



Transferability of the Dual-Track VET System: Comparative and Aggregate Insights from Ground-Level Projects

Part 1: Mixed-Methods Study

DC dVET Research Paper

AUTHOR: ALEXANDRA S. BOHRA

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Particular thanks are extended to the donor project representatives who contributed their time, expertise, and reflections in interviews and consultations. Their openness in sharing insights and experiences made it possible to build a richer and more nuanced understanding of how dual VET elements are being transferred and adapted across diverse contexts.

This study explores the transferability of dual-track vocational education and training (VET) systems within the context of international development cooperation. Drawing on comparative insights from fourteen countries across Africa, Asia, Latin America, and Europe, it examines how elements of dual VET have been adapted to diverse socio-economic and institutional settings.

Using a qualitative-dominant mixed-methods approach, the study integrates data from 17 expert interviews, a cross-country survey, and document analysis. The Euler frameworks—specifically the *Areas of Engagement* (2018) and the *Roadmap to High-Quality Dual VET* (2023)—served as a guiding structure for deductive analysis, complemented by inductive coding to surface context-specific themes.

Key Findings

1. Transferability of Dual VET Elements

While certain components—such as company-based training and curriculum cooperation—were more readily adopted, others like employer co-financing, trainer professionalisation, and systemic governance reforms proved more challenging. The study highlights that visible and operational elements are easier to transfer, whereas systemic and resource-intensive reforms require long-term commitment and institutional anchoring.

2. Emerging Themes Beyond Existing Frameworks

The inductive analysis revealed four critical factors influencing reform outcomes:

- Donor coherence: Fragmented donor efforts hindered progress; coordinated approaches yielded better results.
- Project cycles: Short-term funding and planning clashed with the long-term nature of VET system reform.
- Symbolic adoption: Reforms often remained superficial, lacking deep institutional integration.
- State capacity: Limited administrative and technical capabilities constrained sustainability post-donor involvement.

3. Implications for Policy and Practice

- For partner countries: Success depends on clear reform goals, phased implementation, and investment in institutional capacity and quality assurance.
- For donors: Effective support must go beyond pilot projects and visible outputs to address foundational elements like trainer development, financing, and monitoring systems.

Looking Ahead

The study underscores that dual VET is not a one-size-fits-all model, but a set of adaptable principles. Looking into the future, the transfer of dual VET will increasingly be shaped by structural shifts in economies and labour markets that go beyond the current donor project cycle. The evidence from this study suggests that dual VET reforms can only endure if they evolve from isolated pilot projects into adaptive national systems that integrate flexible curricula, sustainable financing, and strong quality assurance mechanisms. Future cooperation must therefore

move from demonstrating feasibility toward scaling with resilience, ensuring that reforms are not only context-sensitive but also capable of responding to rapidly changing skills demands.

The upcoming foresight workshop (Part 2 of the study) will build on these insights, offering a structured space for stakeholders to co-develop future-oriented strategies. By stress-testing findings against different scenarios, the workshop aims to bridge past lessons with future possibilities, ensuring that dual VET reforms are not only feasible but sustainable and scalable.

This introduction outlines the rationale for focusing on the dual VET model in the context of development cooperation, highlighting both its global appeal and the complexity of its adaptation in diverse socio-economic environments. The following sections situate the study in current debates, explaining why understanding the transferability of dual VET is of strategic importance for policymakers, practitioners, and researchers engaged in technical and vocational education reform.

2.1 BACKGROUND

Dual systems of vocational education and training (VET) have increasingly been promoted and exported within global development frameworks as strategies to enhance employability, improve productivity, and strengthen the alignment of training with sectoral needs (Euler, 2023). In their countries of origin, these systems integrate school-based instruction with structured, company-based training, supported by robust intermediary organisations and cooperative governance (Busemeyer & Trampusch, 2012; Maurer & Gonon, 2014).

However, implementation contexts vary considerably. Indeed, in Europe, formalised apprenticeship systems operate within coordinated market economies, while in many low- and middle-income countries in other continents, economic structures are often dominated by small and medium-sized enterprises (SMEs) and characterised by more informal learning arrangements (Toepper et al., 2021). These differing conditions are key to understand how they influence the manner in which dual TVET components can be introduced, adapted, or resisted (see summarising figure 1 below).

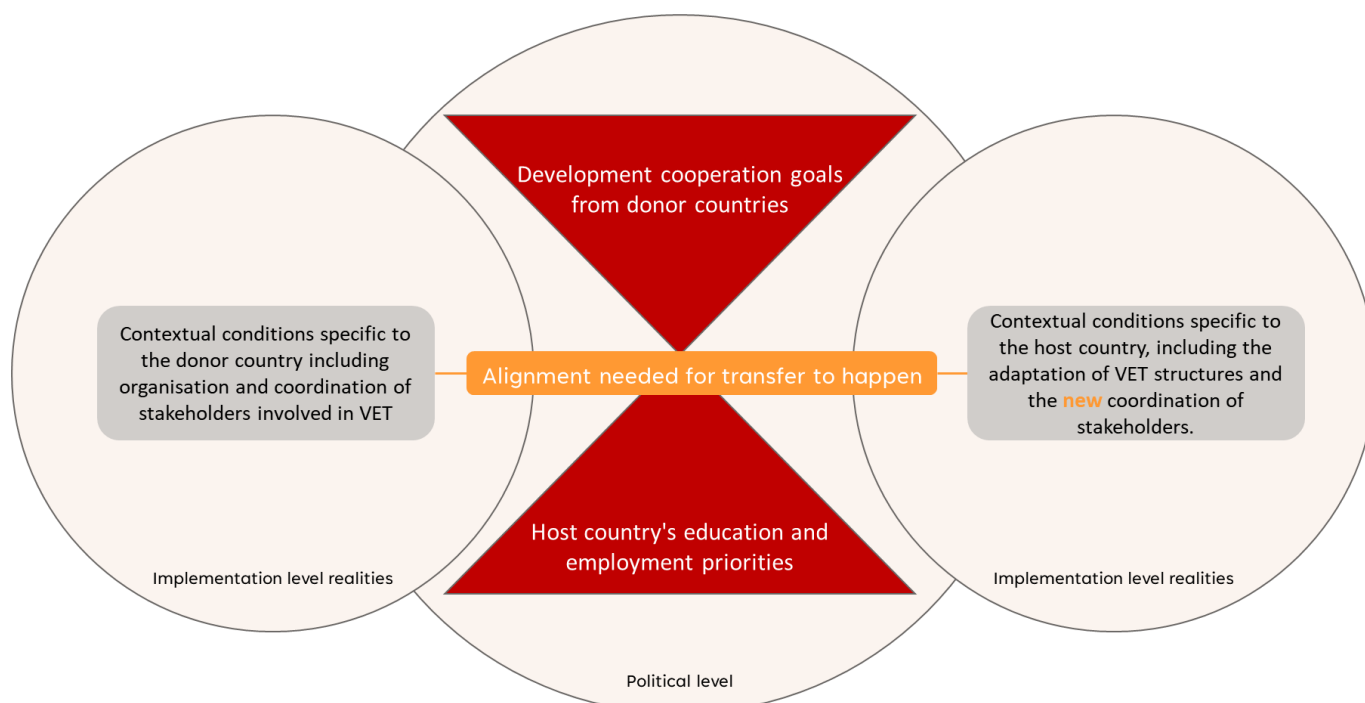


Figure 1. Context-specific transfer realities

The present study seeks to uncover how selected components of dual TVET systems are implemented, adapted, or contested across diverse contexts. By analysing these processes, the study aims to generate comparative insights into the viability and transferability of the model in the context of international development cooperation.

2.2 AIMS AND OBJECTIVES

While interest in the transfer of dual TVET has grown, the literature remains fragmented both empirically and conceptually. Much of the existing evidence is embedded in single-country case studies, such as those from:

- Ukraine (Borodiyenko et al., 2023),
- Tunisia (Oeben & Klumpp, 2021),
- Indonesia (Wibowo et al., 2022), and,
- Mexico (Wiemann et. al., 2019),

or in broad literature reviews (Toepper et al., 2021). These contributions provide valuable insights but are insufficient for comparative or aggregate analysis.

This study applies Euler's (2018) component model¹ which was developed for DC dVET as a structured analytical tool to assess the transferability of discrete elements of dual VET systems. This framework focuses on '*areas of engagement*'. Areas of engagement in vocational education and training (VET) define specific activities where the business sector can contribute to improving the quality, relevance, and attractiveness of VET systems. These areas are tailored to the type of VET system, whether school-based, dual, or learning-on-the-job, and include company-based training phases, curriculum development, examinations, teacher qualification, provision of equipment, governance participation, and financing. For instance, in learning-on-the-job systems, businesses can support theory-related training, standardise practices, and implement certifications. These engagements aim to align training with labour market needs, enhance employability, and foster economic and social development, while addressing country-specific challenges and opportunities.

This research also draws on Euler's (2023) roadmap², which builds on this foundation by integrating, for instance, dimensions of governance, system learning, and participatory adaptation. Those dimensions are referred to as '*design elements*' in the framework. The design elements are foundational components necessary for establishing high-quality dual VET systems and are conceptualised as systemic building blocks that address structural, institutional, and operational aspects of VET. They include principles such as partnership culture, professionalisation of VET staff, evidence-based design, and flexibility to adapt to local contexts. Each design element is framed as part of a broader strategy to ensure the sustainability and effectiveness of dual VET systems, emphasising the importance of balancing costs and benefits, codifying standards, and fostering collaboration between stakeholders. The roadmap positions these elements as adaptable 'sub'-frameworks, which can be tailored to diverse international settings for successful VET implementation.

Using both frameworks enables a more comprehensive understanding of structural alignment and adaptive capacity in diverse country contexts (see Figure 2).

