“7EU VET DETAILED METHODOLOGICAL APPROACH TO UNDERSTANDING VOCATIONAL EDUCATION AND TRAINING”

Concluding Summary

The main purpose of the project “7EU VET Detailed Methodological Approach to Understanding Vocational Education and Training” is to explore in a country-comparative fashion the determinants of VET students’ school success relative to their acquired competencies, the fulfilment of their career aspirations and vocational satisfaction during learning process. In this way, the project generates a knowledge platform about the comparability, flexibility and development of VET systems across seven EU countries, and follows recent policy and educational challenges such as, for example, the learning outcomes approach.

On the basis of a large-scale survey among 17,631 17- and 18-year-old VET students, the project looks at differences and similarities in seven EU countries: Austria, Germany, Greece, Latvia, Lithuania, Slovenia and the UK. In times of an economic downturn and the growing flexibilisation of knowledge recognition processes, the conclusions important for all interested in VET are accessible on the link.

Introduction

Vocational education and training (VET) systems in Europe prepare youth in different ways for short- and long-term careers. Variations between the systems importantly encompass several aspects, such as the ratio between the general and practical orientation of curricula, occupational specialisations, the organisation of apprenticeships, duration and programme requirements, tracking, certification and the permeability paths with post-secondary education. At the macro level, the distinctions impact particularly strongly on the VET system’s segmentation (programme types), the ratio of young people enrolled in the VET system in comparison to general education and, in particular, the status and perception of systems in relation to the labour market.

On the basis of a large-scale survey among 17,500 17- and 18-year-old VET students, this report looks at differences and similarities in seven EU countries: Austria, Germany, Greece, Latvia, Lithuania, Slovenia and the UK. In times of an economic downturn and the growing flexibilisation of knowledge recognition processes, the conclusions presented in the following sections are for anyone interested in education, the labour market and especially the interrelation of both areas. They touch upon issues of under- and over-qualification, social inclusion, vertical and horizontal skill (mis)matches, various aspects of employability and vocational professionalism and professionalisation emerging from within (VET students) or from above (system requirements).

In the following parts of this report, we mainly focus on an international comparison of the seven surveyed countries. The findings are grouped into six key subject areas: (a) factors related to the transition from earlier education into VET systems; (b) learning, perception and satisfaction with VET
programmes; (c) school success and acquired competencies; (d) ICT; and (e) future career expectations and further education. Before this, we look at how VET systems are perceived within each of 27 EU countries\(^1\), which provides important contextualisation for our findings in the seven EU countries.

## Transition From Earlier Education to Vet

The key factors affecting the transition to VET are the same in all of the surveyed countries – they are all are closely linked to the perceived belief of career development

From the viewpoint of VET students, three key factors affect the transition to VET from earlier education. These are: (a) an appealing occupational programme; (b) good job prospects; and (c) established bases for further education. The least important factors are the support and advice of former teachers, and low grades. In the survey we found some evidence that the higher socio-economic status of a student’s family positively affects occupational choice based on own interest. In Austria and Germany, students with lower grades are more likely to believe they were influenced by a friend’s programme, while the importance of peers in Latvia and Greece is influenced by socio-economic status. Parents’ education did not account for any difference with regard to perceived decision-making factors.

When making a decision on the transition to VET, the most important information source for learners in all the countries was parents and family members. Also highly assessed in all countries was online information, while in Austria, Latvia and Slovenia informative days were also highly assessed. Teachers were considered an important information source only in the UK, while information sources were not perceived to be important in any of the studied countries. These results indicate there is a need to increase the centrality of objective information sources related to enrolment in VET, which includes training teachers in this direction and presenting the possible effects of considering other information sources. Career guidance activities have significant room for improvement in most of the countries.

Across the countries VET students consider surprisingly limited options regarding the choice of a further occupational path

The majority of VET students, in general three out of four, did not consider any alternative in their decision related to enrolling in a VET programme. In the survey we found some evidence that parents’ education affects the breadth of choice but there are large differences among the countries: in Slovenia a lower level of parents’ education has a positive effect of a wider choice which means VET students are freer in their decisions, while the situation in Lithuania is the reverse. In some countries, VET students with a lower socio-economic status considered fewer alternatives when selecting their education. In most countries and on the EU level, there is a need to assess the appropriateness of presenting a broader range of different programme options while paying particular attention to students with a weaker social background. We can say that in the transition into VET pupils should be alert to alternative options, particularly in the event they have a dream vocational path.

## Insights From VET Student Learning

There is a need to pay great attention to out-of-school activities; in some countries, one out of four VET students does not learn after school at all

\(^1\) Source: Eurobarometer Survey, and Eurostat LFS

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There are large differences among the countries in the time spent in school for education, e.g. 22 hours in the UK compared to 36 hours in Austria where boys spend more hours (37) than girls, who only spend 33 hours in school, which is related to study programme particularities. From our survey we can see that vocational learners spend very little time studying outside of school. In Slovenia, Germany and Greece, over 80% of students studied out of school less than four hours per week and in general approximately one out of four VET students do not learn at all in Greece, Lithuania and the UK. The share of such students is much lower in Austria. In six out of the seven countries, males were twice as likely as girls to report that they spent no time at all on study outside of school. Students reporting low grades also reported lower study times outside of school across all the countries except in Germany and England. In Austria, Germany, Slovenia and England learners in more demanding programmes spent more time on study outside of school than learners on less demanding programmes. In the other countries there were no significant associations.

