InTheLoop4VET

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Contents

Introduction

The low usage rates of graduate tracking data reflect the need for VET providers to increase their capacities in exploiting such data in ways that increase the quality of provision at provider level. This document provides the necessary resources for VET providers to support the selection of institutional quality parameters in need of review and adjustment (e.g. curricula and programmes, training media, guidance services, standards and qualifications offered).

There is no standardised and non-expert tool and framework by which VET providers can make independent use of graduate tracking data. The dominant approaches to using tracking data in a provider self-assessment feedback loop are informal (if existent), reducing significantly, by consequence, the scope and capacity of VET providers themselves to exploit data harvested from administrative sources or by survey.

The proffered document and mentioned approaches explicitly aims to reduce this gap by improving VET providers' decision-making regarding adjustments and interventions in provision quality determinants. The expected impact is a more robust evidence base (tracking data) usage, an increase in VET providers' autonomy for decision-making and more effective quality Assurance practice at the molecular level of VET providers.

The main function of this document is to train VET providers in the strategic identification of the appropriate ways of using tracking data to monitor any of the abovementioned parameters of provision quality.

This document consists of correlation protocol with which VET providers will be assisted in following through the necessary steps for setting up a feedback loop mechanism for the adaptation of VET provision features. The protocol comprises formal step-by-step instructions for graduate (tracking) data classification, aggregation & disaggregation procedures, selection of area of adaptation/intervention and monitoring the implementation of changes and the course of institutional adaptation.

The protocol encompasses a set of formal steps for setting up the said correlation regarding how and what kind of tracking data can be useful to providers themselves when selecting areas of intervention in provision quality.

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Description of graduate tracking data in each country

	PROMEA
π PROMEA	Greece

According to the Final Report "Mapping of VET graduate tracking measures in EU Member States" (2018) of the European Commission, Greece is among the only four EU Member States that do not currently have any VET graduate tracking measure (the countries are BG, CY, EL and LV).

According to the Greek legislation (Ministerial Decision 5954/02.07.2014), all public VET providers that fall under the General Secretariat for Lifelong Learning are supposed to implement a specific Regulation on the Operation of Vocational Training Institutes (IEKs).

The Integrated PRAXIS Monitoring System of IEK PRAXIS this VET provider that has a counseling and career office for students and graduates, offering to them services such as CV/cover letter development and forwarding in selected businesses accompanied by letters of recommendation, continuous support from the provider's Employment Promotion Department, tutorials on labor law issues, etc. IEK PRAXIS implements systematic recording of their graduates working status and progress through their Integrated PRAXIS Monitoring System. Specific information on this monitoring system cannot be attained at this stage though, as someone would need credentials to log into the provider's database.

Another common method certain providers use in order to maintain contact with their graduates (which is not exactly a tracking mechanism) is the creation of alumni associations and portals, where their former students can upload and update their resumes in a frequent basis. In such case the VET provider is informed about their former students' success and in the meantime, companies can approach graduates for upcoming career opportunities.

The National Organisation for the Certification of Qualifications & Vocational Guidance – EOPPEP – is a statutory body investing on better quality and more efficient and reliable lifelong learning services in Greece. Its mission

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is geared towards linking VET with labour market needs, upgrading people's occupational qualifications, reinforcing their employment perspectives and strengthening social cohesion. EOPPEP is the National Reference Point for Quality Assurance in VET and represents Greece in the European network for Quality Assurance in Vocational Education and Training (EQAVET).

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Sweden

LADOK is a student administration system used in all Swedish universities and college universities. It is a student registration and grading documentation system.

LADOK has been developed by the universities and has been controlled by Ladokkonsortiet ("the Ladok Consortium"). Each institution using the system has its own database which is limited to containing the results and registrations of its students; each handles its own service management on one of three certified service nodes, which are located in Umeå, Uppsala, and Lund.

LADOK has combined data and designed a database that allows them to follow student from before, at entry, during and after at institutional level and programme level.

The Swedish National Agency for Higher Education is a Government agency in Sweden that oversees the Swedish public-school system for children and adults.

This agency provides services for students and educators such as Development and Service Training, National Certification for Teachers, and a Reference Center for Vocational Education. The national agency for education prepares not only the knowledge requirements for schools, but also regulations, general recommendations and national tests. This agency is responsible for official statistics in the area of education. They Conduct national follow-ups and evaluations for Sweden. The Agency manages the participation in international educational.

The Swedish National Agency for Higher Education monitors and analyses developments and trends within Swedish higher education. They are also responsible for official statistics on higher education.

The statistics they collect include, for instance, figures on the number of students in different programmes, tracking students after graduation, distribution of the teaching staff by age and gender, as well as the higher education institution's financial reporting.

The area to be monitored is a large one as it involves all of the operations of the higher education institutions.

The Swedish National Agency for Higher Education is looking at different phenomena in the education sector from the point of view of efficiency. This is undertaken in different ways depending on the theme of each separate study. They mainly use existing data that they have collected as the authority is responsible for statistics.

Some countries use surveys to monitor how the students establish themselves in the labour market while Sweden, use administrative data.

Klaipėda Ernestas Galvanauskas Vocational Training Centre
Lithuania

Lithuanian National Human Resources Tracking system integrates the data from various vocational institutions (also higher education institutions) thus allowing the assessment of the state and alteration of employment of Lithuanian residents, forecasting future tendencies and making decisions based on the data. Ministry of Education, Science and Sport uses the data provided for planning and financing of sate financed studies, for evaluation of education and study institutions, forecasting the supply of specialists, for informing the society and other groups concerned about the career of the graduates, and also for the licensing of vocational training programmes.

