

From Secondary Pathway to Strategic Option: Half a Century of Transformation of Vocational Education and Training in Spain (1975–2025)

De vía secundaria a opción estratégica: medio siglo de transformación de la Formación Profesional en España (1975–2025)

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Abstract

Since the enactment of the General Education Law in 1970 and culminating in the 2022 Vocational Training Act (Organic Law 3/2022), Spain's Vocational Education and Training (VET) system has evolved from a secondary educational pathway into a strategic pillar for the education system and labor market. Over the past fifty years, VET has undergone profound legislative, pedagogical, and structural transformations, in response to growing demands for skilled labor and the need to reduce early school leaving and improve youth employability. This article presents a systematic review of the development of VET in Spain in relation to the broader educational reforms introduced since the democratic transition. It pays special attention to the influence of successful European models (such as Germany, Switzerland, and the Netherlands) and to the policy recommendations of international organizations including the OECD, UNESCO, and CEDEFOP. The study analyzes major advances—such as the expansion of Dual VET, the modularization of curricula, and the integration of digital training technologies—as well as ongoing challenges like negative social perceptions, territorial disparities, limited business cooperation, and inadequate career guidance. The findings highlight that VET has played a key role in reducing dropout rates and aligning professional qualifications with technological and economic shifts. However, to fully consolidate its role as a high-quality and prestigious educational route, Spain must

adopt a long-term strategy that ensures adequate funding, equitable regional access, enhanced early-stage vocational guidance, and stronger links with the business sector.

Keywords: Vocational Education and Training, Dual VET, school dropout, employability, educational reform, Spanish education system

Resumen

Desde la aprobación de la Ley General de Educación en 1970 hasta la entrada en vigor de la Ley Orgánica 3/2022, la Formación Profesional (FP) en España ha transitado de ser una vía educativa secundaria a consolidarse como una opción estratégica para el sistema educativo y el mercado laboral. Durante estas cinco décadas, la FP ha experimentado importantes transformaciones normativas, metodológicas y estructurales, en respuesta tanto a las exigencias del tejido productivo como a los retos derivados del abandono escolar temprano y de la escasa empleabilidad juvenil. Este artículo ofrece una revisión sistemática de la evolución de la FP en España en el contexto de los cambios educativos impulsados desde la Transición democrática hasta la actualidad, con especial atención a la influencia de los modelos europeos (Alemania, Suiza, Países Bajos) y a las recomendaciones de organismos internacionales como la OCDE, la UNESCO o CEDEFOP. Se analizan los avances más significativos —como la expansión de la FP Dual, la flexibilización curricular y la digitalización de la formación—, así como los desafíos aún presentes: la percepción social desfavorable, la desigual distribución territorial, las dificultades de coordinación con las empresas y la limitada orientación profesional. El estudio pone de manifiesto que la FP no solo ha contribuido a reducir el abandono escolar, sino que también ha permitido mejorar la cualificación de los jóvenes, adaptando los perfiles profesionales a los cambios tecnológicos y económicos. No obstante, para consolidar su función como vía formativa de calidad y prestigio, se requiere una estrategia a largo plazo que incluya una financiación suficiente, políticas de equidad territorial, un refuerzo de la orientación desde etapas tempranas y una mayor implicación del sector empresarial.

Palabras clave: Formación Profesional, FP Dual, abandono escolar, empleabilidad, reforma educativa, sistema educativo español

Introduction

Since the enactment of the General Education Act (Ley General de Educación, LGE) in 1970, the Spanish education system has undergone profound transformations at all levels. The death of Francisco Franco in 1975 and the subsequent democratic transition marked the beginning of a new era of reforms that also impacted Vocational Education and Training (VET), a sector traditionally relegated to a marginal and low-prestige role within the educational structure. Over the past fifty years, VET has shifted from being perceived as a “second-tier track” to becoming a strategic alternative in addressing youth employability, early school leaving, and productive transformation.

Historically, VET was structured around technical training programs that differed significantly from general education. It was characterized by a hierarchical orientation, subordinated to the needs of industrial development, with minimal curricular integration and few mechanisms for upward mobility toward higher education. Although the General Education Act (1970) introduced formal improvements by establishing training levels and an organizational framework, it failed to alter the social perception of VET, which continued to be viewed as a secondary or “second-chance” option for students with lower academic performance (Grande Rodríguez, 2013).