**Aptitudes for classical learning are very low in most countries: the most important learning drivers are interest in practical subjects, understanding of the learning subject and interest in the practical subject.** Very few VET students reported that they enjoy learning, with the lowest share seen in Austria, Germany and Slovenia (9%), while the biggest share of such students was reported in the UK (68%). In most countries, enjoying learning was significantly associated with school success and socio-economic status (in Germany, England and Lithuania). Other socio-demographic factors such as parents’ education or place of living did not indicate many important differences. Our results show that there is not much activity based on striving for the highest possible grades or trying to impress teachers. These results clearly reveal the need to give more credits for general subjects to thereby make learning in this way more attractive.

In most countries the majority of VET students spend most of their free time with friends, on social networks and watching television… … but time spent reading books received little attention: on average, slightly more than one out of ten students spent one hour or more on this activity. Reading is significantly associated with higher grades in most countries, while spending time playing computer games is significantly associated with lower grades. Approximately less than every second VET student exercises for at least one hour per day, while a higher proportion spends the same amount of time commuting from school to work: from 19% in Greece to 42% in Austria and Germany. More than every second VET student spends at least one hour on the Internet and differences across the countries here are very small. In this context, the question arises as to what extent schools and teachers should promote these activities, and what position they should take towards them.

VET students undertake paid work more than one would expect: on average, around one out of five learners worked for money for at least two hours per day and this work was unrelated to their programmes. Regular work was reported in most countries, with the highest percentages in England (31%), Greece (30%) and Germany (26%). The average weekly hours of students who worked regularly ranged from 20 in Greece to 16 in Austria – the weekly working hours during holidays were usually shorter. In most countries, employment was associated with gender – males were more likely to have paid employment and, in particular, more likely to work regularly. In general, doing paid work that is unrelated to the study programme is associated with one's socio-economic status (SES): those with a below-average SES worked more hours in most countries. Since the respondents are aged 17 and 18 years, such strong employment engagement in all the countries raises concerns that VET students lack time for learning and exploring other areas of interest: firstly, because this work is not related to their educational programme and, secondly, because there is an indication that they do this for a living.
Students’ Perceptions of the VET Programmes

School success importantly impacts programme perceptions

In all seven countries, VET students believe their programme provides useful practical experience for entering the workforce and a basis for further education. Particularly high assessments of the programme as a basis for entering the workforce were found in Austria and the UK, and the lowest in Lithuania and Greece. However, there are large differences in the way students assess interesting classes: the best assessment was given by UK students (66%), and the lowest by Slovenian students (28%). In general, more than every second pupil believes most teachers are well-prepared, with the highest share in the UK (80%) and the lowest in Slovenia (47%). In all the countries it is obvious that for at least 10% or more students with higher grades find most of their classes interesting compared to those with low grades. Hence, we should stress that VET teachers should pay more attention to students with lower grades, in particular since learners appreciate and are very sensitive to teachers’ efforts.

General satisfaction with the programme depends considerably on the extent to which classes are interesting and how well teachers are prepared

There are big differences among the countries in how learners are satisfied with their programme – which is a strong indicator of motivation. In the UK, Austria, Germany and Latvia we can note relatively high satisfaction with the programmes (all above 60%), while in Greece and Slovenia satisfaction is much lower (around 43%). Across all the countries students with higher grades (74% on average) are more satisfied with the programme in general compared to students with lower grades (54% on average).

The strongest effect on general satisfaction was exerted by interesting classes, which is the case in Austria, Germany, Latvia and Slovenia. Interestingly, in Greece, Lithuania and the UK the strongest effect on satisfaction, not only within this cluster but among all the predictors, is created by access to an adequate level of learning and training material. Another important determinant of student satisfaction is well-prepared teachers, and there are only small variations among the countries here. Surprisingly, parents’ education has almost no affect, except in Germany. In general, there are almost no differences in satisfaction with regard to whether students attend more or less demanding programmes. Two out of three VET students would choose the same programme again, which depends on school success, and one out of ten is considering leaving the programme. In a nutshell, we can say that making classes interesting is an important challenge when making any improvements to VET curricula and their attractiveness.

School Success

Study behaviour tactics matter more than the time invested in home work – practical learning is not well-recognised in most countries

The relationship between learning hours and school success is only indicated in some countries and VET segments. In general, we assume that in some VET segments and countries it matters more what students do in school than after it, and school systems do not assess study hours after school in any significant way. The survey findings indicate that study behaviour styles matter more than the time invested in home work. Striving for the highest possible marks has by far the strongest effect on school success in comparison to all other determinants in all the countries.

