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E+E | Economy and Education

Brief

Capitalization exercise on Technical and Vocational
Training Systems in Latin America.

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Introduction

As part of the phasing out of bilateral cooperation by 2024, the SDC has launched a knowledge-sharing initiative to learn from its Technical and Vocational Education and Training projects (TVET) in Latin America. The objectives were to support knowledge management in Cooperation Offices, particularly with regard to the impact and sustainability of Technical and Vocational Education and Training (TVET) interventions at the systemic level, and to share best practices from Latin American TVET projects with SDC offices worldwide. This process involved four Latin American countries (Bolivia, Cuba, Honduras, Nicaragua) and included online workshops to identify and evaluate systemic project impacts. This brief summarizes examples of key elements for systemic impact in TVET systems from the four countries, as well as overall lessons learned from the capitalization process in Latin America.

Key elements for systemic impacts on TVET Systems in Latin America selected by the SDC offices

[link](#) to full report in Spanish

To illustrate the range of systemic impacts achieved, the four SDC country offices selected examples from their countries as part of the capitalization exercise. These examples are considered to be important elements in promoting systemic impact and cover different aspects of TVET, including the assessment of occupational skills, career guidance for graduates and the promotion of cooperation between TVET institutions and enterprises. It is important to note that the examples presented in this brief represent only a part of the systemic impacts achieved by the projects. In selecting and compiling the examples, care has been taken to cover as wide a range of different system components and innovations as possible and to avoid duplication. The following is a short overview of the key elements applied by the SDC-projects in the four countries for achieving systemic impact in TVET (for more information, see the examples below):

Linking TVET Institutions and Enterprises (Across All Projects): All four projects contributed significantly to enhancing collaboration between vocational training institutions and enterprises. This connection ensures that vocational training programs are not only relevant but also aligned with the dynamic needs of the job market. By enhancing collaboration, as seen in the cases of Cuba and Honduras, these projects contribute to the development of a skilled workforce that directly meets industry requirements. This integration is vital for economic growth, as it empowers individuals with practical skills and enables businesses to thrive in a competitive environment.

Promoting Internship and Job Placement Services (Across All Projects): All four projects introduced counseling services for graduates. These services are crucial as they play a pivotal role in bridging the gap between education and practical application. These services provide graduates with valuable support, facilitating a smooth transition from training to the professional workforce. By offering counseling and assistance in securing internships or jobs, the

services enhance graduates' employability, contributing to their career development. Moreover, helping graduates to enter the workforce contributes to reducing unemployment and stimulating economic growth.

Strengthening Non-Formal Vocational Training Centers at Meso Level (Honduras): In Honduras, due to weak public partner institutions and a lack of a coherent vocational education and training reform agenda, the project focused on promoting non-formal vocational skills development. These centres provide flexible training opportunities that fill gaps in the formal education system. This innovative approach is essential to meet the diverse learning needs of young students and to promote a more inclusive workforce in the face of existing institutional limitations.

Introducing Assessment and Certification Models of non-formal skills (Nicaragua and Bolivia): Many individuals acquire valuable skills through informal learning experiences or on-the-job training. These skills often go unrecognized and unacknowledged, making it difficult for individuals to demonstrate their competencies to potential employers. The assessment and certification models in Nicaragua aim to bridge this gap by providing a formal process of recognizing and certifying these non-formal skills. Similarly, in Bolivia, the TVET project played a key role in developing and designing a very similar model for the assessment and certification of occupational skills.

Providing Capacity Building (Across All Projects): Capacity building of training institution was a common thread across all projects and is critical in the Latin American context, because it is a fundamental pillar of sustainable development. By putting the emphasis on improving the skills and capabilities of vocational training institutions and their staff, the initiative ensures a lasting impact on the education system. This comprehensive approach, not only facilitates the successful implementation of change, but also enables the education ecosystem to adapt and evolve over time. Ultimately, capacity building is the driving force behind the long-term success and effectiveness of national TVET systems, fostering a resilient and continuous supply of TVET in a country.