¹ For more information see DC dVET Publication: "[Engaging the Business Sector in VET \(Part 1: Study\)](#)" | Prof. Dr. Dieter Euler (2018)

² For more information see: "[Roadmap to High-Quality Dual Vocational Education and Training](#)" | Prof. Dr. Dieter Euler for Bertelsmann Stiftung (2023)

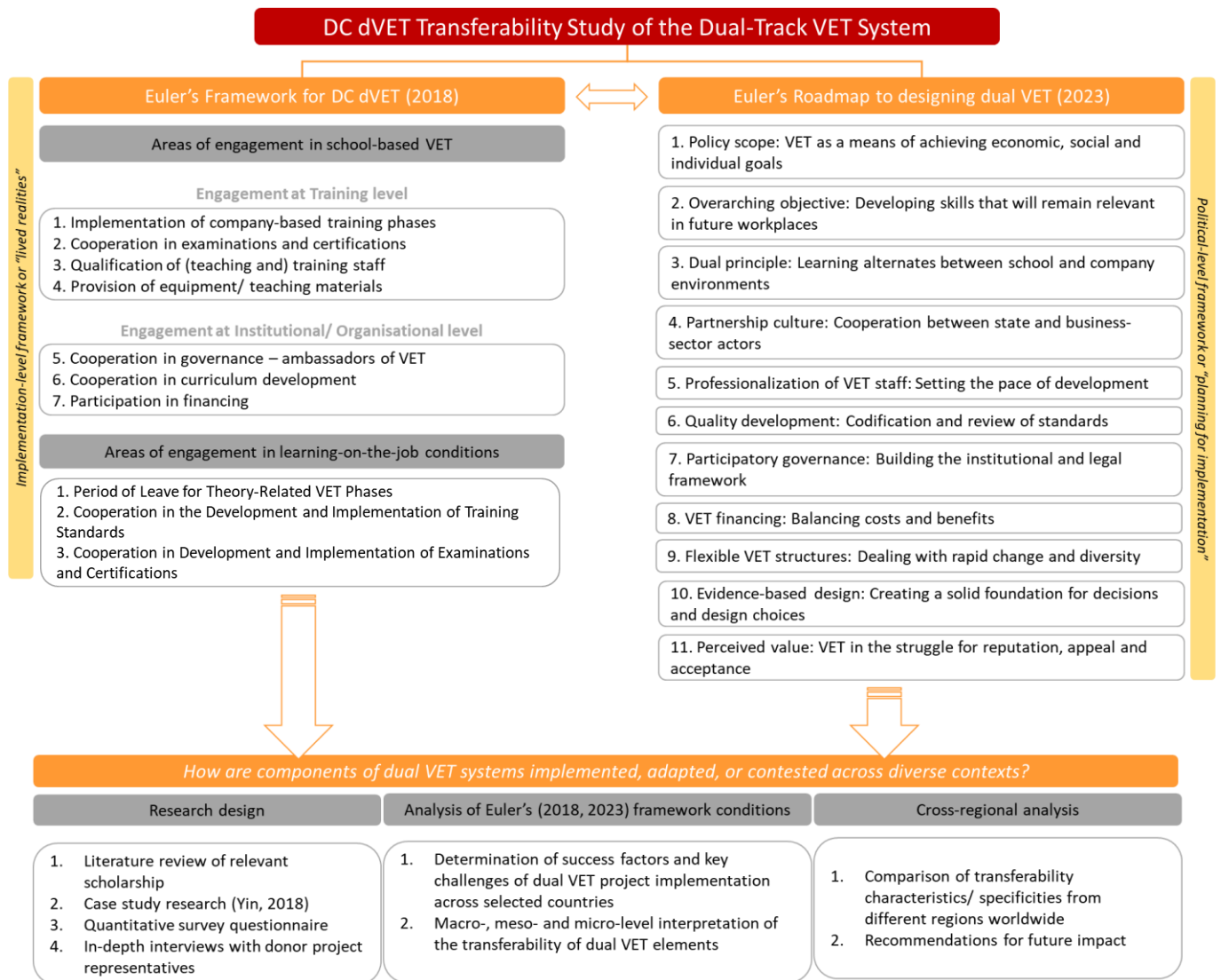


Figure 2. Conceptual framework and structure of the study

The specific objectives of this study are:

- To review recent and relevant scholarship on dual VET transfers.
- To apply Euler's composite model to compare the adaptation of dual VET elements across selected countries.
- To interpret primary data from surveys and interviews through the lens of this framework.
- To derive foresight-oriented implications for scenarios of responsible transfer.

These objectives provide a basis for analysing the transferability of dual VET components and for deriving actionable insights that bridge empirical evidence with policy and practice.

The paper is organised as follows:

- Section (3) outlines the theoretical framework and situates the study within existing research on dual VET transfer in development cooperation.
- The methodology section (4) details the survey design, interview approach, and analytical strategy.
- The empirical findings present the degree and nature of dualization across projects, illustrated with selected country interview quotes in section (5).
- The discussion section (6) synthesises these findings, identifying cross-cutting challenges and enabling conditions in each region investigated.
- Finally, the conclusion offers implications for policy and practice, as well as recommendations for further research.

The dual track vocational education and training (VET) systems in German speaking countries are widely regarded as international benchmarks (Busemeyer & Trampusch, 2012; Rauner & Maclean, 2009). They combine in company training with classroom-based schooling, linking theoretical learning to workplace practice (Euler, 2018). Evidence associates this model with strong labour market outcomes, such as Germany's reduction in youth unemployment from 11.2 per cent to 7.5 per cent between 2009 and 2013 (Deissinger & Gonon, 2016). Supporters emphasise its responsiveness to employer needs, its focus on employability, and its role in building occupational identity (Gonon, 2014). Critics question whether the institutional and cultural foundations that sustain the model at home can be replicated abroad, warning against its universal application without addressing structural inequalities and differing political economies (Brockmann et. al., 2008; Allais, 2022). Despite such concerns, German speaking donors and international organisations continue to invest heavily in promoting dual VET abroad, assuming it can be effectively transferred, an assumption still contested when applied in varied socio economic and institutional contexts (Wiemann et. al. 2019).

3.1 GLOBAL ATTEMPTS TO TRANSFER THE DUAL VET MODEL

Over the past two decades, elements of the dual track vocational education and training (VET) model have been introduced in countries across Africa, Asia, Latin America, the Middle East, and Eastern Europe, often supported by German speaking donor agencies, bilateral development programmes, or multinational companies (Oeben & Klumpp, 2021). Examples include Indonesia, Mexico, and Tunisia, where reforms have sought to combine school-based learning with structured workplace training phases (Wiemann et. al., 2019; Borodiyenko et al., 2023). In Indonesia, integrating technical schooling with short term company placements has created more opportunities for practical learning but also revealed gaps in curriculum alignment and employer engagement (Wibowo et al., 2022). Mexico's *Modelo Mexicano de Formación Dual* formalised partnerships between vocational institutions and firms, but implementation varies across sectors and regions (Wiemann et. al. 2019). In Tunisia, a German supported training centre model embedded dual principles, but scaling up was constrained by inconsistent employer participation (Oeben & Klumpp, 2021).

Researchers caution against framing these processes as straightforward exports of the German or Swiss model, instead describing them as negotiated adaptations that alter programme length, occupational profiles, or assessment structures to fit local labour market conditions (Hummelsheim & Baur, 2014, as cited in Oeben & Klumpp, 2021; Caves et al., 2023). Some view adaptation as a pragmatic necessity when it preserves core benefits (Wiemann et. al. 2019), while others warn that excessive modification risks diluting quality and credibility (Allais, 2022). Adaptation is seen by some as inevitable and potentially beneficial, but without strong governance and sustained business sector engagement, transferred elements often remain isolated projects rather than becoming embedded in national systems (Borodiyenko et al., 2023).

3.2 CHALLENGES AND BARRIERS IN TRANSFERRING DUAL VET

Transferring the dual track vocational education and training (VET) model to new contexts faces recurring obstacles. Employer engagement is often limited where legal obligations, economic incentives, and strong business associations are absent (Pilz, 2016; Renold et al., 2015). Small and informal enterprises, common in many economies, may lack the resources to host apprentices.

Cultural perceptions that prioritise academic pathways over vocational ones reduce both student interest and employer commitment (Walther, 2017; Wiemann et. al. 2019). Institutional coordination is frequently fragmented,

with weak alignment between curricula, assessment, and workplace learning phases (World Bank, 2019; Powell et al., 2012).

Legal and policy gaps hinder implementation when apprenticeship laws, workplace learning provisions, and trainer standards are missing (Oeben & Klumpp, 2021). Resource constraints in training institutions and companies often limit workplace learning to observation rather than active skill development (Caves et al., 2021).

These challenges show that successful transfer requires more than replicating a pedagogical model; it demands an enabling ecosystem of governance, financing, and cultural acceptance (Bohra, 2025; Allais, 2022; Smith & Kemmis, 2013).

3.3 SUCCESS FACTORS FOR DUAL VET TRANSFER

The literature identifies a set of substantive conditions that shape whether dual VET reforms are successfully institutionalised. Evidence shows that reforms are more sustainable when employers are actively engaged in training design and delivery, when financing is shared between the state and companies, and when teaching staff combine both pedagogical and occupational competence (Euler, 2018; Oeben & Klumpp, 2021). Where these foundations are absent, reforms often remain limited to pilots or collapse once donor support is withdrawn (Caves et al., 2023).

More recent work has refined these insights. Euler (2023) emphasises participatory governance, professionalisation of VET staff, flexibility in system structures, and evidence-based decision making as drivers of long-term quality. In parallel, DC dVET (2023) distils donor practice into practical guidelines³, stressing that predictable financing, clearly defined roles between state and employers, and credible quality assurance systems are non negotiable for durable transfer.

These contributions go beyond procedural guidance by codifying what successful transfer requires in substantive terms. When reforms have been sequenced in line with such principles, for instance through systematic employer involvement in curricula or through reliable quality assurance mechanisms, they have shown greater resilience. Conversely, initiatives that neglected these conditions rarely moved beyond the pilot stage. In this way, the frameworks serve not only as diagnostic instruments but as articulations of the success factors that make transferability possible.

3.4 THE ROLE OF INTERNATIONAL COOPERATION

International cooperation has historically shaped the transfer of dual vocational education and training, with German-speaking donor countries playing a particularly prominent role. From the 1960s onward, the Federal Republic of Germany, Switzerland, and later Austria and Liechtenstein made vocational training a key field of development cooperation. Their approaches reflected shifting political and educational logics, ranging from Cold War power struggles to contemporary evidence-based frameworks.

In the decades of decolonisation of African, Asian and Caribbean states in the 1950s-1970s, and, during the Cold War, vocational education was closely linked to foreign policy. For instance, the Federal Republic of Germany integrated vocational assistance into its cooperation portfolio through the 1961 Development Aid Act, presenting it as a contribution to nation-building in newly independent states. At the same time, it was used as an instrument of soft power to strengthen alliances and counter Soviet influence. As Weigel (2022) shows in the case of Ghana, educational support during the 1960s was deliberately deployed to secure political visibility in moments of geopolitical tension. These interventions often reproduced colonial legacies, with francophone African states maintaining centralised school-based models and anglophone states continuing apprenticeship traditions

³ For more information see DC dVET Publication: [Dual VET in Development Cooperation: Key Elements, Success Factors, Opportunities and Limitations](#)

(Lepholisa & Yu, 2025). Their outcomes were mixed: training centres established with external support often lost relevance after projects ended, and vocational routes remained socially less valued than academic education.

By the late twentieth century, a distinction emerged between the export of vocational systems and their transfer with adaptation. Researchers emphasised that durable reforms required tailoring to national labour markets and institutional contexts rather than replicating German or Swiss models (Hummelsheim & Baur, 2014). This recognition shaped a new donor logic in the 1990s and 2000s, as global concerns about youth unemployment raised the profile of vocational education internationally. German-speaking donors then began to promote dual approaches abroad, but instead of pursuing wholesale systemic reforms, they relied on pilot projects.

These initiatives introduced dual elements in selected occupations or regions, allowing for controlled experimentation, evidence-building, and political visibility while limiting financial risk (Bohra, 2025). Therefore, insights from practice have increasingly been codified into frameworks. Those analytical frameworks now articulate the conditions regarded as essential for sustainable transfer, including sequenced reform, participatory governance, predictable financing, and professionalisation of VET staff (Euler, 2018, 2023; DC dVET Policy Brief, 2023).

The extent to which such frameworks are systematically applied in project design remains unclear, as the literature does not provide comprehensive evidence. What can be observed, however, is that several of the principles they highlight increasingly appear in donor discourse and project documentation in providing reference points that facilitate dialogue and help define the substantive conditions for responsible transfer (Oeben & Klumpp, 2021; Caves et al., 2023).

