

1.4. MODERN STRATEGIES AND PRACTICES OF QUALITY ASSURANCE IN VOCATIONAL EDUCATION: THE CASE OF DENMARK

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The section examines contemporary approaches to quality assurance in Denmark's vocational education and training (VET) system and identifies universal strategies applicable to other countries. Drawing on analytical reports by CEDEFOP, the European Commission, EQAVET and national Danish institutions, the article outlines how Denmark has developed a coherent, evidence based and labour market oriented model of VET governance. Key elements include the strong role of the Danish Evaluation Institute (EVA), a robust accreditation system, institutional autonomy combined with accountability, and the strategic involvement of social partners through sectoral councils. Based on Denmark's experience, the article identifies five universal strategies shaping modern VET quality assurance: evidence based governance, social partnership, institutional accountability, labour market relevance and digital transformation.

Keywords: vocational education and training; quality assurance; Denmark; EQAVET; governance; social partnership; accreditation; digitalisation; labour market relevance

Ensuring the quality of vocational education and training (VET) is one of the key challenges facing contemporary education systems operating under conditions of rapidly evolving labour market demands, digital transformation, and increasing qualification requirements. Over the past two decades, the European VET area has been developing shared approaches to quality assurance, reflected in the introduction of the European Quality Assurance Framework for Vocational Education and Training (EQAVET) and the Common Quality Assurance Framework (CQAF). Both frameworks articulate the principles of transparency, evidence based decision making, and continuous improvement (European Parliament & Council, 2009; European Commission, 2009). Within this context, Denmark occupies a leading position in Europe, owing to its coherent, institutionally balanced, and labour market oriented model of VET quality assurance.

Quality assurance in the Danish VET system is characterised by strong engagement of social partners, a well developed infrastructure for external evaluation, effective internal quality management mechanisms, and the integration of digital tools into monitoring and assessment processes (Radkevych, 2014).

The institutional architecture of VET quality assurance in Denmark is grounded in a robust system of external evaluation, the central component of which is the Danish

Evaluation Institute (EVA) (2021). A recent Cedefop review emphasises that the Danish VET system is “deeply rooted in a tradition of social dialogue and cooperation between schools, industry, and public authorities” (Cedefop, 2025e, p. 4). Within this framework, EVA functions as an independent analytical body responsible for quality monitoring, programme evaluation, and supporting institutions in developing their internal quality assurance systems.

One of the core functions of EVA is the systematic monitoring of VET system performance, which includes analysing indicators such as completion rates, graduate employment outcomes, dropout levels, and transitions between educational pathways. Cedefop notes that Denmark employs “comprehensive skills intelligence instruments and methods for forecasting future skills needs” (Cedefop, 2025e, p. 28), enabling EVA to ensure evidence based governance and maintain the relevance of training programmes. A significant area of EVA’s work involves thematic evaluations that address specific dimensions of quality, including the effectiveness of the dual system, the quality of workplace based learning, and support for learners with additional needs. Cedefop emphasises that such evaluations contribute to the “continuous updating of curricula in line with technological and societal changes” (Cedefop, 2025e, p. 28). EVA also performs analytical and advisory functions, preparing recommendations, methodological materials, and tools for VET institutions (Cedefop, 2025c, p. 9).

The internal quality assurance system within Danish VET institutions constitutes a fundamental component of the national quality management model and is grounded in a combination of institutional autonomy, accountability for outcomes, and close cooperation with employers. Cedefop highlights that the Danish VET system is “deeply rooted in a tradition of social dialogue and cooperation between schools, industry and public authorities” (Cedefop, 2025e, p. 4), which shapes the nature of internal quality assurance mechanisms. These mechanisms do not operate in isolation but function as part of a broader ecosystem of interaction and shared responsibility.