Enhancing Private Sector Involvement (Across All Projects): Collaboration with the private sector was a cornerstone of the innovations generated in these projects because it brings real-world industry perspective and dynamism to vocational training programs. The private sector actively participated in identifying training needs, shaping job profiles, updating or developing curricula, and even providing practical training opportunities such as internships for students and exposures for teachers and trainers. This ensured that the vocational training programs were aligned with the evolving needs of the job market, making the vocational training more relevant and effective.

Working with TVET Systems – Overall lessons learned from Latin America

Working on the development of TVET systems in Latin America is a complex and multifaceted endeavour. In conclusion, the success of TVET programmes in Latin America depends on recognizing the unique context, building strong partnerships, tailoring approaches, ensuring quality, inclusivity, and sustainability. Moreover, the meso level, with its role as an intermediary in challenging contexts, contributes significantly to the resilience and sustainability of TVET systems. Collaborating with the private sector further enhances the relevance and employability of TVET graduates. By addressing these aspects, TVET can have a lasting and positive impact in the region.

In addition to the specific lessons learned from each project (see examples below), the capitalization exercise formulated a set of general lessons learned from working with TVET systems:

Understand the local context: Recognizing the unique socio-economic, cultural and political context of each Latin American country is a fundamental lesson. The diversity within the region means that interventions must be carefully tailored to the specific needs and challenges of each specific case. What works in one country or region may not work in another. This requires in-depth research and a deep understanding of the local context to ensure that TVET programmes are relevant and effective. Tailoring interventions to the specific needs and goals of the area is not only a matter of content, but also of programme delivery, financing models and support services. Such flexibility is essential for success.

Longer Project Duration and Trust Building - A recurring theme in these successful projects was the extended duration of their implementation. With the exception of Cuba, where the project duration was significantly shorter, the other countries - Bolivia, Honduras and Nicaragua - all experienced the gradual introduction of new elements into their TVET systems over an extended period of time. This longer-term approach allowed for incremental change and created the conditions necessary for systemic effects to take root. Another critical factor in the success of these projects was the establishment of close and trusting cooperation between the project teams and their national counterparts. Government agencies, educational institutions, industry partners and community organisations need to be involved in decision-making, co-designing programmes and defining outcomes. This inclusive approach fosters ownership and commitment to the success of TVET. This collaborative partnership took time to develop, highlighting the need for longer timeframes if systemic impact is to be achieved. The physical presence and work within the partner institutions were instrumental in fostering collaboration and trust.

Incremental approach for change - The introduction of innovations followed a common pattern in these countries. New ideas and approaches were first developed and tested in pilot projects before being scaled up and integrated into existing systems. This methodological approach was crucial in demonstrating that change was possible and that these changes did indeed lead to improvements, providing a solid basis for convincing partners to adopt and integrate the new approach into their TVET systems.

Policy frameworks and regulations - An essential condition for the success of these projects was to ensure that the desired changes and improvements were in line with, or at least did not contradict, the policy priorities of the

partner countries. This alignment with national policies proved essential to capitalize on 'windows of opportunity' and to facilitate systemic impacts. These frameworks include accreditation standards, funding mechanisms and quality assurance. In addition, policy dialogue facilitated by the Swiss representation at the national level is essential to ensure that project interventions and innovations are ultimately integrated and aligned with partner countries' policies for TVET systems. Achieving such alignment required a degree of flexibility for projects to adapt their interventions to the evolving national agendas of their partners in order to achieve lasting impact.

Financial sustainability: Planning for the long-term sustainability of the TVET sector is more than securing short-term funding. It involves developing public and private revenue streams, fostering industry partnerships, and building institutional capacity. This comprehensive approach ensures that national TVET programmes have the financial means to provide quality training and adapt to changing needs, thus securing the future of the sector.

