



Graduate Tracking Peer Learning Activity

Exploring approaches to using graduate tracking data in VET schools and in policy

Virtual meeting: 18 and 19 November 2024 (10.00-14.00 am CET)

Background note

The peer learning activity aims to bring together national authorities' decision-makers, relevant stakeholders and experts to support them to establish or further develop graduate tracking systems and an integrated understanding of graduate and employment data for governing VET systems in their countries.

Within this context, the peer learning activity provides an opportunity for country delegates to:

- Learn from the various approaches (from policy objectives to the design of measures) adopted by different countries for the implementation of graduate tracking and the rationale behind these;
- Discuss the strengths and weaknesses of different approaches, and the conditions in which they work best, to support country delegates identify 'what works' for their particular national context;
- Have a clearer understanding of the value of graduate tracking and how it can effectively support their national VET systems.

Context

The [Council Recommendation on tracking graduates](#) (2017) highlighted that ‘good quality information about what graduates do after obtaining their qualification or leaving education and training is essential to both understand the causes of graduate employability problems in particular regions, economic sectors or for graduates from particular higher education or vocational education and training disciplines, and to identify solutions for those employability problems.’

To this effect, the Recommendation set out that Member States should ‘improve the availability and quality of data about the activities of graduates, and, where appropriate, people leaving higher education and vocational education and training without graduating.’ Furthermore, countries were also recommended to ‘develop graduate tracking systems that include:

- (a) the collection of relevant anonymised administrative statistical data from education, tax, population and social security databases;
- (b) the development of longitudinal graduate surveys at education system and, where appropriate, institutional level, in recognition of the importance of qualitative data on people's transition to the labour market, or to further education and training, and their subsequent career paths; and
- (c) the possibility for public authorities to link, on an anonymised basis, data from different sources, in order to build a composite picture of graduate outcomes.’

The [Council Recommendation on Vocational Education and Training](#) (2020) also highlighted the important role graduate tracking systems play in ensuring that vocational education and training is agile in adapting to labour market changes. Complementing skills anticipation mechanisms, graduate tracking data can provide useful intelligence for relevant updates to vocational education and training curricula, programme offers and qualifications.

These two Council Recommendations provided a strong impetus for the development of data-driven graduate tracking systems across the EU. However, as indicated by recent studies, such as the ‘[Mapping of VET graduate Tracking in VET](#)’ (ICF, 2018) and ‘[Mapping the state of graduate tracking policies and practices in the EU Member States and EEA countries](#)’ (ICF 2020), there is also considerable diversity when it comes to graduate tracking approaches and practices across the Member States.

This PLA will showcase regional approaches from Central and Eastern Europe to using graduate tracking data for the development of VET systems. Drawing on practices in Hungary, Romania, and Slovakia, this interactive PLA will provide participants an opportunity to exchange knowledge, good practice, and mutual learning.

The Hungarian Vocational Education and Training System

Hungary's vocational education and training (VET) system has undergone significant reform aimed at creating a robust, adaptable educational structure that aligns closely with economic demands and equips students for practical, future-oriented careers. These changes, largely driven by the 2019 VET Act and the VET 4.0 Strategy, establish VET as an independent educational track under the Ministry of Culture and Innovation, designed to integrate educational efforts with labour market needs effectively. The system functions with coordinated input from sectoral ministries and specialized organizations, including the National Office for VET and Adult Learning (NOVETAL) and the IKK Innovative Training Support Centre. This network of stakeholders ensures that programs are developed and regularly updated to align with the latest economic trends and sectoral needs, with input from advisory bodies and sector councils to make VET more responsive and competitive.

Central to Hungary's VET system are its **structured educational pathways**, offering students the choice between two primary tracks. The first, a five-year *technikum* program, provides a combination of academic education and vocational training, resulting in both a *matura* (upper secondary leaving examination) and a level 5 European Qualifications Framework (EQF) vocational qualification. This program is designed for students aiming for a comprehensive foundation, equipping them with both the theoretical and practical skills required for higher education and a diverse range of career opportunities. By integrating vocational specialization within a more academic framework, *technikum* programs prepare students to enter the workforce or pursue further education seamlessly, positioning them to adapt to a rapidly changing economy.

