

WHERE DID THEY GO?

**A study to explore VET
graduate tracking measures
in European countries**

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Foreword

A well-known phrase states, “knowledge is power”. An extended version of this sentiment could be reshaped as “the strategic application of knowledge is power”. This latest, and final ColegauCymru research project, made possible by the European Union’s EQAVET funding, is about just that: building a strong knowledge base of how and where vocational learners go once they leave college and then applying that knowledge to our planning, funding and quality assurance methods – the strategic application of knowledge.

The ability to understand where vocational learners or ‘graduates’ go and what they do once they complete a particular stage of their education and training has become of increasing interest to institutions, governments and policymakers. This is true of Wales as well as Europe and the wider world.

Knowing the longer-term experiences of vocational graduates, whether they stay in the field in which they studied or qualified, their career trajectories and other related details help various stakeholders to plan for the future. For learners considering careers in a particular vocational area, the ability to make more informed decisions based on likely or potential earnings or opportunities to progress will be helpful. For providers and funders, knowing whether vocational graduates remained in their original industry or moved into something related or entirely new could prove useful when designing course content. The opportunity to better understand labour market flows between different vocational areas also has interesting and practical implications for future education, economic and skills policy.

However, the best questions to ask, the best ways to gather data and the best ways to analyse and share the findings of the next steps for vocational learners are not clear cut. For this reason, ColegauCymru put together a project team to investigate progress made in this area in other parts of Europe, seeking to assess what Wales could learn to improve our own ability to ‘track’ our vocational graduates.

Initially, the project was designed to visit several European regions, visit facilities and talk directly to relevant agencies. However, after just one visit (to Ireland in December 2019), it became apparent that Covid-19 would make further travel impossible. The project team rose admirably to the challenges of swiftly moving to virtual meetings and interviews. The results of the research make both interesting reading and contain practical actions for progress on tracking Wales’ vocational graduates.

This research was made possible through funding from the European Union via an EACEA grant to EQAVET National Reference Points, for which ColegauCymru is extremely grateful. Our thanks go to the research team of Phil Whitney, Llyr Roberts and Nia Brodrick who overcame the challenges and upheaval to the project caused by Covid-19. We also appreciate the contributions of those who gave

their time and shared their considerable expertise as part of the interview process to contribute to this research, across numerous European regions and within Wales. Their input, and that of everyone who helped or contributed to the project over the past two years, has been invaluable.

The most effective research is a collaborative process in which the goodwill of all contributors is essential. This is even more the case when research crosses international borders. As Wales seeks to charter a new path outside the European Union, ColegauCymru looks forward to continuing to work with European partners to explore and understand the positive impact of further education on our citizens. This report may mark the end of a funding stream that defined a period of unprecedented opportunity for Wales to collaborate with partners in Europe. The commitment of ColegauCymru to engage, listen and learn from international best practice however is not diminished. We remain driven by our vision for Wales where we believe all learners have the right to world-class education.

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Executive summary

With the tracking of graduates from VET becoming a policy priority in the European Union in recent years, the demand for insight and policy support has intensified across countries and regions. The appetite to further enrich current VET graduate tracking measures in Wales led to a thirst for knowledge and an attempt to better understand what strong and established tracking measures involve.

This study set out to identify best practices and lessons from European countries. It involved a mixed-method approach, including a desk-based review of VET graduate tracking measures and fieldwork with representatives from selected case study countries. The study team worked with representatives from Europe to discuss their views on the performance of the measures in place at a national, regional and local level.

The importance of being able to collect, analyse and use data from graduate tracking measures to help students make informed decisions about their further education and training was a key theme of the research. Interviewees also discussed the importance of using the insight to ensure the relevance and effectiveness of learning provision and its contribution to improving learning providers' performance.

Overall, interviewees described a more consistent approach to data collection in countries such as the Netherlands, Ireland, Finland and Austria where systematic measures have been introduced. Through the development of consistent datasets at a national level, there has been a significant improvement in the quality of the insight. Survey data has also been used at national and provider levels to track the progress of VET graduates, with some countries combining this approach with administrative data.

Our research has shown the importance of qualitative and quantitative evidence in helping to develop a more comprehensive picture surrounding the journey of students. Welsh stakeholders explained that administrative data has helped them to develop part of the story but that further work was needed to enrich the evidence. There is now an opportunity to shape a consistent approach in partnership with colleges, with consideration for when and how the evidence is communicated to key stakeholders.

1. Introduction

In April 2019, Colegau Cymru commenced a study to explore the Vocational Education Training (VET) graduate tracking measures employed in a sample of European countries. This report sets out the findings of the study and highlights several considerations to inform developments in Wales.

The tracking of graduates from VET has become a policy priority in the European Union (EU) in recent years. *A New Skills Agenda for Europe (2016)*¹ underlined the importance for member states to develop a better understanding of the performance of graduates whilst the *Mapping of VET graduate tracking measures in the EU Member States (2017)*² final report stressed the need to improve the availability of qualitative and quantitative evidence on graduates from VET in Europe.

Set against the backdrop of this research and policy development work, the Colegau Cymru VET graduate tracking study set out to identify best practice and lessons from European countries. Through an evidence-based approach, it was envisaged that the study would contribute to the future direction of VET tracking in Wales. The study team set out to explore existing models of VET graduate tracking systems in comparable countries or regions that demonstrated high quality data collection and usage.

The specific requirements of the study were to:

- Contribute to the collection and use of information on VET graduate employability, including the combination of data on learning, labour market entry and career at VET system and provider level; and
- Ensure that information on VET graduate tracking and skills need forecasts are used at VET system and provider level to improve VET provision and VET qualifications at all levels.

Furthermore, the study would:

- Explore how the results of the above can best be applied to Wales.
- Investigate how information on VET graduate tracking and skills need forecasts are used at the VET system and provider level to improve the quality of VET provision and VET qualifications at all levels.
- Support the recommendations outlined in the 2017 European Commission report on mapping of VET graduate tracking measures in EU Member States, and specifically:

¹ Soldi, R. et al. (2016) *A New Skills Agenda for Europe*, European Union.

² ICF Consulting (2017) 'Mapping of VET graduate tracking measures in EU Member States', Directorate-General for Employment, Social Affairs and Inclusion, European Commission. [Mapping of VET graduate tracking measures in EU Member States - Publications Office of the EU \(europa.eu\)](#)

- Recommendation 3: Ensure that regular measures for VET graduate tracking cover the full range of information required to assess the quality and relevance of VET provision, including their integration in the labour market and progression to further studies; and
- Recommendation 8: Increase the user-friendliness of published data and promote encounters between those in charge of tracking measures and the potential users of data.

Graduate tracking is commonly understood as the set of systematic approaches put in place to record information on graduates with regard to their learning progress, skills acquired, perceptions, routes into employment, self-employment, or further training³. Tracking is essentially used to record information on VET graduates' destinations. With the term used in different contexts, it is worth stressing that, for this study, the term graduate refers to any individual who has completed a VET programme, regardless of education level. Tracking can also provide insight on learners terminating a learning programme or transferring to other programmes.

The study was managed and delivered by ColegauCymru, the national organisation that represents all Further Education colleges (FE colleges) in Wales. The organisation acts for the Welsh Government as the National Contact Point (NCP) in Wales for the European Qualifications Framework (EQF), European Credit System for Vocational Education and Training (ECVET) and European Quality Assurance in Vocational Education and Training (EQAVET). ColegauCymru was awarded a grant by the EQAVET National Reference Points (NRP), under Key Action 3: Support for Policy Reform of the Erasmus+ Programme, to undertake the study. The study represented the third project by ColegauCymru funded through the EQAVET restricted call.

The report is presented in seven chapters as follows:

- Chapter one: this introduction to the report.
- Chapter two: introduces the research method.
- Chapter three: covers the strategic and policy context in Europe and Wales.
- Chapter four: describes the VET graduate tracking measures in some European countries.
- Chapter five: provides an assessment of the measurements and approaches.
- Chapter six: reflects on the key lessons and highlights future considerations.
- Chapter seven: draws on the conclusions and recommendations from the study.

³ Traktion Project website. Available at: <https://traktionerasmus.eu> (Accessed 9 November 2020).

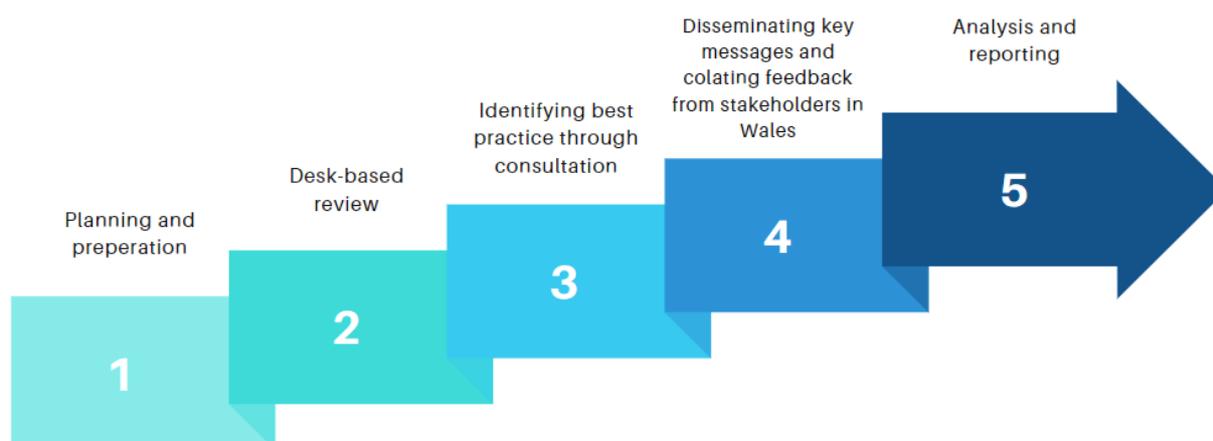
2. Study methodology

This chapter sets out the method used for undertaking the study and discusses the issues which arose alongside the changes introduced when undertaking the study.

Methodology

As highlighted below, the study team established a five-stage work programme. In summary, the methodology involved a mixed-method approach, including a desk-based review of VET graduate tracking measures in European countries and fieldwork with representatives from selected case study countries.

Figure 1: The study team's five-stage work programme.



The approach, which was delivered between April 2019 and March 2021, involved the following elements of work:

- An inception stage, which refined the methodological approach and project plan.
- A review of secondary evidence, which investigated systems of VET graduate tracking within the EU before drawing comparisons to the measures adopted in Wales.
- Developing an understanding of more systematic and well-established graduate tracking systems to inform the final sample of countries for review.

- The development of privacy notices to explain the project and how the data collected would be stored and used in reporting.
- Preparing qualitative discussion guides for interviewing representatives from other organisations and countries.
- Adapting the approach to allow online consultation to take place and the project to remain on track with the original timeline.
- Conducting interviews with:
 - 11 representatives from four organisations during a visit to Ireland
 - Five representatives from three organisations in the Netherlands
 - Four representatives from three organisations in Austria
 - Three representatives from two organisations in Spain
 - Two representatives from two organisations in Italy
 - Two representatives from one organisation in Croatia
 - One representative from Greece
 - One representative from Finland
 - One representative from Slovenia
- Attending an EQAVET Network and National Quality Network meeting with 41 representatives from Finland, Greece, Slovenia and Croatia.
- Arranging and facilitating four regional meetings with key stakeholders to identify how they collect and use data and discuss how the findings from the research can be interpreted and applied to improve systems, data collection and tracking of graduates in Wales.
- Hosting and facilitating a dissemination event with stakeholders from Wales.
- Analysing the primary and secondary evidence and preparing a final report.

Limitations of the research

There are a few methodological issues that merit consideration when reflecting on the findings of this study. In common with many research projects, the planned work programme for this EQAVET study was significantly disrupted by the impact of the coronavirus pandemic, and specifically the restrictions on travel and face to face visits. The fieldwork stage of the work programme occurred at a time when people and organisations across Europe and the world were negotiating the challenge of balancing work with caring responsibilities, contingency planning, and the emotional labour of surviving the crisis. Following the first case study visit to Ireland in December 2019, the study team cancelled visits and adapted the approach to include online video interviews and group discussions with representatives across Wales and Europe.

Furthermore, as a result of the feedback received from representatives from the original sample of six countries and changes to the original work programme, the study team took the decision to explore VET graduate tracking measures in a further three countries. Research was therefore carried out on the VET graduate tracking work taking place in Finland, Croatia and Slovenia.

3. Strategic context

This chapter sets out the policy and strategic context for VET graduate tracking in Europe before looking at recent developments in Wales.