This chapter outlines the methodological approach adopted for the study. Given the complexity of transferring elements of dual vocational education and training (VET) across diverse contexts, a design was required, which could capture both established analytical categories and emerging themes from practice. The chapter therefore explains the research design, the sources of data, the analytical framework, and the procedures followed during analysis. Attention is also given to questions of validity, reliability, and ethical considerations, in order to ensure transparency and rigour. The methodological choices reflect the dual aim of the study: first, to assess the relevance of existing frameworks such as those proposed by Euler (2018, 2023) and the DC dVET (2023) Policy Brief, and second, to inductively identify empirical patterns that contribute to a more nuanced understanding of dual VET transfer in development cooperation.

4.1 RESEARCH DESIGN

The methodological design of this study was guided by the dual objective of assessing the transferability of dual vocational education and training (VET) elements across development cooperation projects and identifying conditions that enable or hinder such transfers. To address this, the research adopted a qualitative-dominant, mixed-methods design. This approach was chosen to balance the need for in-depth understanding of stakeholder perspectives with the value of comparative insights across multiple contexts.

The qualitative strand formed the core of the study:

- Semi-structured interviews were used to generate detailed insights into governance structures, financing mechanisms, curriculum processes, and the roles of different actors. These qualitative data provided the richness needed to explore complex institutional and cultural dynamics.
- A quantitative survey was conducted among stakeholders involved in dual VET projects in order to complement and triangulate the interview findings.

Analytically, the study combined deductive and inductive approaches:

- The deductive component of the design drew on existing analytical frameworks, in particular Euler's (2018) "Areas of Engagement" and Euler's (2023) Roadmap to High-Quality Dual VET with its "Key Design Elements". These frameworks were used as analytical anchors, offering thematic categories to structure the investigation of governance, financing, curriculum, professionalisation, and related dimensions. They were not treated as prescriptive templates for project design, but as reference points that enabled comparability and provided a coherent basis for analysis.
- The inductive strand was designed to capture empirical realities that extend beyond existing donor logics. Through open coding of interview transcripts and survey responses, new categories were identified and subsequently grouped into thirteen empirical themes. This allowed the study to highlight elements of dual VET transfer not fully anticipated in the literature or in donor frameworks.

The combination of qualitative and quantitative sources, as well as deductive and inductive reasoning, ensured that the study was both theoretically anchored and empirically open.

4.2 COUNTRY SELECTION

The study draws on empirical material from thirteen countries:

- **Eastern Europe:** Moldova, Kosovo

- **Caucasus:** Georgia, Azerbaijan
- **Asia:** Bangladesh, Uzbekistan
- **Latin America:** Ecuador
- **Africa, Northern region:** Egypt
- **Africa, Western region:** Nigeria, Togo
- **Africa, Eastern region:** Rwanda, Kenya
- **Africa, Southern region:** Zambia, South Africa

These cases were deliberately selected in consultation with DC dVET.

The aim of including these countries was to generate empirical insights from settings where dual VET is visible but insufficiently captured in research. This rationale also reflects a recognition that visibility itself is uneven: while international debates often cite Germany, Switzerland, or Austria as reference points, countries such as Togo, Rwanda, or Uzbekistan rarely appear in scholarly or policy discussions despite active reform efforts.

The selection offers both regional breadth and contrastive depth. By spanning Eastern Europe, the Caucasus, Sub-Saharan Africa, Asia, and Latin America, the dataset allows for cross-regional comparison of how dual elements are framed, adapted, and institutionalised. Within each region, countries differ in terms of governance stability, donor involvement, employer participation, and historical legacies, allowing the study to identify not only recurring bottlenecks but also promising practices.

This choice also introduces methodological limitations. Because visibility was a key criterion, the data available across cases is uneven: in some countries (e.g. Togo, Rwanda, Kenya) the study benefitted from rich interview material and survey responses, while in others (e.g. Egypt) evidence remains thinner.

4.3 DATA COLLECTION

Data collection combined interviews, a survey, and supplementary project documentation in order to strengthen the robustness of the findings. These data primarily reflected macro-level system dynamics, which provided insight into how reforms were operationalised in practice. Evidence at the meso/ micro level of firms or learners was scarce and was therefore not treated as a unit of analysis.

INTERVIEWS

Semi-structured interviews formed the core dataset. Respondents were selected from a cross-section of development cooperation projects involving dual VET components and predominantly represented donor agency staff with various roles within those organisations (e.g. intermediary between training providers and school teachers, intermediaries between chamber of commerce and government representatives). The interviews were designed to elicit experiences of governance arrangements, financing mechanisms, curriculum development, cooperation with enterprises, and challenges in implementation. The open-ended format allowed respondents to elaborate freely, generating both expected and unexpected insights⁴.

SURVEY

To complement the interviews, an online survey was conducted with stakeholders engaged in dual VET transfer initiatives. The survey yielded 15 responses, preceded by pilot testing with 4 respondents to ensure clarity and usability. While the survey data are not statistically representative due to the limited sample size, they served to highlight recurring perceptions and divergences across contexts. Questions focused on perceived opportunities,

⁴ See Appendix A for Interview Protocol

barriers, and conditions for successful transfer. The survey thus provided a comparative dimension that reinforced the qualitative findings⁵.

SUPPLEMENTARY MATERIALS

Additional sources included selected project reports (e.g. Moldova, South Africa), internal donor documentation, and policy briefs produced by the DC dVET network. These documents provided contextual information on project objectives, donor strategies, and system-level developments, which enriched and validated the primary data.

LIMITATIONS

The data collection process was shaped by the availability of respondents and materials. The interviews reflected individuals who were accessible through professional networks and donor contacts, and the survey sample size remained small. These factors constrain representativeness, but the combination of methods and sources allowed for triangulation and cross-verification, ensuring that the analysis captured recurring patterns while remaining sensitive to contextual variation.

4.4 DATA ANALYSIS PROCEDURE

The procedure was structured in sequential steps, combining deductive and inductive coding to ensure both comparability and openness to emerging themes.

STEP 1. FAMILIARISATION WITH DATA

This process was supported by software such as MAXQDA and NVivo for reading and annotating the interview material, Adobe AI tools for text processing, and Excel for the survey responses. The purpose of this step was to gain an overview of the dataset and identify preliminary issues for further coding after the interview process.

STEP 2. DEDUCTIVE CODING

Text segments were first coded against categories drawn from Euler's Areas of Engagement (2018) and Roadmap to High-Quality Dual VET (2023). These categories provided an organising framework to ensure comparability across cases, with nodes covering governance, employer engagement, financing, curriculum cooperation, training staff professionalisation, quality assurance, and related elements.

STEP 3. INDUCTIVE CODING

Alongside the deductive process, open coding was applied to capture empirical issues that extended beyond the framework categories. Through iterative clustering and refinement, overlapping codes were grouped together, ultimately yielding thirteen cross-cutting themes that reflected the most salient facilitators and hindrances of dual VET transfer.

STEP 4. CONSTRUCTION OF EVIDENCE MATRIX

For each theme, an evidence matrix was constructed that recorded frequency of occurrence, facilitating and hindering factors, and illustrative examples from the data. This provided a structured overview of how themes manifested across the corpus.

STEP 5. TRIANGULATION

Findings from the interviews were cross-checked against survey responses and supplementary project documents. This triangulation helped to validate recurring patterns and strengthened the reliability of the analysis. Divergences were not treated as errors but as meaningful variations reflecting the diversity of national and project contexts.

⁵ See Appendix B for Survey Questions

4.5 ETHICAL CONSIDERATIONS

The study followed standard ethical principles. All participants provided informed consent prior to their involvement, and data were anonymised in transcription and reporting. In the thematic analysis, findings are not attributed to individual countries; such references appear only in the cross-regional analysis to preserve confidentiality.

The research also recognises the limits of donor-driven documentation. Many of the supplementary materials reflect the perspectives of organisations with a stake in promoting dual VET. To address this, the study has been transparent about data sources and has triangulated donor accounts with interview and survey evidence wherever possible.

This section presents the main findings of the study, drawing on the interview corpus and the complementary survey. The analysis follows a thematic structure that reflects the issues most frequently raised by respondents, while at the same time aligning them with the areas of engagement identified in Euler's 2018 framework and the key design components of the Euler 2023 Roadmap.

The evidence shows that successful transfer of dual VET elements depends on conditions that arise before, during, and after implementation. While the frameworks assume that many of these conditions are already in place, such as functioning governance platforms, active employer participation, and quality assurance mechanisms, the data reveal some divergence. Stakeholders repeatedly underlined challenges related to fragmented responsibilities, weak employer involvement, limited professionalisation of staff, and slow curriculum reform. At the same time, they pointed to facilitating measures including donor support, exposure visits, and the creation of intermediary structures to mediate between state and enterprises.

To present these insights, the findings are organised around thirteen thematic areas that emerged from the data. Each theme is introduced with a table summarising its transferability, facilitators, hindrances, the evidence of the Euler frameworks, and the observed divergences.

Here, transferability means the extent to which a dual VET element can be adapted to a new context and then sustained without losing its core function. It is judged by triangulating three indicators: what actors report in interviews, what the survey indicates, and whether the element operates under the conditions assumed by Euler's 2018 and 2023 frameworks:

- **High:** when the element appears across many interviews and actor groups, works beyond donor facilitation, shows institutional anchoring and some evidence of outcomes.
- **Medium:** when the element is present but partial, often reliant on projects, fragile in operation, or only partly aligned with Euler's logics.
- **Low:** when the element appears only sporadically or in pilots, lacks enabling conditions, and does not meet the framework logics in practice.

Survey responses are integrated as supporting evidence, though given the limited number of respondents they are used illustratively rather than statistically. The narrative following each table expands on the context and significance of the findings.

5.1 OVERVIEW OF EMERGING THEMES OF THE STUDY

The thematic analysis identified thirteen recurring areas, which align to varying degrees with the logics of Euler's frameworks. Their relative occurrence in the data was not uniform: some were mentioned consistently across countries and actors, while others appeared only sporadically. Table 1 provides an overview of these themes, their approximate level of occurrence in the data, and their corresponding reference points in Euler's 2018 and 2023 frameworks. This overview serves as a roadmap for the findings subchapters which follow.

Scale for theme occurrence

- High occurrence
 - Theme raised by most donor project representatives.
 - Present in more than half of the interview transcripts (≥ 8 out of 15 cases).
 - Typically mentioned repeatedly within interviews.
- Medium occurrence

- Theme raised by some donor project representatives (usually 2–3, but not all).
 - Present in around one third to half of transcripts ($\approx 4\text{--}7$ cases).
 - May appear only once or twice in each interview, or with less emphasis.
- Low occurrence
 - Theme raised by few donor project representatives.
 - Present in fewer than one third of transcripts (≤ 3 cases).
 - Typically, a side note or mentioned in passing.