For students seeking a more practical, hands-on approach, the three-year *szakképző iskola* (vocational school) program is designed with direct employment in mind. This program focuses on skill acquisition in specific trades and leads to an EQF level 4 qualification, which is highly relevant for various sectors where practical knowledge and experience are paramount. Importantly, both tracks emphasize dual VET, a core component of Hungary's vocational training system, which incorporates substantial work-based learning. Dual VET involves partnerships with local businesses and industries, where students work under vocational employment contracts and receive both training and a wage. This experiential model not only facilitates skill development but also familiarizes students with professional environments and practices, enhancing their employability upon graduation.

Hungary's VET system also provides specialized programs for students who may face challenges in traditional learning environments. To accommodate these learners, the system includes **flexible educational paths**, such as the Springboard (*Dobbantó*) and School Workshop programs. These programs are built on competency-based learning models that emphasize the development of practical skills and competencies tailored to individual needs. Designed to minimize early school leaving and provide additional support, these pathways offer a more individualized educational experience that helps students overcome obstacles and remain engaged in their education. For students with special education needs (SEN), specialized VET schools offer dedicated programs that focus on developing essential vocational and life skills in supportive, tailored learning environments.

Adult education is another integral part of Hungary's VET structure, offering a variety of programs designed to meet the needs of lifelong learners, individuals re-entering the

workforce, and professionals looking to enhance or diversify their skills. The adult training programs are structured to be highly adaptable, providing flexible scheduling and focusing on the most current industry-driven skills. Since 2015, Hungarian adults have been able to pursue a second vocational qualification free of charge, encouraging more adults to upskill or reskill to meet evolving job market demands. These programs cater to various backgrounds and integrate state-recognized vocational qualifications with the EQF, ensuring that Hungarian qualifications are compatible across Europe. This adaptability has led to a significant increase in adult participation, making vocational education a viable option for adults seeking advancement.

A strong emphasis on teacher **quality and professional development** underpins the Hungarian VET system. With the 2019 reforms, VET teachers gained a new employment status under the labour code, allowing greater flexibility in recruitment, working conditions, and career progression. This shift is intended to attract a more diverse and skilled workforce of educators, many of whom bring industry-specific knowledge and experience to their teaching roles. Continuing Professional Development (CPD) is also actively supported, often organized in industry environments to keep teachers updated on the latest practices and technologies. These changes underscore Hungary's commitment to maintaining a high standard of teaching quality, which is essential for producing well-trained graduates who can meet the needs of Hungary's key industries.

Economic and demographic factors are influential in shaping VET policies and programs, as Hungary's economy is largely driven by small and medium enterprises (SMEs), particularly in fields like vehicle manufacturing, electronics, and IT. Given the country's declining and aging population, Hungary faces a pressing need to develop a skilled workforce capable of supporting these high-demand sectors. By investing in comprehensive VET programs that prepare young people and retrain adults, the government aims to mitigate the effects of demographic shifts on labour shortages, promoting sustainable economic growth and regional development. The dual VET model and focus on real-world skills make the Hungarian workforce more adaptable and competitive in an increasingly globalized economy.

To support the **inclusivity** of the VET system, Hungary has introduced various financial incentives and support mechanisms. Scholarships, such as the *Apáczai Scholarship*, are available to disadvantaged students to improve accessibility and reduce economic barriers to vocational education. Furthermore, the Certified Technician program, which targets high-achieving students, offers a specialized track within the technician framework. This program integrates advanced curriculum elements co-developed by universities and industry partners and includes a fast-tracked path to higher education. The Certified Technician program is an example of Hungary's commitment to fostering excellence and bridging the gap between academic learning and industry needs, preparing students for positions that require both technical skills and theoretical knowledge.

In summary, Hungary's VET system is designed to be inclusive, adaptive, and strategically aligned with economic priorities, preparing a workforce that can respond to national and European market needs. By offering a range of pathways and supports—from secondary education through adult learning and industry collaboration—the system is positioned to meet diverse student needs while also enhancing Hungary's competitiveness. This approach fosters a culture of lifelong learning, equips students with practical skills, and supports the nation's broader economic and social development goals within the context of a rapidly changing European landscape.

Source:

Cedefop, & IKK Innovative Training Support Centre Private Limited Company (IKK Plc.) and Ministry for Culture and Innovation. (2023). *Vocational education and training in Europe - Hungary: system description*. In Cedefop, & ReferNet. (2024). *Vocational education and training in Europe: VET in Europe database - detailed VET system descriptions [Database]*.

<https://www.cedefop.europa.eu/en/tools/vet-in-europe/systems/hungary-u3>

Graduate Tracking in Hungary

The National Vocational and Adult Education Office (NOVETAL), as an institution of the Hungarian Ministry of Culture and Innovation (MCI), is responsible for graduate tracking in vocational education and training in Hungary.