EU VET graduate tracking policy and research

The tracking of graduates from VET has become a policy priority in the EU in recent years. *The Riga Conclusions on Vocational Education and Training* (2015)⁴ highlights the establishment and application of continuous information and feedback loops in VET. As highlighted already, the development of graduate tracking in VET is referenced in *A New Skills Agenda for Europe* (2016)⁵ as well as in the *Mapping of VET graduate tracking measures in EU Member States* (2017) report⁶. These reports show the growing importance and role of graduate tracking in EU policy and stress the importance of high quality information on the career paths of graduates in an effort to increase employability and productivity through the provision of appropriate knowledge, skills and competences.

⁴ The Riga Conclusions (2015) European Commission. Available at: https://www.refernet.de/dokumente/pdf/2015-riga-conclusions_en.pdf (Accessed 9 November 2020).

⁵ Soldi, R. et al. (2016) *A New Skills Agenda for Europe*, European Union.

⁶ ICF Consulting (2017) 'Mapping of VET graduate tracking measures in EU Member States', Directorate-General for Employment, Social Affairs and Inclusion, European Commission.

The primary and secondary evidence collated as part of this study suggests that the emphasis at a policy level has led to an increase in research activity in this sphere of work over the last few years. Some of this research occurred before or concurrently to our study and has served to enrich our findings. The *OnTrack* project,⁷ for example, was established to develop a tracking system for VET graduates from initial VET schools and institutes. The Council Recommendation on tracking graduates also led to a Euro Graduate Pilot Survey, which was launched in 2018⁸. The *Mapping the state of graduate tracking policies and practices in the EU Member States and EEA countries* (2020)⁹ study served as a baseline analysis by developing criteria to measure the extent to which Member States and EEA countries implemented the Council Recommendations.

Furthermore, a European Commission Expert Group on Graduate Tracking (2018-2020)¹⁰ was established to provide a forum for cooperation and mutual learning about graduate tracking. This working group recently published its recommendations of the principles and standards for a European graduate tracking mechanism. The standards provide practical guidelines for those seeking to design or improve tracking systems. According to the report, these standards are based on a synthesis of good practice, current know-how and emerging ideas relating to tracking. The document stipulates that tracking systems should: (1) contribute to the agreed objectives of the VET system; (2) aim to cover all initial and continuing VET programmes; (3) aim to provide quality data on the full graduate population; (4) enable comparative analysis between subgroups of learners; (5) use comparison groups; (6) be based on multiple measurement points in order to create longitudinal analysis; (7) define desired quality of the tracking information and use quality assurance to support the graduate tracking system; (8) ensure that information from graduate tracking systems is accessible in a form which meets the agreed needs of stakeholders and social partners; (9) strengthen cross-border partnerships by including graduates who move to another country following the completion of their programme; and (10) contribute to EU level cooperation in VET¹¹.

VET graduate tracking in Wales

⁷ OnTrack (2019) Technical University of Košice. Available at: http://ontrack-project.eu/images/articles/ON_TRACK_IO1_CONTEXT_STUDY_OF_TRACKING_SYSTEMS_AND_MEASURES.pdf (Accessed 22 October 2020).

⁸ Euro Graduate website. Available at: <https://www.eurograduate.eu> (Accessed 9 November 2020).

⁹ ICF Consulting (2020) 'Mapping the state of graduate tracking policies and practices in the EU Member States and EEA countries', Directorate-General for Employment, Youth, Sport and Culture, European Commission. Available at: <https://op.europa.eu/en/publication-detail/-/publication/93231582-a66c-11ea-bb7a-01aa75ed71a1/language-en> (Accessed 9 November 2020).

¹⁰ Commission expert group on graduate tracking (2018) European Commission. Available at: <https://op.europa.eu/en/publication-detail/-/publication/c5669b4b-6adb-11eb-aeb5-01aa75ed71a1/language-en/format-PDF/source-216136581> (Accessed 9 November 2020).

¹¹ Expert Group on Graduate Tracking (2020) European Union. Available at: <https://ec.europa.eu/education/sites/default/files/document-library-docs/conclusions-graduate-tracking-expert-group-vet-graduate-tracking-annex-4.pdf> (Accessed 2 February 2021).

Over the years, there has been an inconsistent approach to measuring the progress and destination of learners and graduates across the various educational institutions in Wales. The arrangements for measuring performance in school sixth forms and in FE colleges were entirely separate to the approach used in higher education institutions (HEIs). The approaches for school sixth form and FE colleges were produced from different data-collection systems using differing analysis methodologies. This makes it difficult to compare outcomes in a meaningful way across learning settings. This discrepancy has been identified as a weakness in various reviews of education in Wales, including the Robert Hill review¹², and the Review of Qualifications for 14 to 19-year-olds¹³.

The Welsh Government has worked around such inconsistencies by attempting to combine the data collected separately from schools, FE and HE and this has, to some extent, helped the sector to understand learners' progression through different stages of their education and training. With the increased emphasis on the benefits of such data, the Welsh Government explored ways to address the disparity by consulting on a new set of consistent performance measures for school sixth forms and FE colleges. The Welsh Government developed a set of performance measures for FE colleges and school sixth forms in 2018, which give a more rounded picture of learners' outcomes in the post-16 sector.

Prior to this, figures on learner outcomes in the Further Education (FE), Work based Learning (WBL) and Adult Community Learning (ACL) sectors in Wales were published annually as a Statistical First Release (SFR). The statistics were broken down by level of study (including VET), type of learning aim, learner age, sector/subject area, qualification type and type of provision, and were derived from the Lifelong Learning Wales Record (LLWR).

Outcome measures for FE, ACL and Traineeships¹⁴ were based on completion, attainment, and success rates. For apprenticeships, outcomes were based on framework success. It involved calculating the number of learning programmes where the full framework has been achieved divided by the number of learning programmes terminated.

Destination data was only available for EQF Level 2 Engagement Traineeships in the four-week period following the end of the programme. The new performance measures, which replaced the previous arrangements, cover learner achievement, value added and learner destinations. The destination data

¹² The future delivery of education services in Wales (2013) Welsh Government. Available at: <https://gov.wales/sites/default/files/consultations/2018-01/130621-delivery-of-education-report-en.pdf> (Accessed 9 November 2020).

¹³ Review of qualifications for 14 to 19-year-olds (2012) Welsh Government. Available at: <https://gov.wales/review-qualifications-14-19-year-olds-final-report-and-recommendations> (Accessed 9 November 2020).

¹⁴ A Traineeship is a learning programme that gives young people aged 16-18 the skills needed to get a job or progress to further learning or an apprenticeship in the future.

used for the new performance measures were developed using a Welsh Government study¹⁵ to better understand overall outcomes for learners and the effectiveness of policies and curriculum initiatives.

The main aims of this study were:

- To offer an alternative view of Welsh education, one based on a learner's pathway through education, the qualifications they achieve along the way, and eventually into employment;
- To evaluate the effectiveness of policies relating to the Welsh education system; and
- To monitor the outcomes of Wales' diverse population through the education system and to investigate if any barriers exist.

The initial work was split into two pieces, the Education Matched Dataset, and the Longitudinal Education Outcomes Study.

Data from schools, FE and HE was collected separately. To understand learners' progression through different stages of education and training, it was necessary to link this data. In the absence of a single joined up dataset the Welsh Government organised for a third-party contractor to match learner records in the multiple education datasets using unique learner identifiers. This dataset enables the Welsh Government to look at 16–18-year-old learners with certain characteristics (either demographic or academic) and follow them into post-compulsory education and training.

As part of this work, the Welsh Government agreed to participate in the UK Government's large-scale data linking programme, known as the Longitudinal Education Outcomes (LEO) study¹⁶. This matches learner records to the Department for Work and Pensions (DWP) and Her Majesty's Revenue and Customs (HMRC) data on employment, earnings and benefits, giving a more comprehensive picture of learners' destinations than has ever been possible. In order to have the full picture of learning destinations, including education as well as employment, the Welsh Government established an annually updated matched dataset which brings together records for schools, FE, WBL and HE. The process is completed when Welsh Government match education data to tax and benefits records from the DWP and HMRC, enabling broad analysis of learner outcomes when they leave education. The Welsh Government used a mixture of the LEO data and the Education matched dataset to publish its analysis. The first of these Consistent performance measures for post-16 learners was issued for the

¹⁵ Consistent Performance Measures (2020) Welsh Government. Available at: <https://hwb.gov.wales/api/storage/adf8cafd-bdec-4c0a-a313-d02f4f6720ad/Destination%20measures%20-%20Explanatory%20notes.pdf?preview=true> (Accessed 9 November 2020).

¹⁶ UK Government website. Available at: <https://www.gov.uk/government/statistics/graduate-outcomes-for-all-subjects-by-university> (Accessed 9 November 2020).

2015/16 learner cohort in September 2018¹⁷. The second report for the 2016/17 learner cohort was issued in April 2020¹⁸.

As these reports are published on a different timescale to the other measures (to allow time for learners to progress into a sustained destination and for their data to be collected, matched, and analysed) the report on the 2019/20 cohort will be published in September 2022. At this time, the Welsh Government will consider how the disruption to learning experienced by the 2019/20 cohort has had an impact on the destination measures. The performance measures are usually issued as individual learner report to each college.

It is encouraging that the Welsh Government has continued to develop its approach and methodology, and progress is being made to expand the range of data provided e.g. to include more information on type of employment, sectors, hours worked and links to courses of study. It is worth noting that while the destination measures are still in development, the resulting statistics are still seen as experimental. This work has an increasing profile in light of the government’s proposed reforms to post compulsory education and training which could lead to a restructure of the post-16 system. This proposed reform is based on the Hazelkorn Review, *Towards 2030*¹⁹ which identified that the significant amount of data about learners which is being collected is not looked at in a coherent way to assess the long-term outcomes for learners. The report included a recommendation to “improve data collection and analysis to underpin decision-making, accountability, and public understanding of the contribution of education to society and the economy.” Whilst the need for post-16 data has been recognised, the fact that currently available data is limited to an academic programme suggests this is an area that should be explored further.

A continuing need for evidence in a rapidly changing and challenging world

Being able to collect, analyse and use data from graduate tracking is important in order to help students make informed decisions about their further education and training. The availability of evidence can also support policy development and the planning of education and training programmes. This is confirmed by Welsh Government’s earlier research²⁰ conducted by OB3 Research with FE

¹⁷ Consistent performance measures for post-16 learning (learner destinations): August 2015 to July 2016 (2018) Welsh Government. Available at: <https://gov.wales/consistent-performance-measures-post-16-learning-learner-destinations-august-2015-july-2016> (Accessed 9 November 2020).

¹⁸ Consistent performance measures for post-16 learning (learner destinations): August 2016 to July 2017 (2020) Welsh Government. Available at: <https://gov.wales/consistent-performance-measures-post-16-learning-learner-destinations-august-2016-july-2017> (Accessed 9 November 2020).

¹⁹ Hazelkorn, E (2016) *Towards 2030: a framework for building a world-class post-compulsory education system for Wales*. Cardiff: Welsh Government.

²⁰ Old Bell 3 Ltd (2012) Scoping study into the use of further education destination data. Caerphilly: Welsh Government. [121102scopingfedestinationsdataen.pdf \(ioe.ac.uk\)](https://www.ioe.ac.uk/121102scopingfedestinationsdataen.pdf)

representatives in Wales. In 2012, this research pointed to four challenges which destination data can help to address: (1) The need to ensure the relevance and effectiveness of learning provision; (2) The need to equip learners to make informed choices; (3) The need to improve learning provider performance; and (4) The need to inform stakeholders about the behaviours and needs of young people not in education, employment or training.

Whilst there is strong evidence to suggest a considerable amount of interest in collecting and using high quality VET graduate data in Wales, the events of recent months has placed more value on such evidence. With the coronavirus pandemic likely to have a significant ongoing impact on students and graduates, the need for timely, high quality and comparable data on graduates' labour market outcomes is now even greater. The pandemic poses serious economic challenge, with the global economic contractions occurring at a much faster rate than many expected, hitting all sectors and many of the world's largest employers. The impact of the pandemic is likely to affect people's decisions to enrol in further education and their choices of field and university.

The coronavirus pandemic is not the only significant challenge facing Wales. Whilst this study leans heavily on the work conducted on VET graduate tracking in Europe, it is worth remembering that the UK left the EU single market and customs union mid-way through this study in January 2021. The UK economy faces a number of critical challenges that an evidence-based approach to graduate tracking could support. Such challenges include advances in technology and the changing nature of work, an ageing population which increases the need for adults to reskill during their extended working lives, an entrenched productivity gap relative to other advanced economies, and low social mobility by international standards²¹.