Meso-Level Approach - While alignment with national policies and working with national partners were key to the successes in Bolivia, Cuba and Nicaragua, the situation in Honduras was a special case. In the context of challenging states like Honduras and other fragile regions, the meso-level approach is an essential strategy. Weak partner institutions in the national TVET sector and the absence of a coherent reform agenda meant that the focus here was on the meso level, in particular the promotion of non-formal TVET centres. Meso-level organisations (associations, chambers of commerce, training centers) act as intermediaries, bridging the gap between macro-level policy and micro-level implementation. They contribute to the resilience and sustainability of TVET systems in the absence of secure long-term public funding, by engaging with local industry and promoting employer participation to ensure the continuity of training programmes. This example shows that even in fragile contexts and without close collaboration with a partner government, it is possible to make sustainable changes to the components of a system.

Donor coordination and regional cooperation - Lessons learned underline the importance of complementary coordination and cooperation with other donors and development organisations. In Honduras, for example, the involvement of a GIZ project that supported other institutions, networks and sectors in tandem with the SDC project contributed to the project's success. Similar collaborations with organisations such as LuxDevelopment, ILO, UNDP and even private foundations in other countries have played an important role in promoting systemic impact. Fostering collaboration and knowledge sharing among organizations (INFOP, INATC, INSAFORP, CINTERFOR, etc.) of Latin American countries is essential to accelerate progress in the region. Sharing best practices, lessons learned and resources helps to create a regional ecosystem of learning and development. This regional cooperation can lead to more efficient use of resources and broader positive impacts.

Cooperation with the private sector also emerged as a key success factor in most of the examples. The involvement of the private sector in identifying training needs, contributing to the development of job profiles, curricula and test instruments, and providing practical training through internships for students and training periods for teachers and trainers, significantly improved the development and sustainability of systemic impacts. This collaboration ensured that TVET systems were more closely aligned with the needs and expectations of the labour market, ultimately contributing to a more effective and sustainable system. It can lead to internships, work placements and even job opportunities for graduates. Partnerships with the private sector provide valuable insights into the changing needs of the labour market and can help to shape curricula to meet those needs. Quality curricula and training are

the foundation of effective TVET. Curricula need to be up-to-date, relevant to industry needs and practical. Trainers should be equipped with the latest pedagogical methods and industry knowledge. Achieving this quality requires continuous improvement, assessment and feedback mechanisms.

Innovation and capacity building - A common feature of all the projects reviewed was their approach to developing and introducing new and innovative approaches alongside and into existing institutions, rather than attempting to build entirely new ones. This approach was complemented by a strong emphasis on capacity building within the institutions and among their staff, recognizing that systemic and sustainable impact could only be achieved if the institutions and staff were adequately prepared.

Recognition of prior learning: Recognition of prior learning, skills and competencies acquired outside formal education is essential to bridge the gap between theoretical knowledge and real-world skills. Assessment and certification of occupational skills informally acquired at the workplace or elsewhere recognizes the value of experiential knowledge and provides individuals with opportunities for career progression.

Importance of Internship and Job Placement Services: Internships and job placements for TVET students are not just an outcome, but an integral part of the learning process. Providing students with real work experience is essential for their transition from education to employment. It helps them to apply the skills and knowledge they have acquired in a practical setting. Internships also enable students to build networks and gain exposure to different industries, thereby enhancing their employability. They also provide a valuable opportunity for employers to assess and recruit potential talent.

Importance of a National Inclusion and Gender Strategy: The development of a national strategy for inclusion and gender in TVET is crucial to promoting equal opportunities and addressing gender inequalities. This strategy should prioritize the inclusion of marginalized groups such as people with disabilities and minority communities. It aims to create an environment where all individuals have equal access to TVET programmes and can pursue careers in traditionally underrepresented fields. By promoting diversity and inclusion, a national strategy increases the overall effectiveness and impact of TVET. Addressing issues of access and inclusivity is about making TVET available to all, regardless of socio-economic or demographic factors. This involves not only building physical infrastructure, but also providing financial support, scholarships and support services such as mentoring and tutoring.

Teacher and trainer training: Investing in teacher and instructor training is critical (see example from Nicaragua). Effective teaching methods, technology integration and keeping up to date with industry trends are not just desirable, but necessary to ensure that trainers can provide the best possible training to students. Continuous professional development is a cornerstone of improving TVET.