VET students develop their own tactics for achieving good grades which are not so related to learning after school but more with proactive behavioural patterns during study programmes, higher engagements in practical learning and other ways of social learning. Students who are interested in
general, classroom-based subjects, have better grades: a positive effect was found in all the countries. At the same time, interest in practical subjects does not have any effect on school success in any of the surveyed countries.

We found that learners do not acquire higher grades because they would like to impress their teachers. In fact, striving to impress teachers with good grades has a negative effect in Austria, Germany and Slovenia, which could actually mean that learners in these countries, and in general, prefer to generate the status of a ‘bad pupil’.

However, in Austria, Germany and Slovenia students who would like to make a good impression on an employer also have better grades. An important driver of good grades in Austria, Germany, Latvia and Slovenia is related to plans to continue schooling. Surprisingly, with the exception of Lithuania where pupils of more educated parents have higher grades, we found no evidence that parents’ education has any impact on school success in any of the studied countries. One of the impressions we gained from our results is that in some countries, such as Germany, VET students learn general subjects for grades more than for their own interest and understanding. This clearly indicates that this area needs to be improved.

**Acquired Competencies**

*VET students generally perceived teamwork and the ability to familiarise themselves with new tasks related to occupations as the most developed competencies of VET learners*

Our results reveal large differences across the countries in the way learners assess their own level of acquired competencies. The development of generic competencies was relatively strong in Germany, Austria and the UK. One of the least developed competencies is the ability to perform well under pressure.

Across all the countries, girls were more likely than boys to report a high level of generic competencies, in particular: being able to manage occupational tasks independently, being able to work as a team member, being able to quickly familiarise myself with new tasks related to job occupations, and being able to communicate ideas and suggestions to others clearly. In addition, learners following programmes related to services were generally more likely to report good generic competencies of the following kind: managing occupational tasks independently. In general, across the countries the socio-economic status of the students’ families does not seem to be associated with their reported capability in terms of generic competencies.

*The most important determinant of the ability to conduct independent work is school success and professional motives*

In most countries, learners with better grades and those who in the longer term are driven by inspiration to acquire solid occupation professional skills will, according to the data of our survey, be able to work more independently. The opportunity to learn new things impacts the ability for responsible work only in Germany and Greece. One can speculate that the perception of VET students of performing vocational tasks is related to the learning environment in schools only to a limited extent.

*As expected, across the countries students with higher grades were more likely to report they had good generic competencies than those with lower grades*

However, there are some interesting differences among the countries. In Austria, students with higher grades have, according to the self-assessment approach, better developed all of the surveyed competencies (managing occupational tasks independently, team work, learning competencies, performing under pressure), except communication skills. In Germany, differences among learners...
with good and bad grades were only found between managing occupational tasks independently and working under pressure. With minor variations, in Greece, Latvia and Lithuania differences were only found between independent occupational performance, learning abilities and communication. In Slovenia, differences were found in all the surveyed competencies except communication skills, while in the UK a relationship between school success and acquired competencies was found in the case of all learning competencies. Surveying the relationship between school success and acquired competencies raises one of the most important issues of the development of VET systems. The countries should establish a clear understanding of which competencies are reflected in assessment procedures and which are not. However, the relationship considered could also be reversed, assuming that generic competencies help to explain the success of learners because they are competencies that are employed in learning as well as in work.

Information and Communication Technology

Digital competence is one of 8 key competences and for successful entering the work market students are expected to be skilled in ICT use. Survey showed and confirmed (e.g. Eurostat) differences among seven countries in the level of ICT skills as well as in its use for school purposes. On general, students from all countries are skilled in general tasks when using a computer for writing, transferring files and copying and pasting to manage information. They are less familiar with writing computer programs and installing operating systems. As regards using internet, most of them is familiar with managing information (searching) but the least familiar with more complex tasks as creating web pages. Their attitude towards ICT in everyday is positive. They believe, in today’s world people need to be skilled in ICT. They believe they can find more information on internet then in school books, although they less agree that learning using electronic material is quicker. Although teachers are key enablers of innovative pedagogies and key individuals in helping students to develop ICT competences the use of ICT in classroom varies to a great extent in different countries. While in UK there are 75% of students claiming that majority or all of their teachers use ICT when teaching, there are only 30% of such students in Greece and 31% in Slovenia.

Today use of ICT is crucial, it is crucial as means of communication, as learning and teaching tool, as a tool that enables life long learning, if we mention just some, directly related to education. To encourage teachers to use new technology and empower their and students ICT competences the education of teachers is crucial. Teachers need to be systematically trained to use new technology, just providing them with the technology is not enough. That was also showed by the TALIS (OECD 2009) study, where the need for development ICT skills was the second most needed expressed by teachers.