Table 1. Overview of empirical themes found in the study

Empirical theme	Euler's areas of engagement (2018)	Euler's key design components (2023)	Occurrence in the data
Governance structures and coordination	AE 1.5 Cooperation in governance	5.2.7 Participatory governance	High
Cooperation, employer engagement and roles of actors	AE 1.1, 1.2, 1.4, 1.6, 1.7, 2.2, 2.3	5.2.4 Partnership culture	High
Curriculum design and alignment with training standards	AE 1.6, 2.2	5.2.3 Dual principle; 5.2.6 Quality development	High
Financing and sustainability of VET	AE 1.7	5.2.8 VET financing	High
Quality assurance, examinations and certification	AE 1.2, 2.3, 1.3	5.2.6 Quality development; 5.2.10 Evidence-based design	High
Training and professionalisation of trainers and teachers	AE 1.3	5.2.5 Professionalisation of VET staff	Medium
Provision of equipment and teaching materials	AE 1.4	5.2.4 Partnership culture	Medium
Legal and regulatory framework	Indirect, under frame conditions	5.2.7 Participatory governance	Medium
Objectives and relevance of VET	Not explicit as AE	5.2.1 Policy scope; 5.2.2 Overarching objective	Medium
Adaptation and flexibility of VET structures	Not explicit as AE	5.2.9 Flexible VET structures	Medium
Attractiveness, permeability and perceived value of VET	Indirect in AE, via certification and pathways	5.2.9 Flexible structures; 5.2.11 Perceived value	Medium

Availability of training places	AE 1.1, 2.1	5.2.3 Dual principle; 5.2.4 Partnership culture; 5.2.8 VET financing	Medium
Monitoring and evaluation practices	Not explicit as AE	5.2.10 Evidence-based design	Low

5.2 GOVERNANCE STRUCTURES AND COORDINATION

Governance was one of the most frequently discussed themes across the interview corpus and survey. Most countries represented in the study had established formal structures to coordinate vocational training, such as skills councils, national training authorities, or inter-ministerial committees. These structures were often set up during donor projects and supported by legal frameworks that mandate coordination. Such arrangements demonstrate that the idea of participatory governance is recognised and, at least on paper, has been institutionalised.

“At the beginning [of the project], governance works because the donor is pushing, but later it fades.”

Respondents repeatedly stressed that these structures are rarely functional in practice:

“There are too many ministries involved, each wants control. It slows everything down.”

Overlapping mandates between ministries, political turnover, and administrative delays undermine their effectiveness. Several interviewees pointed out that committees tend to meet only irregularly, and in some cases become inactive once donor funding ends. Enforcement of agreed decisions was described as weak, with responsibilities blurred across institutions. This confirms that while governance platforms exist formally, they are fragile and inconsistent in operation. As one interviewee explained:

“The [coordinating] council exists, but it has not met for more than a year. Without the donor pushing, there is no incentive for the ministries to sit together.”

Employer involvement in governance appeared as highly relevant in most contexts but still come with challenges (see Table 2). Businesses were represented on national TVET councils or acted as “ambassadors” for dual training in advisory committees. Respondents nonetheless described this as limited in impact. One observed that employers were “present in the room but not really influencing decisions”.

The survey results reinforced this finding. 10 out of 15 respondents explicitly identified fragmentation of responsibilities and inactive committees as barriers to effective governance. Some also noted that donor involvement often acted as a temporary facilitator by keeping committees active, but this did not guarantee long-term sustainability.

Euler’s (2018) framework assumes that cooperation structures between state and employers provide a stable basis for governance. Similarly, Euler (2023) places participatory governance at the core of its institutional model. The data show a clear divergence from these logics: the presence of governance structures is not sufficient to guarantee functionality. In most cases, committees remain heavily dependent on external facilitation, and continuity is at risk once projects phase out.

Table 2. Governance Structures and Coordination

Dimension	Evidence
-----------	----------

Transferability	Medium to high: Governance structures often exist (skills councils, committees), but their functionality weakens once donor support is withdrawn.
Facilitators	<ul style="list-style-type: none"> • National skills authorities and inter-ministerial committees • Legal acts mandating alternance • Donor facilitation in early phases
Hindrances	<ul style="list-style-type: none"> • Overlapping ministerial mandates • Weak enforcement of decisions • Inactive committees due to turnover or delays
Euler (2018) logic	AE 1.5: Stable cooperation structures between state and employers School-based VET Not validated: Structures exist, but fragile and inconsistent.
Euler (2023) logic	5.2.7: Participatory governance with embedded institutional/legal frameworks. Not validated: Legal basis often present, but implementation unreliable.
Survey support	10/15 respondents highlighted governance fragmentation as a key barrier.
Observed divergence	Governance platforms tend to be formal rather than functional. They are sustained during donor projects but lose momentum afterwards, reflecting a gap between frameworks' logics and practice.

5.3 COOPERATION IN IN-COMPANY TRAINING, EMPLOYER ENGAGEMENT AND ROLES OF ACTORS

Employer engagement was a recurring concern across the interviews. While companies generally recognise the importance of a skilled workforce, their participation in training remains largely limited to donor-driven initiatives or a small number of large firms.

“When donors provide the money, the system works. When they stop, it collapses.”

Business associations and chambers were occasionally cited as facilitators, especially where they acted as intermediaries between the private sector and training authorities. Respondents noted that companies sometimes contributed to curriculum consultations or provided access to training placements, but this was rarely systematic.

The major obstacles identified were resource-related and cultural. Many companies were unwilling or unable to commit staff, time, or financial contributions to training:

“Companies do not see why they should pay. They already pay taxes, so they expect the government to finance training.”

Partnership culture and participatory governance were also visible in many cases, with employers represented in committees, chambers of commerce or sector councils. Yet, similarly, legal frameworks or committees were sometimes created but not actively functioning, highlighting governance in form rather than substance.

A frequently repeated view was that vocational education remained the responsibility of the state, with companies expecting governments to shoulder the costs. In addition, low levels of trust between enterprises and public authorities further weakened cooperation, leading to reluctance to formalise long-term commitments.

The survey supported these findings: 9 out of 15 respondents cited weak or absent employer commitment as a barrier, with only a minority able to point to positive cases of sustained engagement. As one interviewee said:

“The companies come when the donor is paying, but when it is left to them, they disappear.”

“We cannot build a financing system that depends on projects. It has to be integrated into the national budget.”

Euler’s (2018) framework emphasises employer roles in training delivery and curriculum development, while Euler (2023) assumes a partnership culture as a systemic condition. The evidence suggests that these logics are not validated: employer engagement is situational and project-bound, rather than institutionalised.

Across several projects, the establishment of in-company training was described as the defining achievement of reform. Stakeholders repeatedly emphasised that apprenticeships were created or expanded, marking a clear shift away from school-only provision. Respondents recalled:

“Before, everything was done in the classroom. Now at least students go to the workshop.”

“We were proud to say that apprentices were finally learning at a company, not just at school.”

This evidence provides strong validation and company-based phases became the most visible sign of reform, allowing donors and governments to demonstrate quick, tangible change.

Table 3. Cooperation, Employer Engagement and Roles of Actors

Dimension	Evidence
Transferability	Medium: Employers often acknowledge the value of VET, but systematic and sustainable engagement remains weak.
Facilitators	<ul style="list-style-type: none"> • Donor-supported pilot projects creating incentives for company participation • Chambers or business associations coordinating employer input • Visibility of benefits (trained workers, reputational gains)
Hindrances	<ul style="list-style-type: none"> • Limited willingness of companies to release resources (time, staff, finance) • Weak culture of public–private partnership in training • Perception that VET is the state’s responsibility • Lack of trust between enterprises and authorities
Euler (2018) logic	AE 1.1 and AE 1.6: Employers engage actively in training phases and curriculum development School-based VET Partially validated: Engagement often limited to donor projects or select companies.
Euler (2023) logic	5.2.4: Partnership culture between state and business sector actors. Partially validated: Cooperation sporadic, not yet institutionalised.
Survey support	9/15 respondents indicated weak or absent employer commitment as a major barrier; only 3 respondents cited examples of strong company engagement.
Observed divergence	Engagement exists mainly in donor-driven pilots; scaling is rare. Employers participate in dialogue but are reluctant to assume co-responsibility, contrasting with Euler’s logic of partnership as a systemic norm.

5.4 CURRICULUM DESIGN AND ALIGNMENT WITH TRAINING STANDARD

Curriculum development emerged as a high-level theme in the interviews, frequently linked to broader issues of employer engagement. Donor-funded projects have played an important role in introducing occupational standards and in structuring curriculum review processes:

“Before developing the curriculum, they organised trips to see how it works elsewhere. It was useful [...]”

National qualification frameworks, where in place, provided an organising reference point that facilitated alignment between different training programmes.

The dominant narrative was one of limited relevance. Interviewees highlighted that curricula remained too theoretical, with weak links to practical work settings:

“The content is not adapted to our reality. Often it is copied from another country.”

Employer involvement was often described as symbolic, e.g. invitations to consultation workshops were issued, but the influence of private sector voices on final curricula was minimal:

“The curriculum is written in offices, but companies are not really involved.”

“We had workshops where firms were invited, but they only came because the project paid for transport.”

Several respondents referred to bureaucratic processes that slowed curriculum approval, making it difficult to respond to changes in labour market demand. Mechanisms to revise curricula on a continuous basis were either absent or underdeveloped. As one interviewee noted:

“We sit in curriculum meetings, but in the end, the decisions are already made by the ministry.”

The survey confirmed this picture: 8 out of 15 respondents pointed to excessive theoretical content as a challenge, while 6 respondents explicitly identified weak employer involvement in curriculum design.

However, employer involvement in curriculum design was only partially observed. Employers contributed to occupational standards, joined design workshops, and validated training content. As one interviewee stated:

“Industry people sat together with schools to decide what should be taught.”

Another noted that:

“New curricula were only approved after companies signed off.”

Table 4. Curriculum Design and Alignment with Training Standards

Dimension	Evidence
Transferability	Medium: Curriculum development processes are often formalised but rarely ensure alignment with workplace realities.
Facilitators	<ul style="list-style-type: none"> • Donor-funded technical assistance introducing occupational standards • Involvement of some employer representatives in consultation workshops • National qualification frameworks providing structure
Hindrances	<ul style="list-style-type: none"> • Curricula remain overly theoretical and disconnected from workplace practices • Employer input is often symbolic or limited to one-off workshops • Bureaucratic delays in curriculum approval and revision • Insufficient mechanisms to update curricula in line with labour market change
Euler (2018) logic	AE 1.6 and AE 2.2: Active employer participation in curriculum and training standard development School-based VET and learning-on-the-job settings

	Partially validated: participation often tokenistic and lacks continuity.
Euler (2023) logic	5.2.6: Quality development and flexible VET structures ensuring adaptability. Partially validated: structures exist, but flexibility and responsiveness remain limited.
Survey support	8/15 respondents indicated that curricula were too theoretical; 6 respondents noted weak employer involvement in curriculum development.
Observed divergence	Curricula are updated during projects but lack mechanisms for sustained relevance. Consultation often occurs but has limited impact on content, diverging from frameworks that assume strong and continuous employer influence.

5.5 FINANCING AND SUSTAINABILITY OF VET

The financing of dual VET emerged as one of the most persistent challenges in the data. While donor support is frequently praised for enabling pilot projects, respondents were consistent in highlighting the lack of sustainable national mechanisms:

“The government budget for VET is too small. They depend on partners to cover the gap.”

“We talked about creating a training fund, but it never materialised because ministries could not agree on how to manage it.”

Employers in particular were seen as reluctant to contribute financially:

“Without a clear law or incentive, employers will not put money on the table.”

“The private sector is willing to help, but only with equipment or internships, not with money.”

Although some larger firms occasionally provided equipment or stipends, such contributions were exceptional rather than systemic.

Survey responses reinforce this picture: 9 out of 15 highlighted donor dependency as the dominant financing source, and 6 pointed directly to company reluctance to co-finance training.

The findings stand in sharp contrast with Euler’s frameworks. The 2018 model presumes employers will contribute to financing (AE 1.7), but this is not validated. Euler (2023) goes further in assuming cost-sharing systems can be sustainably balanced, which the data do not support. Instead, what emerges is a significant divergence: financing remains external, short-term, and fragile, leaving national systems unable to scale or sustain dual approaches.