The Education and Study Observation and Analysis Centre (ESOC) was assigned by the Ministry of Education, Science and Sport and performed the

primary analysis of graduate career. After the consolidation of the constant graduate tracking such information is accumulated constantly allowing seeing the present situation as well as tracing the tendencies.

According to National Human Resources Tracking Footing Description (2016) the data is collected into one register. The data is presented by:

- Educational institutions (number of persons having finished study/training programmes);
- Employment Service (number of persons did not get a job or were employed with the help of the service);
- SODRA (State Social Insurance Fund) (number of persons having started working and are socially insured);
- Other educational institutions (number of persons who continue studying);
- State Tax Inspection (number of persons who declare their income and pay taxes);
- ESOC (Education and Study Observation and Analysis Centre) that collects the data on the employment of the graduates from higher education institutions.

Institutions responsible for graduate tracking in Lithuania are:
- Board of National Human Resource Tracking;
- Employment service;
- Education service provider (vocational training institution, higher education institution and etc.)
- ESOC (Education and Study Observation and Analysis Centre) that collects information on the employment of the graduates from higher education institutions.

According to the Final Report "Mapping of VET graduate tracking measures in EU Member States" (2018) of the European Commission, in Spain VET graduate tracking is done at a regional level only in the two regions covered in this study (Catalonia and Basque Country) this is done on a regular basis.

Besides there is an interesting "Comparative analysis of follow-up measures to FP graduates in Spain" published by VALNALÓN Ciudad Industrial del Valle del Nalón S.A.U

At this time there is no initiative that is complete enough and is signed by enough gents and / or entities.

There are many independent initiatives, but they are not sufficiently developed (Bertelsman Foundation, Mapfre Foundation, Atresmedia Foundation, Adecco, business associations, etc.). A joint definition of competencies and skills has not been reached: it seems that agents and entities are on the same page but have not agreed on a common starting point.

According with the document Report of insertion in the labor market. FP graduates in the education system. Ministry of Education and Vocational. Ministry of Economy and Business of the Educational- Training Transition Survey and labour Insertion. Ministry of Labor, Migration and Social Security is responsible of monthly/annual market information of work of graduates in VET.

The National Educational Panel Study (NEPS) is a study carried out by the Leibniz Institute for Educational Trajectories (LIfBi) at the University of Bamberg. The target activity of the NEPS was to collect longitudinal data on the development of competencies, educational processes, educational decisions, and returns to education in formal, nonformal, and informal contexts throughout the life span. NEPS is one of the main sources for VET tracking system data to date, and it is heavily relied upon for the present research. In the NEPS, the VET tracking data collection is clearly conceptualized as a longitudinal survey and measures different cohorts every year up to 20 years after graduation depending on the size of the panel sample.

In Germany there is no centralized control for graduate tracking, nor a legal obligation to do so. Therefore, any institute is free to tracking graduates or not, depending on their interest in doing it. Sometimes, bigger institutes such as Leibniz perform larger studies of the sector.

Germany has regular measures that combine survey and administrative data. In those cases where administrative data is used for tracking, one and the same person can be followed over time because continuous measuring is possible; however, these measures are not necessarily designed as longitudinal studies. By the way, Germany is currently the only country where a survey-based longitudinal data collection approach applied where the same person is followed over a longer period of time.

Concerning the scope of the tracking system, we can distinguish between:

1. VET-specific measures, which focus on the tracking of VET graduates exclusively;
2. Wider measures, which track graduates from different types of education (e.g. all upper secondary graduates, including VET and other tracks) or wider groups of people, not exclusively graduates (e.g. all people in a given age cohort). In Germany, some of the measures collect information not only on graduates but also on drop outs.

With regard to employment-related data, most measures collect data on the employment status (employed/non-employed) of graduates. The next most common type of data collected is the type of employment (permanent/temporary; part-time/full-time; contract/self-employed).

Graduate tracking at national level

There are two ways that graduates choose after graduation. The first is job search and entry into the labor market, the second is to continue their studies in another or in the same institution. To promote graduates in the labor market or help them in the next stage of education, it is necessary to create special tools that will provide information and provide personal, qualifying information about the student during employment and further education.

This system must also contain a questionnaire for graduates. Questions should relate to personal information about the graduate, after graduation, such questions may be:

- How quickly did you manage to get a job?
- Do you work in your specialty?
- Do your knowledge at the institute meet the needs of the employer? etc.

Such a questionnaire will allow institutes to make predictions about teaching methods, training bases, popular and less popular specialties, and so on.

Instruments

The survey is the main method of collecting information about the directions of graduates. Tracking of graduates is based on administrative data. Such tools are based on the ability to link information about higher education students with other datasets, such as the national social security database.

For example, in Sweden, the LADOK system is a survey of graduates after a year and a half after graduation, which is conducted regularly. The progression paths of students can be followed via LADOK.

Usage

Governments use national alumni tracking tools mainly for statistical and analytical purposes. Among the most specific uses, policy planning and development is most often mentioned, which shows that tracking graduates is indeed politically important. In addition, governments reportedly rely on graduate tracking data as part of their quality assurance activities.

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Graduate tracking at institutions level

Instruments

At the institutional level, higher education institutions use surveys to track graduates. Institutions combine data that has been collected by administrative departments anonymously. In each country, the regularity of the survey is different, it can range from 6 places to 3 years.

Picture1. Impact of institutional tracking

Usage

Higher education institutions use tracking data for a variety of purposes. Besides contributing to general statistics, studies, and administrative and management activity, tracking data is reportedly used by institutions mainly for quality assurance, enhancement or reform of studies, and resource allocation. Compared to their use of student tracking data, graduate tracking data is more often associated with promotional activity, as graduate success in the labour market may boost the prestige or the national ranking of institutions. Several experts also reported that the results of graduate tracking were useful in counselling students, especially for career guidance purposes.