The ability to collect and interpret VET graduate data and use it to make informed decisions will benefit VET learners and the sector, and provide public benefit to society and the economy. Colegau Cymru recognises the importance of FE colleges, as community anchor institutions, in helping to respond to these challenges. The organisation set out therefore to fully understand the VET graduate tracking measure in place in Wales and to learn from the experiences of European countries.

²¹ Kantar Public and Learning Work Institute, 'Decisions of adult learners,' Department for Education, September 2018, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/742108/DfE_Decisions_of_adult_learners.pdf (Accessed 22 October 2020).

4. VET tracking measures in European countries

This chapter reviews the VET graduate tracking systems in nine European countries. It then reflects on the strengths and limitations of the different approaches.

4.1 An overview

The initial review of evidence helped the study team identify the use of well-developed VET graduate tracking systems and measures in European countries and regions. Considering that different terms have different connotations, the study team set out to ensure clarity and consistency in the use of terminology. They used the three categories identified in the *Mapping of VET graduate tracking measures in EU Member States (2017)*²² report to summarise the measures adopted in the case study countries. The three categories were:

- Non-systematic: The countries without regular measures for VET graduate tracking.
- Partially systematic: The countries where there are regular VET graduate tracking systems but which may not cover all regions in the country, take measurements at multiple measurement points or contain all key indicators on employment status, type of employment contract (permanent/temporary, part-time/full-time), earnings, and participation in FE and training.
- Systematic and well-established: The countries with regular VET graduate tracking systems that cover all regions, include four key employment and learning indicators, and have measures which take multiple measurement points.

According to the 2017 European Commission report, only a few European countries have established graduate tracking systems at national or regional level. Furthermore, only a few measures for tracking graduates at the level of VET institute were identified, with these often being ad hoc and non-systematic measures. Table 1 below provides an overview of the measures and approaches we found in the nine countries reviewed as part of this study.

Table 1: An overview of the measures and approaches

²² ICF Consulting (2017) 'Mapping of VET graduate tracking measures in EU Member States', Directorate-General for Employment, Social Affairs and Inclusion, European Commission.

Country	Measure	Approaches
1. Netherlands	National systematic	Analysis of administrative data and national survey data
2. Ireland	National systematic	Analysis of administrative data
3. Spain	National systematic	Analysis of administrative data is supplemented with regular tracking measures in 15 of 17 regions
4. Austria	National systematic	Analysis of administrative data
5. Italy	Partially systematic	Analysis of administrative data for initial education and training (IVET) graduates
6. Greece	Non systematic	Destination surveys
7. Finland	Systematic	Analysis of administrative data and national survey data
8. Croatia	Non systematic	Destination surveys
9. Slovenia	Non systematic	Destination surveys

As highlighted in the table above, the six case study countries in the original sample had adopted at least some aspect of systematic or partially systematic measures to track VET graduates. It is important to recognise that since the publication of this report, there have been developments in all the countries we researched. Pilot schemes to investigate the best tracking measures in the national context have been developed in those countries identified as non-systematic in the 2017 European Commission report.

Where possible, ColegauCymru’s research attempted to identify approaches at a national (country), regional (local authorities or states) and local (provider) level. The measures and approaches, as well as factors such as the education system and culture that play a role in shaping these, are highlighted below. We looked in detail at the original six case study countries before reflecting on developments in three additional countries (Finland, Croatia and Slovenia). There have been various Erasmus+ funded projects looking at VET graduate tracking measures in Europe, including Tracktion²³ and OnTrack²⁴, and these provided a strong foundation for our analysis and findings.

²³ Baseline Study (2018) Tracktion. Available at: https://tracktionerasmus.eu/wp-content/uploads/2020/11/TRACKTION_baseline_study.pdf (Accessed 12 January 2021).

²⁴ OnTrack (2019) Technical University of Košice. Available at: http://ontrack-project.eu/images/articles/ON_TRACK_IO1_CONTEXT_STUDY_OF_TRACKING_SYSTEMS_AND_MEASURES.pdf (Accessed 22 October 2020).

4.2 Netherlands

Understanding the education system in the Netherlands is important when exploring the VET graduate tracking measures adopted at a national and provider level. The Cedefop report²⁵ suggests that around a third of students follow lower secondary pre-vocational programmes (VMBO), with almost half of these involved with vocationally oriented programmes. Other students follow the general programmes offered by VMBO schools which provide the main route to upper secondary VET. In addition to the lower secondary pre-VET programmes, there are also general programmes that prepare students for higher education. These include integrated lower and upper secondary education (HAVO) and pre-university education (VWO). Cedefop's report suggests that labour-oriented practical training is also available for learners not able to enter pre-vocational education.

Learners aged 16 or above can enter three different upper secondary VET (MBO) programmes. Student admission is dependent on the diploma obtained in their prior education, and individuals are able to progress in upper secondary VET and reach the highest level that gives access to higher professional bachelor programmes offered by universities of applied sciences. The upper secondary VET programmes cover four sectors, including green/agriculture, technology, economics and care/welfare and they are delivered through school-based (BOL) and dual (BBL) pathways. According to the Cedefop report, in the school-based pathway, work placements in companies make up 20% to 60% of study time. In the dual pathway (apprenticeship), students combine work-based learning (at least 60% of study time) with school-based instruction.

The evidence indicates that the Netherlands has adopted systematic and well-established VET graduate tracking measures. Interviewees involved with the process confirmed this opinion and explained the measures cover all key indicators on employment status, type of employment contract, earnings, and participation in further education and training. They also confirmed the measures cover IVET graduates and continuing education and training (CVET) graduates that take part in courses provided by IVET institutions (MBO). The systematic measures in place in the Netherlands combine survey and administrative data.

Interviewees discussed how administrative data is taken from a range of sources. The Netherlands has a Base Registry of Education held by DUO, an executive agency, which is part of the Ministry. This database contains key information such as the learners' personal characteristics (name, birth date, sex, migration background, home address), education background (school, location, level and field of

²⁵ Spotlight on VET: The Netherlands (2016) CEDEFOP. Available at: https://www.Cedefop.europa.eu/files/8090_en.pdf (Accessed 22 October 2020).

education, apprenticeship company) and results (test score, qualifications) for all pupils and students participating in government-funded education provision²⁶. The feedback suggests that the database compiles 'real-time' data by linking the administration data from schools/institutions to the central register held by DUO.

To gain further insight, researchers are able to combine data from the BRON (Basic education) database kept by the Executive Education Agency and the Social Statistical Database (SSB) with information on labour market participation. This data is released annually and allows researchers to code individuals to facilitate links to other registers, including the population registry, a registry of employees, a register of schools and locations, a register of municipalities, registers of fields and level of education programmes, and a registry of internship companies.

We understand that most data in the Netherlands are open data, meaning it is available to everyone. Interviewees mentioned that representatives from schools, companies, universities, and research agencies can access the data for their own purposes. While there is a positive attitude towards the sharing of data, the fact that no single agency is responsible for this area of work was identified as a weakness. A couple of interviewees also warned about the dangers of duplicating work between departments and organisations. One interviewee said, "The registries are there and many institutions would use the information. For example, the inspectorate, the council for institutions, the Ministries, and so on. The Ministry of Labour looks to labour and then looks to the education of the labour. There are research institutions that are also using the data. There are many people using the data and this is a problem with many people doing the same things... There's an information overload."

The ability to combine different datasets as part of the administrative process offers valuable insight according to those who were interviewed. It was also interesting to find that the results of the different surveys further enriches the evidence-base. For example, interviewees discussed a bi-annual survey carried out by the national VET student organisation that seeks feedback from students about their satisfaction with different aspects of education. There are other surveys, including a school leaver survey that explores student satisfaction and the role education in preparing individuals for the labour market. This survey is undertaken 18 months after students have left FE. It was also interesting to find that students and mentors in industry are surveyed about their experiences at the end of an apprenticeship programme. This survey is carried out by the Association of VET Colleges and Employer organisations. Satisfaction surveys are also conducted at a provider level with staff and students.

²⁶ Report from the PLA on ICT-tools in Quality Assurance (2019) Qavetahr. Available at: <https://www.qavet.hr/en/news/report-from-the-pla-on-ict-tools-in-quality-assurance/> (Accessed 22 October 2020).

The feedback from those closely involved with this work was documented in a paper for a meeting held in Zagreb in 2019²⁷. The paper and the interviews undertaken as part of this study indicate that the adoption of such an approach at a system level helped to obtain insight into the extent to which the study programme prepared alumni for the professional field or FE. Such a system also helps to monitor the reasons for the drop-out rate and to understand how learners' decisions were influenced by their study programme and VET provider. They also use the data to understand whether VET graduates have entered employment and working in the same sector as their study programme. It seems The Netherlands' system enables insights into whether the study programme is sufficiently aligned to labour market needs, the needs of society and the need for FE.

The Dutch Inspection Framework of the Education Inspectorate identified a number of quality areas and quality standards for the VET sector. Feedback from VET graduates on the educational process, examination and certification systems can provide valuable information at an institutional and educational level. This includes the level of satisfaction with the curriculum, teachers' teaching strategies, the administration of examinations, safety and the learning environment in the VET college. In addition, the analysis at an educational and institutional level helps colleges to maintain contact with alumni who remain involved in the study programmes and can play a role in them, by offering work placements and hybrid teaching or guest teaching opportunities. The data also helps colleges to maintain contact with alumni as potential customers of education and to obtain insight into alumni needs for retraining and further training. It seems providers also want to ensure that alumni can serve as ambassadors for a study programme or college, which is conducive to the image of the study programme or college.

Considering the quality standards in place in the Netherlands and the increasingly important role data plays, it is perhaps unsurprising to find colleges being proactive in tracking VET graduates. ROC Midden Nederland (Regional Education Centre), the largest college in the central part of the Netherlands, carries out an annual survey of VET graduates six to nine months after leaving the college²⁸. A representative from ALFA College highlighted the importance of collecting evidence and discussed the emphasis placed by the Inspectorate surrounding the importance of tracking satisfaction and graduate follow up success.

²⁷ Report from the PLA on ICT-tools in Quality Assurance (2019) Qavetahr. Available at: <https://www.gavet.hr/en/news/report-from-the-pla-on-ict-tools-in-quality-assurance/> (Accessed 22 October 2020).

²⁸ Corporate Information Central Netherlands Regional Education and Training Centre, ROC Midden Nederland. Available at: <https://www.rocmn.nl/over-roc-midden-nederland/corporate-information-central-netherlands-regional-education-and-training> (Accessed 22 October 2020).

VET providers seem to have trialled different approaches when tracking graduates. It seems a number of VET providers carried out a piece of research through the student company Duo in the past with reports produced bi-annually. Having realised that nothing tangible emerged with the data collected, one institution involved with this study developed their own research, called the 'Ex Monitor', and sent questionnaires to students from the teachers. The college representative explained, "It was a very successful method because they knew the people who sent them the surveys and all of the results came back at a team level. The teams could see what was going on with their alumni and what they could do about the curriculum. The data was very qualitative. This was very good but it took so much time if I'm honest." The college has since got involved with the Tracktion project. They emphasised the importance of absorbing relevant information as an institution: "We also want qualitative data. We don't need too much quantitative data."

It is worth highlighting that the EQAVET reference framework is used to promote transparency in the European Members States' quality insurance systems. One of the components in the EQAVET reference framework focuses on alumni data (at system level) and this is included in the Inspectorate's Inspection Framework as 'employment prospects' and 'further success'. One interviewee said, "We should have oversight of where our students end up. For example, they [the graduates] have a Diploma in IT, they should be working in the IT sector. This is what we call 'follow up success'." The influence of the Inspectorate is clearly having an impact on the tracking of VET graduates at a provider level.

Despite the development of well-established measures at a national level, there continues to be some uncertainty surrounding the collection and use of data at a provider level. We understand there is a lack of clarity on the approaches used across institutions and that they are now looking to share experiences and approaches. We also understand that some institutions have made more progress than others and the anecdotal feedback suggests that approaches vary from institution to institution. The non-government-funded VET colleges have also expressed the wish to be more open and to learn from each other. In addition, not all VET colleges are aware of the national and regional data available to them. The feedback suggests that consideration should be given to involving VET colleges more closely in the survey whilst also recognising that some VET colleges have informal contact with their alumni network.

4.3 Ireland

Whilst most VET occurs in the state sector in Ireland, private providers play an important role. Until 2016, VET occurred mostly in the further education and training (FET) sector. However, following reform of the FET sector and a review of the apprenticeship system, HE providers now offer a limited

number of apprenticeship courses. Within the FET sector, the main providers of VET are the 16 education and training boards (ETBs). Responsibility for funding, planning and coordinating FET programmes at ETBs lies with SOLAS, Ireland's Further Education and Training Authority. Other statutory providers include BIM (seafood industry training) and Teagasc (agricultural training). These bodies are publicly funded and some of their programmes are jointly financed by the European Social Fund (ESF). Trainees may include school leavers, older learners, the employed and the unemployed.