The approval of the 1978 Constitution ushered in a more inclusive and democratic understanding of the right to education, paving the way for a series of structural reforms. Beginning in the 1980s, legislative measures such as the LODE (1985) and, most notably, the LOGSE (1990), aimed to enhance the social and institutional recognition of VET, better integrate it with general education, and facilitate transitions across different levels of the education system. Nevertheless, these reforms were not free of tensions and contradictions, and progress varied depending on the autonomous community, the local business fabric, and changes in government (González & Martínez, 2019).

Since then, VET has been the focus of successive legislative reforms and strategic plans aimed at improving its quality, aligning its offerings with the evolving demands of the labor market, and strengthening its practical

orientation. The recent enactment of Organic Law 3/2022 on the organization and integration of VET constitutes the most ambitious effort to date to consolidate a modern, modular, competence-based system that is closely connected to productive sectors (BOE, 2022; MEFP, 2023a).

The significance of this historical process is particularly evident when examining key indicators. According to Eurostat (2023), Spain has reduced its early school leaving rate from 31.7% in 2008 to 13.9% in 2022, although it still remains above the EU-27 average of 9.6%. Numerous studies have shown that the expansion of VET—especially in its dual modality—has been one of the most influential factors in this improvement (OECD, 2023; CaixaBank Dualiza & Orkestra, 2023).

Simultaneously, the employability of VET graduates has improved significantly over the past two decades, although notable disparities persist between modalities, regions, and sectors. Dual VET, implemented broadly since 2012, has achieved insertion rates above 85%, considerably higher than those of traditional VET programs, according to data from the Vocational Training Observatory (CaixaBank Dualiza & Orkestra, 2023).

This article forms part of the monograph “Educational Transformation: Half a Century after Franco’s Death” and aims to analyze the evolution of Vocational Education and Training in Spain between 1975 and 2025. Through a systematic review of academic literature, institutional reports, and official statistics, this study reconstructs the legislative, curricular, and political trajectory of VET during this period, assessing its achievements, limitations, and future challenges. Ultimately, the article seeks to provide a comprehensive overview of one of the most dynamic and strategic pillars of the Spanish education system...

Methodology

This study adopts a systematic literature review approach with the aim of analyzing the legislative, institutional, and social transformations that

Vocational Education and Training (VET) in Spain has undergone from 1975 to 2025. This methodology was chosen for its suitability in synthesizing large volumes of information, identifying historical patterns, and comparing educational policies over time (Gough, Oliver, & Thomas, 2017; Snyder, 2019).

The analysis was organized into four thematic dimensions, which structure the results of the article:

1. Legislative and policy evolution of VET in Spain.
2. Curricular and methodological transformations.
3. International influence and European models.
4. Current diagnosis and future perspectives.

This thematic structure enables the articulation of historical analysis with contemporary and future challenges of VET, providing an integrated and critical perspective on its transformation since the end of the Franco regime

Legislative and Historical Framework of Vocational Education and Training in Spain (1970–2025)

The regulatory development of Vocational Education and Training (VET) in Spain has been closely linked to the political and social processes that have shaped the education system over the past five decades. From the General Education Act of 1970 to the current Organic Law on the Organization and Integration of Vocational Education and Training (2022), a series of reforms have progressively transformed VET, both in its structural configuration and in its social and economic function.

VET During Late Francoism and the Democratic Transition

The General Education Act (Ley General de Educación, LGE) of 1970 introduced a formal structure for Vocational Education and Training (VET) within the education system, although it remained separate from the

traditional academic pathway. It established a two-tier VET system—first and second levels—designed to meet labor market needs, with a pronounced division between general and technical education. While the law represented a technical advancement compared to the previous system, VET continued to be perceived as a lower-prestige track, particularly among students from disadvantaged backgrounds (Grande Rodríguez, 2013).

The approval of the Spanish Constitution in 1978 laid the foundations for a more equitable and inclusive structure of the education system, including VET. However, it was not until the mid-1980s that significant changes began to take shape. The LODE (1985) marked a first step toward the consolidation of a democratic education system, recognizing the freedom of teaching and regulating the network of public and publicly funded private schools—provisions that also affected the delivery of VET in diverse settings (González & Martínez, 2019).