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Tracking methods: Surveys and Administrative data

Surveys

One of the advantages of developing, using and implementing a survey system as a tool for tracking graduates after graduation is their ability to identify and analyze the measurement of progress and entry into the labor market. Ways to interview graduates in different ways, it depends on the country and the highest educational institutions. The most common surveys are questionnaires and interviews.

Surveys are conducted to obtain factual information from the graduate, as well as feedback on motives, attitudes, and follow-up actions after graduation.

Unfortunately, along with the positive value of the survey, there is a downside. Graduates do not always agree to a survey in the form of a questionnaire, especially for an interview, as well as in the context of employment difficult to obtain a questionnaire, there may be a threat of incomplete and adequate assessment of graduates.

Therefore, other types and ways of tracking graduates should also be taken into account. In order to obtain and provide accurate information, it is also necessary to involve a database, which includes: contact information of the graduate, calls, mailings, visits and meetings with respondents.

Using surveys

Pros	Cons
E-survey	
Low cost, real-time access to data, saving time, data automation for input, handling, analysis and reporting	Dependence on e-mail addresses and their accuracy, uncertainty in obtaining a response to the survey
Interviews	
The interviewer can boost the level of response, deeper data on open-ended questions are possible, greater control over the implementation of specific types of sampling	Higher cost, more time, fewer categories and questions to be answered extensively, difficulty in setting days and times to make it convenient for both participants.
Paper survey	
Can be quickly completed, relatively convenient for graduates	Longer to implementation, reducing opportunities for open-ended questions, paper survey costs, increased risk of incomplete or incorrectly completed questionnaires

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Administrative data

Before entering the university, registering for exams, taking internships in organizations within the country and abroad, all these administrative data are in the database of higher education institutions.

All the information contained in the electronic database of universities is updated from time to time, which allows higher education institutions to track the actions of students, what courses they are registered for, what lessons they attend and what exams they have to take. In this way, it allows you to collect data on all university students. On the basis of the received information and data it is possible to make calculations, conclusions, researches and comparisons that allows the administration and to make forecasts for the future in various spheres of institute, and also outside it. Thus, the analysis and collection of information from administrative data can serve as an economic way to track the progress of students and higher education institutions.

Obtaining administrative data on the life, participation and development of students within higher education institutions is easier to obtain than data on the development of graduates. Higher education institutions, unfortunately, do not have the opportunity to use administrative data on graduates, especially their further path of development in the labor market.

After all, without a specially designed system of tracking graduates, it is difficult to track the transition of graduates from one institution to another, entering the labor market and working abroad.

In addition to the above indicators, administrative data are limited, as this database accumulates specific information that is only directly related to higher education institutions, as well as additional information provided by students at will and is optional.

Methodology of data collection

Survey	Administrative data collection instruments
Interviews	Population register
Focus groups	Social security register
Telephone survey	Register on education achievements
Paper survey	Unemployment register
E-survey	Tax register
Combining administrative data matching and surveys	

Linking higher education and the labor market through graduate tracking.

Tracking graduates allows higher education institutions to determine the impact of education on the careers of their graduates, as well as to provide employees and institutions in the labor market with an assessment of higher education curricula and the level of professional readiness of graduates.

The use of graduate tracking allows teachers, professors of educational institutions to obtain information about the place of work of the graduate, career and professional growth, the success of the graduate, who works in the specialty, and who outside the professional discipline.

There are a host of external reasons for tracking graduates, such as legal requirements, funding incentives, quality assurance and national and international accreditation rules.

Tracking graduates stimulates graduation with a strong emphasis on the economic impact of higher education, especially in countries with relatively high unemployment rates among graduates.

The relationship between the higher education system and the labor market can be viewed from different perspectives: the first aspect is considered at the macro level, where the effectiveness of higher education for each individual is assessed. From this point of view, we can say that the effectiveness of the market of educational services is best manifested through the labor market, where the professional potential of young professionals is concentrated and where their professional self-realization takes place. But a significant problem is the mismatch between supply and demand of young professionals in this market, which complicates the analysis of the effectiveness of higher education in the specialty. Therefore, to assess the effectiveness and increase the professional efficiency of graduates in the labor market, graduate tracking is used.

The second aspect of the relationship between higher education and the labor market is manifested at the national level.

Another, third aspect of the relationship between higher education and the labor market can be considered a professional multiplier effect. The development of education leads to the complication of types of work, which leads to the division of labor in society between specialties for their quality, ie there is a so-called "tree of professions" in each area, where the development of knowledge raises new questions and tasks. This stimulates the demand for new workers in these industries, as well as new jobs.

Key features and indicators of graduate tracking activities at the system level

Employment status: employment status (employed, full-time, part-time, unemployed, self-employed etc.), duration of employment/unemployment, length of job search, salary level, wants of access to job, career pathways, location of work.

Socio-biographical and socio-economic information: age, sex, nationality, place of residence, social background, disability, mother tongue, ethnic background, country of birth, children (age of children), marital status, completed formal education and training, higher education, year of graduation.

Further education and training pathways: level and type of education and training, participation in training (number of days in training/education), fields of study, further qualifications achieved.

Link to level, field of study: level and field of study, type of study (full-time, part-time, while in employment), factors for the choice of institution and field of study, duration of study, work experience.

Satisfaction: satisfaction with study program/training , satisfaction with study conditions, satisfaction with current job, satisfaction with current income/salary, satisfaction with career progress, satisfaction with relevance of education/training for current job.