Future Career Aspirations

*Personal motives are more important for VET learners in their future careers than salary, job security or reputation*

The employment sectors where learners most aspired to work are services. Industry, trade and other sectors attracted less interest with some noticeable difference across the countries. The most important driver of a professional career for VET students is finding a job that makes them happy and having a good relationship with one’s colleagues. In Austria and Germany another particular motive was job security, and in Slovenia “having enough spare time to do other things in life”. In the UK, learning opportunities and a high income were seen as particularly important. *VET systems should make learners aware of employment and employability possibilities.*
For many VET learners the next step in their career is to enrol in further education

Despite the large differences in the VET systems’ permeability paths, the share of learners who said they were likely to continue in school or further education were not as large as one might assume: the results ranged from 49% in Germany to 35% in Lithuania. Females (by more than 10%) were more likely to expect to continue in all countries except Germany, where the situation is reversed. The most strongly supported statements across the seven countries were related to the enhancement of career options, attaining a good education or qualification and possibility earning a higher income. Learners with an above-average socio-economic background, those who are on services-related paths and those with better grades were more likely to plan the continuation of their education. The relationship between parents’ education and plans for continuing learning were, surprisingly, only found in some countries.

Towards the Development of Policy Principles and Tools

Even though we should stress the need for highly diversified policy recommendations and national adaptations, we can arrive at some universal conclusions by stating there is a need to gain a deeper understanding of the link between curricular processes and acquired competencies. Even though we found evidence that VET students do not like learning, they do like to be in education and appreciate the efforts of teachers. They should support students in their careers, particularly because in most cases parents do not play a strong role in this respect – which can be assumed based on the surprisingly weak effect of the level of their education.

The complexity and multiplicity of the learner perceptions suggests there will always be many factors that impact on both student behaviour and the outcomes of study. These factors often work in a reflexive (reciprocal) manner. This suggests that any reform will need to address a wide range of players and factors and will be concerned with the way learners understand and act upon learning. The variety of the relationships suggests that reforms and policy developments in VET need to be well-tailored, monitored and evidence-based.

At present, modernisation of the VET system is understood in many countries as programme modularisation and implementation of the learning outcome approach. However, in many cases this is accompanied by the question of whether systems are based on the proper number of programmes, and on what bases specialisations depend. The question of VET’s fusion with general education and permeability between VET schools and higher education is particularly sensitive. There is a lot of discussion in the EU about how VET can raise its status and reputation, which in many countries is based on one side on the problem of the falling enrolments in VET institutions and at the same time on the increasing need for ready-made skills.

The key EU tools currently on the agenda in the EU are the European qualification framework (EQF), the European credit system for VET (ECVET), the European quality assurance framework for VET (EQAVET), and Europass. As part of policy developments it would be vital to forge a strong link between these tools and the findings and questions generated in this report.

Julian Stanley and Andrew McCoshan

Interpretation of survey findings in a policy context

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In chapter 2 we set out an analysis of the main policy goals and tools being implemented by the EU and within individual Member States. The design of the survey tool means it is possible to use some of the questions as indicators in relation to these policies, to establish whether we can relate differences in survey responses between countries to the patterns we noted in the policy issues being addressed. In this section, we focus on 3 policy areas where the data enables us to be confident in drawing conclusions: quality and attractiveness; labour market relevance; and pathways and progression.

**Quality and attractiveness**

Learners expressed higher levels of satisfaction in those countries which have more developed policy and practice in relation to quality assurance for VET.

In chapter 2 we saw that as a policy issue quality and attractiveness was a more significant issue in some countries than others. Major reform agendas have been developed in Greece, Lithuania, Latvia and Slovenia, whilst in Austria, Germany and England quality measures are comparatively well-established, although low status of vocational training is still an issue in England. We might anticipate that this would be reflected in the survey data related to quality, with respondents in Austria and Germany perhaps being the most positive about provision.

In relation to questions of reputation, Austria and Germany do indeed emerge as having positive students. Asked if program reputation had attracted them to vocational training, 48% of Austrian respondents and 41% of Germans responded affirmatively, whilst Greece, Latvia, Lithuania and Slovenia all have figures between 25 and 32%. Most strikingly, English students were most positive of all (59%) which runs somewhat counter to the notion of vocational training having a low status.

Interestingly, there is some adjustment in figures and relative positions when students are asked whether their programme is recognised within society as having a good reputation. Austria and Germany, as expected from the chapter 2 analysis, top the list (68% and 54% respectively) followed by England (53%). The remaining countries have figures varying from 30 to 48%. The other point of note is that in every country except England more students believed their programmes had a good reputation in society than cited their programmes’ reputation as a factor in their decision to take the programme. This suggests that in England students are aware that society might not value their programmes but that to some extent this is misplaced and not well-informed. It should also be noted that Slovenia and Lithuania both fared badly in terms of reputation with less than one third of respondents being positive on these measures.

The comparative analysis in 6.1 suggests that learner satisfaction is associated with how interesting students find their studies and with perceptions of how helpful and well prepared teachers are and how adequate their learning materials. Further, more successful students are, in general, more satisfied. Success, in turn, is associated strongly with motivation (though other factors such as socio-economic status are important in some countries) which points again to student engagement and commitment as key factors in determining the achieved quality of VET.