Table 5. Financing and Sustainability of VET

Dimension	Evidence
Transferability	Medium: Financing mechanisms are discussed in most projects but remain dependent on donor support, with weak national ownership.
Facilitators	<ul style="list-style-type: none"> • Short-term donor funding • Occasional state budget allocations • Willingness of some large companies to provide in-kind support
Hindrances	<ul style="list-style-type: none"> • Employers perceive training as government responsibility

	<ul style="list-style-type: none"> • Limited fiscal space in national budgets • Weak cost-sharing models • Heavy reliance on project-based funds
Euler (2018) logic	AE 1.7: Employers contribute financially to VET School-based VET Not validated: Contributions are rare and largely symbolic.
Euler (2023) logic	5.2.8 VET financing: Balanced and sustainable models between state and private actors. Not validated in practice.
Survey support	9/15 respondents pointed to donor dependency; 6/15 mentioned companies' reluctance to share costs.
Observed divergence	Both frameworks assume co-financing as a foundation of dual VET, but in practice financing remains donor-driven and unsustainable.

5.6 QUALITY ASSURANCE, EXAMINATIONS AND CERTIFICATION

The findings highlight both the progress and limitations in quality assurance. Several respondents described how donor projects introduced formal examinations, sometimes modelled after European examples:

“The exams were organised, with written and practical parts. It looked professional and motivated the students.”

However, sustainability and credibility of these mechanisms were widely questioned. A recurring theme was the disconnect between examinations and workplace realities:

“The test is on paper, but in the company, they need other skills. Employers don’t trust the certificate.”

Another respondent pointed to the fragility of standards:

“We developed standards during the project, but after it ended, no one was updating or using them.”

Survey responses confirm these concerns. 7 out of 15 respondents emphasised the absence of strong quality assurance, while 5 highlighted that certificates issued under projects were not recognised by employers.

Evidence for employer participation in examinations was mixed. In a few projects, firms co-developed assessment tools or took part in examination boards. One interviewee recalled:

“Employers were invited to join final assessments.” Euler’s 2018 model assumes employer cooperation in examinations and certification (AE 1.2, 2.3), a condition that was only partially met in the pilot phases for both school-based VET and learning-on-the-job conditions. Euler (2023) goes further, requiring codified and regularly reviewed standards as a foundation of quality development. These logics diverge sharply from practice, where certification remains fragile and lacks legitimacy in national labour markets.

Table 6. Quality Assurance, Examinations and Certification

Dimension	Evidence
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Transferability	Medium to high: Quality assurance mechanisms and examinations are often introduced, but implementation is inconsistent and limited in scope.
Facilitators	<ul style="list-style-type: none"> • Donor-led development of standardised exams • Collaboration with chambers or training institutions • Visibility of certification as a motivator for learners
Hindrances	<ul style="list-style-type: none"> • Lack of national standards • Weak enforcement capacity • Exams often theoretical and disconnected from workplace realities • Low credibility of certificates in labour markets
Euler (2018) logic	AE 1.2, 2.3: Employers cooperate in examinations and certification, ensuring relevance and credibility School-based VET and learning-on-the-job settings Partially validated in pilot stages only.
Euler (2023) logic	5.2.6 Quality development; 5.2.10 Evidence-based design: standards codified, reviewed, and trusted by stakeholders. Not validated: Quality control is inconsistent and credibility weak.
Survey support	7/15 respondents cited absence of robust quality assurance; 5/15 highlighted certificates not being recognised by employers.
Observed divergence	Frameworks assume certification provides credibility and labour market acceptance, but in practice exams lack standardisation and recognition.

5.7 TRAINING AND PROFESSIONALISATION OF TRAINERS AND TEACHERS

Teacher and trainer qualification emerges from the data as one of the weakest points in the transfer of dual elements. A clear divide appears between school-based teachers and company trainers. Teachers in vocational schools are often academically oriented and have little or no workplace experience, while company trainers bring strong technical expertise but rarely possess pedagogical preparation. Respondents described this mismatch as leaving learners *“stuck between theory and machines”*, without staff able to connect the two environments.

Euler’s 2018 framework assumes that both teachers and trainers combine pedagogical and practical competency (AE 1.3). Euler (2023) places professionalisation at the heart of system quality (5.2.5). The evidence gathered here does not support either logic:

“Our teachers know the theory, but they have never been in a workshop. When students ask about real work, they cannot answer.”

An interviewee voiced the mirror challenge from the company perspective:

“We have people who can handle the machines, but they don’t know how to explain it to young learners. They are not trained as educators.”

Efforts to bridge this gap have largely come through donor projects. These typically take the form of short courses, exposure trips, or institutional support to training institutes. While appreciated, they remain limited in scale and duration:

“[As a trainer myself] I was sent once for a seminar, but nothing followed. Without a programme, we just go back to work the old way.”

Another participant added:

“The trainings are good, but only a few teachers go. When the project ends, nothing continues.”

The fragility of this area was expressed strongly by another respondent:

“Without investment in trainers, dual training cannot work. We are building on a very weak foundation.”

Survey data reinforce these findings: 7 out of 15 respondents highlighted inadequately trained staff as a barrier, and 5 pointed to the absence of any structured system of Continuous Professional Development (CPD).

Table 7. Training and Professionalisation of Trainers and Teachers

Dimension	Evidence
Transferability	Medium to low: Teacher and trainer capacity is widely recognised as critical, but reform efforts remain fragmented. Upgrading trainer qualifications is consistently recognised as important, but systematic structures for professionalisation are largely absent.
Facilitators	<ul style="list-style-type: none"> • Donor support for teacher training institutes and pedagogical upgrades (e.g. workshops) • Exchange visits and study trips exposing staff to dual VET practices • Some initiatives for in-service training linked to projects • Motivation of individual trainers and teachers who see benefits in professional growth.
Hindrances	<ul style="list-style-type: none"> • Teacher preparation still heavily academic, with little workplace experience • Trainers in companies often lack pedagogical skills and incentives • Weak institutionalisation of continuous professional development (CPD) and lack of formal certification frameworks • Limited career pathways and recognition for VET teaching staff • Low status and remuneration of VET teaching staff.
Euler (2018) logic	<p>AE 1.3: Teaching and training staff are qualified in both pedagogy and practice. School-based VET</p> <p>Not validated: Dual competences are rarely achieved.</p>
Euler (2023) logic	<p>5.2.5: Professionalisation of VET staff as a driver of system quality.</p> <p>Not validated: Capacity-building remains ad hoc and donor-dependent.</p>
Survey support	7/15 respondents emphasised the lack of adequately prepared teachers; 5 specifically mentioned the absence of CPD opportunities; 8/15 respondents emphasised lack of trainer preparation; 5/15 mentioned absence of continuous training mechanisms.
Observed divergence	Professionalisation is treated as a project add-on rather than a systemic pillar. Pedagogical gaps persist in both schools and companies, diverging from frameworks that assume qualified staff as a baseline condition. Both frameworks assume structured, institutionalised

professionalisation of trainers, but practice is limited to donor-driven workshops with no long-term mechanisms.

5.8 PROVISION OF EQUIPMENT AND TEACHING MATERIALS

The provision of equipment and teaching materials appears as a recurring concern in the data. While donors frequently supply equipment as part of project packages, this support is seldom maintained beyond the life cycle of the intervention:

“The machines are new at the beginning, but nobody budgets for repairs. After two years, they no longer work.”

The issue is compounded by misalignment with the local labour market. As one respondent explained:

“We train on German machines, but in the companies here, they don’t exist anymore. For our students, it is obsolete from the start.”

Such cases highlight a structural weakness in the transfer process, where imported technology fails to prepare learners for actual workplace demands. Some companies do contribute by donating machines or training materials, but such cases remain exceptions. As another participant explained:

“Firms sometimes give what they no longer use, but it is often outdated. Learners train on equipment that does not exist anymore in the workplace.”

This misalignment creates a gap between training and labour market realities, undermining the quality of skill acquisition.

Euler’s 2018 framework (AE 1.4) assumes systematic business sector participation in the provision of equipment and materials, but the evidence does not validate this logic. Euler (2023) places this within a broader culture of partnership (5.2.4), which the data shows to be only partially realised. A strong donor footprint remains, but co-financing or sustained resource-sharing from companies is largely absent.

Survey responses underline this picture. 6 out of 15 respondents identified insufficient or outdated equipment as a barrier to effective training:

“We have classrooms, but without proper tools, the training stays theoretical.”

Table 8. Provision of Equipment and Teaching Materials

Dimension	Evidence
Transferability	Medium: Provision is possible but depends on donor input and ad hoc company contributions.
Facilitators	<ul style="list-style-type: none"> • Donor-funded equipment packages • Companies donating machines or materials • Partnerships with industry associations
Hindrances	<ul style="list-style-type: none"> • Lack of maintenance budgets • Obsolete technology • Dependence on imported equipment • Limited company willingness to provide costly inputs

Euler (2018) logic	AE 1.4 expects regular business sector contribution of equipment and materials Not validated: Provision remains ad hoc, donor-driven, and not structurally embedded.
Euler (2023) logic	5.2.4: Partnership culture assumes shared responsibility for resources Partially validated: Cooperation exists but is limited to donor facilitation, not sustainable company commitment.
Survey support	6/15 respondents identified insufficient or outdated equipment as a key barrier.
Observed divergence	Provision remains short-term and project-driven. Imported equipment, often German-made, is obsolete for local workplaces. Little evidence exists of sustainable cost-sharing mechanisms.

5.9 LEGAL AND REGULATORY FRAMEWORK

The legal and regulatory framework appears as an area where formal progress often masks practical shortcomings. Several countries have introduced VET acts or decrees mandating elements of dual training, sometimes under donor mandate. However, respondents consistently stressed that such frameworks are either not enforced or remain on paper:

“We have the decree, but nobody follows it. Companies don’t even know it exists.”

Overlapping mandates between ministries and agencies further undermine effectiveness. Another interviewee noted:

“There are three ministries involved, and each claims responsibility. In the end, nothing moves.”

Euler’s 2018 framework assumes clarity of institutional roles and stable legal conditions, which is not validated by the evidence. Euler (2023) is more ambitious, framing participatory governance around functioning institutional and legal frameworks. Here too, only partial validation can be observed. While structures exist, they are undermined by weak enforcement, lack of continuity, and heavy dependence on donor facilitation.

Survey responses echo this view: 5 out of 15 participants cited unclear or unenforced regulations as a major barrier to effective transfer. The overall picture is of formal compliance without systemic functionality.

Table 9. Legal and Regulatory Framework

Dimension	Evidence
Transferability	Medium: Formal laws and decrees can be introduced, but implementation is inconsistent.
Facilitators	<ul style="list-style-type: none"> • Existence of national VET acts • Decrees mandating alternance • Inter-ministerial frameworks • Donor-supported legal reforms
Hindrances	<ul style="list-style-type: none"> • Overlapping mandates between ministries • Weak enforcement • Legal frameworks drafted but not operationalised

	<ul style="list-style-type: none"> Political turnover undermining continuity.
Euler (2018) logic	Indirect under frame conditions: assumes stable institutional roles and legal clarity Not validated: laws often exist but are not enforced or remain on paper only.
Euler (2023) logic	5.2.7. Participatory governance: assumes a functioning institutional and legal framework Partially validated: frameworks exist but suffer from weak implementation and lack of coordination.
Survey support	5/15 respondents highlighted unclear or unenforced regulations as a major obstacle.
Observed divergence	Formal legal frameworks exist but are fragmented and poorly implemented; enforcement mechanisms are largely absent, leaving VET regulation donor-driven rather than systemic.

