New qualifications and competencies for future-oriented TVET

TVET advocacy

Ensuring multi-stakeholder participation

Volume 2

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Acronyms and abbreviations

AFD	Agence française dedéveloppement/ French Development Agency	**NQC**	New Qualifications and Competencies
AVETAE	Agency for Vocational Education and Training (Croatia)	**NTA**	Namibia Training Authority
BIBB	Federal Institute for Vocational Education and Training (Germany)	**PEFOP**	Platform of Expertise in Vocational Training
BMBF	Federal Ministry of Education and Research (Germany)	**OECD**	Organization for Economic Co-Operation and Development
BMO	Business Membership Organization	**OPCO**	Competencies Operators
Cedefop	European Centre for the Development of Vocational Training	**OPMQC**	Observatoires prospectifs des métiers et des qualifications (France)
Céreq	Centre d'études et de recherches sur les qualifications (France)	**QSO**	Qualifications and Standards Office
CSDD	Competency Standard Development Division	**RCC**	Regional Centres of Competence
CTADD	Curriculum and Training Aids Development Division	**RPL**	Recognition of prior learning
EQF	European Qualification Framework	**SFUVET**	Swiss Federal University for Vocational Education and Training
ERDF	European Regional Development Fund	**SMEs**	Small and medium-sized enterprises
ESF	European Social Fund	**TDA**	TAFE (Technical and Further Education System) Directors Australia
GEPP	Gestion des Emplois et des Parcours Professionnels	**TESDA**	Technical Education and Skills Development Authority (Philippines)
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (Germany)	**TVEC**	Tertiary and Vocational Education Commission (Sri Lanka)
HR	Human Resources	**TVET**	Technical and Vocational Education and Training
ILO	International Labour Organization	**TEVETA**	Technical and Vocational Education and Training Authority (Kenya)
KPMPC	Qualifications and VET Development Centre (Lithuania)	**UNESCO**	United Nations Educational, Scientific and Cultural Organization
NBI	South African National Business Initiative	**UNESCO-UNEVOC**	UNESCO-UNEVOC International Centre for Technical and Vocational Education and Training
NGO	Non-Governmental Organization		
NITESD	National Institute for Technical Education and Skills Development (India)		

1. Introduction

A total of three volumes on new qualifications and competencies (NQCs) in TVET focus on the role of different stakeholder groups, which are categorized into macro, meso and micro levels. These stakeholders are principally responsible for the following processes: efficient and rapid identification of NQCs, prioritization and integration of NQCs into curricula and training regulations, and effective implementation of NQCs into learning environments.

This volume – 'TVET Advocacy: ensuring multi-stakeholder participation' – addresses the role of meso-level TVET stakeholders in the process of maintaining and updating TVET systems to ensure they remain fit for purpose.

Meso-level stakeholders indicate institutions participating in the advancement of TVET systems. Of particular note in this document are organizations covering activities in specific economic sectors, such as business membership organizations (BMOs), trade unions, joint organizations or chambers of commerce, industry or crafts. However, the definition of meso stakeholders can be also enlarged to include a variety of different organizations such as NGOs, national institutions or platforms and teachers or deans' associations. Stakeholders engaged in research activities at institutes and universities can be also included. Many UNEVOC centres fall into the above categories and actively contributed to this publication.

This volume is intended to give meso-level TVET stakeholders a better understanding of their role in the greater TVET ecosystem; potential tools for identifying, integrating and implementing NQCs for a TVET system; and action items for closer collaboration with other stakeholders. Readers are encouraged to explore the two other BILT NQC volumes for additional insights: 'TVET governance: steering collective action' targets macro-level stakeholders, while 'TVET delivery: providing innovative solutions' focuses on micro-level stakeholders.

2. The 'three-i' approach: identification, integration and implementation of new qualifications and competencies

TVET plays a key role in any society when it comes to providing qualified labour for the economy and transitioning young people from 'learning to earning'. As the education sector closest to the labour market, TVET is designed to tackle current and future challenges: first by making people professionally capable and resilient to occupational changes in their lives; and second, to keep TVET relevant for the economy and society.

These demands can only be met if TVET keeps up with the pace of change: accelerated innovation in digital technology, new demands in sustainability and environmental protection, and increased processes of migration are just a few areas where TVET systems must respond more rapidly than in the past to modernize its infrastructure, capacities and practices. We need to look no further than the COVID-19 pandemic for a convincing example of the need for education systems to prepare for unprecedented and unpredictable disruptions.

What is the best way to keep TVET responsive to economic and societal changes, with the agility to swiftly address new challenges? Or, put another way, how should TVET approach NQCs? Our approach centres upon presenting some convincing practices to identify NQCs, integrate them into curricula and training regulations and effectively implement them into adequate learning environments. Figure 1 (next page) shows the key components of the approach.

What are NQCs?

We recognize that there is limited common understanding in the international TVET community on terms such as 'qualification' and 'competencies'. In this publication, we have deliberately decided against adopting a single prescriptive definition. Instead, we offer an interpretation that covers a prevalent understanding of many experts. Given the future perspective inherent to NQCs, there is a preference for a broader notion of competency to be understood as a non-observable disposition and inner potential of people. As such, it covers knowledge, skills and attitudes (knowing – doing – wanting). At a certain point in the design of curricula and training regulations and for assessment purposes, competencies need to be put into observable and measurable form.

In this publication, 'qualification' is understood as a formal proof of successfully completed learning according to an agreed standard.

Figure 1 *Key components of the 'three-i' approach*

New qualifications and competencies (NQCs)

Identification

e.g. dedicated research institutions; commissioned research; transfer bodies; intelligence units; observatories; platforms; networks; conferences; company-based detection strategies.

Integration

e.g. four approaches in curriculum development: bottom-up vs. top-down development; abstraction level of curricula; degree of flexibility; modularization.