Between the approval of the LGE (1970) and the LODE (1985), Vocational Education and Training in Spain underwent significant structural and methodological transformations. The LGE established a VET model divided into two levels—First Level Vocational Training (FPI) and Second Level Vocational Training (FPPI)—with curricula that combined general education, basic training, and specialized vocational instruction. However, these remained clearly separated from traditional academic education (Grande Rodríguez, 2013). This structure reflected a technocratic approach focused more on operational skills than on the comprehensive development of students.

Although VET was formally integrated into the education system, there remained a notable disconnect between training provision and the real needs of the labor market (Mena, Fernández-Enguita & Riviere, 2010). Moreover, curricular designs continued to lag behind the most advanced pedagogical approaches, hindering the adaptation of instruction to dynamic contexts and to student diversity. It is noteworthy that, while the Bachillerato and COU (university preparation course) focused exclusively on general education, VET combined general, basic, and specific content, thereby reinforcing its distinct identity within the system.

These factors help explain why the reforms introduced later with the

LOGSE would mark a turning point in the conception and role of VET in Spain.

From the LOGSE to the LOE: Integrating VET into the Education System

The LOGSE (1990) was the first law to comprehensively address the structure of Vocational Education and Training (VET) within a unified framework. It established intermediate and advanced vocational training cycles, integrated VET into post-compulsory secondary education, and introduced a model more closely aligned with general education (Martínez García, 2009). This law marked a turning point, as it was the first to propose a modular, competence-based training structure.

As part of broader efforts to reduce early school leaving, the LOGSE also introduced the Social Guarantee Programs. These programs targeted young people who had not obtained the Certificate of Compulsory Secondary Education and offered them an initial basic vocational qualification aimed at facilitating their entry into the labor market or their reintegration into the education system. Although limited in scope and less systematically structured than later programs, they served as the direct precursors of the Initial Vocational Qualification Programs (Programas de Cualificación Profesional Inicial, PCPI) implemented under the LOE (Marhuenda, 2006).

The drafting of the LOGSE was preceded by a participatory process involving the creation of Professional Working Groups (Grupos de Trabajo Profesional, GTP), a notable innovation in education policy. These groups, composed of teachers and experts from the business sector, played an active role in defining the new vocational cycles, allowing professional criteria to inform curriculum design beyond purely pedagogical considerations. Thanks to their involvement, professional profiles, expected learning outcomes, and technical requirements for each training cycle could be more precisely defined (Marhuenda, 2006).

During the 1990s, in parallel with the implementation of the LOGSE, the General Council for Vocational Training approved the National Vocational Training Programs, which were instrumental in shaping the future National

Qualifications System. These programs defined the core components of the system: the National Catalogue of Professional Qualifications, professional certificates, procedures for recognizing prior learning, and mechanisms for coordinating formal education with training for employment. They laid the groundwork for a competence-based training model more closely aligned with the European context and labor market demands (Marhuenda, 2006).

In the same structural reform trajectory, the National Institute for Qualifications (Instituto Nacional de las Cualificaciones, INCUAL) was established in 1999 by Royal Decree 375/1999. Its mission was to support the General Council for Vocational Training in developing the National Catalogue of Professional Qualifications, the cornerstone of the new competence-based training approach. In collaboration with the education and labor administrations, INCUAL facilitated articulation between formal education and employment training, laying the foundations for the current National Qualifications System (Martínez-Morales & Marhuenda-Fluixá, 2020).

Although short-lived, the LOCE (2002) introduced certain quality control mechanisms into the education system, but it failed to produce significant changes in VET due to its limited implementation (González & Martínez, 2019).

With the LOE (2006), vocational training cycles were consolidated as the main route into formal VET, career guidance was strengthened, and the possibility was opened to design Initial Vocational Qualification Programs (PCPI) for young people at risk of dropping out of school (BOE, 2006). These programs built upon the aims and spirit of the earlier Social Guarantee Programs developed under the LOGSE, also aimed at providing an initial qualification for those who had not completed compulsory education, although with a less structured curriculum and limited projection into the formal system (Marhuenda, 2006).

Recent Reforms: LOMCE, LOMLOE, and the New VET Law

The LOMCE (2013) retained the general structure of the LOE but did not introduce major changes to Vocational Education and Training (VET). Its focus was primarily on reorganizing the compulsory education stages and

reinforcing the system's evaluative approach, while VET development remained largely in the background, except for the creation of Basic VET (Formación Profesional Básica) as a replacement for the Initial Vocational Qualification Programs (PCPI) (Ministerio de Educación y Formación Profesional, 2023a).

