the sufficient level enabling autonomous execution of the work tasks with some supervision and quality control	4
	5) Provide basic support to patients	(c) high level enabling completely independent execution of tasks by assuming the responsibility of their quality control	5
	6) Identify abnormalities	(a) the basic level enabling work with intensive supervision, assistance and guidance of more experienced employee	4
	7) Support nurses	(c) high level enabling completely independent execution of tasks by assuming the responsibility of their quality control	5
	8) Ensure safety of healthcare users	(b) the sufficient level enabling autonomous execution of the work tasks with some supervision and quality control	4
	9) Convey medical routine information	(c) high level enabling completely independent execution of tasks by assuming the responsibility of their quality control	5
	10) Manage healthcare users' data	(c) high level enabling completely independent execution of tasks by assuming the responsibility of their quality control	5
	11) Conduct cleaning tasks	(b) the sufficient level enabling autonomous execution of the work tasks with some supervision and quality control	2
Cluster C: Teamwork and interpersonal skills	1) Working well in a team and working collaboratively with colleagues to complete tasks	NA	4
	2) Getting on well with others in the workplace and understanding different points of view	NA	4
	3) Ability to interact with co-workers from different or multicultural backgrounds	NA	2
	4) Ability to follow instructions	NA	4
	5) Ability to instruct and/or lead others	NA	4
	6) Ability to handle conflicts	NA	3
Cluster D: Employability and enterprise skills	1) Ability to work under pressure	NA	3
	2) Reflect work processes and procedures	NA	5
	3) Capacity to be flexible in the workplace	NA	4
	4) Ability to meet deadlines	NA	2
	5) Understanding the nature of your business or organisation	NA	4
	6) Ability to manage processes/ projects	NA	4
	7) Taking responsibility for personal professional development (keep up to date)	NA	4
	8) Demonstrating initiative in the workplace and show sense of initiative	NA	4
	9) Ability to solve problems	NA	3
	10) Oral communication skills	NA	3
	11) Written communication skills	NA	4
	12) Foreign language skills	NA	0
	13) Working with numbers	NA	4
	14) Persistence and endurance	NA	3
	15) Critically reflect on own role and place in society	NA	4

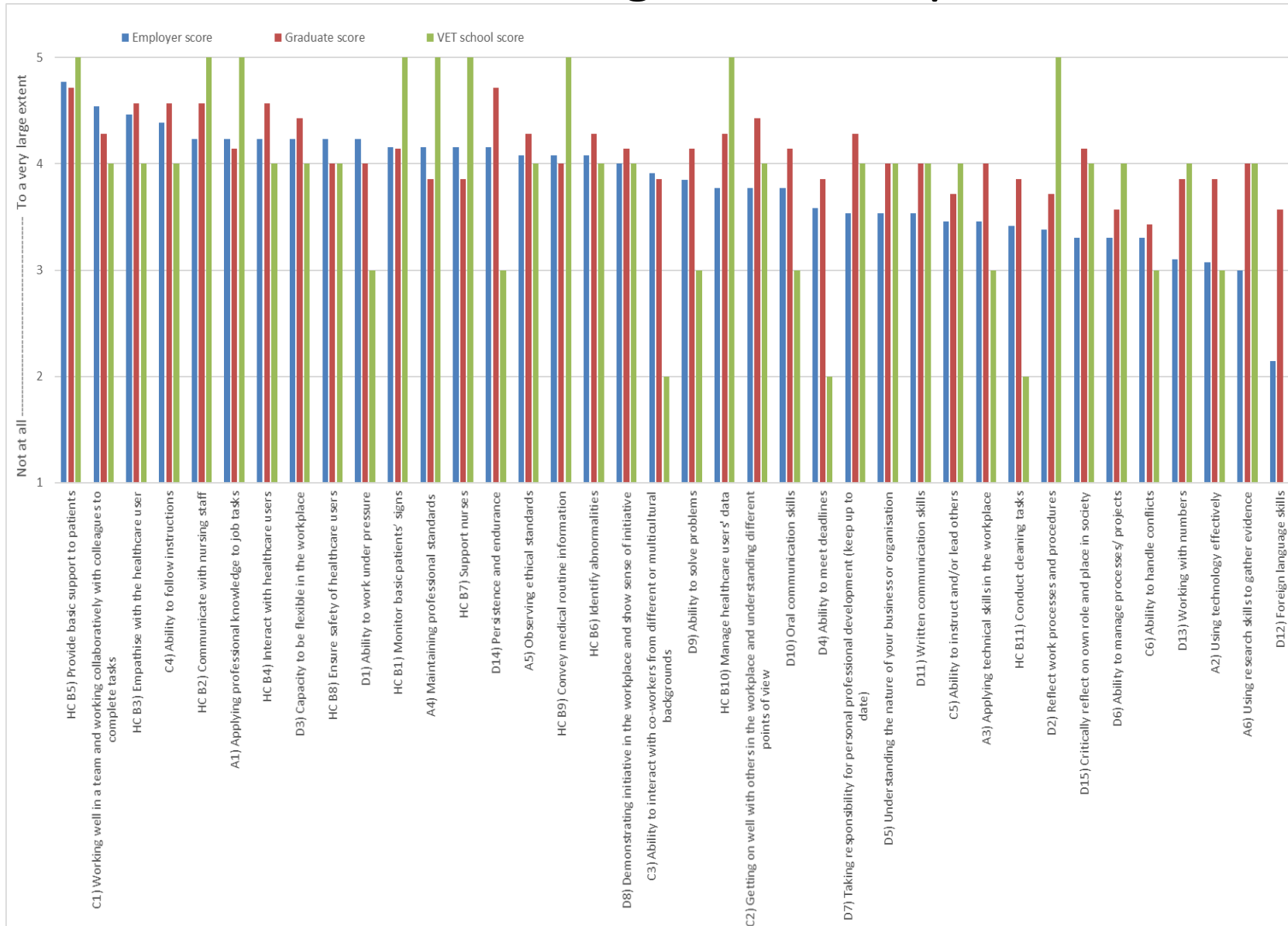
Feedback-loop: reflections from employers and graduates