Implementation

e.g. constructive alignment; training of TVET personnel; communities-of-practice.

1 Macro-level Governance

e.g. ministries, statutory bodies, etc.

2 Meso-level Advocacy

e.g. business member organizations, trade unions, research institutes, teachers' associations, non-governmental organizations, etc.

3 Micro-level Delivery

e.g. TVET schools, companies, other TVET providers

Contributions of respective stakeholders to continuously maintain a responsive and agile TVET system, keep it relevant for the economy, and to make people capable and resilient to tackle current and future challenges in their working and private lives.

How can TVET remain responsive to new developments in the economy and society?

More than any other sector of the education system, TVET needs to find ways to remain up to date and future ready in three broad stages:

- Provisions for identifying relevant NQCs in a timely and accurate manner that reflect ever-faster evolution in the private sector, society and economies.

- Procedures for integrating NQCs into flexible and agile curricula, creating different learning pathways, allowing for greater convergence with general education and providing intermediary exits to the labour market.

- Ways for implementing NQCs in classrooms and workshops, which include adopting innovative teaching and learning practices and introducing proper training for teachers and trainers and adequate pedagogical environments.

Even with strong ties to labour market partners, meso-level stakeholders face a challenge in maintaining the agility and flexibility needed to keep up with the rapid pace of change in various industries and economic sectors. This can be observed as meso-level stakeholders work to identify NQCs based on systematic and consistent data that provides a medium-term vision of future requirements; integrate NQCs in curriculum design through efficient involvement of other relevant stakeholders on the meso and other levels; and finally, serve an effective role during the implementation phase to ensure delivery of quality training. Indeed, industry and economic sector stakeholders benefit from an insider's perspective on

labour market trends, effectively driving demand for certain qualifications and competencies. However, even with a front row seat, it remains a challenge for labour market stakeholders to adopt an approach to competency development for the medium and long term while also converting demand-driven societal and economic developments into concrete inputs for TVET system evolution.

Methodology and structure of this publication

Each of the following sections is devoted to one part of the three-i approach. The sections are broken down into frame conditions that might apply for meso stakeholders tasked with identifying, integrating and implementing NQCs; key challenges; and existing innovation and learning practices that could inform potential first or next steps.

In addition, case examples show how existing innovation and learning practices used in different TVET settings could inspire replication and/or adaptation within other contexts.

Not all of the examples and insights provided will be applicable in every TVET context. However, prompts have been included (indicated by coloured text) to encourage reflection, which may help you place the cases cited and potential applications in your own context and consider their applicability. You may also find that reflection upon your own TVET context provides insights into how your practices are similar or different to other systems around the world: our aim is to encourage mixing and matching of innovative approaches and promising practices to provide all stakeholders with a better sense of the solutions that exist for using NQCs to overcome the challenge of keeping TVET systems modern and relevant.

3. Identification of NQCs: a meso-level perspective

Frame conditions

Every country faces the challenge of identifying newly relevant and future-ready competencies. There is no one-size-fits-all approach to remaining up to date on how professions and trades evolve, or one catch-all method for anticipating how major societal challenges such as digitalization, climate change or increased migration will impact professional competencies and qualifications. Furthermore, the degree to which countries are equipped with permanent structures for data collection and processing, tools (such as labour market observatories or intelligence units) that could inform a response to the disruptions outlined above vary widely.

Beyond the usual observations carried out by independent research institutes or ministries at the national level, regional and local authorities usually equip themselves with study or labour market monitoring units.

In addition, joint professional organizations and chambers also develop their own services for monitoring and analysing the evolution of trades, occupations and their required competencies in specific economic sectors. Joint professional organizations in many national contexts link industry associations and trade unions and are characterized by a system of shared management between an equal number of employee and employer representatives. They advocate for companies

in the same sector of activity; these are usually covered by the same collective agreement concluded by the representative employers' and employees' trade unions. Therefore, providing companies with support on training, skilling and reskilling becomes part of each branch's regulatory mission.

The overlap between these different configurations (national, regional and joint organizations) provides a rich structure for the production of data and evidence on main labour market trends. In many cases, the responsibility of steering these bodies is shared between social partners and authorities at the national and/or local level.

Factors including geography, political structure, participation of social partners, economic characteristics or labour market segmentation can impact where such observation or intelligence units are 'housed'. For example, the trend in several West African countries is to progressively devolve TVET governance to regional authorities. In doing so, it becomes essential to develop new forms of cooperation among stakeholders at the local level. An efficient approach to this devolution process is to establish a link between local public authorities and meso-level organizations in local governance of a cooperative network. Such a network can share information that puts knowledge of evolving local markets, trades and demand for competencies and qualification to use.

A public-private partnership in **Mauritania** recently highlighted an innovative approach to addressing skills mismatches. This particular case shows how a centrally governed country is committed to letting its TVET system evolve towards a more decentralized one, involving for the first time a plurality of local meso-level stakeholders. Companies in three leading economic sectors (agriculture, fishing and construction/public works) have identified jobs that they consider essential for their future. National vocational training centres will now adapt their programmes so young people can be trained for these new opportunities. The idea is that by listening to the needs of employers, young people will be better able to develop the set of skills needed to meet current needs the labour market.

Further information: Mauritania: creating new opportunities for young people

In contrast, many countries still rely on a number of one-off economic or labour market research initiatives and studies, usually as part of internationally funded projects. There is often a lack of overarching coherence and comparability among these different sources: studies target different (but overlapping) issues, populations, economic sectors and years of observation. They are also rarely replicated with compatible methodology that would allow for long-term comparisons and observations. In cases where data is available, there is a lack of rationalized decision-making based on the findings (Levesque, Sgarzi, et. al., AFD 2020).