5.10 OBJECTIVES AND RELEVANCE OF VET

The data highlight a gap between the stated objectives of VET reforms and their practical relevance. At the policy level, VET is often framed as a solution to unemployment and social exclusion, which generates political support. One respondent described this as:

“Every minister says VET will solve youth unemployment, but nobody checks what skills the economy actually needs.”

This rhetorical emphasis is not matched by systematic planning. Labour market information systems remain weak or absent, and employer consultations are often symbolic. As a practitioner explained:

“The objectives look good on paper [employability, skills for growth] but in reality, we don’t know what the market will absorb.”

Euler’s 2018 framework implicitly assumes that dual elements are transferred in line with national development objectives. The evidence does not validate this, as alignment is frequently rhetorical. The Euler (2023) is more explicit, placing VET within a policy scope that must integrate economic, social, and individual goals. Here again, validation is partial: while broad objectives are articulated, their grounding in evidence and labour market consultation is lacking.

Survey responses support this divergence. 6 out of 15 respondents emphasised that training outcomes do not match available job opportunities. One participant stated:

“We have graduates, but no demand for their skills. The objectives are political slogans.”

The flexibility of structures was present in a few pilots through modular curricula or short-cycle apprenticeships but rarely extended beyond isolated initiatives.

Finally, the perceived value of VET emerged as an important though fragile dimension. One respondent recalled:

“Parents came to the school visits, but afterwards they still said university was better.”

In several countries, interviewees noted a slight increase in interest among students once dual pilots became visible, but academic pathways still dominated societal prestige

While objectives are present, their relevance is questionable, weakening the credibility of dual VET transfer in practice.

Table 10. Objective and Relevance of VET

Dimension	Evidence
Transferability	Medium: Broad policy objectives can be set, but their alignment with labour market and societal needs is uneven.
Facilitators	<ul style="list-style-type: none"> • High-level political support linking VET to employment • Youth inclusion and economic growth • Donor advocacy framing VET as a solution to unemployment
Hindrances	<ul style="list-style-type: none"> • Lack of labour market data • Weak employer consultation • Disconnect between training objectives and workplace realities • Short-term political priorities
Euler (2018) logic	<p>Not explicit as AE: implicitly assumes objectives of dual training are aligned with national development needs</p> <p>Not validated: objectives often declared but lack evidence base or consultation.</p>
Euler (2023) logic	<p>5.2.1. Policy scope and 5.2.2. Overarching objective: assume VET contributes to economic, social, and individual goals with forward-looking relevance</p> <p>Partially validated: political declarations exist but are not matched by systematic planning or relevance testing.</p>
Survey support	6/15 respondents reported a weak link between training content and actual job opportunities; 4 explicitly noted political “buzzwords” around employability without concrete measures.
Observed divergence	Official objectives are ambitious (employment, growth, inclusion) but often disconnected from local labour markets. Training relevance is more rhetorical than evidence-based.

5.11 ADAPTATION AND FLEXIBILITY OF VET STRUCTURES

The theme of adaptation and flexibility was raised frequently in the data, often in connection with the risks of replicating foreign models without contextualisation. Respondents highlighted that while the need for adaptation is widely acknowledged, the structures in place remain rigid. One interviewee noted:

“We copy the German calendar, but it does not match our farming season. Students miss classes, and companies are not available.”

Another added:

“The system is not flexible; once the curriculum is approved, it cannot be changed for years, even if the market moves.”

Attempts to introduce more flexible structures exist but are limited to donor-driven pilots. Examples include modular curricula, shorter alternance phases, or project-based training blocks. While these initiatives are appreciated, they remain isolated and are not institutionalised. For instance:

“We see flexibility in projects, but once the funding ends, everything goes back to the rigid schedule.”

Euler’s 2018 framework does not explicitly isolate flexibility as an area of engagement but assumes contextual adjustments can be made during implementation. This logic is not validated, since adaptations remain fragmented and not sustained. Euler (2023) goes further, placing flexibility at the core of future-oriented VET (Component 5.2.9). Here again, only partial validation can be observed: the principle is adopted but not operationalised systematically.

Survey responses confirm this divergence. 6 out of 15 respondents described training structures as too rigid and ill-adapted to local realities, while only a minority pointed to successful pilots.

Table 11. Adaptation and Flexibility of VET Structures

Dimension	Evidence
Transferability	Medium: Adaptation is widely recognised as necessary, but structures remain rigid and donor driven.
Facilitators	<ul style="list-style-type: none"> • Acknowledgement by policymakers and practitioners that systems must be contextualised • Some donor projects piloting modular curricula or shortened training phases • Occasional flexibility in scheduling alternance.
Hindrances	<ul style="list-style-type: none"> • Dominance of imported models without localisation • Rigid school calendars • Lack of institutional autonomy to adapt • Limited mechanisms to respond to changing labour market demand.
Euler (2018) logic	<p>Not explicit as AE: assumes transfer of dual elements can be implemented with contextual adjustments</p> <p>Not validated: adaptation mechanisms are ad hoc rather than systemic.</p>
Euler (2023) logic	<p>5.2.9. Flexible VET structures: assumes capacity to adjust to rapid change and diversity</p> <p>Partially validated: flexibility is acknowledged but rarely operationalised beyond pilot projects.</p>
Survey support	6/15 respondents stressed that curricula and structures are <i>“too rigid”</i> and do not allow adaptation to local economic realities; 3 pointed to pilots showing some success but not institutionalised.
Observed divergence	Stakeholders agree on the need for flexible structures, but actual practice is characterised by rigidity and replication of donor models. Flexibility remains rhetorical rather than systemic.

5.12 ATTRACTIVENESS, PERMEABILITY AND PERCEIVED VALUE OF VET

The perceived attractiveness of VET emerged as a recurring concern across interviews. Many respondents stressed the persistent stigma that VET is a pathway for those who “*did not succeed*” academically. One participant remarked:

“Parents prefer university, even if there is no job, because VET is seen as second-class.”

Others highlighted how limited permeability reinforces this stigma:

“Even with a certificate, you cannot easily move into higher education. The path is blocked.”

While some donor projects have run awareness campaigns or emphasised certification, their impact is short-lived. One participant noted:

“We had a campaign showing VET graduates in successful jobs, but after the project ended, the perception did not change.”

Another respondent described the employment challenge:

“The graduates are trained, but companies are not hiring. Without jobs, how can VET be attractive?”

Survey findings corroborate this picture: 9 out of 15 respondents explicitly mentioned VET’s low social appeal, while 5 pointed to the absence of permeability into higher education or professional advancement. Only 2 identified positive cases, typically linked to donor-supported schemes.

Euler’s frameworks assume higher permeability and social value as both outcomes and conditions of dual VET transfer and imply that recognised certification would create mobility, as well as explicitly positioning the perceived value as essential. Neither logic is validated in practice. The data reveal instead a clear divergence: VET continues to be framed positively at the policy level but is experienced by learners and parents as a less attractive, low-prestige option with blocked pathways.

Table 12. Attractiveness, Permeability and Perceived Value of VET

Dimension	Evidence
Transferability	Medium: Attractiveness and permeability are recognised as important, but their achievement remains limited and fragile.
Facilitators	<ul style="list-style-type: none"> Political rhetoric emphasising VET as a solution to youth unemployment Certification that, in some cases, enables pathways into further education Donor campaigns raising awareness of VET opportunities
Hindrances	<ul style="list-style-type: none"> Social bias favouring academic routes Weak labour market absorption VET graduates often face underemployment Lack of permeability into higher education Stigma that VET is “<i>second choice</i>”
Euler (2018) logic	<p>Indirect, via certification and pathways: assumes recognised qualifications can ensure permeability</p> <p>Not validated: certification exists but permeability into higher education or professional careers is weak.</p>

Euler (2023) logic	5.2.9. Flexible structures and 5.2.11. Perceived value: assume VET enjoys reputation, appeal, and acceptance Not validated: VET continues to be perceived as unattractive and socially inferior.
Survey support	9/15 respondents highlighted low attractiveness of VET compared to academic routes; 5 noted very limited upward mobility or permeability; only 2 pointed to isolated cases of VET graduates entering higher education.
Observed divergence	The political and donor discourse frames VET as valuable, but societal perceptions and limited permeability undermine its actual attractiveness. Divergence between rhetoric and lived experience is stark.

5.13 AVAILABILITY OF TRAINING PLACES

The availability of company training places is a structural requirement of the dual principle, yet it remains a fragile component in practice. Respondents repeatedly pointed to the scarcity of firms offering apprenticeship slots. One noted:

“We have hundreds of students in the school, but only a few companies take trainees. Most cannot afford it.”

Another described the mismatch:

“The curriculum assumes every student will find a company place, but this is simply not possible.”

Where training places do exist, they are often concentrated in a small number of large firms, leaving SMEs largely disengaged. A respondent explained:

“The big companies can host, but small ones do not have the time or resources. Without them, the system cannot scale.”

Donor incentives temporarily expand availability, for instance through stipends or subsidies, but these are not sustained after projects close:

“During the project, many companies took trainees because they were paid. After [the project ended], they stopped”

observed one respondent.

Survey evidence strongly supports these findings: 8 out of 15 respondents cited the shortage of company places as a barrier, with several linking provision directly to donor support. A smaller number warned against the vulnerability of over-reliance on a few large firms.

Euler’s 2018 framework presupposes company-based phases are available to all learners, which is not validated in this context. Euler’s (2023) dual principle and partnership culture are only partially validated: while engagement exists, it is uneven and not yet systemic.

Table 13. Availability of Training Places

Dimension	Evidence
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Transferability	Medium: The dual principle requires sufficient company-based training places, but their availability is uneven and often donor-dependent.
Facilitators	<ul style="list-style-type: none"> • Strong engagement of a few large companies that host apprentices • Donor incentives that temporarily create training slots • Public–private pilot projects linking schools and firms
Hindrances	<ul style="list-style-type: none"> • Limited number of firms willing or able to train • Reluctance of SMEs due to costs and lack of trained staff • Mismatch between school enrolments and company training capacity • Absence of systemic incentives or obligations for firms
Euler (2018) logic	<p>AE 1.1 Company-based training phases and AE 2.1 Leave for theory phases School-based VET and learning-on-the-job settings</p> <p>Assume companies provide sufficient training places</p> <p>Not validated: supply is too limited and unstable.</p>
Euler (2023) logic	<p>5.2.3. Dual principle, 5.2.4. Partnership culture, and 5.2.8. VET financing assume widespread company engagement in training</p> <p>Partially validated: engagement exists in isolated cases but not across the economy.</p>
Survey support	8/15 respondents highlighted lack of sufficient training places as a major barrier; 4 reported that companies train only when subsidised by donors; 2 emphasised over-reliance on a few large firms.
Observed divergence	While the dual model assumes consistent provision of training slots by firms, reality shows scarcity and donor-dependency. Company participation remains fragmented and not institutionalised.

5.14 MONITORING AND EVALUATION PRACTICES

Monitoring and evaluation represent one of the weakest dimensions in the transfer of dual VET elements. Respondents consistently emphasised that while donor projects often demand reporting and produce studies, these rarely feed into national systems:

“We write reports for the project, but once it ends, nobody follows up. The data is lost.”