As highlighted in *Mapping of VET graduate tracking measures in EU Member States* (2017) report, tracking measures in Ireland are systematic and well-established and cover all indicators on employment status, type of employment contract, earnings and participation in further education and training²⁹. Our research team's visit to Ireland was an opportunity to further understand the measures that had been developed and the role of the organisations involved. Representatives from SOLAS, Quality and Qualifications Ireland, ATI and the City of Dublin Education and Training Board described how the use of existing sources of data is fundamental in researching the supply and demand of skills in Ireland. Similar to the situation in the Netherlands, the ability to link various data sources is an intrinsic part of the process and the need to report data to ESF proved to be the catalyst for the approach.

SOLAS, under the auspices of the Government of Ireland, plays an important role as part of this systematic approach. The SOLAS Skills and Labour Market Research Unit (SLMRU) provides a data gathering, analytical and research resource to identify skills needs and support the work of the National Skills Council³⁰. The analysis and forecasting carried out by SLMRU support the development and review of policies and practice by the Regional Skills Fora, the Expert Group on Future Skills Needs (Department of Further and Higher Education, Research, Innovation and Science) and other government bodies, including SOLAS and the ETBs.

Through the production of various reports, SOLAS provides an evidence-based approach to graduate tracking. *The National Skills Bulletin* is an annual series of reports produced by the Skills and Labour Market Research Unit (SLMRU) in SOLAS on behalf of the National Skills Council. It presents an overview of the Irish labour market at occupational level. The Bulletin aims to assist policy formulation in the areas of employment, education/training, and migration (particularly the sourcing of skills from the EEA which are in short supply in the Irish and EU labour markets). It also aims to inform career guidance advisors, students and others who are making career and education choices. For the most part, the

²⁹ ICF Consulting Service Limited in association with 3S (2017) 'Mapping of VET graduate tracking measures in EU Member States', Directorate-General for Employment, Social Affairs and Inclusion, European Commission.

³⁰ SOLAS website. Available at: <https://www.solas.ie/research-lp/skills-labour-market-research-slmru/research/> (Accessed 22 October 2020).

analysis presented in the Bulletin reflects the data gathered by the SLMRU across a range of labour market indicators; it spans 95 occupational groups and examines a range of labour market indicators. The *Monitoring Ireland's Skills Supply* report serves as a companion publication for the National Skills Bulletin, which looks at the demand, rather than supply, for skills in Ireland. When taken together, these two reports provide a comprehensive summary of the demand and supply of skills in Ireland. The *National Skills Bulletin* for 2020³¹ and the *Monitoring Ireland's Skills Supply*³² reports highlight the types of data, along with the sources used for the analysis.

The feedback suggests the approach is applied consistently across educational settings including HE and FE. There was confirmation that VET was addressed as part of this work and that it didn't have a separate approach. There are specific data collection approaches for learners on IVET and CVET programmes. SOLAS representatives explained they focussed on developing a national approach that connected existing datasets to provide a strategic overview. Whilst they had used a survey to collect data at one point, this has become a redundant part of their approach since 2014. Despite this, SOLAS representatives stated their aspiration to add another layer of data to their existing approach. They were particularly interested in capturing information on occupation and in developing a better understanding on whether graduates are using their skills. They would also like to look at progression and how people feel about themselves, adding that this is likely to be a separate satisfaction survey.

The discussion with representatives from other organisations was an opportunity to identify whether there were additional measures in place to capture further evidence on VET graduates. Eager to understand a little more about the salaries of their members (something that should be reviewed after a year once employees become part-qualified) and whether they continued with professional studies, the organisation of accounting technicians (ATI) conducted a survey with their graduates. The ETB in contrast relied on qualitative feedback from tutors, students and employers when tracking the progress of graduates. Whilst QQI do not currently survey graduates, the focus on this area of work has shifted thinking somewhat from outputs to outcomes. Representatives from QQI were interested in the approach used in HE where public sector graduates are surveyed with the data disseminated through a Higher Education Authority report.

SOLAS has explored the softer skills outcomes as part of their research on active inclusion. This is an important area of work, especially considering that they have around 95,000 (which equates to around 35% of learners who are not certified) learners not included in other data collection methods. It seems

³¹ National Skills Bulletin (2020) SOLAS. Available at: https://www.solas.ie/f/70398/x/7b02b880e3/national-skills-bulletin_2020.pdf (Accessed 15 January 2021).

³² Monitoring Ireland's Skills Supply (2020) SOLAS. Available at: <https://www.solas.ie/f/70398/x/7401705bd5/monitoring-irelands-skills-supply-2020.pdf> (Accessed 15 January 2021).

they have a lot of provision with no qualification and these are mainly active inclusion type courses. As part of this workstream, they have also looked at the thoughts and feelings of individuals as part of separate satisfaction survey.

The discussions with SOLAS representatives provided a flavour of the governance arrangements in place and the collaboration involved. One of SOLAS' first steps was to sign an agreement with the Central Statistical Office. With the data owned by the VET providers, SOLAS had to establish bi-lateral agreements with the 16 ETBs. This work, which started in 2017, was no small undertaking. In order to be in a position to link databases to social identification numbers and revenue and produce the outcomes analysis, a member of the SOLAS team has been placed on secondment at the Central Statistics Office. As part of the process, the public bodies send their data to the Central Statistics Office through a secure channel. The personal information is stripped and the social security number is converted to a special Central Statistics Office number which allows them to link the different datasets. SOLAS wants to create link with learners' earnings and employment outcomes. Currently they are able to connect data from the Higher Education Authority data for those progressing into HE and the Department for Employment Protection (DEPSA) for VET graduates who are making welfare claims. The data is also linked to QQI to track learners who achieve different awards.

There was a sense that this was at an early stage and more evidence could come to the surface as they further develop their systematic approach. One representative from QQI said, "I don't think by any means we have exhausted what the data is telling us about people progressing through the system." Representatives from the organisation also referenced the establishment of the FET-HE Transitions Reform Sub-Group in March 2017 as an important development within the overall transition's framework led by the Department of Education and Skills. While progression to higher education is one of the targeted outcomes from Further Education and Training (FET), it is acknowledged across several national strategies that levels of progression need to increase and a more consistent approach to facilitating such progression should be put in place. In this regard the Sub-Group had been tasked with the following terms of reference: (1) Map and evaluate current FET-HE transitions practice and data across the Further Education and Higher Education Sectors; (2) Develop proposals so that education and training qualifications from the FET sector are recognised for entry into Higher Education in an agreed and consistent manner; (3) Examine specific issues relating to the transition for learners from further education and training into third level; and (4) Consider and make recommendations on how best to position further education and training qualifications for points and entry purposes into higher education. Whilst the data had not been produced at the time of the visit, a QQI representative explained that there is "really encouraging and rich data coming out of this work."

There are clearly a number of developments that would further strengthen the measures and approaches used in Ireland.

Looking to the future, a representative from SOLAS noted they were considering ways to improve on the foundations laid through the systematic approach. They were enthusiastic to develop real-time data and a dashboard system at some point in the future.

4.4 Spain

VET in Spain is mainly the responsibility of education and employment authorities. The General Vocational Training Council is the national government’s advisory body on VET policy and comprises representatives of national and regional public authorities and social partners, such as enterprise organisations and trade unions³³. VET qualifications (VET diplomas) are awarded by the education authorities and certify education level (from secondary to higher education) and occupational skills and competences. Those certificates awarded by the employment authorities (professional certificates) comprise three levels and certify the occupational skills and competences acquired.

VET usually begins after the end of compulsory education. Learners opting for school-based VET attend a two-year programme which leads to an intermediate-level VET diploma. This diploma gives access to higher level VET via an admission procedure. There are also VET options for those who have not completed compulsory education that award professional certificates at EQF Level 1 of the national register. Those older than 16 can attend programmes awarding professional certificates. Access requirements and duration vary according to the level of the learning outcomes. These programmes can be considered initial or continuing VET, depending on the learners’ background and professional experience. There are intermediate and higher-level VET programmes in art and design and sports. Tertiary or higher education comprises university studies and higher-level VET. Since 2011, higher-level VET diplomas have been assigned to the first of the four levels of the Spanish higher education qualifications framework (MECES). Recognition of certain European credit transfer and accumulation systems allows progression for higher VET graduates and complementary studies for those from university³⁴.

CVET for the employed or unemployed can be demand-led through in-company training or in the form of individual training permits for formal qualifications financed through a social security bonus. CVET

³³ Spotlight on VET: Spain (2014) CEDEFOP. Available at: https://www.cedefop.europa.eu/files/8054_en.pdf (Accessed 22 October 2020).

³⁴ Spotlight on VET: Spain (2014) CEDEFOP. Available at: https://www.cedefop.europa.eu/files/8054_en.pdf (Accessed 22 October 2020).

can also be offered as part of active labour market policies, encouraging people to upgrade their skills and acquire professional certificates based on occupational standards. This supply side training is financed through public funds³⁵.

The *Mapping of VET graduate tracking measures in EU Member States* (2017) report suggests that Spain has no regular VET tracking measures at the national level although the report notes that the analysis only offers a partial picture of the arrangements in Spain. The feedback from representatives of the Ministry of Education and Vocational Training suggests that analysis of administrative data does take place at a national level. Interviewees recounted that they receive the information on VET students and graduates from the regions and then link the information to social security data which involves monthly information on the contracts of those working. They use the Labour Market Survey results, carried out by the National Statistical Office, to identify the destinations of university graduates and non-university graduates. The *Mapping of VET Graduate Tracking Measures in Spain* (2019) offers a more accurate view of the reality of VET graduate-tracking measures carried out at a national and regional level.

The report stipulates that, in the national context, four VET graduate tracking measures have been identified, including: (1) VET Graduates Employment Report (managed by the Ministry of Education and Vocational Training); (2) Transitions into Employment and Further Studies Survey (managed by the Ministry of Economy and Business); (3) Monthly / Annual Information on VET Graduate Job Market (managed by the Ministry of Labour, Migration and Social Security); and (4) Employment Trajectories Data (also managed by the Ministry of Labour, Migration and Social Security). Interviewees pointed out that these surveys complement each other and provide valuable data that can be analysed over time. The tracking measures and surveys are separate pieces of work that have been integrated to develop a more rounded picture for education providers.

The interviews portrayed the challenges of establishing a consistent picture of the systems in place across the country. One of the interviewees involved with the research on VET graduate tracking in Spain explained, “Spain is a highly decentralised country. They have 17 autonomous regions. When we did our research, there was a patchy landscape with some regions using surveys and administrative data and others doing their own studies.” It was pointed out that the lack of common approach made it difficult to collate the information on VET graduates.

Our interviewees described the myriad of initiatives at a regional level and the Spanish study confirms that all 17 regions have or have had at least one tracking measure in place. The European study had

³⁵ CVET in Europe: The way ahead (2015) Office of the European Union. Available at: https://www.cedefop.europa.eu/files/3070_en.pdf (Accessed 22 October 2020).

identified 23 measures. 15 regions had ‘regular tracking measures’ whilst four had ‘measures with four key indicators of employment and education’. One of the interviewees who has studied the different practices in Spain confirmed the regions collect information on the four indicators of employment status, type of contract, earnings, and participation in further education and training because they are encouraged to do so at a national level. In 13 regions, tracking the destination of VET graduates is a legal obligation. The European report that looked at the Spanish approach stated that 70% of tracking measures involved surveys and 30% involved administrative data. Furthermore, 78% included the total reference population whilst 22% involved samples. 19% of the measures cover the four key indicators whilst none of the measures identified combines administrative and survey data. It was interesting to find that only 29% of measures involve longitudinal studies where they track the same sample of graduates at different points in time.

Interviewees explained that the Ministry of Education provided guidelines to the regions mainly based on administrative data. The Ministry would define a common methodology and then request the regions to produce the necessary statistics. The approach has involved working closely with the regions to develop their approaches. Interviewees explained that the national data, which mainly looked at employment outcomes, adds value to the regional data, including looking at where students are six months after graduation. As one interviewee stated, "Both sets of information are giving you different perspectives."

Whilst it was difficult to analyse the practices of all regions as part of this study, the interviews helped capture the approach of one region in the north of Spain. The methodology in this particular region involved college representatives surveying students six months after graduation. The interviewee explained the process: "Each tutor would contact their former pupils and try to understand four basic questions: Did they find a job? Was the job related to their qualification? Were they hired by the company where they did their job placement? Have they moved on to study? These are pretty basic indicators and they are used across the Spanish regions." There was a suggestion during discussions that this approach was used across some regions.