All VET providers are required to develop and implement internal quality assurance systems based on the Plan–Do–Check–Act (PDCA) cycle. Annual quality reports, mandatory for all VET institutions, include an analysis of key indicators, survey results, and improvement plans, ensuring systematisation, transparency, and the possibility of external monitoring (Cedefop, 2025e, p. 6). Although institutions enjoy considerable autonomy in selecting tools and procedures, they remain accountable to the state through the national performance indicator system. Cedefop stresses that this model creates a balanced combination of flexibility and responsibility, which is a defining feature of the Danish system (Cedefop, 2020, p. 22).

A central element of internal quality assurance is the alignment of training programmes with labour market needs. Denmark implements a model in which workplace

based learning plays a pivotal role, and apprenticeship programmes constitute the foundation for career development within the VET system (Cedefop, 2025e, p. 5). Institutions are required to adapt programme content in accordance with the recommendations of the sectoral committees (Faglige udvalg), which define occupational standards, learning outcomes, and requirements for practical training. This approach ensures the relevance of programmes, their responsiveness to technological change, and their consistency with employer expectations (Cedefop, 2025b, p. 4).

The effectiveness of internal quality assurance systems is assessed through a comprehensive set of performance indicators, including completion rates, graduate employment outcomes, dropout levels, final exam results, and the quality of workplace based learning. Learner and employer satisfaction is another mandatory component of internal quality assurance. National surveys are conducted annually and cover issues such as teaching quality, organisation of the learning process, conditions of workplace training, and learners' overall experience. The latest Cedefop review (2025b, p. 3) further emphasises the importance of learner well being, indicating that internal quality assurance systems encompass not only academic outcomes but also psychological well being, learning support, and student engagement in governance.

The Danish model of internal quality assurance is grounded in a competence based approach, which prioritises the assessment of acquired professional competences rather than the mere assimilation of theoretical content. Digital portfolios, a key instrument for documenting learners' competences (Dibbern Andersen, 2020, p. 8), make it possible to record learning outcomes, demonstrate acquired skills, and ensure transparency in assessment. Institutions also monitor graduate employment outcomes, which serve as an important indicator of programme relevance and the capacity of VET provision to support successful transitions into the labour market.

Digitalisation has become a strategic direction in the development of internal quality assurance systems. Denmark prioritises preparing its VET system for the digital era and the green transition (Dibbern Andersen, 2020, p. 9), which directly shapes the instruments used by institutions: electronic platforms for monitoring learner progress, educational analytics for risk forecasting, online assessment tools, digital portfolios, and digital systems for coordinating workplace based learning. Cedefop highlights that the country employs comprehensive skills assessment instruments (Dibbern Andersen, 2020, p. 25), enabling institutions to adapt programmes in response to labour market and technological changes.

Programme accreditation is one of the key mechanisms of quality assurance in Danish vocational education and serves as an external control instrument aimed at confirming the alignment of programmes with national standards, labour market needs, and learning outcome requirements. Accreditation of Danish VET programmes is carried

out by the Danish Accreditation Institution (Danmarks Akkrediteringsinstitution) – an independent public body operating under the 2013 Accreditation Act (Danish Agency for Higher Education and Science, n.d.). Accreditation constitutes an essential component of the quality management system, ensuring transparency, accountability, and trust in VET outcomes (Cedefop, 2025e, p. 6). This approach establishes uniform quality standards across the VET system and guarantees that each programme meets state and labour market requirements.

The participation of social partners is one of the most distinctive features of the Danish VET system and a key factor underpinning its stability, relevance, and high quality. Cedefop emphasises that the Danish VET model is “deeply rooted in a tradition of social dialogue and cooperation between schools, industry and public authorities” (Cedefop, 2020, p. 27). This cooperation is institutionalised through the work of the sectoral committees – Faglige udvalg – which play a strategic role in shaping qualifications, updating programme content, and overseeing the quality of workplace based learning. These committees ensure a structural link between education and the economy, which is a defining condition for the effectiveness of the Danish model.