Identification challenges

The role of unqualifiable attitudes in the world of work

Ideally, education and training systems (initial and continuing) would minimize the gap between people's abilities and the demands of jobs. Such forward-looking approaches to trades, qualifications and competencies are a response to the need to anticipate economic and labour market trends that seeks to establish a perfect match between the supply of qualifications and the supply of jobs. However, achieving this perfect match is not feasible, even with the best data. France provides one example: of the generation of young people that enters the labour market in a given year, only about a third of them are 'speciality-matched', meaning they work in a job that corresponds to their initial training (Giret, 2015).

Therefore, it is important to note that individual employability is not guaranteed by matching a diploma or certification to a corresponding target occupation. This approach has shown its limits in recent decades, which is why a new discussion is warranted. Not only must TVET meet the challenge of preparing people for specific jobs, but it must make them capable of dealing with risks, uncertainties and situations of unemployment. Education in general (and TVET in particular) should

be capable of providing individuals with the capacity to navigate in a complex reality in which evolution of labour, unemployment, professional reconversions and the need to reskill or acquire new competencies is likely, and can occur at any point during a person's professional life. Increasingly, this means that in certain contexts and stages of professional development, transversal skills are more valuable than technical skills. However, learning and evaluating transversal skills presents pedagogical challenges.

Capacity for data collection and analysis

Research on labour market trends remains a challenge in many contexts. Collecting, reporting, processing and analysing data is a process that overwhelms meso stakeholders in certain systems. In other cases, research on labour market trends lags behind reality: observations are of past trends due to the delay between when data is generated and when it is collected and assessed. In fast-changing economic contexts, such data may not be fully up-to-date and relevant.

Therefore, it is a major challenge is to not only find the right blend of available methodologies (such as qualitative/quantitative surveys, web data scraping, trend analyses and forecasts), but also to adapt these methodologies to specific contexts in a timely manner.

The task of collecting valuable information on the evolution of professions and competencies cannot be totally delegated to macro-level stakeholders (such as national statistics agencies) or to universities (who focus on the findings of academic research). This is an opportunity for industry and professional organizations to join local authorities and communities on data collection efforts pertaining to NQCs. However, even if such a collaboration is capable of capturing relevant data, the second challenge of mobilizing these same stakeholders to interpret the information in the context of a country's framework conditions still remains.

Promising identification practices

Recalibrating qualification and competency outputs

A reimagined approach to identifying NQCs should dedicate more attention to transversal competencies and developing flexible, transferable and learning-oriented attitudes. Some of these competences (such as problem solving, team building, communication and management skills or entrepreneurship) are in high demand by companies; meso-level organizations are well-positioned as advocates for including these competencies as explicitly as possible in standards and regulations.

Moreover, cooperation between national agencies and meso-level organizations should be established to promote work-based learning, increased scope for upskilling and reskilling workers, resilience and adaptation to change. This brings training closer to the dynamics of labour markets, which are constantly subject to change in response to economic, technological, environmental or other factors. School-based learning is not enough to guarantee a complete set of competencies required in the workplace. Acquiring competencies spans theory and practice in school-based and work-based training settings. The effective capacity of a qualification to signal transversal competencies

and professional qualities is significantly increased if its acquisition includes an integrated job-based component (Molinari, Guitton 2021).

Sharing the data load

Here, coordination and the co-steering of data gathering and analysis processes for informing stakeholders at different levels becomes quite relevant: for example, companies have a medium-term need to develop knowledge about competencies and occupation demands. National and/or local authorities need data to steer training design that supports employability for citizens, including those in disadvantaged categories. TVET users, citizens and households need data to make informed decisions about investments in training and education.

The involvement of meso-level actors is a key factor for success in this regard, but it is necessary to increase their awareness and cooperative engagement for a more participatory TVET steering process. The role of BMOs and similar organizations such as unions and chambers would be to push the private sector to take direct responsibility for employee upskilling and reskilling while providing support for developing tools and methods for acquiring knowledge on competency needs in the medium-term.

It is the role of meso-level organizations to develop a positive and proactive attitude of cooperation with public authorities, securing the production and continuous provision of comprehensive data on the composition and features of the productive sector in terms of trades, occupations and competencies. This is direct engagement in prospective market analysis at the sectoral and territorial level, in addition to individual companies.

Jobs and Career Paths Management (*Gestion des Emplois et des Parcours Professionnels*, or GEPP) is a method and an HR tool for anticipating changes and adapting professions, skills and workers to the requirements of both company strategies and changes in their (ecological, technological, social, economic, etc.) environment. It is designed to articulate the performance goals of companies and expectations from employees in addition to maintaining employment relationships. The adoption of this method is strongly supported in France by joint professional bodies (such as OPCO, see section below on 'Promising integration practices'). The same bodies also take on the task of disseminating the method among SMEs, which are generally less in-tuned to competence development policies, and helping them set up their own GEPPs. The analyses carried out at the company level can be aggregated at the sector level for additional analysis.

Further information: Jobs and Career Paths Management

The hallmark of modern labour market intelligence processes is the inclusion of companies, BMOs, joint professional bodies, and HR management perspectives in the process of identifying emerging competencies. Public-private partnership models are crucial for the process of streamlining, synergizing and institutionalizing labour-market intelligence capacities for producing and gathering up-to-date information on employment and its evolution.

Creating an observatory

One fundamental prospective exercise is the concept of an 'observatory', a term that encompasses a variety of experiences varying in size, geographic and thematic scope, and applied methodologies. The involvement of meso-level actors in the joint governance of observatory activities is crucial. In some cases, these activities are directly executed by professional organizations (see the OPMQC example below). Trade and qualification observatories are mainly characterized by the following:

• Permanence. An observatory assumes a medium/long-term strategy with priority areas of study and research. It must be reliable, and backed by research rules and scientific criteria for producing knowledge.

• Legitimacy. The observatory must have a clear policy-level mandate for issuing recommendations and producing factual data to inform decisions. It serves as a tool to help formulate policies while acting as a venue for consultation, shared findings and social dialogue.