Another respondent underlined the absence of government-led mechanisms:

“There is no national monitoring. Without donors, nothing is measured.”

Even when tracer studies or evaluations are conducted, their impact remains limited. A participant observed:

“We did a tracer study once, but the results were never used. It stayed in a drawer.”

This highlights a lack of demand from policymakers for evidence to guide reform, alongside weak institutional capacity to sustain data collection.

Survey responses echo these findings. 6 respondents explicitly identified the lack of systematic monitoring as a barrier, while 4 stressed that evaluation occurs only within donor projects. Only 2 could cite examples of national efforts, both described as small and disconnected from broader policy.

Euler's frameworks expect evidence to underpin quality assurance and decision-making. The 2018 framework implies monitoring through examinations and certification, while the 2023 Roadmap explicitly demands evidence-based design. In practice, neither logic is validated.

Table 14. Monitoring and Evaluation Practices

Dimension	Evidence
Transferability	Low: Monitoring and evaluation (M&E) practices are present only sporadically and remain heavily donor driven.
Facilitators	<ul style="list-style-type: none"> • Donor-funded projects that include reporting requirements • Occasional tracer studies or labour market follow-ups • Some pilot initiatives linking training outcomes to employment indicators
Hindrances	<ul style="list-style-type: none"> • Absence of national M&E systems • Weak institutional capacity to collect or use data • Lack of continuity once donor projects end • Limited political demand for evidence-based policy
Euler (2018) logic	Not explicit as an AE but implied through quality assurance and certification mechanisms Not validated: M&E does not extend beyond project-level outputs.
Euler (2023) logic	5.2.10. Evidence-based design: assumes a solid data foundation for decisions and quality development Not validated: data systems are fragmented and not institutionalised.
Survey support	6/15 respondents noted the absence of systematic M&E as a major weakness; 4 stressed reliance on donor reporting; only 2 could point to national initiatives, both limited in scope.
Observed divergence	While both frameworks assume M&E as part of quality development and evidence-based design, practice shows only isolated, donor-driven exercises. National ownership and systematisation are largely absent.

KEY TAKEAWAYS OF THE FINDINGS SECTION

Governance structures and coordination

- Engagement platforms exist but are often fragmented and unstable.
- Without consistent operation, governance remains donor dependent.
- *Foresight:* If strengthened, participatory governance could anchor reforms beyond donor cycles; if neglected, fragmentation will persist and reforms stall after projects close.

Cooperation, employer engagement and roles of actors

- Cooperation is uneven, with a handful of large firms active while SMEs remain disengaged.
- Roles between state, schools, and companies are poorly defined.
- *Foresight:* Institutionalised partnership culture could mainstream employer roles; otherwise, reliance on isolated firms will limit scale.

Curriculum design and training standards

- Curricula are often donor-driven and not aligned with company realities.
- Limited involvement of firms in design weakens relevance.
- *Foresight:* Co-developed standards could build ownership; if ignored, curricula risk obsolescence.

Financing and sustainability

- Heavy reliance on external funding undermines long-term stability.
- Companies rarely contribute unless subsidised.
- *Foresight:* Balanced cost-sharing could sustain dual elements; without reform, systems will collapse once projects end.

Quality assurance, examinations and certification

- Weaknesses in assessment credibility and fragmented certification frameworks.
- Companies have limited input in examinations.
- *Foresight:* Joint certification could improve trust and mobility; without this, VET risks low recognition by employers and learners.

Training and professionalisation of trainers and teachers

- Teachers lack practical exposure, trainers lack pedagogy.
- Continuous Professional Development opportunities remain scattered and project-based.
- *Foresight:* Systematic professionalisation could close the theory–practice divide; neglect would leave learners “between theory and machines.”

Provision of equipment and materials

- Training often takes place on outdated or donor-supplied machines.
- Relevance suffers when technologies differ from those in local firms.
- *Foresight:* Localised, sustainable equipment strategies could ensure relevance; otherwise, skills mismatches deepen.

KEY TAKEAWAYS

Legal and regulatory frameworks

- Laws exist but are inconsistently enforced.
- Overlapping mandates hinder clarity.
- *Foresight:* Clearer legal frameworks could stabilise roles; without this, policy will remain aspirational rather than operational.

Objectives and relevance of VET

- Policies frame VET broadly, but economic and labour-market links remain weak.
- *Foresight:* Stronger labour-market alignment could increase employability; if ignored, VET risks low uptake and impact.

Adaptation and flexibility of VET structures

- Imported dual elements often lack contextual adjustment.
- Resistance to adaptation leads to misfit with local economies.
- *Foresight:* Flexible structures could future-proof systems; rigidity will exacerbate irrelevance.

Attractiveness, permeability, and value of VET

- VET often seen as a second-choice option.
- Limited permeability to higher education reduces appeal.
- *Foresight:* Increasing attractiveness could address youth unemployment; neglect will entrench negative perceptions.

Availability of training places

- Shortage of firms offering apprenticeships; concentrated in large companies.
- Donor subsidies create temporary solutions only.
- *Foresight:* Systemic incentives could expand training capacity; without them, access will remain limited.

Monitoring and evaluation practices

- M&E remains donor-driven, with little national ownership.
- Data rarely used for policy learning.
- *Foresight:* Institutionalising evidence-based design could improve reform quality; failure to do so leaves reforms blind to outcomes.

This chapter reflects on the empirical findings in relation to the wider debates on the transfer of dual vocational education and training. The aim is not only to validate how far existing frameworks account for observed realities but also to highlight where the data suggest additional dimensions. The discussion proceeds in three steps.

6.1 POSITIONALITY OF THE STUDY WITHIN DUAL VET TRANSFERS DEBATES

This study is situated at the intersection of three debates:

- The first concerns whether elements of dual VET can be exported directly or whether they must always be adapted through processes of negotiated transfer.
- The second concerns the operational logic of development cooperation, where pilot projects and demonstration effects are frequently used as instruments of reform within limited project cycles.
- The third relates to the more recent turn toward structured design frameworks that set out the conditions regarded as necessary for sustainable transfer.

The empirical material analysed here is concentrated at the system level. Interviews were conducted primarily with policy actors, intermediary organisations, and donor representatives, while survey responses captured cross-country stakeholder perceptions. This means the analysis reflects macro-level dynamics, with some meso-level illustrations, but provides only limited insight into firm-level or learner-level practices. The findings should therefore be understood as analytical generalisations rather than claims of statistical representativeness.

The study employs Euler's "*Areas of Engagement*" (2018) and "*Key Design Elements*" of the Roadmap to High-Quality Dual VET (2023) as analytical anchors. These frameworks were not used by the projects themselves as design templates. Instead, they provide a reference structure against which empirical realities could be compared. Validation in this chapter therefore refers to the degree of alignment or divergence between observed practice and the logics articulated in Euler's work, rather than to compliance with a prescribed model.

The contribution of the study lies in three areas:

- First, it provided a transparent theme matrix with levels of occurrence, allowing a differentiated view of the conditions that facilitate or hinder transfer.
- Second, it integrated interview and survey findings to highlight both convergences and points of tension across cases.
- Third, it links these empirical patterns to reform logics, thereby shifting the debate away from general advocacy toward identifying conditions that are either indispensable, enabling, or missing.

Finally, the study engages with development cooperation as a key actor with its own constraints. While recognising the limits of donor-driven project cycles, the analysis seeks to identify lessons that can inform future policy and practice in ways that are evidence-based and context-sensitive.

6.2 PARTIAL VALIDATION OF FRAMEWORKS

Euler's frameworks were only partially validated. Company-based training and curriculum cooperation travelled most readily, while governance, certification, and equipment provision remained inconsistent, and trainer qualification and employer co-findings were largely absent. The patterns confirm that visible and project-

compatible elements are easier to adopt, where systemic and resource-intensive engagements require longer horizons and stronger institutional anchoring.

The dual principle and curriculum alignment were the most consistently reflected, while stakeholder engagement, participatory governance, flexibility, and perceived value appeared unevenly across contexts. Professionalisation of staff, quality assurance, financing, and evidence-based design were weak or absent. The pattern confirms that component which are visible and demonstrable can be introduced relatively quickly, whereas those requiring sustained institutional capacity, predictable financing, and continuous review remain largely out of reach within short donor project cycles

While Euler's frameworks (2018, 2023) provided structured categories for analysing the transfer of dual VET, the empirical material also revealed themes that extend beyond these formal design elements. These themes do not directly concern the technical architecture of dual systems, but rather the political economy and institutional dynamics of development cooperation within which transfer efforts are embedded. They help explain why certain framework elements were more easily adopted than others, and why reforms sometimes stalled despite initial momentum.

Four themes stand out:

- **Donor coherence,**
- **Temporality of project cycles,**
- **Symbolic adoption,**
- **Role of state capacity.**

Donor coherence

Respondents in multiple contexts highlighted the challenge of fragmented donor engagement. In several countries, different development partners promoted slightly divergent versions of dual VET, resulting in parallel programmes that competed for schools, companies, and visibility. One interviewee recalled that:

“Every donor came with its own pilot, and companies were invited three times for three different projects”.

This not only placed additional burdens on local institutions but also diluted reform coherence. Where donors did coordinate through joint steering groups or pooled structures, reforms were described as more consistent, yet such cases were the exception rather than the rule. This theme reveals a blind spot in technical frameworks: **the transferability of dual VET cannot be dissociated from the political economy of aid, where overlapping donor logics create contested spaces for reform**. The effectiveness of transfer is therefore partly dependent on donor harmonisation, a condition absent from Euler's frameworks but repeatedly emphasised in the data.

Project cycles

Another recurrent theme concerned the short duration of donor project cycles. Interviewees frequently remarked that reforms were expected to demonstrate outcomes within three to five years, yet building a dual VET system requires sustained engagement well beyond such horizons. A common sentiment was that just when the apprenticeships started to work, the project ended. This misalignment meant that reforms often stagnated at pilot level without being institutionalised.

From a transferability perspective, project cycles constrain what can realistically be achieved: they privilege visible, short-term outputs such as curriculum documents or inaugural apprenticeship cohorts, but do not allow sufficient time for systemic embedding of financing, quality assurance, or staff professionalisation. This theme underscores that **transferability is not only a question of design, but of temporal fit**: the long-term nature of VET reforms is at odds with the short-term nature of donor funding cycles.

Symbolic adoption

The data also pointed to cases of symbolic adoption, where reforms were enacted in form but not in substance. Examples included apprenticeship laws that lacked implementation decrees, committees that convened for launch events but did not meet thereafter, or schools rebranding themselves as “*dual institutes*” without substantive changes in pedagogy. Such dynamics illustrate how the presence of framework elements on paper does not guarantee their functionality in practice.

Symbolic adoption can reflect multiple pressures:

- The need for governments to signal modernisation to donors,
- The political desire to showcase reform progress, or
- The lack of institutional capacity to translate laws into practice.

From an analytical perspective, this theme highlights the importance of distinguishing between formal adoption and substantive embedding. It also tempers assumptions of linear progress: ***the introduction of laws, committees, or curricula may represent only the beginning of a reform trajectory rather than its consolidation.***

State capacity

The theme of state capacity was strongly emphasised. Respondents repeatedly noted that ministries or agencies responsible for VET often lacked the administrative, technical, or financial capacity to sustain reforms once donor projects ended. One interviewee explained:

“The idea was good, but the ministry had only three staff for VET and could not follow up.”