In an effort to provide a timeframe for reporting at a national level, representatives from The Ministry of Education and Vocational Training noted that they had released a report that looked at the 2015/16 to 2018/19 period in 2020. At one point, they had considered reporting on three-year cycles but decided that this was too short and that they should take the analysis up to the four-year mark. Following the recommendations of a recent review, the Ministry is now considering looking at the journey of a student over a five-year period.

The 2017 European Commission report states that most regions in Spain have a long history in the design and development of VET graduate tracking measures. Contributors to this study however highlighted an issue with the depth of analysis taking place with the regions usually reporting on key findings such as the number of VET graduates moving into employment.

Despite the production of detailed reports, interviewees were eager to develop a clear mechanism that would facilitate communication and the exchange of knowledge and experience at national level. A few of the interviewees questioned whether there was an opportunity to be more effective in disseminating information. There was a sense that the Ministry of Education should consider this area of work with the regions. According to one interviewee, "The message is not reaching people. Colleges don't really receive the information even though they've been involved in collecting it. There's an opportunity to provide tailored reports to colleges." The Spanish study suggests the creation of a working group in which the national and regional authorities involved in the VET graduates tracking are represented, would enable the identification of common challenges and synergies.

4.5 Italy

Compulsory education covers a 10-year period up to the age of 16 and includes the first two years of upper secondary general education or VET. Vocational training is a regional competence in Italy although a national harmonisation process has started to make regional qualifications comparable and recognisable.

The National Institute for The Analysis of Public Policies (INAPP) is a public research body supervised by the Ministry of Labour and Social Policies. It is responsible for the analysis, monitoring and evaluation of the labour market, education and training, social and general economic policies which impact the labour market. In addition, INAPP is a member of the National Statistical System and cooperates with various European institutions. It provides methodological and scientific assistance for the European Social Fund System Actions and it is the National Agency for the Erasmus+ European Programme in the field of education and vocational training³⁶.

At a national level, INAPP use administrative data to track the progress of IVET graduates after graduation on behalf of the Ministry of Labour. The figures are produced by region and include annual graduations linked to student learning pathways. The cognitive framework that is reconstructed from year to year includes aspects related to three-year and four-year VET programmes with reference to

³⁶ National Institute for Public Policy Analysis (INAPP), UNESCO Institute for Lifelong Learning website. Available at: <https://uil.unesco.org/partner/library/national-institute-public-policy-analysis-inapp-italy> (Accessed 12 January 2021).

the training offer (courses), participation (enrolled), and outcomes (qualified and graduated). As part of the analysis, INAPP provides breakdowns by different fields, including the type of route, age, gender, presence of users of foreign origin, and so on. The measure can therefore be considered partially systematic.

INAPP also conduct a survey on with VET learners which aims to acquire quantitative and qualitative information in order to draw up, on behalf of the Ministry of Labour and Social Policies, a monitoring report describing the progress of the system. It is a jointly organised survey between the Ministry of Labour and Social Policies and the Ministry of Education. It uses feedback from the 21 Regions and Autonomous Provinces that collect qualitative and quantitative data in their respective territories. These statistics are used by the Ministry of Labour for funding purposes.

There is an additional survey every two to three years that focuses on employment rates, satisfaction and the link to the learning pathway. This is a qualitative survey carried out at the regional level and the response rate varies considerably between the regions. The data supplied by the regional administrations also enable research companies to undertake telephone interviews with students.

With a regional rather than a national VET system, it is perhaps unsurprising that VET tracking approaches vary across the regions. The evidence suggests that VET tracking exists in some regions although it is worth noting that it was considered by interviewees as under-developed. As highlighted in the Traktion project report, the VET system is very strong in some regions like Lombardy. In this region, the government has created a platform with information on graduates' entry to the labour market that is accessible for job agencies. According to one interviewee, every company has to fill in information about their employees including wages and type of contract. This has allowed the region to use the social insurance number to work out if students are working. They don't have information on those who are not working or not in a contract however. It should be highlighted that this system involves tracking graduates up to EQF Level 4 and up to EQF Level 5 (Higher Education) and is open to people such as career advisors with authorisation to access the data. There is a national agency tracking VET graduates at Level 5.

It was noted that tracking measures are in place at a provider level e.g. Cometa Formazione educates around 1,300 children, teenagers, volunteers and professionals and uses a regional website to collect information on the status of students. The information is linked to the alphanumeric tax code of former students, something the team have access to due to its Job Placement Office's judicial status. Through this, the first batch of administrative data on graduates' destinations is easily retrieved. Soon after, the Job Placement office contacts former students by phone to collect additional information such as

address, age, car ownership, internships made, disability, date of last update of employment situation, expiry date of contract, remuneration, company, and sector of employment. According to the Tracktion report, the type of areas they explore include:

- Indicators on learners’ individual background (Socio-biographical and socio-economic information).
- Indicators on completed studies (Qualifications and Field of study).
- Indicators on graduates’ destinations (Transition to employment or further education and training; Earnings; Type of contract; Employment status; Occupation, professional status and/or activity).
- Tracktion found that only two measures elicit information on job quality, including information on the type of contract (permanent/temporary, part-time/full-time) and earnings³⁷.

Cometa’s tracking system relies on the informal relationship between the tutor and the student and the Job Placement Office. The tutors are currently in charge of formally recording former students’ destinations and exploring a number of associated areas on this subject including whether graduates have their own mode of transport. The role played by the Work Placement Tutor is common to Cometa as these institutions are characterised by the presence of a specific department responsible for the graduates’ entry in the labour market. Graduates from the previous year (those who graduated in June of the year before) are contacted every three months after graduation whereas the less recent graduates are tracked twice a year. This enables an updated picture of the graduates’ current employment situation and career progression as well as a better estimate of the economic and social benefits of VET. The representative from Cometa said that they usually have 70-80% of people answering in the first year. This response rate reduces over time.

VET graduate tracking is used for administrative and statistical purposes. Cometa collates the evidence to help with institutional quality assurance, administration and statistical analysis, and programme design. A representative from the institution was unsure whether they produced an annual report although they suggested that something similar to a summary report was produced every three years or so. The interviewee described how they would use their positive employment data to advertise and recruit prospective students. It seems the data is also being used to compare colleges. This is not encouraged anymore although they do use the data internally with staff and externally with donors. One interviewee commented, “It is important to provide detailed information on specific groups that donors were supporting. We also share information with companies that we want to start working with. And with public agencies of course.”

³⁷ Baseline Study (2018) Tracktion. Available at: https://tracktionerasmus.eu/wp-content/uploads/2020/11/TRACKTION_baseline_study.pdf (Accessed 12 January 2021).

Looking to the future, Cometa hopes to establish an alumni community. They would like to initiate something similar to a panel survey, a method of research that uses a consistent panel of participants, with the researchers returning to the same people to run surveys or host interviews repeatedly over time. This would help the organisation understand the destination of graduates, their roles, as well as allowing representatives to stay connected to employers and employees. They envisage developing something similar to a survey but through a network.

4.6 Austria

Cedefop's guide notes that Austria's differentiated offer and highly attractive offer contributes to the appeal of VET in the country, with 70% of each cohort opting for a VET pathway at the end of compulsory education. The report confirms that school-based VET and apprenticeships (dual-track training) coexist and cover nearly all economic sectors and lead to qualification at EQF Level 4 or 5). Most school-based VET falls under the remit of the education ministry. Governance of apprenticeships is shared by the ministries of economy (company-based track) and education (school-based track), the social partners and the Länder³⁸.

At upper secondary level, learners can choose from pre-VET and VET options in different occupations/sectors alongside the more general education programmes. There is a variety of VET programmes at tertiary level and for adults. At tertiary level, universities of applied sciences provide practice-oriented bachelor and master programmes in different fields. According to Cedefop's guide, several of these include a mandatory work placement, with many programmes catering for those in employment. For adult learning, individuals can acquire the same qualifications through formal education and training as those open to the young. A diverse range of institutions offers continuing training and progression opportunities to complement or upgrade individuals' initial qualifications³⁹.

With VET graduate tracking generally not addressed in VET policy documents, there is no legal obligation to undertake tracking⁴⁰. Notwithstanding, in 2004, the Austrian Federal Ministry of Education, Science and Research started the VET Quality Initiative, or QIBB, to implement systematic quality management in the Austrian VET school sector. QIBB has been implemented in almost the whole VET school sector in Austria since the 2006/07 school year. All institutional levels of the school systems are regularly evaluated and continuously improved in a four-phase quality assurance cycle. The process

³⁸ Spotlight on VET: Austria (2018) CEDEFOP. Available at: https://www.cedefop.europa.eu/files/8127_en.pdf (Accessed 22 October 2020).

³⁹ Spotlight on VET: Austria (2018) CEDEFOP. Available at: https://www.cedefop.europa.eu/files/8127_en.pdf (Accessed 22 October 2020).

⁴⁰ OnTrack (2019) Technical University of Košice. Available at: http://ontrack-project.eu/images/articles/ON_TRACK_IO1_CONTEXT_STUDY_OF_TRACKING_SYSTEMS_AND_MEASURES.pdf (Accessed 22 October 2020).

is controlled, supported and structured by applying specific quality management instruments⁴¹. A review of documentation suggests that evaluation plays a key role in the quality management process with a particular emphasis on individual feedback and system feedback.

It should be noted that the aforementioned QIBB quality management measures do not exclusively track or monitor graduates. With the situation of young adults as they transition from education to the labour market being under the microscope, the Austrian Public Employment Service (AMS) and Statistics Austria established a national tracking measure of graduates. This is the education-related employment career monitoring (BibEr) which began in the 2008/09 academic year⁴². This project is funded by the Federal Ministry of Labour, Social Affairs and Consumer Protection and the Austrian Public Employment Service (AMS). Statistics Austria, the national statistical office, collects data through different administrative data sources (e.g. population register, social security register) including details regarding education and the labour market. The main aim of BibEr is to support the statistically-valid evaluation of the employment and career of all those living in Austria after they left a formal education institution. The target group of BibEr is all graduates of a formal education institution and so it covers more than VET graduates.

Similar to other countries such as the Netherlands and Ireland, data is collected at multiple measurement points and learners' progress is continuously measured several months after graduation. The measurement of progress monitors the participation of graduates in further education, training pathways and whether the graduate received any further qualification. As this work provides detailed insight into graduates' entry to the labour market the results play an important role in supporting policy planning and future development. Perhaps one of the main benefits of BibEr is that it provides the ability to track graduates from different formal education and training programmes. With more graduate cohorts integrated into the data every year, the pool of administrative data that helps track various graduates keeps growing and it has become easier to analyse the labour market entry of graduates from different formal education and training programmes. Whilst Austria fulfils the European VET policies and objectives with the project BibEr, it was developed as an analytical instrument with statistical data and cannot monitor or track individual VET graduates (e.g. motivation or job satisfaction of a single VET graduate). It is also worth noting that the data is not available for single study

⁴¹ VET Quality Initiative – QIBB. Available at: https://qibb.at/fileadmin/content/QIBB/Dokumente/Sonstige_Dokumente/Information_EN_QIBB_2018.pdf (Accessed 22 October 2020).

⁴² Monitoring of Education-related Employment Behaviour, Statistics Austria. Available at: https://www.statistik.at/web_en/statistics/PeopleSociety/education/monitoring_education_related_employment_behaviour/index.html (Accessed 22 October 2020).

programmes or educational providers as Statistics Austria (responsible for the BiBER monitoring) does not want the results used for benchmarking or rankings.

In addition to BibER, the Public Employment Service Austria (AMS) and the Austrian Chamber of Labour (AK Österreich) have conducted one-off studies. Furthermore, the ibw Austria continually releases a range of thematic studies on VET graduates. From 2008 to 2014 for example, ibw tracked graduates with apprenticeships qualifications with data from the Austrian Economic Chambers (WKO), the AMS and their own static calculations. This data was used to analyse the success of graduates in the labour market. Another nationwide apprenticeship graduate tracking was conducted from 2016 to 2017 and in 2018, ibw interviewed various companies and organisations regarding the specialised personnel in their workforce.

Our research on VET schools and colleges was an opportunity to understand whether there were any measures in place at a provider level, and if so, what these involved. The OnTrack⁴³ report explained that universities of applied sciences have a legal obligation to track their graduates. The universities use the national Quality Assurance Agency of Austria (AQ) for analyses and reports about their quality and accreditation, but also to analyse the graduates' labour market integration. The report assumed that most of the information about graduates is exchanged during alumni meetings and reunions.