Sectoral councils are established on a tripartite basis, ensuring balanced representation of employers, trade unions, and the state. Their composition is approved by the Ministry of Education, which guarantees legitimacy, transparency, and alignment with national priorities. Cedefop describes the Faglige udvalg as “permanent bodies responsible for specific occupational fields”, underscoring their systemic role in maintaining the quality of vocational training. Each council covers a particular occupation or a cluster of related occupations, enabling deep sector specific expertise and timely responses to developments within the corresponding economic sector.

One of the key functions of the Faglige udvalg is the development and revision of vocational qualifications. These bodies define occupational standards, learning outcomes, qualification structures, and requirements for workplace based training. This approach ensures a close connection between programme content and actual labour market needs. Denmark continuously updates its curricula in line with technological and societal changes, and the work of the sectoral councils makes this process systematic, continuous, and grounded in sectoral expertise (Cedefop, 2025e, p. 28).

Another important area of responsibility for the Faglige udvalg is the quality assurance of workplace based learning, which forms the core of the dual system. The councils establish requirements for enterprises eligible to host apprentices, monitor the conditions of workplace training, and ensure that practical learning aligns with occupational standards. This approach guarantees that workplace based learning is not a formality but a fully fledged educational environment in which key professional competences are developed.

The European Quality Assurance Framework plays a central role in shaping Denmark's approaches to VET quality management. The integration of national mechanisms with European standards ensures transparency, comparability, and coherence of qualifications within the broader European Education Area (Eurydice, 2025a).

An important element of EQAVET integration is the use of indicators that capture completion rates, graduate employment outcomes, dropout levels, learner and employer satisfaction, and the quality of workplace based learning. Denmark actively applies these indicators within both internal and external quality assurance mechanisms, enabling evidence based monitoring and ensuring transparency of outcomes. The Cedefop report (2025a, p. 12) emphasises that the country employs comprehensive skills intelligence tools, which constitute a key component of EQAVET implementation, particularly in forecasting labour market needs and adapting qualifications to economic change.

European frameworks also influence the development of digital quality assurance instruments. According to Cedefop (2023a, p. 12), Denmark “prioritises preparing VET for the digital era and the green transition”, which is reflected in the use of digital monitoring platforms, learning data analytics, and electronic portfolios. These tools operationalise EQAVET principles of transparency, data accessibility, and continuous improvement, while enabling rapid responses to shifts in labour market demand.

A further practice illustrating the flexibility and adaptability of the Danish VET system is digitalisation, which has become a crucial instrument for ensuring quality. Researchers note that Denmark “prioritises preparing VET for the digital era and the green transition,” a priority that shapes the strategic role of digital solutions in quality management (Dibbern Andersen, 2020, p. 10).

One of the key directions of digitalisation is the use of electronic monitoring platforms that track learner progress, assessment results, attendance, and completion of learning modules. These platforms provide real time access to data, enabling teachers and administrators to respond promptly to learner difficulties, adjust learning trajectories, and enhance the effectiveness of support measures. Digital monitoring systems constitute an essential component of internal quality assurance mechanisms, as they facilitate evidence based analysis and support the development of individualised learning approaches. This perspective is also reflected in the work of Ukrainian researchers examining digital transformation in education (Radkevych et al., 2025, pp, 15–16).

Learning analytics tools occupy an important place within the digital infrastructure, supporting the prediction of dropout risks, the identification of learners requiring additional support, and the analysis of programme effectiveness. Through these mechanisms, digital instruments function not only as tools for recording outcomes but also as instruments of strategic planning. Denmark actively employs such approaches,

aligning with broader European trends in the development of quality assurance systems and with EQAVET principles centred on continuous improvement and transparency.

Digital portfolios constitute another essential component of digitalisation. They are recognised as a “key instrument for documenting learners’ competences”, as they enable the recording of learning outcomes, the demonstration of acquired skills, and the enhancement of assessment transparency (Cedefop, 2020, p. 11). Portfolios also strengthen learner responsibility for their own progress and facilitate interaction between VET institutions and employers, who gain access to authentic evidence of training outcomes.