The LOMLOE (2020) introduced improvements in educational equity and personalized learning. With regard to VET, it fostered stronger links between the education system and the labor market, laying the groundwork for the subsequent reform (BOE, 2020).

Finally, Organic Law 3/2022 on the organization and integration of Vocational Education and Training represents the most comprehensive reform of the Spanish VET model to date. This law establishes a unified and integrated VET system that is modular, competence-based, aligned with the national employability strategy, and places particular emphasis on Dual VET as a compulsory and progressively implemented modality (BOE, 2022). Furthermore, the law promotes structured collaboration among educational institutions, companies, and public administrations, with the aim of consolidating a more flexible system that is responsive to technological changes and aligned with regional and sectoral development (CaixaBank Dualiza & Orkestra, 2023)

Table 1 provides a summary of regulatory developments in Spain and their impact on vocational education and training.

TABLE 1. Summary of Regulatory Developments in Spain

Year	Law	Impact on Vocational Education and Training (VET)
1970	General Education Act (LGE)	Introduced a basic structure for VET, separate from general education.
1985	Organic Law on the Right to Education (LODE)	Established basic rights and defined the network of public and publicly funded schools.
1990	Organic Law on the General Organization of the Education System (LOGSE)	Integrated VET into secondary education; introduced vocational training cycles.
2002	Organic Law on the Quality of Education (LOCE)	Briefly implemented; technocratic focus with limited impact on VET.

2006	Organic Law on Education (LOE)	Consolidated vocational training cycles and promoted links with the labor market.
2013	Organic Law for the Improvement of Educational Quality (LOMCE)	Modified previous structure with no significant changes in VET.
2020	Organic Law Amending the LOE (LOMLOE)	Introduced equity, competency-based curriculum, and promoted Dual VET.
2022	Organic Law on the Organization and Integration of VET (LOFP)	Restructured VET into a modular, competence-based system; progressive mandatory Dual VET.

Pedagogical and Curricular Transformations in Vocational Education and Training

Over the past five decades, Vocational Education and Training (VET) in Spain has undergone not only legislative changes but also profound pedagogical and curricular reforms. This evolution has been driven by the aim of granting VET a distinct identity within the education system, shifting from a rigid, technocratic model to one that is more flexible and modular, focused on the development of professional competences and the employability of students.

From Technical Curricula to Modular Structures

During the Franco regime, VET was characterized by a closed, hierarchical structure with limited connection to general education. The curriculum was focused on the acquisition of specific technical skills, with little to no cross-disciplinary integration and virtually no opportunities for transition to higher education. This organization reflected an industrial and utilitarian logic that subordinated training to economic development and reinforced the perception of VET as a track confined to certain social and occupational profiles (Grande Rodríguez, 2013).

With the enactment of the LOGSE (1990), a key transformation was introduced: the structuring of VET into intermediate and advanced training cycles organized into training modules. This shift enabled greater flexibility, facilitated the recognition of prior learning, and opened the path toward more integrated training. Additionally, the inclusion of modules such as Career

Guidance and Labor Relations (Formación y Orientación Laboral, FOL) and in-company training (Formación en Centros de Trabajo, FCT) strengthened the professional dimension of the curriculum (Martínez García, 2009).

The Competence-Based Approach

One of the most significant changes in recent decades has been the introduction of the competence-based approach, initially incorporated through the LOGSE (1990) via the modular structure of intermediate and advanced vocational training cycles. This law marked a shift toward training oriented around learning outcomes and qualifications—initially in a partial manner, and now established as a core pillar of the new training model. The competence-based approach aims to ensure that students acquire not only theoretical knowledge but also practical skills, professional attitudes, and the ability to transfer what they have learned to real-world work contexts (OECD, 2023; CEDEFOP, 2023).

Organic Law 3/2022 on the organization and integration of VET consolidates this evolution by establishing a modular curriculum oriented toward learning outcomes, with cumulative partial accreditation. This system allows students to obtain official certification for completed modules, even if they do not finish an entire training cycle (BOE, 2022).

Assessment, Guidance, and Dual Training

In parallel with curricular transformation, significant methodological changes have also taken place. Assessment has evolved from being exclusively final and based on rote memorization to incorporating formative and competence-based approaches, promoting continuous improvement in learning processes (UNESCO, 2022).