Despite only interviewing one college, our interview with the Head of HTL Steyr confirmed that this was the case. A Höhere Technische Lehranstalt (German for *Higher Technical Education Institute*, or in a transferred sense *Technical College*), commonly known as HTL, is an engineering-focused secondary school in Austria. Such institutions are an important part of Austrian vocational education. HTLs specialise in disciplines such as civil engineering, electronics, electrical engineering with courses lasting five years for those aged between 14 and 19. After a final exam, graduates can, after three years of work experience in engineering, apply for the professional title of Ingenieur (Engineer). The interview suggested that tracking is done through very strong alumni links. These links are traditionally very important in Austria and allow the VET school to not only keep track of where their graduates are employed but also to help with work placement and finance. There was a focus on ascertaining and encouraging the involvement of alumni. On the one hand, they are eager to continue the link between the college and the employer. On the other, the college wishes to receive financial support from individuals and employers. There is clearly a strong culture of self-support on the part of the institution and the feedback on this more informal approach seemed positive. It seems that almost all graduates

⁴³ OnTrack (2019) Technical University of Košice. Available at: http://ontrack-project.eu/images/articles/ON_TRACK_IO1_CONTEXT_STUDY_OF_TRACKING_SYSTEMS_AND_MEASURES.pdf (Accessed 22 October 2020).

attend the first alumni event after graduating. There are further events held every five years. The interviewee stated that the format is a social event over a weekend on a class basis with strong connections built up over time.

4.7 Greece

According to the Cedefop report⁴⁴, VET in Greece is strongly state-regulated and, until recently, mostly offered through a school-based approach. Overall responsibility is with the Ministry of Education, Research and Religious Affairs, in cooperation with the Ministry of Labour, Social Security and Social Solidarity. The report concludes that while Greece has demonstrated good performance in several areas of VET policy-making, as well as implementation in alignment with European guidelines and strategic thematic priorities, these efforts need time to yield concrete results and reach their maximum potential.

The National Organization for the Certification of Qualifications & Vocational Guidance (EOPPEP), an all-encompassing statutory body investing in better quality and more efficient and reliable lifelong learning services, is the organisation supporting VET at a national level in Greece. The organisation develops and implements the National Accreditation and Certification System for non-formal education, including initial and continuing vocational training and adult education, and provides scientific support to Vocational Guidance and Counselling services in Greece.

As shown by the 2017 European Commission report, Greece is among those countries where the stage of development of such measures can be classified as non-systematic. There are currently no measures for VET graduate tracking although a one-off tracking study of apprenticeship graduates was developed in 2015, as part of the reengineering of the public employment service.

As noted in the *OnTrack* report, several studies highlighted the necessity to further develop this area of work. Looking back at notable research projects, the survey conducted by KANEP-GSEE (Development Centre for Education Policy) in 2013 was considered by Nikos Mouzelis, professor at the London School of Economics-LSE and chairman of KANEP-GSEE, as the most systematic and in-depth research related to education and occupation at that time. Research based on a questionnaire survey was run in 2017 by Patras PVTI (Giotopoulos, 2017) showed that the choice of specialisation is closely related to the sex of the students. A one-off telephone survey to determine VET graduate destinations took place in 2015. This project informed another project in which EOPEPP were involved to develop a

⁴⁴ Greece: VET graduate tracking study, CEDEFOP website. Available at: <https://www.Cedefop.europa.eu/en/news-and-press/news/greece-vet-graduate-tracking-study> (Accessed 23 September 2020).

VET tracking system for Greece. That project was conducted in collaboration with the National Institute for Labour and Human Resources (EIEAD) and helped inform recent developments⁴⁵.

The *OnTrack* report also explained that a new VET graduate tracking study is currently being carried out in Greece by EOPPEP. The project focuses on graduates of post-secondary VET programmes (IEK); it aims to provide quantitative and qualitative data about what graduates do after completing their training. Using quality indicators such as the placement rate of VET graduates and the utilisation of acquired skills in the workplace, the research analyses the position of IEK graduates in the labour market. It also measures the degree of satisfaction of graduates regarding the curriculum and their specialisation and seeks the views of employers regarding graduates' knowledge, skills and competences. The study is based on desk and field research and has been conducted in cooperation with the National Institute for Labour and Human Resources (EIEAD). This is the first time that a largescale study on this topic has been carried out in Greece, with 430 employers and 4,780 graduates⁴⁶. Following the successful pilot phase of this VET graduate tracking study, EOPPEP undertook a second research project between 2019 and 2021 involving 9,880 participants. The intention was to develop a more comprehensive and systematic VET graduate tracking mechanism, linking labour market needs to VET at a national level. The aim of the study was to understand better how to improve VET provision and qualifications.

The *OnTrack* research confirmed limited research is taking place in this area of work at a provider level. The *OnTrack* research team completed a survey of VET tracking systems used by VET providers in order to gather information on the current status of tracking approaches. They invited 811 institutions to participate in the survey and received responses from 41 which demonstrated that no systematic measures were in place. Only one of the 41 institutions had a tracking system, initiated in 2014, and provided the ability to keep track of less than 100 students⁴⁷.

⁴⁵ OnTrack (2019) Technical University of Košice. Available at: http://ontrack-project.eu/images/articles/ON_TRACK_IO1_CONTEXT_STUDY_OF_TRACKING_SYSTEMS_AND_MEASURES.pdf (Accessed 22 October 2020).

⁴⁶ Greece: VET graduate tracking study, CEDEFOP website. Available at: <https://www.Cedefop.europa.eu/en/news-and-press/news/greece-vet-graduate-tracking-study> (Accessed 23 September 2020).

⁴⁷ OnTrack (2019) Technical University of Košice. Available at: http://ontrack-project.eu/images/articles/ON_TRACK_IO1_CONTEXT_STUDY_OF_TRACKING_SYSTEMS_AND_MEASURES.pdf (Accessed 22 October 2020).

4.8 Developments in other countries

A few of the interviewees from the original sample of countries commented on the work in other European countries including Finland, Croatia and Slovenia. As our research got underway and the coronavirus pandemic disrupted the work programme, the study team increased the sample to explore developments in these countries.

Finland

Finland has well-established and systematic measures in place at the national level. A number of representatives from the original sample of countries that had developed systematic measures praised the developments in Finland. This is an area that has been taking shape since 2001 and has become an integral part of the national quality assurance system.

In line with the approaches developed in other countries such as Ireland, the Netherlands and Austria, a central agency, Statistics Finland, has responsibility for collecting the data and combining different datasets to provide a comprehensive overview of destinations of all graduates from VET institutions. This data is held on the education administration's reporting portal, *Vipunen*. *Vipunen's* statistics are based on data and registers collected by Statistics Finland, the Ministry of Culture and Education and the Finnish National Agency for Education. The Ministry of Education and Culture and the Finnish National Agency for Education are jointly responsible for *Vipunen's* content. *Vipunen* is an open website of statistics and indicators for education in a number of educational sectors⁴⁸. It provides information on the placement of students after completion, research conducted in higher education institutions, the population's educational structure and the socio-economic background of students. In the VET section of the website, there is the ability to access reports on the placement of vocational education. Reports on the placement of vocational education and training completers provide information on entry into employment or further education and other activities of completers one, three and five years after qualification. This comprehensive information shows the professional sectors in which VET graduates are working.

Similar to the Netherlands, quantitative administrative data is supported by a student feedback survey. The VET students' feedback reflects the way in which students taking vocational upper secondary qualifications, further vocational qualifications and specialist vocational qualifications or qualification unit(s) view the provision of their education and training and its effectiveness. The national VET

⁴⁸ Sectors include: All levels and sectors, Pre-primary and basic education, General upper secondary education, Vocational education and training, University of applied sciences education, University education, Higher education and R&D activity, and Population, educational and vocational structure.

feedback survey was introduced in July 2018 and the results are updated on the third day of each month with data describing the situation two months earlier. There are two stages which include an initial questionnaire and a final questionnaire on graduation. The main administrative data covers total population and is supported by a satisfaction questionnaire which has almost 100% response for the initial survey and circa 60% response rate after graduating.

The feedback is collected by the providers of vocational education and training that have been authorised by the Ministry of Education and Culture to provide education. The feedback is anonymous and the results are reported when there are at least five respondents in the selected target group. Interviewees explained that this is a comprehensive process although it is worth noting that a few student groups do not take part in the VET feedback survey. These include students:

- participating in preparatory education for vocational training (VALMA)
- completing preparatory education for work and independent living (TELMA)
- taking modules that are less extensive than qualification units
- participating in other vocational education and training
- taking the qualification or qualification unit(s) by giving a competence demonstration.

Unlike other countries, the results are linked to the funding allocated to institutions. The reports produced are significant as they affect funding for VET providers. In Finland, providers receive 50% of core funding and a further 35% of funding is based on performance and 15% based on the satisfaction of students and satisfaction with working life. As part of these figures up to 4% of the funding is for developing the provider's strategic approach to VET.

Croatia

Whilst there is no national tracking system at present in Croatia, the Agency for Vocational Education and Training and Adult Education (ASSO) is involved in a pilot scheme to collect data on graduate destinations. This pilot scheme is based on the EQAVET recommendation and is an objective of the National Strategy for VET 2016-20. Three VET schools participated in the first cycle and seven in the second cycle of the pilot.

As part of these pilots, ASSO sent questionnaires to VET providers who have responsibility for conducting a survey to collect graduate destination data. The methodology for conducting the surveys

is left to the discretion of VET providers with different approaches including email, WhatsApp and telephone calls used to complete an online questionnaire. The main survey is conducted after graduation and collects mainly qualitative data based on student self-assessment. Some quantitative data, such as destination i.e. employment or further education, is also collected.

An exit survey was introduced as part of the second pilot and the feedback suggests that this was much easier to administer and had a good response rate. This survey collected socio-demographic data, information on learner aspirations and whether the learner is willing to take part in the main study after they have left their VET programme. The study included an assessment of how competences during their VET programme prepared them for the world of work and meeting their employer's needs.

The preliminary findings suggest that the study has been a success. The response rate to the survey varied from 30% to 70% between different providers. An external expert developed the questionnaire and analysed the results to ensure statistical accuracy - this proved to be an important feature of the methodology. The central role played by ASOO in administering and collating the evidence was also important.

Slovenia

Slovenia is planning a VET graduate tracking system with the Institute for the Republic of Slovenia looking at how to develop measures using the current EQAVET Restricted Call. Slovenia is part of a working group with Finland, Croatia and Greece undertaking activities such as seminars and study visits on graduate tracking. Although each country is developing, or has developed, tracking measures independently, representatives from these countries are sharing best practice. Whilst the future methodology has not yet been decided, the discussions suggest that a mixed approach will be best way forward with national data being combined with data at the individual VET provider level. The aim is to develop tracking measures up to two years after graduation. This is likely to start with a quantitative survey approximately six months after graduating to establish learner destinations and a more qualitative set of questions by the second year to obtain data on EQAVET indicator 6 (Utilisation of Acquired Skills). It is worth noting that some VET providers currently track their graduates but that this is not widespread practice.

5. An assessment of the measures and approaches

The development and delivery of different approaches has given those involved the opportunity to trial ways of working, reflect on what has worked well and consider whether any refinements might be

needed. As part of our research, the study team explored the strengths and limitations of the approaches used at a national and provider level.

Overall, interviewees described a more consistent approach to data collection in countries such as the Netherlands, Ireland, Finland and Austria where systematic measures had been introduced. The ability to draw on consistent datasets at a national level has been a significant development and has, according to many, improved the quality of the insight. As highlighted by a representative from Ireland, "There's absolutely no question whatsoever to determine where someone is at a given point in time. It can be very, very precise. It's good to know if someone is employed or not." This was highlighted as one of the main strengths of the systematic approach.

Contributors to our study also noted the availability of national data provided a reliable foundation for further research. In some instances, a systematic approach highlighted discrepancies in the findings between administrative and survey data. In one example, a survey reported an 11% higher employment figure compared with data from administrative sources. There was a strong belief therefore in the countries that had, or have had, mixed-method approaches, that administrative data and the use of systematic measures helped to provide a more accurate account. These countries, in the main, are also able to track progress over time. Representatives from different countries talked about the benefits of exploring particular issues or areas of interest once the baseline position had been formed and clear trends were emerging. Contributors mentioned the importance of exploring themes such as social inclusion.

Whilst it was reassuring to find organisations making use of the national data, there were many examples (e.g. in the Netherlands and Spain) where improvements could be made when disseminating and using the findings. For the small number of VET providers making use of national data, the systematic approach was clearly contributing to decision making. According to a few of the VET providers, they were eager to know if their courses were meeting the needs of students and employers. Research from countries (e.g. the Netherlands where data is published three months after analysis) using national administrative and survey data survey shows that providers are able to track learners' progress over time.