Relevance / use of acquired skills at the workplace: use of study for current employment, matching of skills acquired during education and their use in employment, relevance of study for career progression.

Place of residence/migration to other countries: current place of residence/employment, place of residence during study, migration background, country of birth, migration of the parents, country of birth of parents.

Social and civic activities and participation in these: democratic values, attitudes towards Europe, active citizenship, social and civic engagement, social media presence and profiling, unpaid work, activities in associations, leisure activities.

Overview of standards for data disaggregation

1. **Percentage of male and female graduates.**
   Greece: 36.7 % for men, 49.3 % for women.

Sweden: In 2019, more women than men had a post-secondary education of three years or more. In detail, 33 percent of the Swedish women and 21 percent of the Swedish men had attained that education level. On the other hand, a higher share of men (1.5 percent) than women (1.2 percent) had a post-graduate education.

The number of women who graduated from higher vocational education in 2018 increased slightly compared to a year earlier. More women than men continue to graduate from higher vocational education. In total, 13 400 persons graduated from higher vocational education in 2018, which is 200 more than in 2017. The number of men who graduated declined slightly, while the number of women who graduated increased by 300. Over time, the share of women has been larger than the share of men among graduates.

Share of the population in Sweden in 2019, by level of education and gender
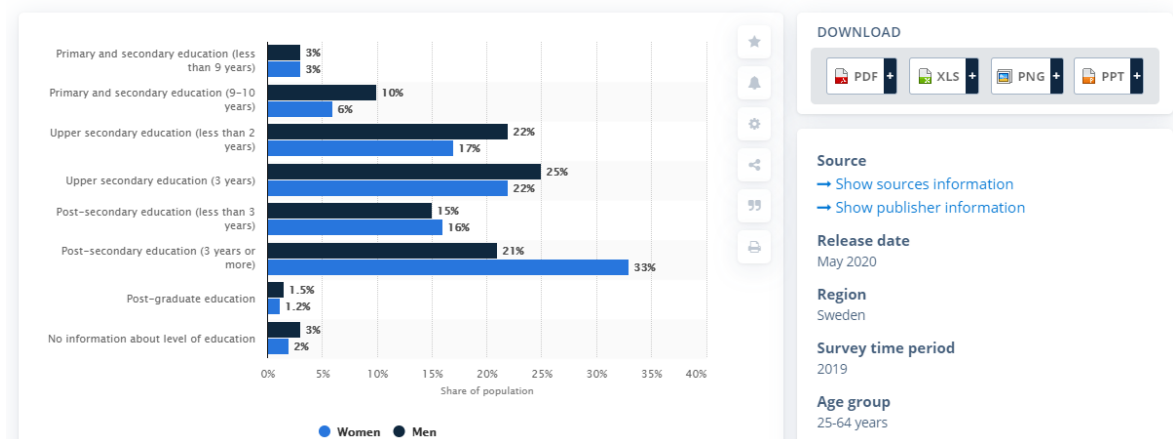
Spain: 50%.

Lithuania: In 2018, 20.8 percent of Lithuanian students chose vocational training. There were slightly more male students. In 2017, 29.8 percent of Lithuanian students chose vocational training.

Most men chose transport or related professions, most women chose social work in 2018.

Conclusion: According to the majority of respondents, women have a higher percentage of graduates than men (over the past 3 years). For example, in Greece it is 36.7% for men, 49.3% for women. In Sweden it is 21% for men, 33% for women. On the other hand, a larger proportion of men (1.5 percent) than women (1.2 percent) had postgraduate education. The number of women who graduated from higher vocational education in 2018 increased slightly compared to the previous year. More women than men continue to complete higher professional education. In total, in 2018, 13,400 people graduated from

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higher vocational education, which is 200 more than in 2017. The number of men graduating decreased slightly, while the number of women graduating increased by 300. Thus, in Sweden, the share of women among graduates is increasing, and the share of men is not.

However, in Spain the proportion of women and men among graduates is about the same (50%). And in Lithuania in 2017, 29.8% of students chose vocational training. Most men chose transport or related professions, most women chose social work in 2018.

2. The influence of the nationality of the graduate on the choice of employer.

Greece: Exact data could not be found, but there are suspicions that citizenship may influence the choice of employer, as fluency in Greek is considered a prerequisite in job descriptions.

Sweden: It is getting easier for foreign-born graduates to find a job in Sweden, according to the country's Employment Service, which says it has seen a jump in the percentage of immigrants scoring roles that require a university degree or college education.

The nationality of the graduate very rarely (almost never) influences the choice of the employer.

Spain: not many

Lithuania: No data

Conclusion: Almost all surveyed representatives of the countries noted that citizenship has almost no (very rare) influence on the choice of employer.
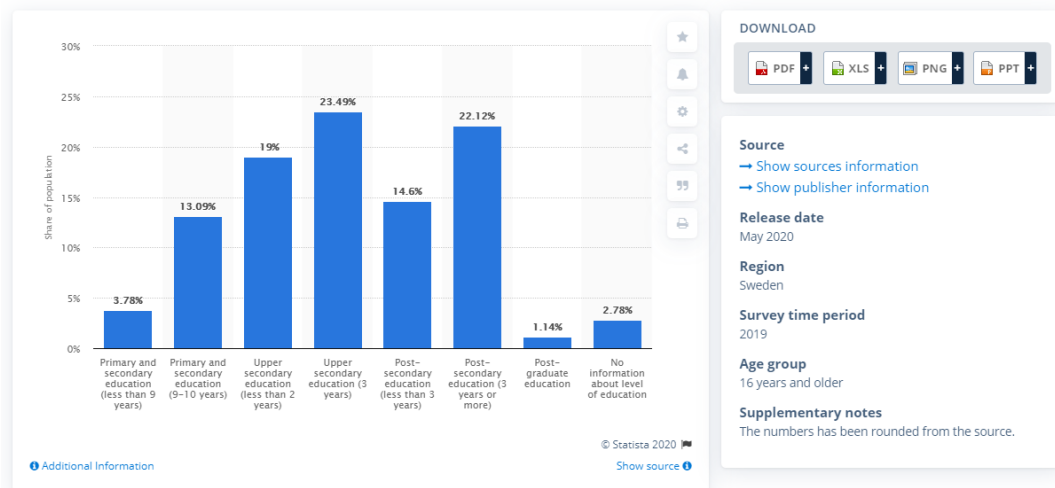
3. Does the employee's nationality influence the employer's choice?