Academic and career guidance—historically a weak component of VET—has gained increasing importance within a broader framework of personalized learning. However, it remains one of the unresolved challenges, particularly in the stages preceding the selection of educational pathways

(CaixaBank Dualiza & Orkestra, 2023).

Another major pedagogical advancement has been the consolidation of Dual VET, which combines classroom instruction with practical training in companies. This modality strengthens the acquisition of competences in real-world settings and facilitates labor market integration, while also contributing to a more active, collaborative, and contextually grounded learning methodology (Navarro & Gil, 2023; García-Pérez & Marhuenda, 2023). Although Dual VET has gained prominence since 2012, its origins can be traced back to the LOGSE (1990), which first introduced the Work-Based Learning Module (Formación en Centros de Trabajo, FCT). This mandatory module, with specific assessment criteria, was completed at the end of the in-school training and involved a placement in a real professional environment. The FCT represented a foundational step in linking formal education with the labor market and constitutes the direct precursor of the current Dual model promoted by Organic Law 3/2022 (Marhuenda, 2006).

European Models and International Influence

The evolution of Vocational Education and Training (VET) in Spain cannot be fully understood without considering the European context and the international influences that have driven structural, curricular, and methodological reforms in recent decades. Since Spain's accession to the European Union in 1986, the country has actively participated in educational convergence processes promoted by institutions such as the Council of the European Union, the OECD, and CEDEFOP (European Centre for the Development of Vocational Training), all of which have played a decisive role in the modernization of the Spanish VET system.

Dual VET and the Central European Model

Among the models that have served as key references are those of Germany, Switzerland, and Austria—countries with well-established dual systems in which students alternate between classroom instruction and workplace

training. In these countries, over 60% of VET students choose this modality, with employment insertion rates exceeding 90% (OECD, 2023; CEDEFOP, 2023).

Dual Vocational Education and Training is characterized by close collaboration between the education system and the business sector, the existence of shared regulatory frameworks, mixed public–private funding, and the strong social recognition of VET as a first-choice educational pathway. This model has been gradually adapted in Spain since 2012 and has been legally consolidated through Organic Law 3/2022, although its implementation remains uneven across different regions (Ministerio de Educación y Formación Profesional, 2023).

France and Integrated Pathways

The French case presents a mixed model in which initial VET, continuing VET, and apprenticeship programs (apprentissage) coexist within an articulated and flexible system. VET qualifications are embedded in a national qualifications framework that enables mobility across educational pathways and recognizes prior work experience (Navarro & Gil, 2023).

This approach has influenced the modular structure and competence-based orientation adopted by the Spanish VET system—particularly through the creation of the National Catalogue of Professional Qualifications and the recognition of cumulative partial accreditations, both of which are central pillars of the current Spanish model.

The role of CEDEFOP and OCDE

CEDEFOP has been one of the most influential European institutions in the transformation of VET, promoting since the early 2000s an agenda focused on lifelong learning, mobility, employability, and quality. Through reports, recommendations, and the development of the European Qualifications Framework (EQF), it has fostered the harmonization of VET systems across EU Member States (CEDEFOP, 2022).

The OECD, for its part, has contributed with comparative studies that position VET as a key driver of labor market integration, social cohesion, and economic competitiveness. Several of its reports have highlighted the positive impact of VET on reducing early school leaving and the importance of aligning curricula with emerging productive sectors (OECD, 2023)

Recent Influences: Digitalization and Sustainability

Contemporary international frameworks such as the European Pact for Skills, the 2030 Agenda, and the European Green Deal are introducing new priorities into VET systems: digital skills, sustainability, circular economy, resilience, and entrepreneurship. Spain has begun to integrate these approaches through pilot projects, new training modules, and national strategies; however, it still lags behind the levels of integration seen in Nordic countries such as Finland or the Netherlands, where digitalization and the personalization of learning pathways are significantly more advanced (UNESCO, 2022; Eurydice, 2023). (Table 2)

TABLE 2. Comparison of VET Modalities in Europe

Country	Predominant Modality	Employment Insertion Rate (%)	System Characteristics	Key Features
Spain	Traditional VET and Dual VET	~68% (traditional), ~85% (dual)	Developing, mixed model	Growing Dual VET; territorial disparities. Modular and competence-based.
Germany	Dual VET	>90%	Established dual system	Company-based and classroom training. Strong business involvement. High social prestige.
Switzerland	Dual VET	>90%	Mandatory dual system	3 days in company, 2 in school. National recognition. Progression accreditation.