Despite the overwhelming benefits of adopting national and systematic measures, interviewees also highlighted a number of limitations. Some observers claimed that the national data were infrequent and high-level e.g. in the Netherlands, Ireland and Austria. Representatives from two partner organisations explained they would need to ask more questions to make the best use of the tracking data. As it is difficult to change the national approach, VET organisations might need to complement

the approach with other methods such as surveys e.g. a representative from one professional body in Ireland was interested in the occupation of graduates taking their courses.

There is a danger that attempting to complement existing methods with different approaches at provider level could lead to duplicated efforts. This is something that interviewees from the Netherlands highlighted. They also noted this could already be happening with national surveys. According to one interviewee, the CBS/ROA School-Leavers Survey is held well over a year after graduation and the Alumni Survey of the Netherlands Association of VET colleges is held two years after graduation. This creates the risk of school leavers and alumni being surveyed twice, and according to some participants in our research, demonstrates the importance of following a coordinated, national approach when possible.

One of the main concerns of participants in our research was the ability to draw on comparable data to track the performance of providers as this could lead to competition between providers. This is something that happens in Finland. Many Welsh stakeholders noted that this was a characteristic of the higher education sector in Wales. There was a suggestion that consideration should be given to how the data is used and shared. It was interesting to find that the ETBs in Ireland originally wanted the data to be available at a provider level but that SOLAS decided against such an approach. One member of the SOLAS team explained, “When we gave them [the ETBs] the data, we had to sign another 16 agreements to say that we shouldn’t share their data with another ETB.” It is worth recognising the challenges related to collecting and sharing data and that these processes determine the type and level of data which is available for partners. Data protection was an important theme covered by most interviewees.

Despite the many positive benefits associated with systematic measures, it is worth highlighting that gaps in information continues to exist e.g. those involved with the process in the Netherlands explained they did not have information on VET students working or on placements in industry. Whilst those involved with this area of work are continually looking at ways to improve processes, there was a general acceptance that the measure might never be effective enough to collate information from all VET graduates.

Table 1: The strengths and limitations of national, systematic measures

Strengths	Limitations
<ul style="list-style-type: none"> • Consistent data. • Comparative data. • Greater insight. • A base from which to undertake further research. • Ability to track progress over time. • Supports informed decision-making. • Contributes to a change in culture where partner organisations are looking at an evidence-based approach. • Established processes lead to more efficient reporting. 	<ul style="list-style-type: none"> • Data is infrequent. • Data is high-level. • Data not available at a VET provider level. • Data not available for all VET learners. • The complex presentation of data. • Work with anonymised data. • Limited variables/datasets. • The information available to share with partner organisations. • Dependency on the Central Statistics Office.

Survey data was commonly used at national and provider levels to track the progress of VET graduates. There are a number of advantages of using questionnaires for tracking graduates and these were highlighted as part of this study. Questionnaires are quite easy to conduct and allowed the institutions to obtain lots of information from a large number of respondents. This is also an effective way of ensuring broad coverage, with local, national and international respondents easily reached. Furthermore, carrying out research with questionnaires is less time consuming and respondents can provide their responses at a convenient time. Interviewees discussed how they could tailor the questionnaire to their needs, ensuring that the tracking processes had a clear purpose that added value. The majority of interviewees discussed the ability to collect qualitative feedback although one of the strengths of the questionnaire is that it can provide quantitative data.

Our study explored the approaches used at a provider level and how the institutions administered the process e.g. through the work of tutors. On the one hand, our interviewees stated that students were more likely to respond to people they knew than a third-party organisation. This, according to interviewees, helped to increase the response rate. In contrast however, the approach was considered resource intensive and time-consuming for the personnel involved. Interviewees explained that they would have appreciated additional administrative work or allocated time during the year to do the work.

Some participants in our research discussed the benefits of using LinkedIn groups to make graduate tracking easier. However, the feedback from learners may not be reliable and this leads to questions about the validity of this approach. Some participants observed that the interviewer’s expectations or opinions of individual learners may interfere with their objectivity in analysing qualitative feedback from learners. The Traktion report suggests that an online survey followed by telephone interviews with non-respondents could add value. However, it is important to recognise that interviewees may react differently to the personality or social background of those who are interviewing them. In addition, mistrust and over-rapport can affect the reliability and accuracy of interviewers. The issue of bias in qualitative research is an important one, and demands special attention and discussion. This was clearly a consideration in Croatia where an external expert supported VET providers to undertake such research with the VET learners.

Table 2: The strengths and limitations of provider-led surveys

Strengths	Limitations
<ul style="list-style-type: none"> • An opportunity to tailor the questionnaire to institutional/programme needs. • Participation in surveys following graduation could be primed while students are in college through initial surveys and agreement to participate after leaving. • Students more likely to respond to people they know (e.g., course tutors) than third party organisations. • Possible to receive a high response rate. • Explore lots of themes and information. • Relatively cheap process. • Easy to conduct. • Broad coverage across different stakeholder groups. • User-friendly. • Less time consuming for the end user. 	<ul style="list-style-type: none"> • Possibility of bias to responses - this could be minimised through anonymised responses and on-line questionnaires. • Resource intensive. • Time-consuming process, particularly for the tutors interviewing. • The link to policy could be missing. • No clarification for ambiguous questions. • Questions may be interpreted by respondents in ways the researchers did not intend resulting in irrelevant information.

In addition to the formal approaches in place by VET providers, our discussions highlighted informal methods, including the importance of establishing and maintaining strong links to organisations e.g. chambers, sector skills councils, employers’ bodies such as the connections which have been developed in Austria. Our research suggests this approach was either ad hoc or structured through alumni events. There wasn’t sufficient evidence to suggest that such contacts could formally record the progress and destination of VET graduates. Rather, the approach was seen as an effective way to keep in touch with graduates. It also allowed representatives from various institutions to better understand some of the issues and challenges relating to the world of work.

6. Key lessons and future considerations

The ability to discuss the evidence and key messages from those with experience of VET graduate tracking in different European countries with representatives from the FE sector in Wales was a key facet of this study. Representatives from Europe were able to discuss their views on the performance of the measures in place and offer reflections on lessons learnt, areas for improvement, and options for future delivery.

By working closely with our Welsh stakeholders, we were able to test thinking and ensure that any lessons or future considerations were practical and took account of the current and future FE landscape. This is important in any new VET graduate tracking policy development and implementation. This chapter highlights the lessons and considerations arising from our discussions.

Evidence remains important in a rapidly changing world

The study commenced in April 2019, at a time when Wales and the UK was part of the EU, and ended in March 2021, after the UK had left the EU single market and customs union. Much has changed in Wales, the UK and Europe during this time. Our study was based on European policy and activity, at a time when there was uncertainty surrounding the involvement of Wales in VET European graduate tracking projects. This uncertainty was evidenced during our discussions with Welsh stakeholders at the end of the consultation stage of the work programme.

Moreover, the coronavirus pandemic has delivered a profound shock to countries all over the world and the impact has reached deep into our lives - it has affected people’s health, income, job security and social contacts. The pandemic poses serious economic challenges, with the global economic contractions occurring at a much faster rate than many expected. It has affected all economic sectors and many of the world’s largest employers. On top of the macro considerations associated with Brexit

and the coronavirus pandemic, Wales and the UK are contending with advances in technology, an ageing population, a productivity gap and low social mobility.

FE representatives recognised the importance of colleges as community anchor institutions which help society to respond to such challenges. They felt confident that the college sector can be innovative and responsive to a range of emerging needs not usually encountered by learners. They also believed that the college sector was in a position to respond to unexpected challenges. In order to add value now and in the future, FE stakeholders recognised they must understand the needs of students and the way they can help to restore and strengthen the Welsh economy. As one representative stated, “We’re always looking at progression and what’s happening to our learners.” It was generally felt that the ability to interpret VET graduate tracking data and use it to inform strategic decisions will benefit VET learners and the sector, and provide public benefit in adding value to society and the economy. It seems that the thirst for better data, with a particular focus on outcomes, has increased over time. Furthermore, the significant challenges that the FE sector and the whole of Wales need to address has heightened the need for more and better evidence.

The progress made by Welsh Government is widely accepted by the college sector but there are areas which need further consideration

As highlighted in Chapter 3 of this report, previous learner outcome reports only included destination data for Traineeships. The Welsh Government’s consistent performance measures introduced in 2018 have included destination data on learners who progress into FE or employment. This destination measure is being developed using matched education and employment records through participation in the UK Government’s Longitudinal Education Outcomes (LEO) study.

In general, the FE representatives welcomed the Welsh Government’s more systematic approach to VET graduate tracking. Welsh stakeholders were assured that the steps taken through the analysis of administrative data were in line with other countries’ practices e.g. in the Netherlands, Ireland and Austria. Concerns were raised about the quality of the data and the time it takes to get learners’ responses. One representative, for example, discussed the complex make-up of an FE college in comparison to a typical school sixth form and questioned the validity of a publication that covered all post-16 provisions.

One FE representative noted it was difficult to reconcile the destination data with their institution’s data e.g. it wasn’t possible to list the students who had completed any survey and their destination and this led to worries about whether a survey was representative of all learners. FE representatives also

questioned the definition of a positive outcome and suggested the process was “fraught with ambiguity.” It was pointed out that a student who had failed their qualification or dropped out of college but had gained employment and paid taxes for six months would count as a positive outcome. In contrast, a student who had passed a qualification and moved to a voluntary position as part of a gap year was not seen as a success. According to the Welsh Government, ‘sustained employment’ is defined as learners who are in paid employment as recorded in Pay-As-You-Earn (PAYE) records for at least one day per month in five out of the six months between October and March in the following academic year, or have returned a self-assessment form stating that they have received income from self-employment during that financial year⁴⁹. In the April 2020 edition of the SFR, Welsh Government stated that the feedback following the first release in this series indicated that use of the word ‘positive’ in the measure categories could overlook outcomes that are positive for an individual, such as volunteering or parenthood, but conversely, could capture less favourable outcomes (such as employment on a zero-hours contract)⁵⁰.

These comments suggest that FE representatives were satisfied with certain developments such as national reports which analysed the grade achieved by learners. However, they would also like similar reports which analyse the value added by individual VET providers. They noted a review into the Government’s consistent performance measures had been due to take place in 2020 but the disruption caused as a result of the coronavirus pandemic has affected the work programme.

An opportunity to enrich and strengthen secondary sources

Despite recent developments, there are challenges associated with identifying robust measures to use the “very high-level data” provided by Welsh Government. The general opinion was that the Welsh Government’s data provided part of the story but further work was needed to enrich the available evidence. Further development work is taking place to expand the provision of data to include more information on the type of employment and sector, as to make links to each learner’s course of study. These developments are similar to those taking place in other countries - there is an opportunity to modify the Welsh approach or undertake further analysis to maximise the value of graduate tracking data.

Meeting the needs and challenges of institutions, students and employers

⁴⁹ Frequently Asked Questions (September 2020) Welsh Government.

⁵⁰ Statistical First Release (2 April 2020) Welsh Government. Available at: <https://gov.wales/sites/default/files/statistics-and-research/2020-04/consistent-performance-measures-post-16-learning-learner-destinations-august-2016-july-2017-302.pdf> (Accessed 22 October 2020).

There is a need to ensure the relevance, quality and effectiveness of learning provision and to equip learners to make informed choices. Accurate, valid and reliable data could improve learning providers' performance and inform stakeholders about the behaviours and needs of young people not in education, employment or training.

FE representatives from Wales confirmed these points and discussed the merits of using graduate tracking data. As one representative said "Outcome data is more important for prospective learners - more than anyone else. You want to know what you're likely to be able to do at the end of any programme." Other representatives explained it would be useful to know whether the courses lead to full-time or part-time opportunities, the average salaries by type of job and sector. They felt it was important to inform students of what they could expect and what they could achieve. There was recognition that some qualifications are not directly linked to one vocation and courses may (or may not) be a direct route to employment. Some representatives questioned whether the coronavirus pandemic would force VET institutions to prepare students differently. Some representatives discussed their intention to hold focus groups with employers from different sectors in order to help shape the college offer.

FE stakeholders in Wales wished to stay away from the model developed in Finland where outcomes data was shared publicly which had encouraged comparisons between the performance of VET institutions. They preferred a system that emphasised the importance of building a better picture of the quality of provision in order that institutions could further support the development of their students. For example, some representatives described how they would like to use evidence to compare progression levels between different programmes, sectors and qualification levels. This would help to ensure all students' learning needs were being considered. Better data would allow VET providers to look at why specific groups of learners were not progressing. Stakeholders also stressed that the importance of the local context in which VET institutions operated. This was an important consideration in any future work on policy development and implementation.