Greece: Not applicable

Sweden: Not much, depends on professions.

The number of Swedes with higher education, a post-secondary education of three years or more, increased since 2000, while the number without decreased. In 2019, around 37 percent of the population had at least some level of post-secondary education. Among them, 21.7 percent had an post-secondary education of three years or more and this percent of people work after graduation. During the fall semester 2018, 349,300 students were registered at universities or higher education institutions in Sweden, which was the highest number in five years.

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Share of the population in Sweden in 2019, by level of education

Spain: Not many

Lithuania: 56% of graduates get a job related to their chosen profession after graduation. 18% of graduates work in unskilled jobs.

Conclusion: almost all surveyed representatives of the countries noted that the nationality of the worker does not affect the choice of employer. However, this may depend on the professional field.

4. **Percentage of graduates working in the specialty and outside the specialty.**

Greece: 19.9% of graduates work in the field in which they studied

Sweden: Depends on the specialty. In general terms 70-80%

Spain: Depends on the specialty. Total 50%

Lithuania: 56% of graduates get a job related to their chosen profession after graduation. 18% of graduates work in unskilled jobs. Employers prefer graduates with previous experience (even if the experience is not related to their profession). Typically, graduates over the age of 25 fall into this category. 66.25% of graduates over the age of 25 get a job after studying (statistics 2017-2018). 61.9% of graduates of higher qualification (ISCED level 4) get a job after training, graduates of continuing education - 64.1%.

Graduates between the ages of 20 and 34 who are looking for a job related to their profession, 1-3 years after graduation, the average employment rate is less than 60%.

In 2018, 53.1% of graduates of vocational education were employed, 58.9% of graduates continued their education.

Conclusion: The level of employment of graduates of vocational education varies slightly in different countries. For example, in Greece, 19.9% of graduates work in the field in which they studied; in Sweden it depends on the specialty, but on average it is 70-80%; in Spain, employment depends on the specialty, but on average it is 50%; In Lithuania, 56% of graduates get a job in their specialty after graduation, but preference is given to graduates with experience, even if it is not related to their profession.

5. Professions that are in greater demand and which are less.

Greece: The main sectors registering bottleneck vacancies include ICT, wholesale and retail trade and pharmaceuticals. Within the ICT sector, there is high demand for software developers with knowledge of specific programming languages and various other roles, such as database designers. Within the wholesale and retail trade, engineering professionals with cross-cutting skills (e.g. languages, sales ability) are in high demand.

· Software developers
· Web and multimedia developers
· Database designers and administrators
· Systems administrators (LINUX)
· Computer network professionals
· Wholesale and retail trade
· Provision of services (especially customer service and technical support)

Sweden: Nurses, teachers, engineers or construction workers, IT specialists, chefs, electricians, carpenters, welders, mechanics and repairers those careers will be the most in demand in the coming years, according to the Swedish Public Employment Service, Arbetsförmedlingen.

Some careers will be tougher to find work in than others. Namely areas like communications, design, the arts and even retail.
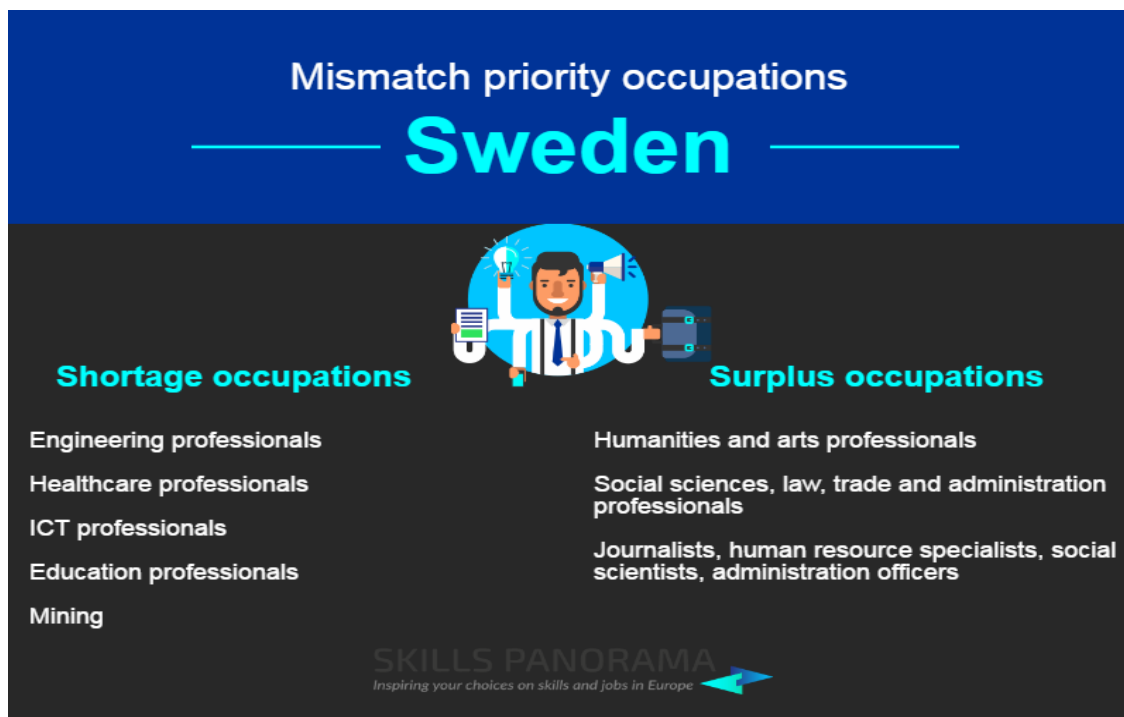
Spain: Regarding industries. The most popular are those related to logistics, digital marketing, e-commerce and social services.