In line with national vocational policy strategies, government decisions (Government Decision 1168/2019, Government Decree 12/2020 (II.7)) and the Council Recommendation on tracking graduates (2017), NOVETAL established a national graduate tracking system for vocational education and training and adult learning (SZPR) in 2021. The **VET Graduate Tracking System** was established to provide a deeper understanding of the factors influencing students' training choices, the level of satisfaction among vocational students with their education, their educational pathways, transition to the labour market, and their future plans. This system focuses primarily on vocational education and training (based on the VET Information System, VETIS), but adult education tracking is also integrated albeit through a different technical concept (based on the Adult Education Data System, AEDS).

Using both administrative and survey data, NOVETAL's Analytical and Graduate Tracking Working Group has been regularly carrying out data integration since 2022. The system typically allows the tracking of domestic trajectories, but the monitoring of international mobility based on administrative data is also possible.

The **Data Integration Module** links individual-level, anonymised **administrative data**, and includes all learners (participants in adult education) who have been registered in one of the two registers (VETIS or AEDS) after 1 September 2020, regardless of the stage of their training. This means a heterogeneous dataset, not only in terms of VET or adult education, but also in terms of active learners, completers and successful graduates. The structural changes of recent years, whereby both those studying under the National Training Register and those studying under the Occupational Register are represented in the sample, add further diversity to the dataset but also provide opportunity for comparative analyses of the two training systems.

The tracking of students and participants begins from their first appearance in the VETIS and AEDS registers, which means that active learners are also included in the datasets (irrespective whether they have completed their training during the study period). The advantage of this approach is that individual life-paths can thus be tracked after entry into the labour market, and also at the time of first entry into VET or adult education, thus extending the range of data relevant for tracking careers. The data linkage occurs twice annually, expanding the number of participants in the analysis every six months as new students enter vocational training, and new participants enter adult education. This continuous expansion allows the vocational education and training system to respond effectively to current trends and needs.

Students in vocational education and training are also **surveyed** annually, each spring, via an online questionnaire (**Questionnaire Module**). Assessing students' plans, expectations and career plans related to VET, the survey targets three cohorts of students with topics tailored to their experiences:

- *Students at the start of their vocational education and training:* topics covered include the career guidance activities of vocational training centres, the extent to which the scholarship programme motivates career choice, along with the drivers of their choice of profession and institution. Insights gained can inform studies on the flexible training pathways programs and support efforts for reducing early school leaving.
- *Students about to complete their studies:* topics covered include their expectations regarding the labour market, further education plans, and career development. From a career guidance perspective, the results also provide insights into the role of guidance activities and career counselling in career development.
- *Students in the middle of their studies:* topics covered include motivators for staying in education to complete studies (even after reaching the compulsory school age), perceptions regarding their education, identifying potential risks for dropping out. Assessing satisfaction with the training can be used as a basis for improving vocational training and promoting transfer between courses.

This survey only targets students in vocational education and training, and within the current legal framework, up until recently, only those students could be surveyed who were still continuing their studies. The first online administered survey among graduates consists of graduates of the academic year 2022/23, their feedback is sought mainly on their experiences of labour market integration, further learning pathways and retrospective evaluation of their vocational education and training.

Hungary's graduate tracking system enables key stakeholders and policy decision makers to:

- develop a clearer understanding of the situation and plans of vocational students, enabling better assessment of the vocational training system's effectiveness and needs;
- strengthen the relationship between VET stakeholders and the labour market through facilitating the establishment of new collaborations, the optimisation of existing partnerships to ensure students acquire relevant professional skills and knowledge;
- gather insights into the drivers behind students' career choices, their career plans, and students' feedback regarding their VET programmes and the institution;
- shape and make adjustments to the vocational education and training system to provide appropriate support for both new entrants and graduates.

Graduate Tracking in Romania

The Romanian VET graduate tracking was initiated in the first decade of 2000s through a pilot project. Based on results of this project, was adopted the methodology for VET graduate tracking (approved by Order of the Minister of Education in 2008, amended in 2013), using **survey** data collection through **face-to-face questionnaire** application at **county level**, 6 and 12 months after graduation.