However, this was not reflected with variance at a country level. Across the different satisfaction variables, for example, Austrian and German students are no more or less positive than others. The one notable feature is that Greek students have a tendency to be the most negative consistently. When we consider the single variable of overall satisfaction, however, the countries become much more spread out, from England with 80% satisfied to some degree to Greece, with only 40%. Less than half of Slovenian students (45%) are also satisfied. In other countries, more than half of the students are satisfied, with Austria and Germany being the most satisfied (72 and 66%) after England.
This analysis reinforces the overall positive messages about the Austrian, German and English systems. In terms of students' perceptions, there must be concerns about the figures for Slovenia and especially Greece, and also Lithuania with regard to reputation. Greece's failure to implement reforms, noted in chapter 2, appears even more concerning in this light. Evidently, the data suggest that Slovenia and Lithuania need to press on with their reforms, and in Slovenia's case ensure their effectiveness. Latvia's budget difficulties and the concerns voiced by the European Commission about certain measures suggest that progress is needed just to maintain levels of satisfaction in this country, let alone improve them.

However, the survey also reveals differences in the levels of satisfaction/attractiveness associated with different types of vocational programme and/or institution within countries. Research with expert informants and secondary literature provide evidence that the attractiveness and quality of particular types of programme (or vocational pathways) is affected by their position in relation to other types of programme, for example, how they compete for students.

**Policy recommendations:**

Student surveys should be used as a tool to measure progress in implementing quality assurance and quality development in VET

Student surveys should be used as tools to measure the effectiveness of different strategies for improving quality in VET, for example, centralisation versus decentralisation.

Quality improvement should be particularly targeted at engaging the interest of VET students in learning, ensuring appropriate teaching and learning materials, ensuring that teachers are helpful and well prepared and deploy effective pedagogies and ensuring that students are successful.

Policy to improve particular programme types or vocational institutions should take into account potential secondary impact upon other programme types and/or institutions since it is possible that there may be unintended negative consequences.

Policy which is seeking to address issues of disadvantage and equity should consider how the selection process in relation to different vocational pathways may disadvantage some learners and raise issues of equity.

**Labour market relevance**

Students' perceptions of quality and attractiveness of VET are closely associated with how relevant VET is believed to be in the labour market.

Labour market relevance is strongly related to the quality and attractiveness of vocational education and training. As chapter 2 showed, in Austria and Germany strong connections to the labour market are intrinsic components; elsewhere labour market relevance is in need of development. This dichotomy is reflected strongly in the survey findings, with the exception that England clearly sits alongside Austria and Germany. On the evidence here, England—for this group of survey respondents at least—is clearly making relevant labour market provision despite the absence of the type of structural social dialogue mechanisms found in the other countries—either in existence or in development. On this basis, the more free-market approach in England, with comparatively little state intervention to manage relationships between social partners, appears to offer a viable alternative to the Austrian and German approaches.

This broad pattern of Austria, Germany and England in one group and the other 4 countries in another group is evident across a range of survey questions. Asked whether the fact that programs offered
good job prospects was a factor in deciding to enrol in vocational education and training, 78% of Austrian, 70% of English and 63% of German respondents responded positively. For the remaining countries, the range was between 32% (Greece) and 53% (Latvia). Similarly, when asked if the fact that occupations related to the programs had appealed to them in making a decision, 72% of German respondents, and 71% of both Austrian and English respondents said yes, whilst the range for the other countries was between 32% (Greece) and 57% (Slovenia). This cannot be attributed solely to the strengths of the dual system because a large proportion of learners in full time vocational schools, in Germany, Austria and England, also identified good job prospects as important.

The survey also sheds light on student perceptions of the benefits of practical experience in the curriculum, and on this measure the divide between Austria, Germany and England and the rest narrows. Asked if their program provides useful practical experience for entering the workforce, Austria, England and Germany had 72%, 70% and 68% responses respectively, followed by Latvia (61%) and Lithuania (54%). Slovenia and Greece were least positive (45% and 44%). However, when asked about aspects of their programs in relation to the labour market, the dichotomy reappears. Responding to the statement “my program ensures employment in the job market”, Austria (69%), Germany and the UK (60% each) are significantly above the rest (from 46% in Slovenia down to a very low 26% in Greece and 22% in Lithuania). For “my program enables me to receive a good starting salary”, the figures for Austria, England and Germany are less high (55%, 54% and 41%) but we might anticipate this, especially in the current economic climate. But the gap remains with the other 4 countries (from Latvia at 42% to Lithuania at 20%).

These differences also manifest themselves to some degree in students' perceptions of their own competences. If we look at one of the competences, “able to manage occupational tasks independently”, which has a strong labour market connection, German, Austrian and English students are especially positive (81%, 77%, and 75%), although scores for the other countries are not as low as in other questions (from Slovenia, 54%, to Greece, 45%).