• Up to date. It is necessary to utilize existing information and to harmonize existing sources. This could include creating consistency in available taxonomies if they exist, or creating them if they do not.

• Equipped. A secondary analysis of available sources must also be accompanied by new tools for producing new information, such as survey systems (one-off or permanent, longitudinal or thematic).

• Recognized. Privileged access to the stakeholders (companies, training establishments, etc.) mean observations are as close to true-life as possible. Quality access contributes to quality data.

• Connected. The observatory's findings must be shared. Meso-level stakeholders can act as a carrier for a more thorough dissemination of information to stakeholders including companies, public employment services, training institutes, territorial authorities, households, jobseekers, training-seekers, etc. (Levesque, Sgarzi, Kogut-Kubiak, Marion, AFD 2020).

Observatories in France

France is witnessing the spread of 'prospective observatories of trades, qualifications and competencies' (Observatoires prospectifs des métiers et des qualifications, or OPMQC).

The OPMQCs are at the focal point of the articulation of employment-training policies at the economic sector level. Each professional joint body is placed under the authority of a national joint committee on employment and vocational training, which has a pivotal governance role in developing a sector's training and upskilling policies.

OPMQCs produce information for the professional joint bodies (branches), but also companies and employees. They fulfil four essential missions: study, anticipate, guide and inform (Delanöe, Quintero, Valette-Wursthen 2020).

However, the organizational form and size of the OPMQCs differs significantly and often reflects the fragmentation of the landscape of economic sectors. Nevertheless, it is likely that OPQMCs will be reconfigured as branches are regrouped within the scope of the new OPCOs (see section below on 'Promising integration practices').

Further information: Observatoires prospectifs des métiers et des qualifications, l'âge de la maturité | Cereq

Swiss Observatory for Vocational Education and Training

The Swiss Federal University for Vocational Education and Training (SFUVET) is Switzerland's expert organization for vocational education and training. It offers basic and continuing training to VET professionals, conducts VET research, contributes to the development of occupations and supports international cooperation in vocational and professional education and training. SFUVET has created an in-house Observatory for Vocational Education and Training for identifying, observing and analysing social, economic and technological developments and their effect on vocational education and training.

The following questions guide the observatory process at SFUVET:

- How are key features of the Swiss vocational education and training system changing because of new developments?

- Where is there a need for action to ensure the vocational education and training system continues to function in the long-term?

- What consequences do the changes in the vocational education and training system have for individuals, the economy and society?

The SFUVET observatory seeks answers to these questions by analysing trends and anticipating future challenges in the field of VET; noting diversity within different professions and occupations; providing insights that set trends for the VET system's effective and efficient management; identifying innovation potential for VET and building upon previous research. Contract research projects for association partners and professional associations are also part of their work.

Further information: SFUVET website

4. Integration of NQCs: a meso-level perspective

Frame conditions

Given the capacity of countries to establish proper and quality-assured TVET systems for qualifications, there is one important question to consider: do private-sector stakeholders and representative meso-level organizations consider these national systems accountable and trustworthy markers of competencies retained by workers?

We know that in many circumstances, employers consider young graduates leaving initial TVET to be inadequately equipped with the necessary competencies to become immediately operational in a work environment. This creates an incentive for prospective members of the workforce to pursue informal, private, alternative and/ or international certifications/credentials. These are often more rapidly adaptable or even more reliable than national public qualifications obtained in a more formal learning environment. In other circumstances, employers (and representative BMOs in their advocacy role) lament the lack of acknowledgement and inclusion in the new qualification and competencies process by national agencies.

Nonetheless, a recent OECD study (2020) on new forms of alternative credentials points out that employers do not yet seem to view alternative credentials as substitutes for formal qualifications[1]. Instead, they are seen as complements to formal qualifications.

Therefore, the more important issue to consider is the potential contribution of meso-level stakeholders towards developing job-ready curricula, standards and qualifications. Related to this is the appropriate and effective level of dialogue and cooperation between national agencies and private stakeholders: there is wide acceptance that meso-level stakeholders should be involved in TVET policy coordination, but discrepancies exist in defining the extent of this involvement (ILO 2020).

Integration challenges

Lack of transparency in meso-level stakeholder participation

Stating the importance of meso-level stakeholder involvement in TVET policy making and delivery does not say much about the degree to which they actually participate.

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1 The authors considered here higher education qualifications, but we could extend the same reasoning to TVET, assuming that TVET qualifications are as reliable as a higher education qualification. This is not the case in every country.

Many modern TVET legislations integrate input from employers and workers by creating and implementing standards aimed at guaranteeing faster adaptation to real work contexts (Caves, Baumann & Renold, 2019; Brown Wilson, Slade, 2020); these stakeholders are often represented in bodies charged with curriculum development. These bodies are often located at the ministry level and are organized according to economic sectors. Meso-level organization involvement can range from a consulting role to steering responsibility in the case of tripartite bodies (the state, employers' organizations and trade unions). Nevertheless, we have little information on the specifics of their input. Close empirical observation of discussions and concrete contributions from professional organization representatives on these bodies would be valuable information.

As a result, we lack transparency regarding formal or informal mechanisms that entitle meso-level organizations to engage in the development of standards and regulations, and we do not know if occupation or trade practitioners are sufficiently represented in the process.

What we do know is that the involvement of joint professional bodies, BMOs, employee unions and similar groups in developing curricular standards is quite varied. This is especially true when it comes to intervening in the process of writing reference frameworks for learning outcomes, a task usually steered by government or practitioner stakeholders (such as TVET instructors).

In addition, the notion of 'professional' covers different realities: these may include institutional representatives of a professional organization, company directors or operational management, representatives of branch training bodies, representatives of employee trade unions or other similar stakeholders. Often missing from the picture: job holders and practitioners.