France	Mixed (initial VET + apprenticeship)	~70–80%	Articulated system	National Qualifications Framework. Common alternance model. Modular recognition.
Netherlands	Flexible modular VET	~80%	Personalized system	Tailored pathways. Strong integration of transversal and digital competences.
Finland	Personalized and digital VET	~80–85%	Learner-centered system	High autonomy. Work placements. Strong focus on formative assessment.

Current Diagnosis of Vocational Education and Training in Spain

Vocational Education and Training (VET) in Spain is currently undergoing a phase of consolidation and transformation. The most recent legislative reforms—particularly Organic Law 3/2022—have laid the groundwork for a unified, modular model that is more closely aligned with labor market needs. However, the effective implementation of this new system still faces significant challenges, including territorial equity, stronger links with the productive sector, enhanced career guidance, and the modernization of teaching methodologies.

Enrollment Trends and Student Profile

VET has experienced sustained growth in enrollment over the past decade. According to data from the Ministerio de Educación y Formación Profesional. (2023), more than one million students were enrolled in VET programs during the 2022–2023 academic year, representing 12% of all non-university students.

The greatest increase has occurred in advanced-level programs (Grado Superior), which have grown by 77% over the last decade, followed by intermediate-level programs (Grado Medio) with a 52% increase, and Basic VET (Formación Profesional Básica) with a 28% increase (CaixaBank

Dualiza & Orkestra, 2023). This upward trend is partly due to the growing social recognition of VET and the improved employment prospects for graduates compared to those who leave the education system after completing compulsory schooling.

Labor Market Insertion: Advantages and Gaps

One of the most reliable indicators of VET's success is the rate of labor market insertion, particularly in the Dual modality. Graduates of intermediate-level VET (Grado Medio) have an employment rate of 63% within one year of completing their studies, while this figure rises to 85% for those who followed the Dual VET pathway (VET Observatory, 2023). In advanced-level programs (Grado Superior), employment rates can exceed 90% in fields such as IT, healthcare, or mechatronics.

However, there are significant regional disparities: autonomous communities such as the Basque Country, Navarre, and Catalonia lead in the implementation of Dual VET and employability outcomes, whereas other regions offer more limited provision and demonstrate weaker connections to the local economic fabric (Ministerio de Educación y Formación Profesional, 2023).

Inequitable Access and Social Perception

Although Vocational Education and Training (VET) has gained greater social prestige in recent years, persistent stereotypes continue to frame it as a secondary option compared to the Baccalaureate or university education. This perception particularly affects students from more vulnerable socioeconomic backgrounds, who often choose VET by default rather than out of genuine interest or vocation (Sánchez & Ruiz, 2021).

Moreover, access to VET varies significantly across regions: in some autonomous communities, there are waiting lists, a lack of specialized programs, or limited alignment with strategic productive sectors. These disparities hinder the potential of VET to serve as a tool for educational

equity (Consejo Económico y Social, 2023; Observatorio de la Formación Profesional, 2023).

Emerging Challenges: Digitalization, Sustainability, and Innovation

In the coming years, VET in Spain will face several cross-cutting challenges:

- **Digital transformation:** Adapting to the digital economy requires the integration of digital skills modules across all training cycles.
- **Sustainability:** The ecological transition calls for new technical profiles in renewable energy, circular economy, and environmental management.
- **Methodological innovation:** Teachers must be trained in active learning methodologies, entrepreneurial competences, and the use of digital simulators.

Although the new legal framework acknowledges these challenges, implementation is still at an early stage and largely depends on the resources available in each autonomous community (CaixaBank Dualiza y Orkestra, 2023).

Current and Future Challenges for Vocational Education and Training

Vocational Education and Training (VET) in Spain has made significant progress in recent decades, consolidating itself as a strategic educational pathway for youth employability and productive modernization. Nevertheless, structural, pedagogical, and organizational challenges persist, limiting its development and broader social acceptance. These challenges are particularly pressing in the current context of technological transformation, ecological transition, and growing social inequality.