Technology integration: Incorporating technology into TVET isn't just about keeping up with the times; it's about preparing students for the modern labour market. Integrating e-learning platforms, virtual labs and digital resources increases the accessibility, interactivity and relevance of TVET programmes. It equips students with the skills needed in a technology-driven world.

Examples from TVET projects in Latin America

	Bolivia
	<p>Overall objective Contribute to greater economic and social equity, improving access to employment for people vulnerable to poverty, prioritizing sectors with productive potential through technical and technological education and training.</p>
	<p>Project Period July 2018 – November 2023</p>
	<p>Budget CHF 21,5 million</p>
	<p>Implementer Swisscontact, Fautapo, Ministry of Education.</p>
	<p>Donors SDC</p>

The TVET programme in Bolivia aims to provide economic development and capacity building for young people and women through technical and vocational training. The programme objectives are related to skills development, vocational training quality, certification, and policy engagement. The Swisscontact-FAUTAPO consortium, in collaboration with the Ministry of Education, is responsible for project implementation. The project achieved several results, including institutional improvements of the TVET system, teacher training, and graduates finding employment. It has positively impacted the employment situation and income of graduates, especially in technical occupations, and promoted economic independence for women.

The specific element of systemic impact of the project is particularly the creation of Internships, Job Placement and Entrepreneurship Support Mechanisms as part of the training centers. These mechanisms help students with internships as well as job placement and entrepreneurship advisory services. They involve strategies, tools, the creation of platforms with the private sector, and capacity building for teachers and students. The mechanisms have facilitated learning in real working conditions, improved employability, and helped students find a job or develop business ideas. They also promote coordination with stakeholders and strengthen vocational training quality. The project has contributed to the institutionalization of these mechanisms in the country's vocational training system.

Challenges include teachers' additional responsibilities without extra remuneration, limited entrepreneurship opportunities, and capacity limitations for online employment services. However, the project's comprehensive approach, public-private partnerships, and the commitment of technical training centers have been key success

factors. The mechanisms have optimized the relationship between training institutions and the business sector, leading to improved agreements and graduates' employability. The commitment of teaching and management staff is crucial for success, and the management model may require consolidation and adaptation.

Lessons learnt:







Integrated Training: The project has shown that integrating internship and job placement services, as well as entrepreneurship support into vocational training enhances the comprehensive development of students, preparing them for both employment and entrepreneurship.

Strong Partnerships: Collaborations with business organizations and the private sector play a vital role in aligning training programs with industry needs and facilitating job opportunities for graduates.

Adaptation Period: The management model for job placement mechanisms needs time for consolidation and adaptation to effectively bridge the gap between education and employment.

Financial Support for Entrepreneurship: Addressing obstacles related to financing and ongoing monitoring is essential to support students' entrepreneurial endeavors effectively.

Teacher and Staff Commitment: The commitment of teaching and management staff is essential for the success of vocational training programs, and their dedication to supporting students' career development is crucial.

	Cuba
	Overall objective Swiss Cooperation contributes to improving access to employment for young people, with a focus on women and disadvantaged groups.
	Project Period June 2017 – June 2024
	Budget CHF 8 million
	Implementer UNDP, Ministry of Education and Humanidad e Inclusion
	Donors SDC

The TVET Programme in Cuba (PROFET) focuses on enhancing the connection between Technical and Vocational Education and Training centers (TVET) and the local productive sector in Cuba. The project aims to ensure high-quality training, engage young people in productive processes, use advanced learning methods, and promote social inclusion and gender equality. PROFET is managed by UNDP Cuba in collaboration with SDC, aligned with the Ministry of Education's program for general secondary education improvement. In terms of social and gender inclusion, PROFET has increased women's participation in TVET, set up tools for inclusion, and established guidance circles for students.

One element of systemic impact of the project is the strengthening of exchange platforms with the productive sector and the local economy to improve graduates' employability and income, and to promote territorial socio-economic development, including innovative actions such as the creation of dialogue platforms for improved context monitoring and the use of ICT in teaching.