Lithuania: The most popular area among VET students in 2018 were technical specialties. Professional training related to services (hotel services, catering, hair care and beauty) was the second most popular. The most popular subgroup was the organizer of work in the framework of professional training in business and management. As part of the architectural and construction profession, many students have chosen construction equipment. As part of information and communication classes, most students chose computer technology and computer literacy. In 2018, most students were men in the following professional courses: transportation services, mechanical engineering, architecture and construction. The courses were dominated by women: social work, services and vocational training related to health care.

Conclusion: In Greece, there is a special demand for specialists in the field of ICT, wholesale and retail trade and pharmaceuticals. In the field of ICT, there is a great demand for software developers with knowledge of specific programming languages, system administrators, designers and developers and database administrators. In wholesale and retail trade, engineers with end-to-end skills (eg, foreign languages, sales skills, customer service, and technical support) are in high demand.

According to the Swedish State Employment Service, nurses, teachers, engineers, construction workers, IT specialists, cooks, electricians, carpenters, welders, mechanics and repairmen will be in greatest demand in the coming years. And specialists in such fields as communications, design, art, retail will find it harder to find work.

In Spain, the most popular industries are logistics, digital marketing, e-commerce and social services.
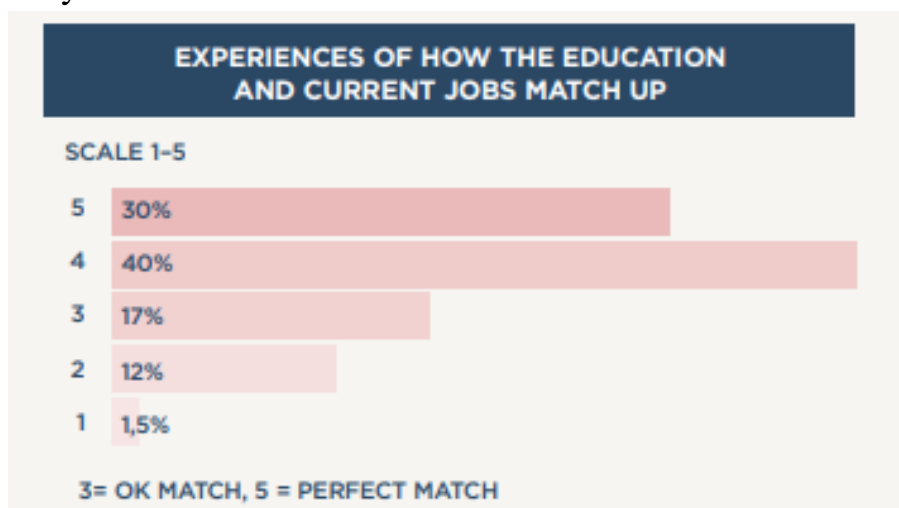
Specialists in technical specialties are the most popular in Lithuania. The second most popular profession is related to the service sector (hotel services, catering, appearance and hair care). In 2018, men chose such specialties as transport services, mechanical engineering, architecture and construction. Women chose social work and health care.

6. **The level of knowledge of graduates after graduation for employment, as well as theories and practices that graduates need before employment.**

Greece: Graduates report a lack of practical application of their skills during their studies, thus in need to have hand-on experience.

Sweden: According to statistics, most students are satisfied with the knowledge and skills acquired at the university, which they apply at work.

70% of students rated 4-5, which means that the skills they acquired completely matched the needs at work.

EXPERIENCES OF HOW THE EDUCATION AND CURRENT JOBS MATCH UP

SCALE 1-5

- 5 30%
- 4 40%
- 3 17%
- 2 12%
- 1 1,5%

3= OK MATCH, 5 = PERFECT MATCH

Spain: there is a subject "Labor Orientation" in all specialties. On the other hand, the educator of each group dedicates vocational guidance classes.

Greece: 2.5-year trainings accredited by the National Accreditation Body, which is also responsible for issuing national certificates, are offered. Training includes both classroom and WBL (2 years / 0.5 years)

Lithuania: 30% of the course consists of theory, and 70% - practice. Students are satisfied with the knowledge they have acquired during the period of study.

Conclusion: almost all countries surveyed noted that most students are satisfied with the knowledge and skills acquired at the university. However, graduates of Greek vocational schools report a lack of practical application of their skills during their studies, so they want to have more practical experience during their studies.

7. How long does it take to find a job after graduation?

PROMEA: Reports suggest that the average wait time to find a job after graduation is 1 to 2 years due to a)preference of individuals not to follow their field of studies b)High unemployment rates in graduates.

In 2018, 64% of young women with higher education were employed, compared to 79% of young men. Although employment has fallen for both men and women since 2008, it is more difficult for women to find employment.