The resulting curricula, standards or regulations are always going to be a compromise between the various stakeholders, but the specific input from meso-level stakeholders and professional organizations should be given proper weight (Levesque, Sgarzi, Kogut-Kubiak, Marion AFD 2020).

Slow pace of NQC integration and conflicting interests

Meso-level stakeholders often express discontent about the lack of efficiency in qualification systems when it comes to their ability to adapt to economic and societal dynamics. One of the most lamented elements is the slow pace of change for the process of revising curricula.

This is an increasing demand that places pressure on formal TVET systems and pushes meso-level stakeholders to take the initiative and speed up the process by setting in motion rapid responses; examples include the development of private add-on or modular qualifications outside the national formal regulated systems. A second effect of these rapidly changing labour markets is that even TVET stakeholders (particularly industry associations and BMOs) barely have the capacity to identify skills needs in emerging niches or rapidly changing sectors.

Alternative credentials are currently utilized by millions of learners, presenting a challenge to formal national qualifications systems at all levels of education. However, the proliferation of these initiatives has the potential to create friction between government and economic actors, with the risk of insufficient coordination undermining the cohesion, coherence and transparency of the whole TVET system.

Recognizing, including and developing the informal sector

Involvement of meso-level stakeholders in the process described above is often an accurate reflection of the degree of development and diversity of national economies. In a country mostly reliant on the formal economy, professional organizations tend to be better organized and more focused on qualification development issues. This creates a setting where training can be steered on a joint basis with employer organizations and trade unions.

In least developed economies, representative economic and social organizations are less likely to exist. When they do exist, they tend to be less organized or have a limited representative scope. Mechanisms to involve them in TVET policy processes are less likely to be stable. This is partly due to the important part of the informal economic sector in such contexts, which typically absorbs a significant share of employment. Legislative provisions often do not sufficiently allow or support the informal sector to organize (ILO 2020).

Promising integration practices

Becoming well-versed in the world of work

Meso-level organizations are optimally suited as an essential facilitator for training development. They are well-positioned advocates for companies' qualification needs, the interest of future employees and making recommendations on training content and conditions.

Meso-level stakeholders are also in the best position to establish a common language with public administrators, create a professional community and highlight shared practices and methodological guides aimed at streamlining their contribution to curricular design.

The missing piece of the puzzle is often a lack of expertise on topics related to competencies and curriculum development, which represents a new opportunity for meso-level stakeholders that are able to develop this specific expertise. Additionally, they are well-positioned to integrate jobholders and practitioners in the process to a greater degree.

Practitioners possess valuable insights about what it means to be an accomplished professional, and about the real-world professional behaviours and attitudes suited to specific work environments.

The situation-based approach adopted in Switzerland: Methodological rationale for basing VET on work situations

SFUVET's bottom-up approach to curriculum development – which has now been applied in many different countries – consists of a workshop where young workers (who should not be considered experts) are asked about what they typically do on the job. These work activities are collected and clustered.

This links the work situation directly to the concept of a competence or a competent person: 'a person who is able to manage a work situation successfully by mobilizing relevant knowledge, skills and attitudes' (Kaiser, 2005).

By analysing work situations, SFUVET defines all the necessary competences needed to succeed in a specific profession. Workers and teachers join SFUVET experts in defining the relevant knowledge, skills and attitudes for each of the defined work situations.

Further information: SFIVET -Methods paper - Situation-based approach.pdf (shareweb.ch) SFUVET website

Meso-level involvement in qualification design process in the Philippines

The Philippines has developed and consolidated a competency-based education and training system that has been administered by the Technical Education and Skills Development Authority (TESDA) since 1994.

Industry associations and experts are involved in the development of competency standards; this participation is formally recognized by TESDA in the curriculum design process.

Two key aspects make the Philippine's system particularly interesting:

1. There is a clear distinction between an initial phase (upstream in the process), in which industry partner associations are asked about recommendations on priority competency areas for interventions and emerging new competencies and skills; and a second phase (downstream) where jobholders or experts are asked to provide input on the creation of competency standards. The participation of these stakeholders occurs after TESDA has deliberated opportunities to develop standards and organized advisory/expert panels to carry out the revision. This demonstrates a clear and rational separation of tasks between a strategy/policy level embodied by professional

associations, and a practitioner level that embodies the technical aspects of the given profession or economic sector.

2. The way regulations in the Philippines mandate embedding green practices and competencies into standards regulation is quite advanced. The existence of particular measures related to greening practices and skills is explicitly included in TESDA's priority criteria; they must be present before endorsing the design of a new training regulation. This approach is mandatory even in a country that is, as TESDA officials put it, 'one of the main laboratories for climate change and strongly impacted by global warming'. This is worth considering in other national contexts. TESDA also created a green technology centre tasked with monitoring greening guideline fulfilment and regulations at technology institutes.

Further information: Tesda – Technical Education And Skills Development Authority

Advocating new paths to certification

In many national contexts, new ways of acquiring and signalling skills (certificates, badges, micro-credentials, etc.) have flourished, often outside the nationally regulated system, because they seek to improve flexibility and competence readiness of existing training offers.

Meso-level stakeholders have an important role to play as countries develop framework regulations to accommodate alternative non-formal credentials. Specifically, meso-level stakeholders can support in proving the effectiveness of such credentials on the labour market by endorsing them and establishing minimum quality requirements.

Meso-level organizations are well-positioned to advocate for sector-based qualifications or add-on modules that supplement the formal qualifications framework. They can promote dialogue with national authorities responsible for qualification framework transparency, helping to prevent excessive proliferation of certifications and inconsistency. Shared accreditation processes and clarity and transparency for users are essential in this regard (Sgarzi, Debowski 2019).

In order to develop a shared approach on opening national qualification systems to alternative or flexible credentials, three different models of integration (according to the Kato, Galan-Murros, Weko (2020) typology) are possible:

- Embedded model: Credentials are integrated ex ante by design into a qualification programme according to existing NQC integration procedures.

