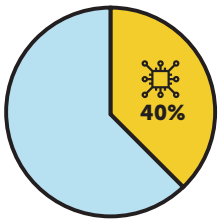
IREX EASY BUSINESS

UKRAINE
Sector Snapshot: Technology

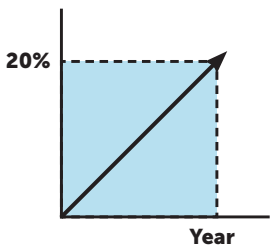
Introduction

Ukraine's technology and ICT (tech) sector is already an engine for economic growth that can support the country's recovery. The challenges within the tech sector's labor market that do exist require targeted, rather than systemic solutions. Employment demand is most concentrated in the communications subsector, where employers face approximately 3.7 vacancies per candidate. To meet Ukraine's 2032 GDP goals, the tech sector must grow its overall workforce by 46.7% from 2022 levels, which makes targeted investments in training and worker pipelines increasingly urgent. Global tech firms and international development funders can partner with employers and educators to increase the supply of trained workers, accelerate junior-to-mid-level progression, and mobilize underused talent.

Tech services account for approximately **40% of Ukraine's service exports.**



Tech exports have grown by **20% annually over the past 10 years.**

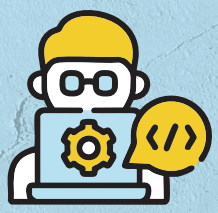


MOST IN-DEMAND PROFESSIONS BY QUALIFICATION LEVEL

Professions	Skill level
Software engineers	HIGHLY SKILLED
Cybersecurity specialists	HIGHLY SKILLED
Database administrators	HIGHLY SKILLED
Telecom engineers	HIGHLY SKILLED
IT project managers	HIGHLY SKILLED
Software testers	SKILLED
Front-end developers	SKILLED
Network technicians	SKILLED
System support specialists	SKILLED
Data entry operators	UNSKILLED/SEMISKILLED
Junior support staff	UNSKILLED/SEMISKILLED
Call center agents	UNSKILLED/SEMISKILLED

The **most in-demand** tech professions are

software engineers



telecom engineers

system administrators

software developers

testing specialists

The Worker Gap

What We Know: The tech sector in Ukraine employed approximately 429,000 people in 2023, with employment numbers growing over the past several years, despite Russia's invasion. Labor demand remains high, particularly for technical support engineers, local network installers, and communications engineers, driven by rapid digitalization, export market growth, and increased cybersecurity needs. More severe labor shortages within the sector are concentrated in telecommunications roles due to the destruction of infrastructure, urgent demand for network restoration, and emigration of skilled workers.

Why it Matters: Tech is a key driver of Ukraine's economic resilience and global integration, growing annually by more than 20% over the past 10 years and representing 40% of Ukraine's service exports. Compared to many other sectors, tech labor has proved more resilient and flexible.

Recommendation: To address tech labor demand challenges in communications, global firms and donors should invest in targeted upskilling and reskilling programs in software development, data analytics, and network engineering; support telecom workforce rebuilding linked to infrastructure recovery; foster public-private partnerships between training providers and employers to align curricula and expand internships; and develop initiatives to retain and re-engage displaced tech professionals, including through remote work facilitation and diaspora engagement.

Pipeline and Supply Gaps

What We Know: Ukraine's tech talent pipeline is large but leaky. Over 150 higher-education institutions offer tech programs and ~110,000 students were enrolled in 2023–24, yet only 26% of informatics or applied-math graduates and 19% of software engineering graduates found in-field jobs, according to national graduate tracking (2022)—a clear education-to-employment mismatch. On the vocational side, ~400 vocational schools and ~160 colleges feed tech/telecom pathways, but employment rates are low for common titles (e.g., computer layout operator, 11%; information/software processing operator, 18%; telecom services operator, 38%). Employers do invest in upskilling—57% run permanent internal training and 40% buy short, specialized courses—yet these mainly upgrade rather than on-ramp new talent. The State Employment Service offers free short courses; however, the availability of these courses varies by region.

Why it Matters: The education system produces many graduates, but too few are job-ready for priority roles; Technical and vocational school outcomes are especially weak. Without tighter employer and education alignment and better regional access to practical training, Ukraine will continue to underutilize its tech talent base and miss opportunities to grow exports and EU-oriented digital services.

Recommendation: Establish employer-designed pathways that convert final-year students and recent grads into entry-level hires (cotaught modules + paid internships + job placement targets); launch regional training hubs in underserved oblasts to deliver hands-on labs for network tech and junior developer roles. These actions will directly address low in-field placement, uneven course availability, and the need for practical, work-based learning, as documented in the report.

Skills Gaps

What We Know: The tech sector's labor shortage is not across the board; it's concentrated in niche roles. Our data note a "noticeable skills gap" despite a generally adequate talent pool, with hiring difficulty in engineering and electrical-installation and concerns about the qualification level of recent graduates. Demand is most intense for software engineers (database, cybersecurity), telecommunications engineers, system administrators, and software testing/development specialists. Oversupply is mainly an issue at junior levels: tech roles attract many applications, with 67% of junior vacancies filled by SoftServe Academy graduates.

Why it Matters: The shortages of experienced specialists combined with junior competition create operational bottlenecks in telecoms and critical tech functions, slow productivity gains, and weaken Ukraine's ability to capture EU market opportunities and higher-value digital exports. The low conversion of graduates into in-field roles further widens the experience gap.

Recommendation: Support collaborations with employers to create training that target database and cybersecurity software engineers, telecom engineers, sysadmins, and testers through short, skill-based bootcamps with paid apprenticeships at telecom operators and IT employer-sponsored capstone projects and micro-credentials aligned to live vacancies.

About IREX

IREX is a global development and education organization. We strive for a more just, prosperous, and inclusive world in which individuals reach their full potential, governments serve their people, and communities thrive. With an in-country presence in Ukraine for over three decades, IREX has been driving transformative change by investing in human capital, catalyzing innovation, and empowering communities. With a dedicated team operating across all regions at both national and local levels, IREX continues to ensure sustainable development through the war with a deep commitment to building a brighter future for Ukraine and Ukrainians.

About EasyBusiness

EasyBusiness is a nonprofit Think-and-Do tank with the mission to drive Ukraine's recovery and economic growth by fostering private-sector development, with a particular focus on advancing Ukraine's integration into the European Union. The organization combines research with actionable solutions to address barriers, empower local communities, and promote sustainable development. Guided by freedom, responsibility, initiative, trust, and respect, we work to create a thriving, competitive economy.

METHODOLOGY. This brief synthesizes data from quantitative labor market analysis, employer surveys, and expert interviews conducted by EasyBusiness. It focuses explicitly on labor demand, training pipeline issues, and skills gaps in Ukraine's manufacturing sector, presenting targeted recommendations to inform donor and private-sector interventions. Estimates for additional required employment in each sector are from the ILO.