One of the major structural challenges of the Spanish VET system is the effective integration between educational VET and occupational VET—also known as vocational training for employment or continuing education. Although the LOGSE laid the groundwork for a more comprehensive articulation of the system, in practice, two distinct subsystems remain: one managed by educational authorities, aimed at school-age learners and formal qualifications; and another managed by labor authorities, focused on the (re) qualification of the active population.

Despite important advances—such as the creation of the National Catalogue of Professional Qualifications, the development of professional certificates, and procedures for accrediting work-based competencies—Spain is still far from achieving true integration that would fully harness the training potential of the system. Opportunities for employed or unemployed individuals to access training modules within the formal education system remain limited. It is essential to move toward a truly flexible, modular, and interconnected model that promotes lifelong learning (Marhuenda, 2006; Martínez-Morales & Marhuenda-Fluixá, 2020).

Territorial Inequality and Opportunity Gaps

One of the main ongoing challenges is the uneven implementation of VET across Spain's autonomous communities. While some regions—such as the Basque Country and Navarre—have made strong commitments to Dual VET and its alignment with strategic economic sectors, others offer limited and outdated training options (Consejo Económico y Social, 2023; Observatorio de la Formación Profesional, 2023). This territorial disparity generates significant gaps in access, quality, and professional opportunities for students.

According to Observatorio de la FP (2023), 70% of students enrolled in Dual VET are concentrated in just five regions, highlighting the urgent need for a cohesive national policy to ensure the right to quality training provision regardless of place of residence.

Technological Modernization and Digitalization

The emergence of artificial intelligence, automation, and the digital economy demands the continuous updating of training programs. The cross-sectoral digitalization of all productive areas requires that VET incorporate content related to programming, data analysis, cybersecurity, and digital systems maintenance—even in qualifications traditionally not associated with technology (OECD, 2023).

Although the 2022–2025 Strategic Framework for VET includes the creation of more than 200 new qualifications and specialization courses, its effective implementation depends on teacher training, technological resources, and infrastructure that are not yet guaranteed in all institutions (Ministerio de Educación y Formación Profesional, 2023).

Linking VET with the Productive Sector

Despite legislative progress, structured collaboration between training centers and companies remains a major challenge. Many small and medium-sized enterprises (SMEs) lack the capacity to host apprentices or to contribute to the design of training programs. According to CaixaBank Dualiza (2023), only 4.2% of VET students in Spain were enrolled in Dual VET in 2022, compared to 66% in Germany and 71% in Switzerland.

Encouraging business participation through tax incentives, technical support, and reduced administrative burdens is essential to consolidate Dual VET as a viable option for a broader range of students.

Teacher Training and Innovative)

Además, la formación continua del profesorado no siempre responde a las demandas del entorno productivo. Se necesita una estrategia coordinada entre administraciones educativas y el sector empresarial para asegurar que la actualización docente esté alineada con los cambios del mercado laboral.

Teacher Training and Innovative Methodologies

Pedagogical innovation requires well-trained and up-to-date teaching staff capable of applying active methodologies, project-based learning, integrating sustainability, and personalizing learning pathways. However, many VET instructors come from technical fields without initial training in pedagogy, which poses challenges for the effective implementation of competence-based approaches (González & Martínez, 2019).

Moreover, continuous professional development for teachers does not always align with the demands of the productive sector. A coordinated strategy between educational authorities and the business sector is needed to ensure that teacher training is in step with labor market transformation.

Social Prestige and Academic Guidance

Despite recent progress, VET continues to carry a secondary social image when compared to the Baccalaureate or university education. This stigma is especially pronounced in Basic VET, which is sometimes perceived as a “second-chance” pathway for students with lower academic performance (Sánchez & Ruiz, 2021).

Early academic and career guidance, along with public awareness campaigns, are essential to highlight the opportunities offered by VET—particularly in emerging sectors with high labor demand such as automation, renewable energy, or software development.

Proposals and Recommendations for Strengthening Vocational Education and Training

After five decades of legislative, pedagogical, and institutional development, Vocational Education and Training (VET) in Spain stands at a critical juncture—an opportunity to consolidate its role as a cornerstone of both the education system and the country’s economic and social development. Achieving this

goal requires advancing a comprehensive strategy that enhances VET's social prestige, ensures equity, and aligns effectively with the challenges of the 21st century. The following are evidence-based proposals drawn from both national and international experiences.