- RPL model: Bodies awarding qualifications take alternative credentials into account ex post with a recognition of prior learning (RPL) process within a continuing training programme. In this case, learners can benefit from an alternative credential as part of the recognition process of a formal qualification.

- Modular model: Based on the process of modularizing pre-existing qualifications and on the opportunity to progressively acquire these modules as independent credentials until a full qualification is achieved.

National TVET authorities in cooperation with meso-level organizations could build on different combinations of these three models to increase flexibility and labour-market readiness. This avoids the issue of conflicting interests between the formal qualification framework and labour market orientations when it comes to meeting NQC needs.

Mainstreaming the informal sector

The informal economy is one of the most common contexts for developing competencies for a majority the working population in many countries. Informal learning (obtained in the context of the informal economy) is the set of know-how and attitudes linked to trades, acquired 'on the job' to fulfil the fundamental requirements of executing a paid activity.

Not only should these competencies be recognized, but they should also be included among basic key competencies of national or international standards in particular sectors. This should include adaptations to technical and technological developments that occur in informal settings.

In some contexts, given the size and impact on the economy and society, the informal sector is an important issue for BMOs or trade union organizations. One example is Niger, where social partners have developed a framework for joint dialogue in the field of informal

learning (Werquin, 2021). In other developing countries, spontaneous forms of labour or (micro)entrepreneur organization often emerge – Afghanistan's bazaar guilds represent the interests of small companies in the informal sector, to name one example. These organizations often have specific demands or expectations, such as access to public services and facilities, working conditions or tax arrangements that enable them to shift to the formal economy.

Increasing recognition of informal learning necessarily calls into question the current configuration of formal TVET systems. Meso-level stakeholders have the flexibility to experiment with methods for recognizing and developing the informal sector while maintaining the institutional authority and resources to ensure such efforts remain effective, fit-for-purpose and replicable.

Targeting specific sectors

Economic sectors are not created equal. They can vary in size, organization and representativeness of companies and employees. Logic would dictate that traditional and more organized sectors representing a large number of companies and employees are the most likely to develop accomplished competency management strategy. These would be measured by indicators such as participation in initial and continuing training, company support in designing training strategies, certification policy, etc.

However, it is the new industrial sectors that tend to be more dynamic and innovative; new products or services are often linked with societal changes and new demand. In these sectors, the renewal of qualification is a major

issue, as processes relating to professional profiles, training policy structures, ensuring the attractiveness of the sector and developing the recognition of qualifications acquired through 'on-the-job' training of employees are still relatively new.

A promising practice of how joint sector organizations can develop specific proficiencies related to training and competence development can be found in France. The most recent TVET reform (in 2018, an act on the 'freedom to choose one's own professional future') has introduced new organizations called Competencies Operators (OPCO). In France, 298 joint professional bodies are distributed over 11 OPCOs. OPCOs must therefore guarantee representation of many existing bodies, which choose their own OPCO affiliation. This choice is generally based on industry or economic sector affinities.

The new joint bodies combine different functions and purposes:

1. Promoting professional development and transition of employees, with particular emphasis on supporting SMEs, based on two priorities: defining and anticipating competency needs and improving employees' access to vocational training.

2. Organizing apprenticeship schemes in different economic sectors according to strategies defined by the member branches.

3. Providing expertise for the design of vocational certifications. The definition of standards should be carried out by OPCOs or by affiliated consultants.

OPCOs also provide competencies identification tasks (see previous section on 'Observatories'). They promote Jobs and Career Paths Management (see previous section on 'GEPP') aimed at identifying the evolution of competencies and qualifications at sectoral level. They also support enterprises in providing data and analysing the development of skills and related occupations (in coordination with sector labour market observatories).

Further information: Skill Operators - OPCO (travail-emploi.gouv.fr)

The involvement of Lithuanian plastics industry in curriculum development

The plastic production sector was a blind spot in the Lithuanian TVET curriculum framework. This prompted industry representatives to apply for funding to design standards and curriculum, which also included a European partnership. The project (funded by the Erasmus+ Programme) included an in-depth analysis on markets and competencies and skill needs at EU level. It was based on exchanges of good practices between the involved countries and the construction of a shared curriculum model. Digital, transversal and green skills, quality assurance, assessment process and trainers' competencies were among the main emphases. The final goal was to create two new qualifications for plastic production line operators (at EQF 3 and EQF 4 levels), related curricula and training materials.

Before this project, the Lithuanian association of national engineering organizations was not involved in the curriculum integration processes in the plastic production sector. They became interested following internal scrutiny on labour market and related emerging competence needs. The goal of creating a new curriculum strengthened ties between industry organizations, TVET providers and the state led TVET agency (KPMPC) aimed at managing the Lithuanian TVET and lifelong learning systems.

Further information: upskill-project.eu

Opportunities emerging from the pandemic

As a final point, we have to mention how the COVID-19 crisis and its impact on certain economic sectors (such as transport, hospitality and tourism) led to renewed cooperation between national TVET agencies and meso-level organizations on identifying joint strategies of workforce support during the pandemic.

Many of these strategies focused on additional opportunities for skilling, reskilling and professional reconversion of workers impacted by the crisis. The explosive uptake of distance learning tools has been accompanied in many cases by an enhanced and accelerated process of curriculum design and standards adaptation, which has allowed training and assessment to be conducted in a timely manner within new and innovative virtual settings. This heightened cooperation could pave the way for assimilating faster and flexible integration processes beyond the pandemic crisis.

How the COVID-19 crisis helped Thailand's government and industry strengthen ties and cooperation for competency development

TPQI is a governmental agency created to address the missing link between the worlds of work and education in Thailand. Its main role is to set occupation and competence standards and to accredit assessment centres. Based on input collected from professional organizations, curricula are updated regularly to address major challenges such as technological changes, sustainable development, local contexts or changes in work. TPQI, with the support of the German development institute GIZ, is also developing in-company trainer standards, inspired by the German dual system.