Another element of significant systemic impact of the project is the Gender and Inclusion Strategy (GIS) initiative within Cuba's vocational training system. The GIS aims to foster equality and inclusion through transversal actions integrated into the vocational training process and specific actions targeting access, training, and employment processes. The implementation of GIS has a wide-ranging impact on TVET in Cuba, transitioning from a project-specific strategy to one that influences the entire technical and vocational education system. Key actors involved in GIS ownership are teachers, management, specialists, and students, while the strategy interacts with other gender strategies in Cuba as part of the country's gender policy. Financial sustainability is well-planned through public budgeting, allocation of resources, and integration into provincial development strategies. Training activities and presenting the strategy to relevant committees and organizations have been critical for its success. Main challenges include entrenched gender stereotypes, insufficient capacity building, and the need for intensive training.

Lessons learnt:







Collaboration platforms with productive sector: Lessons learnt highlight the importance of practical training, innovative learning modalities, effective decision-making at the local level, and robust partnerships in shaping the future of vocational education and its alignment with the local economy.

Planning for Institutionalization: The process of planning and preparing for the institutionalization of GIS at both the political and technical levels is crucial. This contributes to the design and ownership of the initiative. Ensuring that it is integrated into the institutional framework and aligned with government policies helps secure its long-term impact.

Participatory Tool Design: Involving stakeholders in the participatory design of tools that contribute to the implementation of exchange platforms with the productive sector and the gender initiative, including the designing and certification process, is essential. This ensures that the tools are tailored to the specific needs and context, making them more effective and relevant.

Resource Allocation: Allocating human, financial, and capacity-building resources is vital. This not only has an impact on documenting changes in favor of economic inclusion and strengthened gender equality in the productive sector but also enhances commitment of entrepreneurs, political will, and ownership of the TVET strategy. Adequate resources motivate staff to implement the different TVET Tools creatively and effectively

Extended Timeframes for Implementation: Recognize that more time than originally planned may be needed to design the actions and reach consensus on which aspects of the strategy should be prioritized. Comprehensive planning and flexibility in timeframes are essential for addressing complex issues like gender equality and inclusion effectively.

	Honduras
	Overall objective Improve the effectiveness and coverage of the training system for vulnerable young people, through quality training that responds to the needs of the labour market and enables the employability of young beneficiaries.
	Project Period June 2013 – November 2023
	Budget CHF 13 million
	Implementer Swisscontact
	Donors SDC

The TVET Project in Honduras (PROJOVEN) focused on improving vocational training and employability for young men and women at risk of social exclusion. The project operated at the meso-level, aiming to strengthen the intermediate institutions responsible for vocational training.

Specific elements of systemic impacts generated by the project (meso level impact): The project significantly improved the quality and relevance of vocational training in Honduras, with a focus on the entities (associations, chambers of commerce, training centers) on meso-level in Honduras. It fostered a new approach to non-formal vocational training by aligning training with labor market demands and promoting employability. The project facilitated coordination with private enterprises, leading to the development of internships for students. It fostered collaboration between vocational training institutions, private enterprise, and the public sector. Furthermore, the project facilitated the integration of soft skills, entrepreneurship training, and job placement services into vocational training programs. Young graduates' employability improved, leading to positive institutional development in partner organizations.

Lessons learnt when working with a systemic meso-level approach:

In summary, promoting TVET on the meso-level in fragile states is essential for addressing the unique challenges these regions face. Meso-level organizations serve as key intermediaries, fostering collaboration, ensuring program quality, and adapting strategies to local contexts. Their efforts contribute to the employability of graduates and the resilience of vocational training systems in fragile states.

Challenges in Fragile States: Fragile states often face significant challenges in providing effective TVET due to political instability, security issues, limited resources, and a lack of infrastructure. These challenges hinder the development and accessibility of vocational training programs.






Meso-level approach: The project emphasizes the importance of a meso-level approach to address these challenges. Meso-level organizations play a crucial role in promoting TVET in fragile states by bridging the gap between macro-level policies, which are sometimes non-existent, and micro-level implementation.