Taking these indications as a whole, it appears that, whilst the Austrian, German and English systems are significantly ahead of the other countries in terms of labour market relevance, the other countries are, firstly, seen by a significant minority, and sometimes a narrow majority of students as providing sound practical experiences and, secondly, equipping them with competences that are relevant to the labour market. Where these latter systems fall down, in the view of students, is in their actual articulation with genuine employment opportunities. This suggests that there are some foundations to build on and highlights the fact that the fundamental difficulty is on the side of employers just as much, if not more so, than on the side of the education system itself.

The research also reviewed how national VET systems are developing and responding to these needs. The research suggest that, for Greece, Latvia, Lithuania and Slovenia there are 2 potential strategies they could follow in respect of getting more employers to participate: the ‘dual corporatist’ route based on trying to entrench strong social dialogue mechanisms and strong work-based provision; and a more school-based approach which involves developing high quality technical or vocational schools or training centres which are ‘owned’ or work closely with employers. Some countries, such as England and Slovenia are seeking to combine these strategies.

Policy Recommendations

Student surveys should be used as a tool to measure labour market relevance – but the value of such surveys could be enhanced, for example, by implementing a tracer study.
Policy selection should be informed by evaluation of packages of measures which could serve to enhance labour market relevance, for example, up-dating of teachers’ professional skills, renewed infrastructure, outcomes-orientated curricula, specialised vocational schools, enhanced work experience.

Policy in relation to VET should be coordinated with policy in relation to employment to consider how employment opportunities can be developed to take advantage of the competences that learners bring from VET.

Pathways and progression

*Those vocational pathways that are perceived as supporting further education are also perceived as relatively attractive.*

The issue of improving pathways and progression opportunities is a common policy goal in all the study countries. We might, therefore, expect to find fewer differences between the countries. In fact, this is not the case, and, once again, Austria, Germany and England occur together in a group where students’ views on progression opportunities are generally markedly more positive than other countries' students. For example, asked if the fact that a program provides a good foundation for further education or qualifications was instrumental in deciding to take their current course, 83% of Austrian, 79% of German and 70% of English students said it was compared to 48%–56% in other countries. The same gap is evident when students were asked to indicate if their program was preparing them well for further education and training. An interesting point to note here is that students from Greece, Lithuania and Slovenia were noticeably less positive about their programs in respect of progression once they were taking them compared to beforehand. This suggests that the reality does not always match expectation in these countries regarding opportunities to progress to further education and training.

We can also look at why students might consider continuing education. Significantly, when asked whether further education would enable them to get a good qualification/education, the majority of students in all countries except Greece said it would, with the range being from 61% (Lithuania) to 84% (Austria and England), with Greece registering a lowly 44%. When asked if further education would enable them to follow their professional interests the figures for all countries fall. This suggests that for some students further education will lead to a good qualification but not necessarily one related to employment. In light of the conclusions from the preceding section on labour market relevance, we might conclude that for Greece, Latvia, Lithuania and Slovenia the potential to progress in further education is seen as some form of compensation for the deficiencies of vocational education and training in providing access to the labour market. In this regard, we should note that further education was also seen as enabling students to “enhance their career options” by a majority of respondents in every country, the range being from 52% (Greece) 82% (England).

As asked whether they actually intended to continue schooling or further education after the end of their current programme, in every country less than 50% of respondents said they were. For Austria, Germany and the UK we might conclude that students’ perceptions of the strong labour market relevance of their programs would account for this. However, in the other countries there is clearly a tension between students' positive views of further education, and their assessment of the extent to which their current programs actually equip them to progress in to further education. Supply and demand for further education in these countries is evidently unbalanced. We should also draw attention to Greece where students were clearly pessimistic (at times very pessimistic) about how well they were being prepared for further education and also about further education itself. This highlights the severe challenges that exist for policy in Greece.
An important policy tool in this area is careers counselling and guidance. The survey findings provide clear evidence that there is much scope to improve the availability of both information on careers/further education and advice through counsellors and advisers. Asked about the information sources they had used to enroll on their programmes, only minorities of students had used school counsellors or career advisers, the range being from 7% (Lithuania) to 22% (England)—figures not available for Austria and Germany. More important sources of information were family and friends, open days and online media. Asked whether information on careers and training is easily accessible at school on their current programmes, in most cases less than 50% of students said it was, being less than a quarter in Greece. Asked whether councillors/careers advisers were usually helpful, in 3 countries (England, Greece and Latvia) only around one fifth to one half replied positively, whilst in Lithuania and Slovenia narrow majorities were positive (data not available for Austria and Germany). These are poor figures and suggest that across all countries in the sample there is substantial work to be done to improve the availability of good quality information and face-to-face advice.

**Policy recommendations**

In countries where VET is highly valued it is regarded as a strong foundation for further education so permeability should continue to be an objective for VET at country level. Further, within countries, those vocational pathways that are highly valued are believed to provide strong foundations for further study which suggests that progression affects the attractiveness of all pathways and that all vocational pathways should support further education and life-long learning.