TPQI works closely with professional associations at three different levels:

- Policy level – setting sector-based Industry Competency Boards that aim to identify current and future industry needs, consider workforce issues and forecast future competencies.

- Technical level – involving professionals in working groups for the development of occupation standards.

- Implementation level – working to transform standards into efficient pedagogies, develop in-house training and set up recognition of prior learning schemes.

The issue of faster adaptation to the changing economy is acute in Thailand, and the urgent need to face the COVID-19 crisis triggered more efficient cooperation among government and economic stakeholders aimed at providing reconversion opportunities to sectors of the workforce faced with massive job losses (tourism and hospitality are main examples). TPQI quickly organized new tailored curricular standards to provide specific missing competencies in support of career reconversions. The consultation with industry organizations was essential for creating trust and value for these new (partial) qualifications, which were often awarded after remote online assessments. They created employability opportunities while improving intersectoral mobility of workers. To a degree, the COIVD-19 crisis opened a new avenue for stronger cooperation among stakeholders for the future.

Further information: https://www.tpqi.go.th/en/home

5. Implementation of NQCs: a meso-level perspective

Frame conditions

As shown in previous sections, meso-level organizations engaged in the search for new types of competencies and curricula are often influenced by global trends or societal challenges, such as the growth of digital technologies or the increasing relevance of sustainable development in everyday life and work (Jenson & Droumeva, 2017; Butler et al., 2018; Brown et al., 2019).

Nevertheless, for identified new qualifications and competencies to succeed in implemented curricula, factors typically associated with institutional practices, such as organizational culture, teachers' and trainers' professionalism and implementation of curricula are essential. Reforms are generally successful when implementers (often teachers and trainers) develop a sense of ownership and self-determination about how new curricula will develop the capacities that would indicate successful NQC training.

A recent literature review (Nascimbeni 2020) reports on the new reality of modern educators:

• There is a tendency to avoid using the words 'teacher' and 'trainer'; instead, educators are referred to as facilitators, coaches, supervisors, mentors, counsellors, orchestrators, alchemists or even welders – the terminology is quite varied!

• Increasingly, educators are considered key agents of change within TVET reform processes, tasked with introducing (mainly digital) innovation in their pedagogical practices and designing new forms of learning.

• Educators are expected to expand their role to include active collaboration and networking with colleagues and companies, while also becoming more involved in curriculum design.

The final point also suggests that the educator is no longer limited to classrooms and schools; a range of formal and non-formal training settings are also considered valid realms of the educator. Therefore, a conceptual shift about what a training venue looks like is called for, one that develops a more inclusive view of different possible configurations, mixes theoretical and practical learning and involves different educators with different backgrounds – including those coming from the private sector rather than the education sector.

Meso-level organizations play a key role for developing blended learning (school and work-based), which is supported by many national policies (including EU policy documents like the 2015 Riga Conclusions). Such policies highlight the need to promote work-based learning in all its forms. These cannot be implemented without substantial support and involvement of meso-level stakeholders

(Kaminskiene, 2020). Meso-level organizations can promote active participation of companies in the training process by pushing them (SMEs in particular) to develop upskilling and apprenticeship strategies.

In addition, meso-level organizations also can act as training providers. For instance, chambers of trade or industry often develop their own training offerings or quality labels while supporting specific certifications or badges.

Implementation challenges

Balancing private sector interests and public benefit

Meso-level organizations promote active participation of companies by supporting them in developing training and apprenticeship strategies. The development of successful forms of corporate training is often driven by economic motives, such as a company's ability to recruit new employees. Work-based training periods tend to be transformed into pre-recruitment periods to test potential candidates for recruitment prior to permanent contracts.

Meso-level organizations support companies in spreading awareness about the financial (and non-financial) benefits of transforming their organizations in this way by introducing more structured learning practices and competences development management aimed at rapidly equipping workers with emerging skills. The message is this: corporate commitment to training is a win-win situation for companies and society at large. It can be defined as a 'social responsibility for competencies' (Lefresne 2020).

Integrating social responsibility into competencies development means embracing broader approaches for securing career paths, particularly for young and less-qualified employees. This commitment also involves greater collaborative activity at the meso level (with partners such as trade unions, associations or local authorities) and broadens the scope of skills development to a wider area than a single company might otherwise pursue.

Nonetheless, the full integration of economic actors into the training process is still an ongoing process in many countries. Companies are primarily motivated by economic interests when it comes to building training capacities, but their participation can have a larger impact on society if they fully commit to the training process. It is likely that work-based learning will become increasingly integrated into NQCs, meaning blended learning (school and work-based) will become the dominant implementation modality.

Promising implementation practices

From work-based learning to corporate training centres

The involvement of companies in training is often incremental and increases over time. Initially, it often takes the form of developing internships that complement school-based learning; later, this expands to more formalized contract-based apprenticeship schemes that progressively cover a larger set of qualifications. As consolidated dual TVET systems in Europe show, formal apprenticeship – co-steered by professional organizations and delivered by dedicated professional

tutors – is a powerful method of competency development. Such apprenticeships consist of time spent at schools and in companies, often complemented by courses organized by apprentice training centres. By design, apprentice training centres and/or vocational schools are designed to introduce theory into work-based practice. In some cases, training centres are directly owned and managed by companies or professional organizations.

The argument can be made that such content tends to focus less on basic and transferable competencies and more on technical skills specific to the targeted occupations. This is why private training centres should be in a position of cooperation, rather than competition, with other private or public institutes formally established in the same area. In contexts where meso-level organizations express confidence and trust in national qualifications, there needs to be increased commitment to building partnerships aimed at improving transparency and pooling resources to better serve the public.