The quality and timing of the data is important

FE stakeholders confirmed the quality of the graduate tracking data in Wales had improved although a few respondents were cautious when it came to using the evidence. The following comment was typical: "We've had a couple of datasets come out by now, and they're OK. They use some quite complex bits of information, reasonable start, quite high level so can't really examine it carefully."

In addition to the need to ‘contextualise’ the data, some respondents questioned the validity of having data that were two years old. Contributors to our study confirmed this by explaining that the national and local economy is in a constant flux, with the coronavirus pandemic in particular likely to lead to seismic changes. The evidence from Europe suggests countries with established systematic measures have become more efficient in analysing their data over time. This has, in the main, allowed organisations to release data in a timely fashion. This was an important factor in the success of these models e.g. in the Netherlands.

Further guidance to the FE sector on data collection would add value

As this study looked to address a particular challenge for the FE sector in Wales, it was perhaps unsurprising to see stakeholders question the best approach to collect and analyse tracking data on students and graduates.

Whilst stakeholders generally agreed that national data had provided a consistent baseline for Welsh institutions, the adoption of a more systematic approach had led VET institutions to develop additional and college-specific approaches or to decide the approaches they had been accustomed to – surveys and discussions in the main – were redundant. One institution, for example, described how they would use their existing data to reflect on the student-to-employment journey in an effort to support the Welsh Government data. A representative from a VET institution also discussed how they had recently adopted a progress tracker with college tutors providing the expected destination of students each February before they graduate. This would be followed by careers advice and guidance before representatives from the institution contact learners in June before they graduate. Those learners/graduates who do not respond are contacted by a third-party provider in October (following graduation). This approach was used for the first time in 2020-21, the college is now evaluating whether this approach should be continued.

A representative from another VET institution described how they had ceased using their own approaches. Their measure had been introduced because there was an absence of national data. The college had become concerned with the quality of survey data managed by their college tutors. The college decided to stop using their own approach as they felt uncomfortable sharing information with external organisations such as the college inspectors (Estyn). The VET college noted that “One of the biggest problems with local data is accuracy, it is challenging to get students and staff to interact with this. It can be very anecdotal and get out of date very quickly.” This individual noted they had decided to support and be solely reliant on the Welsh Government’s scheme for progression data.

The ETBs had been part of the dialogue in developing Ireland’s new system which led to a move away from inconsistent data collection methods. The stakeholders also noted there were opportunities to share best practice in relation to the internal structures which are needed to deliver and use an evidence-based approach.

A focussed and long-term approach

The thirst for more evidence can sometimes lead to a less focussed approach. The Tracktion research project had warned against this, especially when using surveys. The feedback from Welsh stakeholders suggested that all VET institutions had the same data and information gaps. Broadly speaking, these were the same areas/themes which had been explored by the Tracktion project i.e. placement rates, employment related to VET programme, time spent between graduation and finding a first job, qualification relevance and work readiness etc. The *Tracktion project contribution to the field of graduate tracking in TVET* (2020) report provides further information on these areas. The Tracktion questionnaire is attached as an Annex to this report⁵¹.

This research was an opportunity to explore the themes and questions that FE representatives felt could add value to the graduate tracking work in Wales. These were initial discussions and there would be considerable value in continuing to investigate these issues. Any subsequent discussions should identify common themes and questions in order to inform the debate on whether a consistent approach would add value to the work of FE institutions in Wales.

Consideration for different groups of learners

Several representatives from other countries alluded to additional information picked up through their contacts and relationships with students, graduates, employers, careers advisors and other partners. This feedback and the conversations enhanced the VET providers’ understanding of the outcomes of their work e.g. the value of feedback for institutions in Ireland and Austria. Our research with stakeholders in Wales and Europe showed that staff have a deep understanding of their institutions and localities. Interviewees in Europe suggested that further developing the links with alumni could help to enhance this knowledge. Representatives from Wales noted that developing a one-size-fits-all approach to data collection might exclude certain groups of learners and so consideration should be

⁵¹ Tracktion project contribution to the field of graduate tracking in TVET (2020) Valnalón. Available at: https://tracktionerasmus.eu/wp-content/uploads/2020/11/O1_TRACKTION_GraduateTrackingProtocol.pdf (Accessed 15 April 2021).

given to collecting information from all cohorts of learners e.g. apprentices and students with learning disabilities. This particular theme was also raised during our study's dissemination event.

Consideration should be given to the dissemination of key findings to inform future research

Most of the representatives from European countries implied they had become accustomed to new ways of working with evidence from graduates. However, disseminating the analysis and conclusions from this information was an issue e.g. the comments from representatives from Spain. For the Welsh stakeholders there was a strong desire to improve communication and reporting measures.

The ability to make informed and strategic decisions was an important requirement for Welsh stakeholders and one of the key findings of the Tracktion project. Tracktion highlighted the importance of publishing and disseminating the information from graduate tracking measures to ensure it reaches the colleges, staff and graduates involved. The project also recognised a wide range of potential target groups including policymakers, future/current students, families and secondary schools.

Some of the European interviewees provided opportunities to look at innovative ways of working e.g.

- in Finland, graduate tracking data is held on an open website with destination data used for funding, performance planning and more.
- representatives from Ireland described how they would like to move towards publicly available real-time data using a dashboard system.

Governance arrangements

The study considered issues relating to the governance and administration of systematic measures. Whilst different countries had adopted different ways of working, the need for collaboration between government departments, government agencies and organisations was important.

We heard how countries had established data-sharing agreements with partner organisations e.g. in Ireland. Data sharing agreements need to set out the purpose of the data sharing, cover what happens to the data at each stage of the tracking process, set standards and help all parties to be clear about their roles and responsibilities. We also learnt how other countries had effectively “joined the dots” between the work on the labour market and education. In addition, the data tends to be of high quality when the colleges’ funding is based on the data they submit e.g. in the Netherlands. The establishment

of a Local Action Group in the five Spanish areas as part of the Tracktion project also helped with the analysis and dissemination of information.

While it was difficult to look at potential governance arrangements without a clear picture of future implementation, the FE representatives from Wales acknowledged governance had to be an important area for consideration. From providing strategic oversight to future VET graduate tracking in Wales to supporting institutions to implement robust structures to support future efforts, governance was identified as a crucial aspect of work.

7. Conclusions and recommendations

This study has confirmed the importance of being able to better understand the progress and performance of graduates through VET tracking measures and approaches. Our research has shown the importance of qualitative and quantitative evidence in helping to develop a more comprehensive picture surrounding the journey of students.

The ability to reflect on the experiences and practices of individuals involved with this area of work in other countries has allowed us to identify new and innovative ways of working that could help shape developments in Wales in years to come. Despite the disruption of the coronavirus pandemic, we were effectively able to benefit from the experiences of those, directly and indirectly, involved with VET graduate measures in nine countries. Whilst graduate tracking has developed in Wales in recent years, the sharing of information with representatives from other countries has contributed to our knowledge, enabled us to reflect on the strengths and limitations of different approaches, and raised a number of questions for our consideration.

We were particularly curious about the national measures where information from existing administrative data sources had been connected in order to gain a better understanding of learners' progress. The examples from Finland, Ireland, the Netherlands, Spain and Austria have similarities to the approaches used in Wales and this is helping us to develop our understanding of what can be achieved. The different approaches can all support work in Wales e.g.

- the ways in which the Netherlands combines administrative data with national survey data;
- Spain's heavy reliance on the regions' surveys and use of administrative data to support the analysis of the national data;

- understanding what can be achieved with fewer data of graduates' progress e.g. the achievements of Italy which used administrative data to track the progress of IVET graduates and Greece's destination surveys.

In addition to analysing the national measures, the study also provided some insight on the approaches used at a VET provider level. Interviewees from Europe noted the different approaches used by providers to either enrich the administrative data or to fill gaps in information. Overall, the experiences of some of these VET providers were similar to the experiences of those providers in Wales. It was interesting to reflect on the observations of Welsh stakeholders, particularly the emphasis on the need to enrich the evidence which is already collected on FE graduates in Wales. Many stakeholders were frustrated with using or trialling different approaches at the provider level only to find there was a need for further evidence to help make informed decisions. The feedback from our stakeholders suggests that VET graduate tracking has been an area of concern for a number of years and further guidance on how to address the issue would add value.

The current challenges faced by VET institutions has not reduced or delayed the need to address this area of work. The pace of political, social, economic and environmental change means the world looks very different today. Some of these changes have been unprecedented and unforeseen while some of them have occurred more slowly and with greater predictability. Whether the changes have been known or unknown, FE institutions, businesses and other organisations have had to adapt to face the challenges of operating in shifting landscapes. For example, the feedback from our stakeholders suggests that the short- and potential longer-term impact of the coronavirus pandemic has increased the need for more evidence.

While there is general agreement that evidence could significantly improve how VET providers make decisions, expanding its use requires action by multiple stakeholders. Evidence from this review indicates that there is a role for the Welsh Government, Colegau Cymru and FE institutions across Wales to agree on the future direction of VET graduate tracking in Wales. There is a need to agree on the role of different organisations to determine who is responsible for which elements of VET graduate tracking. The decisions on future measures or approaches will determine the remit of different partner organisations. Further research could offer further insight into the performance of students and graduates. However the tracking data does not have to be purely 'number driven', nor does it have to only monitor short term outputs. The analysis of administrative data tends to focus on 'hard' outcomes, but there is an opportunity to learn from other European countries and explore the 'softer' side of the journey e.g. student satisfaction influences how much a student enjoys their time at college and how well they do. Their grades, course participation, relationships with lecturers, attendance and

employability once they leave are all, to a certain extent, reliant on how much they enjoyed their time at college and how engaged they were. Student satisfaction is vital in promoting life at the institution. Seeking ways to evaluate the long term impact of 'college life' on participants would be the ideal scenario and this may be possible through links with partner organisations, which could be to everyone's mutual benefit.

Reflecting on the feedback from stakeholders in Europe, there was a strong awareness of the need to improve reporting measures in order to promote and publicise the results of graduate tracking. Some stakeholders explained that efforts and research could be duplicated whilst others wanted more and better data disseminated at the regional and provider level. This would allow more learners, managers and policymakers to make informed and strategic decisions.

Looking to the future, it is worth highlighting that advances in technology could result in more opportunities for the FE sector. We might see changes in the way data is collected, shared, organised, analysed and reported. Representatives from other countries were already considering their future developments, including a move towards real-time data shared through a dashboard system. In addition to identifying what would support current decision-making, there is a need to think longer-term to truly understand how FE can support the future of Wales.

Recommendations

This study offers 10 recommendations for stakeholders to consider.

1. VET graduate tracking is an area that has received significant attention in European countries in recent years and this has led to new and interesting developments. Considering the extensive nature of this work and the opportunity for lessons to emerge from the implementation of new approaches, the Welsh Government should ensure that Wales continues to be involved with European graduate tracking initiatives.
2. Welsh Government should consider establishing a working group to provide strategic oversight and direction to VET graduate tracking in Wales. In addition to reflecting on the findings and recommendations of this review, the working group should help to steer the debate and consider the long-term planning and resource requirements.
3. Welsh Government, in conjunction with the FE sector in Wales, should develop and communicate a long-term vision for the systematic measures for VET graduate tracking.

4. Welsh Government, ColegauCymru and FE institutions in Wales should adopt the general principles and standards of the Expert Working Group⁵². Consideration should be given to enriching the graduate tracking data which is currently analysed as part of the national, systematic approach. This should include the development of further insights at the VET provider level.
5. Welsh Government, as the VET funders, could play a key role in encouraging a consistent approach to data collection across FE institutions.
6. Welsh Government, ColegauCymru and Welsh FE institutions should work in partnership to ensure that any new approach adds value and does not duplicate or add unnecessary burdens to the work carried out at a provider level.
7. Consideration should be given to providing advice, guidance and funding to FE institutions to help their planning and management of their internal resource as part of the move towards a more evidence-based approach to graduate tracking.
8. The dissemination and reporting of key findings should be a key consideration from the outset. This work would benefit from identifying all the different stakeholders involved and developing effective ways to communicate with them.
9. A clear timeline for the public dissemination of the results of VET graduate tracking should be developed. There should also be an emphasis on disseminating the findings as soon as possible after the analysis of the results.
10. Consideration should be given to the role of technology during the data collection and reporting stage. ColegauCymru and Welsh Government should reflect on the work of other sectors in developing Strategic Dashboards as a simplified way to enhance effective communication and dissemination of the graduate tracking outcomes.

⁵² Expert Group on Graduate Tracking (2020) European Union. Available at: <https://ec.europa.eu/education/sites/default/files/document-library-docs/conclusions-graduate-tracking-expert-group-vet-graduate-tracking-annex-4.pdf> (Accessed 2 February 2021).