Limited capacity affected not only implementation but also continuity: equipment provided during projects frequently fell into disuse for lack of maintenance budgets, and trained teacher cohorts were not systematically replaced or supported. The significance of this theme lies in its explanatory power: weak capacity helps to account for why certain design components in Euler’s roadmap, such as quality assurance systems or evidence-based design, were poorly validated in practice. It also underscores that ***the transferability of dual VET is contingent not only on donor strategies or employer engagement but equally on the institutional strength of national counterparts.***

6.3 INTERPRETIVE REFLECTIONS

• Entry points and visibility matter.

Workplace training and curriculum cooperation are both highly demonstrable. They produce visible change that aligns well with the short timeframes of donor projects: companies hosting students and new curricula on paper signal immediate reform. These elements therefore function as “entry points” for dual VET transfer, providing proof of concept, building legitimacy, and offering political and donor visibility.

• Form is easier than function.

While curriculum cooperation and standard-setting were validated in process terms, their substantive implementation was more uneven. Producing new documents was achievable within projects but ensuring that teachers could teach them or that firms followed through on content delivery was less certain. The strong validation here must therefore be read as evidence of process adoption rather than guaranteed systemic embedding.

• Scalability challenge.

While pilots can establish company-based training relatively quickly, scaling this to include small and medium enterprises (SMEs) or informal firms remains a long-term challenge. This contrast between visibility and depth is important to note.

• The project logic shapes participation.

In contexts where dual VET was introduced through donor-funded pilots, employer engagement often followed the rhythm of the project itself. Participation was mobilised to fulfil project objectives, such as showcasing

partnership or demonstrating cooperation, but not necessarily structured to persist once external facilitation ended. This explains why initiatives such as equipment provision or joint certification boards appeared in some countries but were inconsistent across cases: they were artefacts of project design, not yet institutional patterns.

- **Transferability is selective.**

The data suggest that not all engagement areas are equally transferable. Core functions such as workplace training and curriculum cooperation travelled more readily, perhaps because they are closely tied to visible outputs (e.g. students in companies, new curricula in schools). In contrast, more systemic engagements such as governance roles, certification, or material provision were harder to entrench. This indicates that when dual VET elements move across contexts, they may do so unevenly, with some components embedding quickly while others remain aspirational.

- **Dependence on institutional scaffolding.**

Certain engagement types require enabling legal frameworks, financial arrangements, and intermediary institutions (such as chambers of commerce). Without these, employer roles remained sporadic or superficial.

- **Temporal fragility of reforms.**

The tendency for contributions to appear during project lifecycles but fade afterwards reflects a wider challenge: systemic change in VET requires continuity over time. Short project horizons make it difficult to institutionalise these engagement areas.

- **invisible but foundational elements.**

Unlike company-based training or curriculum reform, staff development and financial co-responsibility do not generate immediate political visibility. Their invisibility in project outcomes makes them less attractive as donor deliverables, even though they are foundational for sustainability. This raises the question of whether donor evaluation logics inadvertently sideline the very elements that would anchor dual VET long term.

- **Dependence on institutional maturity.**

Both trainer qualification and financing require institutional maturity before they can function. Without national frameworks for continuous professional development or transparent financial arrangements, it is unrealistic to expect firms to act spontaneously. Their absence in the data therefore reflects not just lack of will, but the sequencing challenge of introducing elements that depend on a stronger state and intermediary ecosystem.

- **Potential structural bottlenecks.**

Neglecting these areas risks creating bottlenecks. For instance, modern curricula cannot be effectively delivered if teachers remain untrained in new methods, and expanding apprenticeship numbers without employer cost-sharing stretches public budgets thin. The empirical absence of AE 1.3 and AE 1.7 may therefore explain why many pilots plateau: the transfer halts not because companies refuse participation, but because the structural conditions to sustain deeper engagement are missing.

- **Implications for donor logic.**

These absent areas show that the transferability of dual VET is not only about what is feasible for companies, but also about what donors and governments prioritise. If projects continue to favour visible, short-term results, less tangible but more critical reforms, such as trainer development and financing, will remain sidelined. This highlights a tension between donor project logic and system-building logic, and, suggests that future cooperation must deliberately target these less visible areas, even at the cost of slower demonstration effects.

- **Proof of concept and visibility.**

The alternation between school and company is highly symbolic. It provides immediate visibility for donors and governments, as it can be showcased through apprentices in companies new curricula, or joint certificates. This makes it attractive within short project cycles, where quick results are politically valuable.

- **Adaptability and modularity.**

Unlike financing or governance reforms, which require systemic change, the dual principle can be piloted within a limited number of schools and firms. This makes it transferable as an “entry point” for reform: small-scale alternation schemes demonstrate feasibility without overhauling the entire system.

- **Curriculum as conduit.**

In most projects, the dual principle was enacted through curriculum reform. Standards were revised to distribute content across the two learning venues, but this did not always guarantee full implementation. While alternation was written into curricula, respondents noted that the actual time learners spent in enterprises and the quality of workplace instruction varied considerably.

- **Policy ambition without institutional depth.**

Broad goals such as aligning VET with future labour markets or embedding social objectives are easily articulated because they resonate with international discourses and donor rhetoric. Yet, without grounded institutional practices, they risk remaining aspirational. This disjunction suggests that transfer projects can inflate expectations more quickly than national systems can absorb them.

- **Governance as symbolism.**

The creation of councils, boards, or committees illustrates a willingness to mimic participatory forms, but their uneven influence reveals how power remains centralised. Transferability in this case is constrained not by absence of structures but by the political economy of decision-making.

- **Flexibility as contingent, not structural.**

The pilots demonstrate that modularisation and innovation are possible, but their reliance on donor facilitation indicates that flexibility is fragile. Once projects end, national bureaucracies often revert to rigid routines. What is being transferred, therefore, is not institutional flexibility itself, but temporary donor-driven experimentation.

- **Attractiveness as a cultural lag.**

Efforts to raise the prestige of VET encounter deep-seated hierarchies privileging academic routes. Transferability in this domain depends less on technical reforms and more on slow cultural change, suggesting that attractiveness cannot be engineered within project cycles.

- **Sequencing dilemmas.**

Many of these elements sit on the “second tier” of reform. They presuppose foundational conditions such as stable financing, trained staff, and robust governance, which remain underdeveloped. Their partial presence may therefore reflect not rejection, but the difficulty of sequencing reforms within short project timelines.

- **Donor logic versus system logic.**

Donors prioritise visible entry points that produce measurable results, whereas systemic but less tangible elements remain under-attended. This divergence highlights a structural misalignment between what is feasible within project logic and what is required for long-term institutionalisation.

- **Foundational but intangible elements.**

Unlike curriculum reform or apprenticeship launches, staff development, quality assurance, financing, and evidence-based planning do not generate immediate visibility. Their limited presence in the data suggests they are prioritised in the first line in project design despite being essential for durability.

- **Sequencing challenges.**

These components depend on mature institutional ecosystems (e.g. capable training institutions, regulatory agencies, and functioning data systems) which many recipient contexts do not yet possess. Their absence therefore reflects not only limited company engagement but also structural gaps that cannot be bridged within short project cycles.

- **Risk of superficial transfer.**

Without sustained investment in professionalisation, quality standards, financing, and evidence use, dual VET risks remaining at a demonstration level. Pilots may showcase alternation and curriculum reform but remain stagnant when deeper system functions are required.

- **Implications for cooperation.**

The absence of these components indicates that transferability is not only about replicating visible features of the dual model. It requires deliberate attention to the “invisible infrastructure” of VET systems: the capacities, resources, and data practices that underpin quality and sustainability.

This study has examined the transferability of dual VET elements across thirteen under-researched countries, with the purpose of shedding light on how reforms are framed, implemented, and sustained in contexts where visibility is often low. The findings show that while governance and legal frameworks are frequently established, systemic embedding remains limited, and most initiatives are still donor dependent. Several cross-cutting lessons emerge.

Key takeaways include:

- **Dual VET reforms are unevenly embedded:** governance structures exist on paper, but practical implementation is often fragmented.
- **Employer engagement proves decisive:** where companies are meaningfully involved, as in Ecuador, Togo, or Kenya, reforms acquire traction; where mistrust dominates, as in Uzbekistan, dual elements remain fragile.
- **Financing and sustainability are persistent bottlenecks:** without predictable cost-sharing, pilots fail to move to scale.
- **Trainer professionalisation and monitoring** are consistently underdeveloped, limiting both quality and system learning.
- **Historical legacies** continue to shape reforms: colonial traditions, strong informal apprenticeship systems, and donor-driven projectisation frame how dual VET is received and adapted.

From these insights, a set of policy guidelines can be derived.

Policy guidelines suggest that:

- **Reforms must start from context,** building on apprenticeship traditions, chamber structures, or sectoral organisations rather than importing ready-made templates.
- **Employers should be mobilised with incentives,** including tax relief, levy schemes, or subsidies, to overcome mistrust and encourage participation.
- **Financing should be secured at the outset,** integrating employer contributions and government budgets before scaling beyond pilot projects.
- **Investing in human capacity and system learning is critical,** through trainer pedagogical development, industry exposure, and robust monitoring and evaluation frameworks.
- **Legal anchoring is necessary but insufficient:** reforms require not just laws and strategies, but active ownership from employers, trainers, and learners.

Foresight and conclusions

This study has shown that while dual VET is visible in diverse contexts, its sustainability depends on more than governance frameworks. Responsible transfer requires triangulating governance, employer commitment, and financing with quality assurance and professional capacity. Without this balance, reforms risk remaining symbolic; with it, they can become a durable part of national skills systems.

Looking forward, the study highlights unresolved issues that require further exploration. Instead of fixed answers, the empirical findings raise critical questions across the weakest themes:

- **Financing**
 - How can financing models move beyond donor cycles to ensure continuity once projects end?
 - Should financing be sector-specific (e.g. levies tied to industries) or system-wide, and what trade-offs do these approaches entail?
- **Employer cooperation**
 - Which forms of dialogue can build trust with employers who fear poaching or see training as a cost?

- In highly informal economies, which strategies could bring micro- and small enterprises into dual systems without overwhelming them?
- Should employer engagement rely on incentives, regulation, or voluntary cooperation? Which balance between these is realistic?
- **Trainer professionalisation**
 - Who should carry the responsibility for trainer continuous professional development?
 - Which minimum standards of pedagogical preparation are necessary, and how can they be achieved affordably at scale?
- **Monitoring and evaluation**
 - How can monitoring systems shift from serving donor reporting requirements to becoming qualitative tools for national learning?
- **Systemic embedding**
 - What sustains reforms? Which risks emerge when reforms are legalised before practical ownership is secured and how can those risks be mitigated?

These questions point directly to the conditions, which will determine whether dual VET transfer remains symbolic and pilot-bound or evolves into a durable part of national skills systems. They provide the entry points for the foresight workshop, which will provide a space for scenario-building and collective reflection on the future of responsible dual VET transfer.

The workshop will provide a structured space for forward planning, testing the robustness of different transfer strategies, and identifying conditions under which dual VET reforms can thrive over the next decade. The foresight component will allow stakeholders to move beyond immediate project challenges and begin to shape a long-term vision, which recognises both contextual constraints and future opportunities.

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Gender-specific terms and formulations apply in principle to both genders.