Different strategies should be explored to support continued and further learning in relation to vocational programmes and pathways, for example, higher level apprenticeships, short cycle ‘dual-system’ higher education, sub-bachelor Level 4/5 programmes, ‘dual’ qualification and ‘hybrid’ qualification, stronger provision of generic and key competences.

Careers counselling and guidance should be improved so that they are rated more highly by users. There is scope to consider and evaluate a wide range of practices and, in particular, to take advantage of new communication technologies as part of careers education, information and guidance.

**Methodological Reflections and Conclusions**

**Successful Cross-Country VET Student Survey**

The survey conducted as part of this project represents one of the key accomplishments of the whole project. It provides a comparative database on individual VET students across seven participating countries and thus is one of the first studies that allow cross-national comparisons of VET students. We aimed for the highest methodological standards in order to demonstrate that it is possible to obtain high quality, international comparable micro data on VET students. The survey employed a set of core methods in all countries while national adaptations were implemented to achieve comparable data. Thus, we chose a wise compromise of international standardization and country-specific adaptive solutions that served the overall purpose of collecting comparable data.

Constant key components of the study were self-administered surveys in all countries using identical questionnaires in national languages based on an international master questionnaire. Also, we applied random selection of students based on cluster samples stratified by region and type of school in all countries (except UK/England). At the same time the sample design differed across countries.
according to the structure of VET systems. Furthermore we accommodated national modules in the questionnaire in order to provide room for country-specific research questions and policy issues.

After extensive field work we collected data from roughly 17,600 VET students in the 7 participating countries with a minimal sample size in each country of about 1,000 VET students. We reached overall response rates (considering school level, class level, and student level) within the range of 55 percent to 70 percent in most countries.

Taken together, the survey has been a great success. This is foremost due to the fact that we could in fact administer the survey according to high methodological standards in seven participating countries. The study provided key findings for VET students in seven EU countries using a most similar methodology. We provided extensive methodological insight and expertise to solve such problems in future studies. The detailed methodological experiences gained during the field work of this project puts researchers in the position to conduct such comparative surveys even on a larger scale across more/all European countries.

The students’ views are an important contribution when assessing and comparing national VET systems. The fact that we were able to collect information about the attitudes, views and further plans related to VET education and occupation of more than 17,600 students across seven European countries is the most valuable contribution of this study to the scholarly and political discussion of VET. Accordingly, based on preliminary results of the project the many VET stakeholders participating in the expert interviews unanimously emphasized the impact of VET students’ views and concerns expressed in the survey on future national and European VET policy.

Lessons Learned and Potential Improvements
Throughout the implementation and administration of the survey the research team experienced some issues which need to be carefully addressed in future cross-national surveys among VET students.

Increasing response rates
First and foremost, we put much emphasis on methods that help tackle country-specific non-response rates. While in Latvia, Lithuania, Greece, Germany, and in Slovenia we had no problems achieving overall acceptable high response rates of roughly 50 percent or more, other countries fell behind due to legal or cultural constraints. Even though we have only limited evidence that the low response rates actually harmed the accuracy of results in our survey (non-response bias), low response rates are costly and still have the potential to introduce systematic biases to the results. Looking at non-response rates on the school level, class level, and pupil level (as documented in the methodological report), it is easy to detect that the overall response rate is particularly harmed by the low response rate on school level. Here, huge country differences contribute to the differences between the overall response rates. Future research should therefore engage in a more intensive communication with headmasters and principals in order to attain their cooperation. In addition to the consent process, future research projects should also consider a longer field period in order to accommodate schools and principals who might be reluctant to participate in the survey due to the tight schedule of the planned fieldwork procedures.

In addition, the pupil level response rate was considerably lower than expected. Overall, values range from roughly 73 percent to about 80 percent. Here, too, future surveys should engage in ensuring the corporation of pupils/parents by emphasizing on explaining the purpose of the survey. Also, a longer field period might increase the response rate on pupil level since numerous pupils were either ill, away on a fieldtrip or working in their training company. Compared to similar surveys in the general education system, surveys in the web system should anticipate more obstacles during fieldwork due to
the fact that many students are engaged in both, their school and their training company, where they do practical phases or apprenticeships.

**Legal requirements for permissions and parental consent**

In some countries national or regional authorities required the research team to obtain written consent from parents that their under-aged students were allowed to participate in the survey, regulations in other countries were less strict. Future studies should therefore explore carefully the requirements in each participating country and put extra emphasis on the fulfillment of formal prerequisites.

**School-based student research in a heterogenic environment**

A third key issue that should be enhanced in future studies in the sample design and field work in countries where school based surveys of students are less prevalent and accepted (in our case UK/England). In particular, future research should explore opportunities to enhance headmasters/principals motivation to participate in the study. This could either be achieved by means of incentives, reports with school-specific results and the like. This may require a more intense fieldwork and might include personal visits in some schools as well as more extended information brochures and written information packages. Also, due to the heterogenic structure of the VET system in UK/England we had problems to obtain a sample of the similar high quality achieved in the other six countries. This was due to the fact that the UK/English VET system is more scattered and less hierarchically organized as compared to the other countries. Also, the fact that some VET students obtain their VET qualifications in schools that are considered general education institutions contributes to the problems. This refers to the more general problem of defining the target population of a cross-national survey among VET students (see next section).