Collaboration and Coordination: Meso-level organizations facilitate collaboration and coordination among various stakeholders, including government agencies, vocational training institutions, private sector entities, and international organizations. This coordination is essential for pooling resources and expertise to strengthen vocational training initiatives.

Flexible and Adaptive Strategies: Project interventions at Meso-level can develop flexible and adaptive strategies that respond to the unique challenges of fragile states. They can adjust TVET programs to accommodate changing labor market demands and ensure the relevance of training for the local context.

Quality Assurance: Due to lack of public actors, meso-level entities are in charge for maintaining and enhancing the quality of vocational education and training. They can establish standards, monitor program effectiveness, and ensure that graduates possess the skills and competencies needed for employment.

Employability and Relevance: By focusing on the meso-level, vocational training programs can prioritize employability and relevance. They can equip graduates with skills that match the needs of local industries, increasing their chances of finding suitable employment. **Resilience and Sustainability:** Interventions with meso-level entities can contribute to the resilience and sustainability of vocational training systems in fragile states. They work in the absence of secure long-term public funding, engaging with local industries, and promoting employer participation to ensure the continuity of training programs.

	Nicaragua
	Overall objective Swiss Cooperation contributes to reducing poverty and the vulnerability of Nicaraguan youth.
	Project Period January 2013 – December 2023
	Budget CHF 9,3 million
	Implementer Swisscontact
	Donors SDC

The TVET Programme in Nicaragua aims to enhance the employability and labor market integration of young individuals from marginalized urban and rural areas at risk of social exclusion by developing skills aligned with labor market demands.

The project has achieved notable results, including the training of 20,700 young people, of whom 38% secured employment. It has also supported the expansion and diversification of training programs at INATEC, the establishment of the National Centre for the Training of Teachers and Instructors (CNFDI), the training of 2,400 teachers, instructors, and civil servants and guidance for certifying the skills of over 3,000 workers in various centers. Additionally, the project introduced a data management platform to facilitate training management and graduate tracking.

Two elements of systemic impact of the project are to be highlighted:

National Center for Teacher and Instructor Training (CNFDI) at INATEC: The establishment and development of CNFDI played a crucial role in improving the quality of education and vocational training in Nicaragua. The project's success with CNFDI demonstrates that investing in teacher and instructor training at a national level can have a systemic impact on the entire education and training system. It serves as a platform for pedagogical innovation and enhances the alignment of vocational training with the needs of the labor market.

System for Evaluation and Certification of Occupational Competences (ECCL): The creation of the ECCL system facilitated the recognition of competences acquired by individuals with informal work experience, contributing to their employability and the socio-productive development of the country. This system's institutionalization within

the vocational training system demonstrates that introducing mechanisms for assessing and certifying competences on a systemic level can lead to significant impacts on individuals and the labor market as a whole.

Lessons learnt:

The two examples from Nicaragua emphasize the importance of comprehensive, national-level initiatives in education and workforce development to drive sustainable change. The main lessons learnt to achieve systemic impact are as follows:

Alignment with Government Priorities: The project's alignment with the strategic priorities of the government, such as the restitution of rights to the population, plays a significant role in achieving systemic impact. When projects are in sync with national priorities, they are more likely to be embraced and supported.

Close Collaboration and Trust: Building trust and fostering close collaboration between the project team and partner institutions, such as INATEC, is crucial for success. This collaboration enables a shared vision and effective implementation of initiatives.

Standardized Methodologies: The use of standardized methodologies, often adapted from regional or international models, can streamline the implementation of new components within a systemic context. This ensures consistency and quality.

Inclusive and Gender-Equitable Approach: An inclusive approach that considers gender equity is essential for addressing societal imbalances and ensuring that the benefits of vocational training reach a diverse and representative population.

Innovative Strategies: Overcoming challenges, such as recruiting assessors or evaluators, requires innovative solutions. These strategies could include creating incentives, building partnerships, and offering specialized training.

Sustainable Funding Mechanisms: Exploring and establishing sustainable public funding mechanisms beyond the duration of the project is essential for maintaining the long-term impact of systemic initiatives.

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