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SKILLS FOR TECHNOLOGY TRANSFER IN ALBANIA

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This summary was prepared by Jan Otero, ETF.
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PREFACE

This report highlights the importance of “skills-related services” in supporting technology transfer in Albania. The report is part of a research aiming at analysing innovation systems in the Western Balkans economies, analysing skills related services, needs and gaps faces by enterprises accessing necessary sills for technology adoption, innovation and market expansion. Skills-related services encompass information, training, and consulting services offered by various public and private organizations to assist individuals, employees, and employers in developing and implementing technology transfer.

The report defines technology transfer in two ways: Vertical Technology Transfer (VTT) and Horizontal Technology Transfer (HTT). VTT involves the transfer of technology from basic research to applied research and development, often with the involvement of external partners such as public research organizations. HTT, on the other hand, refers to the transfer of established technology from one operational environment to another, often across international borders and through foreign direct investment.

Through an online survey, a comprehensive analysis was carried out to gain valuable insights into the technology transfer-related services and practices in Albania. The survey encompassed a sample of 26 institutions, ranging from public and private to not-for-profit sectors. Furthermore, to complement the quantitative findings, qualitative data was collected using semi-structured interviews (SSI) and moderated focus groups (FG).

Main Results

Skills services to support Vertical Technology Transfer (VTT) in Albania are limited. Horizontal Technology Transfer (HTT) services are more prevalent but still low and dominated by government lead, and donor funded initiatives to increase the competitiveness of some sectors. Historically there has been a strong emphasis on technology extensions services for Agriculture that support both VTT and HTT. However, this is diminishing due to a number of factors including changes to legislation governing R&D providers. Digital industries are an emerging focus for HTT support. Private sector organisations provide support services of different types, but while these have an appearance of supporting 'innovation' they are primarily designed to support general business development and in some cases are not targeting skills services but financial support schemes (subsidy schemes and grants). In general, there is limited presence of local private sector providers who can support technology adoption in smaller companies and across sectors. Horizontal Technology Transfer is often associated with the introduction of modern methods and management procedures aimed at enhancing competitiveness. HEI and VET providers are offering 'educational' services but these are not aimed at enterprises but at individual students. There is no clear distinction in service provision regarding size of companies but most services seem to be aimed locally. 'Services' like training are often part of a donor funded projects rather than being a continuous offering (including commercial ones). There is also evidence of university researchers offering consulting support to enterprises on an individual consulting offer rather than institutional basis. According to participants in the interviews and focus groups, gaps and barriers in the overall ecosystem for TT in Albania predominate over clear gaps in TT service provision. A number of suggestions have been made by stakeholders to address this situation including stronger provision of capacity building for government agencies who provide V/HTT support services and more investment into infrastructure, human resources and funding for R&D. Extending sector specific support to areas beyond agriculture that are being identified under the S3 is a logical improvement action as is trying to stimulate stronger support from the private sector and raising awareness of the differences between VTT and HTT and thus encouraging a more targeted approach to supporting both activities.

Science, Research and Innovation Capacity

Albania's science and research landscape faces significant challenges. The research and development (R&D) sector in Albania is significantly underfunded, with total current expenditures amounting to only 0.25% of the GDP, far below the government's target of 1% by 2022. This lack of investment hinders the country's competitiveness and innovation capabilities, as reflected in its low rankings on various global indexes.The low investment in R&D has resulted in a limited capacity for research, development, and innovation in Albania. The proportion of companies investing in R&D remains low, and the application for patents per one million inhabitants is also below the regional average. The country's performance in terms of human capital and research, as assessed by the Global Innovation Index (GII), is the lowest in the region. Additionally, the absence of comprehensive data on the number of researchers and overall R&D activities further highlights the challenges faced by the research sector in Albania.Albania's participation in the European Union's Horizon 2020 program, aimed at fostering research and innovation, has been gradual but ineffective. The success rate of proposals with Albanian participation is below the average, indicating a lack of effective utilization of the funding available. To overcome these obstacles, Albania needs to increase investments in research and development, strengthen research and innovation capacity, and establish structures and policies that promote the transfer of research outcomes to industry. Additionally, there is a need for greater focus on entrepreneurship and commercialization of research within higher education institutions to foster technological absorption and innovation.