The recent developments - made through the ReCONNECT project, co-funded by the EU and finalized in December 2023 – expanded graduate tracking at **national system level**, as **part of an integrated mechanism, linked to skills anticipation and evaluation of policies**. The new tracking mechanism is designed to provide detailed information at **national, regional, county and school level**, in **combination of administrative and surveys** tools, as follows:

- **Administrative tracking of pre-university graduates:** is done for both **VET and non-VET graduates**. Each cohort is administratively tracked yearly for 5 consecutive years
- **Administrative tracking of CVET graduates:** is carried out for **graduates of authorized adult training programmes**. Each cohort is administratively tracked monthly 12 month, from the month of graduation and yearly for 5 consecutive years.

- **Questionnaire-based surveys (online):** designed only for **VET graduates** (from upper secondary and non-university tertiary education).

Administrative tracking offers **quantitative information** from interlinking various databases to capture relevant information on graduates and their destination - either on the labour market, unemployed, enrolled in further education or continuing vocational training courses.

Surveys are designed in **complementarity** with the administrative tracking in order to provide:

- **qualitative information** - based on graduates' opinion (e.g. as regards criteria for choosing the school, satisfaction on learning experience and acquired skills, usefulness of VET program in looking for employment, job satisfaction etc.)
- **factual information** on data that cannot be collected by administrative tracking (e.g. to capture any kind of work regardless if contract-based or undeclared job, as well as the unpaid family workers) or information difficult to be addressed from administrative sources (e.g. the mismatch between the graduate's qualification and his/her job, the graduate's job-seeking behaviour etc.).

A dedicated IT platform has been developed for this purpose, hereinafter referred to as ReCONNECT platform. As far as tracking of pre-university graduates is concerned, currently, the ReCONNECT platform is populated with indicators from the administrative tracking of 5 full cohorts of graduates starting with 2018 till 2022 graduates. Each cohort is administratively tracked yearly for 5 consecutive years. The ReCONNECT platform also integrates the results provided by questionnaire-based survey for VET graduates from 2021.

According to the Government Decision No 369/2024, the main institutions involved in implementation of the integrated mechanism, with responsibilities in graduate tracking are:

- **National Agency for Employment** (responsible for the management of integrated mechanism through the ReConnect platform; provides data from databases on registered unemployed and persons looking for a job);
- **Ministry of Labor** (data on graduates of authorized adult training programmes and updated Classification of Occupations in Romania);
- **Ministry of Education** (data from the *Integrated Information System of Education in Romania*);
- **Executive Unit for Financing of Higher Education, Research, Development and Innovation** (data from the *Matriculation Register in higher education* and *National Integrated Register of Diplomas and Certificates of Studies*)
- **National Centre for the Development of Technical and Vocational Education and Training** (carry out the qualitative component of VET graduate tracking, by questionnaire-based surveys with online application on its own IT platform and transfer of results on the ReConnect platform)
- **National Institute for Scientific Research in the Field of Labor and Social Protection** (provides medium and long-term skills forecast; monitors and reports degree of deviation of values from the actual values recorded);
- **National Authority for Qualifications** (information provided by the *National Register of Qualifications* and *National Register of Higher Education Qualifications*)

Information on graduates and their further destination are captured by interlinking databases administered by the above-mentioned institutions with other institutions databases, based on protocols concluded in this respects, such as:

- **Labor Inspection:** the General Register of Employees (REVISAL) provides information on employed graduates

- **National Trade Register Office:** the Trade Register provides information on graduates registered as business owners or self-employed

The main purposes of the Romanian graduate tracking system are to provide relevant information:

- for policy makers and schools to develop / implement policies to ensure quality of VET and to better address the needs of learners;
- to inform decision-making process and support services in vocational guidance and counselling, for the use of student and parents, teachers and vocational counsellors to support graduates in their career planning;
- to be used in complementarity with other source of information in forecasting and strategic planning of VET supply.

Graduate Tracking in Slovakia

In 2024, the State Vocational Education Institute¹ in Slovakia started the implementation of the project “Introduction of quality management in VET and adult education”, which includes the pilot testing and introduction of surveys based on feedback provided by VET graduates minimum 12 months after completing their studies. It aims to support informed policy making by national authorities in VET and to promote reflection and review of VET provision by VET providers. The activities complement the administrative tracking of graduates based on data available from various national databases.

The questionnaire survey tracking the career and educational trajectories of secondary vocational school graduates continues to build on established tracking processes currently conducted using administrative data. In its pilot phase, the survey focuses on gathering feedback from graduates about the vocational and general skills they acquired, evaluated one year after completing their secondary education. This information can be used to assess the content and forms of study in vocational secondary schools, with the goal of improving the alignment between education and the labour market. The national questionnaire also serves as an intermediate step towards school-specific surveys, which can significantly contribute to curriculum changes and adjustments to the system of study programs.