Sweden: 89% find a job within 6 months after graduation
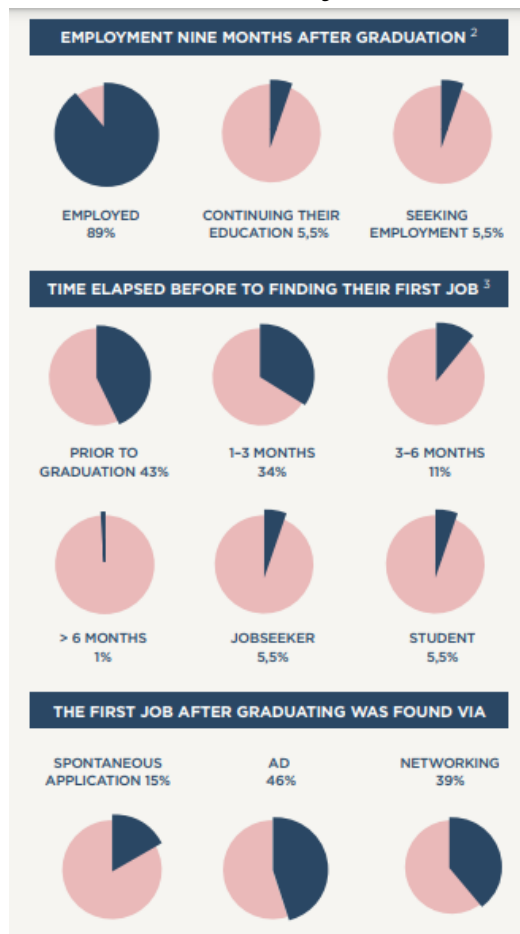
Spain: 30% stay in the company where they are practicing. 20% - in one year.

Greece: In some professions (ie car mechanic) there are not enough graduates to meet the demand, so our graduates start immediately. In some other professions (ie audiovisual) this may take a little longer.

Lithuania: Two months after graduation, they begin collecting data on graduates who have found work. And usually graduates are already working by that time.

Conclusion: In Greece, the average waiting time for a job search after graduation is 1-2 years. In Sweden, 89% of graduates find a job within 6 months of graduationIn Spain, 30% of graduates remain to work in the company where they did their internship. In general, 20% of Spanish graduates are employed in one year. In Lithuania, two months after graduation, data on graduates who have found work are being collected. And usually graduates are already working by that time.

Selection of area of adaptation/intervention and monitoring the implementation of changes and the course of institutional adaptation

Parent and learners: Graduate tracking provides an opportunity for parents and prospective students to choose a demand profession in society and in the labor market. It also helps to choose a higher education institution that provides the necessary skills, knowledge and abilities to obtain the dream profession. Through tracking, parents and students can monitor changes in the labor market and changes in curricula for students in higher education institutes.

Institutes of higher and vocational education: Drawing a parallel between expectations and results, checking the justification of expected results. Supplementing and coordinating curricula to provide students with the necessary skills and knowledge. Check programs and trainings that work well and can continue to exist, as well as programs that need to be discontinued, or improved or replaced. This will make it possible to meet the needs of the labor market.

Trainers: The data allow to improve the offer, methods and tasks of trainers. Tracking allows trainers to draw conclusions about programs that need to be changed, replaced, developed, used effectively, and so on.

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Quality assurance agencies: Using of data as a method of verification and monitoring of higher and professional educational institutions.

Labour market: subtracting the number of students working in the specialty and developing in other sectors. The data provide an understanding of the extent to which the education system provides the skills needed for the labor market.

Government policies in the field of education: determining the extent to which financial programs have an impact on stable performance. Also, check the effectiveness of new programs that are needed in the labor market.

Steps to select new programs that will be relevant in the labor market after graduation

Choosing a profession is an important stage in everyone's life. This is an issue that needs to be approached as responsibly as possible, because it is important to find not only an interesting and well-paid profession, but also in demand in the labor market.

"Who to be?" and "What kind of career do you see yourself in?" - one of the main issues that arise in student youth when choosing a future profession. After all, the future of young people depends on solving this. The problem of choosing a profession has always been difficult. Today, when more and more new professions and specialties appear on the labor market, about which no one had heard yesterday, the choice of profession becomes more than difficult.

The modern labor market tends to replace human physical labor with machines and robots. Such large-scale changes are directly related to the technological breakthrough of our century. Computer technology, artificial intelligence, nanotechnology, the development of virtual reality and genetic engineering dictate to us new in-demand professions. Many specialties are being replaced by modern technologies, human labor automates as much as possible. That is why the topic of popular professions continues to be relevant and exciting.

Automation is one of the main reasons for significant changes in the field of professions. According to research, 50% of economic activity will be automated by 2035-2055. In 6 out of 10 different professions there is a similar trend: at least 30% of the tasks of these professions can be automated.

Change is also affected by the rapid aging of humanity. In particular, it is expected that by 2050 the number of people over the age of 60 on Earth will increase at least 2 times.

New formats and approaches also have an impact: the number of freelancers and professionals coming together to work on a single project is increasing. Such changes affect the fact that there is a demand for specialists with developed skills and abilities of different types. Global challenges and crises are forcing humanity to think about the future today. According to statistics, the population of the Earth by 2050 will increase to 9 billion people, and by 2100 - 11.2 billion.

What to consider when choosing a profession?

First of all, applicants need to weigh all the pros and cons, evaluate the various professions in terms of their pros and cons. You need to think about the following questions:

1. Make a list of relevant professions

Make a list of professions that you like, interesting, that you would like to work in, that suit you.

2. Make a list of requirements for the chosen profession

Make a list of your requirements:

• the chosen profession and the future occupation;

• the chosen profession and life values;

• chosen profession and life goals;

• the chosen profession and today's hot issues;

• the chosen profession and real employment in the specialty;

• the desired level of training;

• the chosen profession and my aptitudes and abilities;

• desired content, nature and working conditions.