As a general overall assessment, the employers and graduates are positive concerning whether the VET programme prepared the graduate for his or her job.

Clusters of skills provided by the VET programme (NL)



‘The VET programme has provided the graduates with the skills. I believe the graduate acquired this skill’ (NL)



Employers and graduates more positive compared to the VET provider:

- C3) Ability to interact with co-workers from different or multicultural backgrounds
- D4) Ability to meet deadlines
- B11) Conduct cleaning tasks
- D14) Persistence and endurance

Employers more negative compared to the VET provider:

- D2) Reflect work processes and procedures
- B10) Manage healthcare users' data
- D13) Working with numbers
- A6) Using research skills to gather evidence
- B9) Convey medical routine information

Most important and least important learning outcomes NL Healthcare assistant

	Most important	Least important
Employers	C1) Working well in a team and working collaboratively with colleagues to complete tasks A1) Applying professional knowledge to job tasks D7) Taking responsibility for personal professional development (keep up to date) B1) Monitor basic patients' signs B5) Provide basic support to patients	D12) Foreign language skills D6) Ability to manage processes/ projects D4) Ability to meet deadlines B11) Conduct cleaning tasks D13) Working with numbers
Graduates	D1) Ability to work under pressure A1) Applying professional knowledge to job tasks C1) Working well in a team and working collaboratively with colleagues to complete tasks D7) Taking responsibility for personal professional development (keep up to date)	D12) Foreign language skills B11) Conduct cleaning tasks A3) Applying technical skills in the workplace
VET provider	A1) Applying professional knowledge to job tasks A5) Observing ethical standards B3) Empathise with the healthcare user C1) Working well in a team and working collaboratively with colleagues to complete tasks D15) Critically reflect on own role and place in society	A2) Using technology effectively B11) Conduct cleaning tasks D4) Ability to meet deadlines D5) Understanding the nature of your business or organisation D12) Foreign language skills

- *There is an overall high level of satisfaction among the employers and the graduates concerning the learning outcomes provided by the VET provider.*
- *Nonetheless, there are learning outcomes that need further reflection and discussion between the employers, graduates and the VET provider in terms of whether they are sufficiently acquired during the programme and/or related to their importance.*

The ERS approach is an interesting and promising approach to close the feedback-loop looking in detail at the content of qualifications.

Reflections on guiding questions

Important role of LO:

- Offers the opportunity to look more closely at the content of qualifications, analyse them and compare them with each other and with the requirements of the labour market
- Reference point (based on LO) can serve as translation hub between VET qualifications (described in terms of LO) as well as between the supply and the demand side in different usage contexts; can support the comparison between intended and realised/actual LO

Guiding questions

1. When and how different stakeholders intervene in the review of national curricula?

There are direct and indirect measures to renew qualifications. As a general rule, the closer the VET is organized to the LM, the more direct discussions can take place on specific LOs between providers and LM stakeholders

2. To what extent are learning outcomes used as a common language in the dialogue between VET providers and labour market stakeholders?

LOs are a common language and eases the communication between providers and LM stakeholders. Having the right level of Los (details, granularity) is needed to facilitate the communication (not too many details).

3. In the review and renewal of national curricula, which are the priorities of VET providers and labour market stakeholders respectively?

The experience with the ERS show differences in priorities in LOs. LM stakeholders tend to preassume job-specific LOs and prioritized more transversal skills (e.g. team work). This also comes out of vacancy analyses.

Thank you!

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