The goal of the **pilot survey** targeting graduates of secondary vocational schools is to gather information about their views on the education provided and their employability 15 months after graduation. The concept of tracking allows for monitoring various aspects of graduates' career and educational paths. However, in the pilot phase, the survey focused mainly on graduates' employability and their opinions on the relevance of skills acquired in school for their subsequent career and educational journeys.

The national report based on this data aims to inform on how well schools prepare graduates to be sufficiently equipped with relevant skills not only for the current job market but also with a broad enough skill set to adapt to ongoing and future changes, whether technological, digital, green, or social. The idea behind this approach is to provide decision-makers in the educational system and schools with feedback that they can use when evaluating the fulfilment of their educational goals and potentially adjust these educational goals, content, and methods accordingly. At the same time, establishing regular monitoring of the educational and career paths of vocational school graduates strengthens the concept of continuous self-assessment for education providers. The education system of the 21st century needs to respond to dynamic developments while preparing students with a sufficient degree of adaptability and resilience.

The topic of aligning education with the labour market is at the forefront of discussions and policy-making, yet the employability of graduates is not exclusively tied to current employer

¹ <https://siov.sk/en/>

demands. Considering ongoing and anticipated changes in the labour market, the questionnaire is designed to capture a broad spectrum of potential requirements for graduates. However, the central focus remains on the alignment of skills with current labour market needs.

The relatively narrow scope of questions covered in the questionnaire corresponds with the effort to keep it short, thus increasing the response rate, but more importantly, because the national questionnaire is just one of three levels of graduate tracking. The **first level of tracking** maps the status of graduates in the labour market approximately one year after graduation using administrative data. Its current version is accessible through the portal www.uplatnenie.sk at the individual school level up to the year 2019, and in subsequent years on the website of the Institute for Social Policy (ISP) under the Ministry of Labour, Social Affairs, and Family of the Slovak Republic². These data can be supplemented by the national questionnaire, which represents the **second level of tracking** and adds qualitative data to the administrative data.

The focus is on systematically collected information regarding the degree of acquisition and utilization of professional and soft skills that cannot be ascertained from administrative data. Expanding the topics or delving deeper into selected subjects can be implemented in the future through thematic modules. At the same time, questions about more detailed information at the individual school level can be transferred to school-specific questionnaires, depending on their individual needs. School questionnaires thus represent the **third level of tracking**.

The national pilot questionnaire serves as a complementary tool for collecting qualitative data that cannot be obtained from administrative records. It also leaves a greater degree of detail in several aspects to school-specific questionnaires in the third level of tracking. In the national questionnaire, it is necessary to define the purpose of the collected information and then reflect this purpose in the questionnaire itself.

Internationally comparable data on graduates indicate that the employment rate of graduates in Slovakia was consistently high compared to the EU average, although this trend worsened after the pandemic. Graduate employment is largely influenced by the labour market situation and the alignment between the demand and supply of skills. The questionnaire also addresses questions about the advantages of acquired qualifications (professional competence) in job search, working in one's field, and reasons for occupational mismatch among working graduates. It should be noted that a certain degree of mismatch is characteristic of graduates who are disadvantaged in the labour market due to a lack of experience, which they may compensate for by gaining experience outside their field of study. Long-term monitoring of these questions can provide more insights into trends in graduate employment and potential barriers that the education system can address by such measures as adjusting curricula, or the educational formats.

Overview of the structure of the peer learning event

This PLA on graduate tracking, in cooperation with the European Commission, will present information on the following key aspects of graduate tracking:

- Different methods for collecting graduate tracking data (administrative data, survey data, or hybrid approaches using both), strengths and weaknesses
- Exploring approaches to using data for policy making and at local, institutional level and for the labour market, benefits, opportunities and barriers/limitations

² <https://institutsocialnejpolitiky.gov.sk/index.html#absolventi>

- Good practice examples for reaching cohorts of students and graduates (representative qualitative data)

This PLA will **showcase regional approaches** from Central and Eastern Europe to showcase developments and innovations in using graduate tracking data for the development of VET systems. Hungary and other countries will provide inputs to demonstrate effective practice, followed by discussions in small groups to help delegates understand how they can apply the good practice to their own national context.