3. Determine the significance of each requirement

Determine how significant all of these requirements are. Perhaps there are less important requirements, which, by and large, can be ignored.

4. Assess their compliance with the requirements of each of the suitable professions

In addition to the requirements that you have for the profession, there are also the requirements of the profession itself. Analyze whether you have developed

professional qualities, whether your intellectual abilities, psychological characteristics, state of health meet the requirements of the profession.

5. Calculate and analyze the results

Analyze which profession from the whole list is more suitable for you in all respects.

6. Check the results

To make sure your reasoning is correct, discuss your decision with friends, parents, teachers, a psychologist, a professional counselor.

7. Demand in the labor market

When choosing a profession, evaluate the chances of future employment. To do this, you can search for statistics on the Internet. From them you will learn what professions society needs today.

8. Employment opportunities

This includes the demand for professions in the labor market and the opportunity to get a job in a certain place. For example, you have a rare specialty. But the place where you live does not need such specialists. The way out is to move to another place and get the desired profession there. The choice of profession also depends on lifestyle, place of residence, working conditions. Choose for yourself the job that you can do without breaking your life.

9. Identify the main practical steps to success

So, you have made a decision, now it is important to determine: in which educational institution you will be able to receive professional education, how to develop professionally important qualities, how you can gain practical experience in this specialty, how to increase your competitiveness in the labor market.

10. The Internet can be useful in choosing a profession

You can take career guidance tests. The main task of career guidance is to help modern youth to consciously approach the choice of future profession depending on individual psychological tendencies; show the real situation with the shortage of professionals in the labor market.

Top – 10 skills

In 2015: _____   **In 2020:** _____

In 2015	In 2020
1. Comprehensive problem solving	1. Comprehensive problem solving
2. Interaction with people	2. Critical thinking
3. Ability to manage people	3. Creativity
4. Critical thinking	4. Ability to manage people
5. Ability to negotiate	5. Interaction with people
6. Quality control	6. Emotional intelligence
7. Customer orientation	7. Own assessment and decision making
8. Own assessment and decision making	8. Customer orientation
9. Active listening	9. Ability to negotiate
10. Creativity	10. Flexibility of mind

To remain relevant in the labor market, you must first master these 10 valuable skills. How to comprehend them?

Let entrants try themselves in different professions before embarking on specialized training. Internships and volunteering will help.

The second tip is to take advantage of a variety of free online courses, they will help to master the narrow skills with the help of enthusiastic peers, and on YouTube there are countless useful channels. IT skills can be downloaded online at CodeCademy and other resources.

Third recommendation - attend offline educational activities for adults and children, and numerous courses for IT companies, including free. You should also subscribe to the pages of creative spaces, hubs and libraries on social networks, where educational meetings are regularly held for everyone.

Finally, when entrants decide on your priorities for the near future, start attending specialized trainings and conferences. The more skills you acquire, the more chances you will have in the labor market in the future.

Conclusion

The processes of democratization of modern society require qualitatively new mechanisms for managing all levels, types and components of the educational system. The European vocational education system has faced a number of challenges:

• first, globalization, which encourages fierce competition in the struggle for resources, including for qualified personnel;

• secondly, informatization of society, which accelerates the pace of activity and development of education;

• third, demographic changes that require rapid adaptation of educational institutions to activities in the new demographic and social realities.

Therefore, educational organizations are moving to the use of innovative models of development, ie the development and implementation of new principles, forms, methods and technologies for managing the activities of educational institutions.

To ensure an effective system in vocational training, it is necessary to establish and maintain a connection with real expectations and responsibilities in the workplace.

Often the characteristics of the labor force do not meet modern requirements for its vocational training, labor, technology, mobility and efficiency in ensuring economic stability in general. Thus, there is a high level of forced unemployment.

This document examines the processes and mechanisms for tracking the performance of graduates as a method of obtaining feedback on the effectiveness of the institution in preparing students to work in a particular profession.

The document also contains the level of employment of graduates, the type of employment, skills required by the labor market, step-by-step methods for choosing the desired profession, selection of area of adaptation/intervention and monitoring the implementation of changes and the course of institutional adaptation, steps to select new programs that will be relevant in the labor market after graduation and more.

In addition, the level of satisfaction of graduates, and in some cases employers, with the training received is set. The protocol reviews the study and review of

standards for data disaggregation. Four countries took part in this study (Greece, Sweden, Lithuania and Spain).

The results of the study show that 60-70% of graduates are successfully employed for six months after graduation and among the main causes of unemployment (15%) - continuing education. 81% of employed graduates work in the acquired profession.

The rapid development of high technology has a great impact not only on the way of life, but also on the choice of future profession. Many people are interested in the question: will the current professions remain in demand in the future?

There are now many professions that did not exist before. Current students are mastering completely new specialties. Modern youth seeks to acquire a variety of knowledge and skills to successfully master all the products of technological progress.

TOP-10 professions of the future:

1. Virtual and augmented reality designer
2. Bioengineer
3. Architect of smart cities
4. Information database protection specialist
5. Robotics
6. Nanotechnologist
7. Software and hardware developer
8. Logistician
9. Environmental protection specialist
10. Marketing and sales specialist

The emergence of new professions is associated with the rapid development of scientific and technological progress. A few decades ago, labor was in high demand, and now the global labor market wants to deal with human intellectual abilities.

According to world experts, there is a consensus that the most popular specialties will be those related to innovative and digital technologies. Specialists with creativity, intelligence, ability to make the right decisions in unforeseen situations will be needed at any time.