Examining the practices that underpin quality assurance in Danish vocational education allows us to illustrate how these practices correspond to global strategies for VET quality management. Contemporary VET systems in Europe and beyond demonstrate a convergence of quality assurance approaches, driven by shared challenges: rapid technological change, evolving labour market dynamics, increasing demands for transparency and accountability, and the need to integrate digital tools across all levels of governance. Analyses of European policies, CEDEFOP research, EQAVET documentation, and comparative reviews of leading VET systems reveal the emergence of five key strategies that shape the development of modern VET quality assurance systems (Cedefop, 2023a, pp. 2–4; Christensen & Juul Wiese, 2024, p. 34).

The first strategy can be understood as the transition toward evidence based governance, which entails the systematic use of data, indicators, and analytics for planning, monitoring, and improving vocational education. The Danish experience demonstrates convincingly that systematic data collection, analysis, and utilisation create the conditions for transparency, accountability, and continuous improvement. Within the Danish model, a central role is played by the Danish Evaluation Institute (EVA), which functions as the national analytical centre. EVA monitors system performance, conducts thematic studies, analyses indicators such as completion, employment, and dropout rates, and formulates policy recommendations.

The second strategy is partnership based governance, which presupposes the institutionalised participation of employers, trade unions, and other stakeholders in shaping qualifications, updating standards, and overseeing quality. A comparative study of the systems of Germany, the Netherlands, and Norway conducted by Winch and Burgess (2025, p. 56) shows that the most effective VET models are built on platforms of “coordinated and consensual cooperation,” where social partners act as co architects of qualifications. This approach ensures high labour market relevance of programmes and strengthens system resilience to economic change. The Danish experience is one of the most advanced examples of this trend, yet it reflects a broader European logic. The third strategy is institutional autonomy with accountability, which combines institutional

freedom in selecting quality assurance methods with clear mechanisms of responsibility. EQAVET reviews note that most EU countries employ programme accreditation, external monitoring, and mandatory quality reports as universal instruments of accountability. This model prevents excessive centralisation while maintaining common quality standards. Institutional autonomy is a crucial condition for the effective functioning of VET institutions; however, it must be paired with clear accountability mechanisms. The Danish model demonstrates that autonomy becomes productive only when institutions have the freedom to choose their methods but are required to demonstrate results. Danish VET colleges enjoy substantial self governance in organising learning, developing internal quality assurance systems, and managing resources. At the same time, they remain accountable through a system of performance indicators, annual quality reports, and external monitoring.

The fourth strategy is the orientation toward labour market relevance, which has become a central principle of contemporary VET systems. A comparative study by the Gatsby Foundation (Stuart Edwards, 2024, p. 15) highlights that successful vocational education systems are characterised by approaches in which employers participate in the development of qualifications, the definition of programme content, and the assessment of learning outcomes. Workplace based learning and the regular updating of qualifications serve as key mechanisms for ensuring relevance. This trend has intensified in response to rapid technological change and the growing need for flexible competences.

The fifth strategy is the digital transformation of quality assurance systems, which encompasses both internal and external mechanisms. The EQAVET report (European Commission, 2023a, p. 58) emphasises the need to assess the readiness of VET systems and institutions for digital change, indicating the integration of digitalisation into quality criteria. Digital dashboards, learning analytics tools, electronic portfolios, online assessment, and digital platforms for coordinating workplace based learning are becoming standard instruments in modern systems. Digitalisation ensures transparency, timeliness, and the possibility of individualised learning – factors that are critically important in the context of rapid technological change.

Digitalisation is not merely a tool of modernisation but a strategic foundation of the quality assurance system. Denmark demonstrates that digital solutions can operate across all system levels – from individual learner progress to national level monitoring. EVA actively uses digital dashboards, automated data collection systems, and electronic survey panels. Cedefop notes that digitalisation contributes to “strengthening learning and well being in the digital age,” underscoring its significance not only for governance but also for the quality of the learning environment (Cedefop, 2025f, p. 9).