Fine-tuning local TVET

Public-private learning infrastructures that embrace the synergy between public institutions and industry are dependent upon dialogue among stakeholders to ensure coordinated efforts on training content and strategy. It is often easier to organize these consultations at local level (involving local branches of professional organizations) given the first-hand knowledge of local realities and clearer benefits of direct collaboration.

Stronger involvement of meso-level organizations in training practices should naturally contribute to increasing the quality of the training provided and better alignment with market needs. For example, branch or company training centres can promote training opportunities that can presumably be qualitatively adapted to the demand in a given sector. The rapid acquisition of recognized qualifications, easy access to jobs and a good match with employers' expectations are the arguments most frequently cited to describe the competitive advantages (Romani 2020).

TVET institutes working closer with industry partners intensify the collaboration on developing work-based learning and apprenticeship schemes. Additionally, cooperation between institutions and branches of industry could become more intermeshed by creating joint technical platforms or workshops dedicated to advanced pedagogies and technologies, or for the development of collaborative projects (Sgarzi 2019).

The ongoing development of public-private partnerships in Croatia

In Croatia, a promising public-private cooperation initiative is emerging through a project that establishes new Regional Centres of Competence (RCC). A total of 25 regional centre projects were chosen in 2018, with backing from ERDF/ESF European funds in addition to national resources. In the tourism sector, for example, five local implementations were selected to adapt training offers to local needs.

RCCs are designed to become a reference for the development of competencies and skills in Croatia by endorsing cooperation between industry and TVET providers. These partners work together on quality and innovative training, creating shared technical platforms (such as jointly managed hotels and leisure sites in the tourism sector) and promoting lifelong learning tailored to local needs and labour market requirements. There is an emphasis on integrating specific groups (such as people with disabilities), digital and innovative pedagogical practices and job-based training. Professional organizations are meant to be fully involved in RCC management.

Since the RCC implementation is still ongoing, we still do not know exactly the form all these ventures will take. Some are developing a long/medium term vision and a good level of synergy between training and industry that could boost the creation of multiservice competence development hubs. Others could pursue less ambitious objectives, such as TVET excellence institutes for initial education. In any case, there is a strong commitment from local authorities to pursue long-term investment.

Further information: Croatia: establishing a network of regional centres of competence | CEDEFOP (europa.eu)

Private-public initiative supporting South African youth employability in local areas

The South African National Business Initiative (NBI) works towards sustainable growth and development in South Africa through responsible business action. NBI encompasses approximately 100 leading South African corporations and multi-nationals.

A key component of NBI's work is facilitating a collective response to youth unemployment through systemic partnerships with government departments and public TVET colleges aimed at addressing the mismatch between job supply and demand.

The NBI economic inclusion initiative seeks to enhance the role of TVET Colleges as hubs of innovative programme delivery that are aligned to employment opportunities in local community areas. This will be achieved through effective support of local SMEs (often informal business located in townships), which creates demand-side opportunities and a fundamental paradigm shift in the design and delivery of college programmes.

College training delivery has traditionally focused on training for the formal sector. Since large companies are effectively inaccessible for the large majority of young people from these areas of the country, the prospects for employment are low.

The NBI economic inclusion initiative aims to adapt training from TVET colleges, making it fit the competency demand of local business. This supports township-based entrepreneurs to expand and grow.

The programme supports SMEs in expanding markets, introducing job-based training and improving youth hiring opportunities in specific occupations. These include plumbing, electric and mechanical maintenance, automotive repair, domestic appliance repair and others.

Further information: South African National Business Initiative

6. Conclusion

This document provides some insights into the involvement of meso-level stakeholders in the process of identifying, integrating and implementing future-ready NQCs.

While there are a wide range of meso-level stakeholders, the author made a deliberate choice to focus mostly on the involvement of stakeholders representing business and work (BMOs, trade unions, sector joint organizations, chambers of commerce, industry or crafts and similar institutions) as the main vehicle for expressing the voices of employers and workers.

We have described the different positions that can be taken by meso-level organizations in a TVET ecosystem that is generally steered by national ministries, central or local agencies and other bodies. These stakeholders are nevertheless being pushed to progressively share governance with other actors closer to the realities of trade and industry. In fact, the most efficient TVET systems are those that put in place strong coordination with meso-level organizations and foresee consultation or co-construction mechanisms capable of steering the process of evolving and reforming qualifications and competences systems.

TVET systems cannot be effective in labour-markets without the full involvement of economic stakeholders. This involvement comes at a cost: it requires competency and preparation from the people involved. Meso-level organizations must be prepared, competent and capable of providing expected contributions in this regard. The expected capacities include:

- Developing analysis tools and methods that allow a medium-long term vision of the evolution of trades and labour markets;

- Interpreting major economic trends and societal challenges, including their impacts on qualification and competencies;

- Interacting with public authorities at the national and local level to build a mutual understanding and a cooperative approach aimed at promoting necessary system reforms;

- Describing features and tasks of specific work situations to inform the new qualifications design process;

- Acquiring the technical competences required to design qualifications for new training, regulations and standards;

- Developing pedagogical capacities to show enterprises their learning and training responsibilities and to support workplaces in hosting TVET trainees and apprentices by setting up training infrastructures (including in-house educators or tutors).

It is therefore necessary to go beyond the traditional logic that puts the state as the sole guarantor of the training system, shifting instead towards a form of governance that involves meso-level organizations with a better sense of the challenges that exist in the world of work. The construction of multi-partner governance is the key to giving the workplace its rightful place in the training system – a conclusion that holds at all levels of NQCs (identification, integration and implementation).

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This document is organized in three volumes and aims to cater to the diverse needs of TVET-related institutions. From their unique perspectives, the document explores and examines the three I's process: the timely and accurate identification of NQCs, their integration into appealing and flexible curricula, and their effective implementation through new teaching and learning methods as well as relevant teacher and trainer training. Illustrated with case studies and practical examples, the document proposes solutions to specific challenges, and offers a database of experiences and lessons from across the world.

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