Skills related services for technology transfer in Albania

The analysis conducted through an online survey provides valuable insights into the skills-related services and practices related to technology transfer in Albania. The survey targeted a diverse sample of 26 institutions, including public, private, and not-for-profit sectors. The survey results indicate that government-led agencies, public business innovation support organizations (BISOs), research institutes, and educational institutions, particularly vocational education and training (VET) and higher education institutions (HEIs), are the primary providers of technology transfer services in Albania. These organizations primarily focus on offering their services to the agriculture and rural development sector, with a lesser emphasis on technology-related sectors. Skills development in areas like technological innovations, digital transformation, and entrepreneurship is also in demand among the respondents.The survey reveals that while Albania has multiple actors and institutions involved in the innovation sector, there is limited evidence of how these organizations achieve technology transfer. Public educational institutions show a strong interest in driving innovation and have engaged in partnership projects with EU countries, resulting in knowledge sharing, mentoring, training, and consulting opportunities that benefit the private sector. However, the survey also indicates that the number of organizations actively involved in providing skills-related services to support technology transfer in Albania is limited. There is a higher presence of actors in horizontal technology transfer (HTT) compared to vertical technology transfer (VTT). Some respondents may not have a clear understanding of the concepts of VTT and HTT, leading to varied interpretations and qualitative data provided. This lack of clarity could be attributed to the early stages of technology transfer processes, especially within the public sector.

Needs and gaps in skills-based services for technology transfer in Albania

Based on qualitative data[1] collected through semi-structured interviews (SSI) and moderated focus groups (FG), the analysis reveals that while all participating organizations provide general business support services, only those with an institutional legacy in vertical technology transfer (VTT) have specific services designed to support VTT. Examples include the Agricultural University of Tirana (AUT), Centres for Technology Transfer (CTTs), and Regional Agencies of Agricultural Extension (RAAEs). Agriculture was strongly represented in the interviews and focus groups, reflecting its priority status in Albania. However, sector-specific issues beyond agriculture were not clearly identified, potentially due to the composition of the selected study group. Support for both VTT and horizontal technology transfer (HTT) is diminishing due to the lack of inclusion of technology transfer in national and institutional policies. Legislative changes have made it increasingly challenging for some players, especially government agencies in the agricultural sector, to offer commercial VTT support services. This situation is exacerbated by an aging workforce lacking skills and motivation for embracing new reforms, recruitment freezes, and competition from more attractive job opportunities. HTT support is also limited, primarily dominated by top-down, donor-funded initiatives aimed at improving competitiveness in specific sectors. The lack of local private sector providers capable of supporting technology adoption in smaller companies and across sectors is a significant barrier. Overall, the provision of support for both VTT and HTT is primarily limited to a small number of public sector organizations, with a focus on the agricultural sector. The involvement of stakeholders in providing information, training, and consulting services is insufficient, uncoordinated, and fragmented. Private sector providers are lacking, and local companies face limited availability of information, training, and consulting services. Large gaps exist in support for most sectors, particularly for SMEs and startups, with limited availability of consulting services compared to training services. The main barriers to improving support services are related to the public sector nature of the providers and a lack of clear national and institutional policies. A lack of formal linkages between state-funded technology transfer providers, SMEs, research centres, and experts hinders the coordination of knowledge and expertise provision to the private sector.

[1] Five representatives from different organizations in Albania, including two higher education institutions (HEIs), two government-funded agencies supporting technology transfer, and a microcredit financial institution, were interviewed. The FG included eight participants

Improvement Actions

To improve Vertical and Horizontal Technology Transfer, the following key actions are suggested, based on the results of the interviews and focus groups:

Vertical technology Transfer	Horizontal Technology Transfer
• Increase support for start-ups, especially at the early stage, and expand VTT services to other sectors like ICT, manufacturing, and food quality and safety. • Enhance consulting services for the private sector, including start-ups, SMEs, and large enterprises. • Increase the number of enterprises and qualified staff in universities to deliver support services. • Increase the national budget for R&D, improve the implementation framework, and strengthen government agencies and EEN organizations to deliver IPR training and TT services. • Create dedicated structures for R&D and technology development in public HEIs, fostering collaboration between universities, industry, and the public sector. • Encourage collaboration and create formal linkages between state-funded VTT providers, the private sector, research centres, and experts to support knowledge transfer to the private market. • Promote the triple helix model (Universities/VET-industry-public sector collaboration) and create clusters to accelerate the deployment of emerging technologies. • Incorporate TT as a key action in national and institutional policies within the framework of S3. • Widen the scope of activities and funding opportunities to allow Technology Transfer Centres (TCCs) to primarily engage in R&D activities.	• Increase support for SMEs and start-ups through capacity building and skill development for technology diffusion and adoption. • Offer more information and training, particularly in digital technologies and associated digital skills. • Extend existing information and training actions in agriculture to include consulting services for farmers. • Invest in continuous professional development of EEN staff to deliver effective HTT training. • Develop technical capacities and skills for HTT in service providers and consulting companies, particularly in the private sector. • Engage Chambers of Commerce to promote local businesses, provide advisory services on IPR, and offer training in HTT. • Seek foreign expertise for testing and validating products developed with new technology. • Introduce consultancy on certification and standardization. • Encourage consulting services by chambers of commerce to help SMEs and enterprises institutionalize in-house IPR policies and acquire patents on inventions.