Ensure an equitable and territorially balanced training offer

It is essential to develop a national map of training needs and professional profiles to guide the planning of VET programs according to labor market demand by sector and region. This planning should include:

- The creation of new training cycles in rural areas or industrial zones undergoing transformation.
- Support for training-related mobility (housing, scholarships, transportation).
- Promotion of distance or hybrid learning modalities in regions with limited access.

Territorial equity must be understood as a fundamental right of students to access high-quality training regardless of their postal code.

(Consejo Económico y Social, 2023).

Strengthen Dual VET and Collaboration with the Business Sector

Expanding Dual VET requires a more ambitious policy framework including tax incentives, regulatory simplification, and technical support for companies—especially small and medium-sized enterprises (SMEs). Recommended measures include:

- The progressive extension of the Dual modality to all training cycles, as envisioned by Organic Law 3/2022.
- The creation of intermediary roles (e.g., company tutors, Dual VET

coordinators).

- The establishment of sectoral working groups for the joint definition of professional profiles, standards, and shared training projects (CaixaBank Dualiza, 2023).

This collaboration should be based on a co-governance model involving public administrations, companies, and educational institutions.

Investment in Educational Innovation and Teacher Training

ET requires a network of centers for technological and methodological innovation, equipped with up-to-date infrastructure, advanced connectivity, and specialized staff. In parallel, it is essential to implement a comprehensive, continuous professional development plan for teachers, focused on:

- Active methodologies (project-based learning, flipped classroom, simulation).
- Digital and green competences.
- Competence-based assessment and personalized learning.

Training programs should be tailored to the specific needs of each professional field and include opportunities for work-based placements in companies (González & Martínez, 2019)

Strengthen Vocational Guidance and the Social Prestige of VET

Career guidance should begin in the early stages of education (end of primary and start of secondary school) and provide accurate, engaging, and up-to-date information about the opportunities offered by VET. Key recommended measures include:

- Specific training for guidance counselors on VET pathways.
- Institutional campaigns highlighting success stories and professional career opportunities.
- Development of digital guidance platforms with interactive pathway

simulators.

Restoring the self-esteem and public image of VET also requires its active presence in educational discourse, media narratives, and national talent development strategies (Sánchez & Ruiz, 2021)

Promote a VET System Aligned with 21st-Century Challenges

VET must be positioned as a key driver in the ecological transition, digital transformation, and social cohesion. To achieve this, it is necessary to:

- Incorporate content related to sustainability, circular economy, equality, and human rights.
- Design micro-credentials and specialization programs in emerging sectors.
- Develop flexible lifelong learning pathways that facilitate professional requalification and reentry into education for adult learners (CEDEFOP, 2023).

Discussion and Conclusions

- The evolution of Vocational Education and Training (VET) in Spain over the past half-century has paralleled the social, political, and economic changes that have shaped the country's recent history. From its initial configuration under the 1970 General Education Act to its full integration as a strategic educational option through Organic Law 3/2022, VET has moved from marginalization to institutional recognition—although it has not yet achieved a level of prestige comparable to that of the Baccalaureate or university education.
- This article has demonstrated that VET has played a key role in three major areas:
- **Reducing early school leaving**, particularly through the diversification of educational pathways and the implementation of Dual VET.

- **Improving youth employability**, through a gradual alignment between training competences and labor market demands.
- **Responding to digital, ecological, and demographic transformations**, by progressively incorporating new professional profiles, active methodologies, and modular training structures.
- Nevertheless, major challenges remain. Uneven implementation across autonomous communities, difficulties in establishing stable partnerships with the business sector, limited investment in pedagogical innovation, and the persistent perception of VET as a “second-tier” option continue to constrain its transformative potential.
- From a comparative perspective, the most successful European models (e.g., Germany, Switzerland, the Netherlands) share several structural elements that have not yet been fully established in Spain: territorially balanced planning, institutional–business co-governance, strong social recognition of vocational pathways, and personalized guidance beginning at early stages.
- In this regard, the recent structural reform of VET—competence-based, focused on learning outcomes, modular in design, and with a strong push toward Dual VET—represents a historic opportunity. However, its success will depend on:
 - The political will to allocate sufficient resources and infrastructure.
 - The effective involvement of the productive sector.
 - The deep transformation of career guidance systems and teacher training.

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