

## Graduate tracking – case study 1 | Luxembourg

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**This research paper is the first of a series of three, published by EQAVET, to describe several practices of the current state of VET (Vocational Education and Training) graduate tracking on VET provider level in the Netherlands and other EU member states. This series of short papers will be translated into a longer research paper in 2023 in which the conclusions of all three papers will be presented. The goal of this paper(s) is to provide guidelines, best practices and lessons learned from the different case studies.**

The first case study focuses on current VET graduate tracking practices in Luxembourg. This case focuses on matching different administrative data sources to map and track students through but also after (I)VET. This paper aims to provide information on the context of the case, the proposed goal of the case, challenges and recommendations.

upper secondary education, and accessible for initial and adult learners (with both the same curricula). Most pre-VET studies are followed by students from the ages 12-14. After three years learners can choose from three different levels (NLQF 2, 3 and 4). After completing IVET, and a mandatory module, students can enter the higher education field of their initial study..

### Graduate tracking

Tracking graduates can provide insight in the quality of the qualifications and the programs offered in vocational education and training and to a certain extent how well the programs meet the labor market needs. Graduate tracking can be used for different goals, for example for: 1) keeping the curricula up to date to make sure students learn relevant skills for employability or 2) improve career counseling and guidance for current and future students.

### VET and quality in Luxembourg

Luxembourg aims to develop a dashboard, the data-based quality monitoring in VET (DQMNET), to provide insight into the learner's pathways by bringing together existing administrative data which is currently under development. The goal of the DQMNET is to create a dashboard based on timely available and reliable data on initial VET with the ability to identify irregularities in the pathways learners follow.

### Background of the case study

Luxembourg aims to improve their quality assurance arrangement for (T)VET graduate tracking by introducing a new quality assurance mechanism. This mechanism (DQMNET), which is currently being designed, allows Luxembourg to visualize indicators for quality and revision needs for initial VET (IVET) based on the pathways learners follow. In Luxembourg IVET is part of the

In Luxembourg governance and quality assurance of initial VET is centralized, the Ministry of Education plays a key role at the operational level (for example quality reviews or changing the curricula, which should be updated every five years) and decision making. The purpose of DQMNET is to systematically track learnings to provide insight on early leaving, identify groups of students who cannot seem to find

apprenticeship companies or students withdrawing from the programs.

DQMVET is not only limited to monitoring progress, but also aims to predict VET pathways which are more likely to have a higher change on early leaving by students. To accomplish this goal a database is set up which systematically collects data, to 1) assist the Ministry in identifying main characteristics of early leavers and 2) address underlying issues why students are in pathways which do not suit their needs the best. When issues arise from the DQMVET dashboard, the Ministry of Education can closely examine the situation and conduct additional research (interviews or questionnaires) to identify contributing factors on which the Ministry of Education can act.

### Challenges and recommendations

Luxembourg collects a great deal of administrative data on a central level. The data is automatically collected from the VET provider's registration and management systems. Currently the Ministry of Education uses the data to 1) request to specific responds on different policy (evaluation) areas and 2) monitoring purposes. Every request is individually handled which makes it a time-consuming process. Data collection consists of multiple institutions and system, due to General Data Protection Regulation (GDPR) this (personal) data can only be shared between the schools and the Ministry of Education as the central authority. Additional data, for example from higher education or from ADEM-OP (a department of the public employment service) would enrich the pathway from the student.

#### *Identifying indicators to provide useful insight into VET (graduate) tracking*

Identifying indicators to track the learners' pathways is one of the first difficulties which arises when developing a dashboard to track

learners. Combining both monitoring and predictive indicators widens the purpose of the DQMVET, however it takes time (both in developing and identifying) indicators to develop a reliable dashboard. The first issue which arises is the purpose of graduate tracking; there is a major difference in developing indicators for monitoring and predicting. Therefore, it is important to ensure all stakeholders understand how the data collected, provided by the individual schools, will be used by the policy makers. Creating commitment for using the new mechanism depends on how the data and indicators will be used. For example: will low employment rate leads to change in school funding?

An important indicator that should be considered for measuring the quality in VET, in terms of prediction and monitoring, is the student satisfaction. Schools work with different cohort of learners, an indicator which maps the added value of VET (based on the learner's achievement before and after VET) can be helpful, in combination with the student satisfaction) for the individual schools and policy makers.

With rapidly changing labour market needs, data based on the achievement from learners (as mentioned above) based on transferable skills can be linked to the successful employment of students. Which can contribute to identify the most suitable balance, from a policy point of view, between specific knowledge on subjects and soft skills.

The quality of the mechanism depends on the quality of the multi-dimensional analysis; therefore, it is better to not rely on one type of indicator. Indicators alone, for example input indicators such as socio-economic background and student/teacher ratio, are unlikely to provide sufficient insight into the learners' pathway. On the other hand, outcome indicators such as completion ration rate or early leavers will not contribute to

predicting learners' pathways. Therefore, we want to stress the importance of combining different types of indicators for monitoring learners' pathways, based on inputs, process and outputs indicators. Other interesting indicators can be data available on the schools, such as data from the school inspection, a self-review or attendance from students.

#### *Transparency*

Data on individuals is protected by the GDPR, rendering data from small cohorts or surveys with low responses useless. Not all data is therefore available for analyses. Greater transparency can contribute, particularly when the data is automatically generated and processed into a mechanism. Input is based on data collection from different organizations (in this case schools). Stressing the importance of the quality of the data, by explaining the goal of the mechanism, contributes to the quality of the final monitoring tool. Next to that, it is important to provide simple and clear instructions on data entry.

#### *Preparing for flexibility*

Learners are looking for more flexibility on how to complete their program, for example by selecting modules or units to meet their employment aspirations. Many countries have developed a more individualized approach to VET, and the trend in Europe continues to increase the choices offered to learners. Graduate tracking mechanisms need to take into account future changes to the flexibility in the programs.

#### *Resources*

Developing a data based graduating tracking mechanism based on (administrative) data requires significant resources associated with cleaning data, combining data from the different resources and analyzing the data to address policy questions. Additionally, it

requires the development of public information on how to read the insights in key indicators displayed on the mechanism. In other words, it requires communicative skills alongside technical skills. Commitment on using the mechanism and the quality assurance to provide timely available and reliable insights should not be underestimated. The key in this is starting small.

## **Conclusions**

The purpose of the mechanism of graduate tracking should be clear for all stakeholders and users of the data. We recommend starting small, it is important to identify where to start. It is key to establish goals/objectives for any research conducted before setting up graduate tracking. For example, is it important to identify indicators before building the mechanism? It could be beneficial to pilot before moving to an (expensive) IT solution. When considering different indicators, it is useful to agree on definitions and prepare guidelines on how to read the indicators (and how to collect the data in a standardized matter). Collaborate with a wide range of stakeholders when choosing indicators to implement in mechanism. Implementing a data based graduate tracking and quality mechanism will always require significant resources (in finance, technical and staffing). This should not be underestimated

## **Want to know more about this topic?**

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