**Strengthen definitions at the beginning**

The research teams involved in the survey struggled with the country-specific definition of VET. While some countries have a clear consecutive educational system where students chose VET at a certain point in their educational career other countries exhibit more permeable educational systems were students enter VET using various pathways and at multiple points in their educational career. Comparing such incomparable entities poses a challenge that cannot easily be overcome with standardization. When designing this survey we aimed to find a suitable compromise with respect to the target population. This project defined the target population as the group of 17 and 18 year old VET students. For most countries, the majority of VET students was covered by this target population. However, for some countries this age range excluded considerable portions of the overall VET population and therefore limited generalizability of results.

The clear advantage of the rigid definition of the target population is the fact that other factors that might interfere with the students’ perception of their VET program and future plans can be held constant. However, comparing VET systems is not fully achieved with a fully standardizes target population since VET systems differ across countries due to the varying intake of students, their prior educational degrees and also the differing structures of VET across countries. Future surveys should therefore carefully design a joined target population (probably not only by age but rather by progress in the VET program and other characteristics), that allows comparisons of identical groups across countries. Results based on comparable groups provide valuable evidence concerning different views, behavior and plans of students that share the same age, VET program, work experience and the like. This, of course, does represent a comparison of VET systems as a whole since systems may differ in terms of programs that are considered VET, the composition of their student body, prior education, pathways and so forth. Thus, national samples should also be considerably inclusive with respect to all important groups in each country to also facilitate cross national comparability of entire VET systems –

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in addition to the comparison of identical groups across countries. A comprehensive comparison of VET systems asks for both types of comparisons. This should not be seen as a limitation of the current project but rather as an encouragement for future surveys to design the target population in a way that allows for cross-national comparisons on various levels: It might well be necessary to compare countries based on most similar sub-populations in terms of age or vocational programs. But at the same time cross-national comparisons should also involve the VET systems as a whole.

**Transition system**

In addition to the schools and programs considered VET some participating countries offer a transition system for students who have problems getting access to the core portion of VET (drop out from general education, regionally and social disadvantaged students, students with immigrant background). This so called transition system was included in some countries while others do not have such programs as part of their VET systems or chose not to include them in the survey. In the countries were this transition system was surveyed using the same methodology as for the students of the core VET system, results were not very encouraging (e.g., low response rates, less than optimal data quality). Future studies should cover these transition systems since the economic downswing in many countries will probably increase the number of students enrolled in such programs. It is important, however, to mention that surveys in the transition systems need a modified questionnaire and adaptive field work procedures including incentives, personal visits in the schools or even face-to-face data collection.

**School-specific results**

The dataset available for the seven participating countries can be used to prepare reports summarizing school specific results. This has been done in some participating countries, but not on a systematic basis in all countries. The school specific results are the key incentive for headmasters and principals to provide consent and cooperation for the survey and thus should be used on a regular basis during fieldwork. In addition to the motivating effect of such school specific results, one could also use the school specific results in terms of a benchmarking of schools. Even though this is a sensitive policy issue, the dataset at least provides the opportunity to build rankings of schools in terms of key-dependent variables. In its current state, the international and the national datasets are anonymous and not connected to the individual names of schools. However, if national or international stakeholders are interested in such rankings, this feature could be added to future studies.

**Design effect and effective sample size**

In the beginning of the project, we estimated various key properties of the vocational educational system in order to design sample-plans for the participating countries. One of the key requirements was a proper estimate of the design effect due to the clustered sample design. Based on some existing datasets, we came up with an estimated design effect of 2.5 for all countries. The analysis of the variance components based on the collected data revealed, however, that the design effect might be even higher for those variables that are closely related to the particularities of participating schools. For example, the assessment of ICT equipment or the maintenance of the school buildings yield far higher design effects compared, for example, to individual plans to engage in further VET education once the initial VET education has been completed. The larger than expected design effects affect the statistical properties of the samples. In particular the effective sample sizes are reduced and consequently, the dataset lacks power for some of the planned analyses. Thus, future studies should plan for even larger samples as compared to the current survey. In combination with the limited response rates discussed earlier, this also demands more resources devoted for cross-national VET student surveys.
Following up on VET graduates: labor market, future education and regional/international mobility

When presenting results of our survey to stakeholders in the participating countries, most of them were very much impressed by the wealth and richness of the results since this is one of the first surveys that provide cross-national comparative data. Nevertheless, several stakeholders asked to extend the current design of the study in order to trace students after they have completed their initial VET education. Since many policy issues concerning VET are focused on the transition from VET education into the labor market a longitudinal study that follows up on students from the end of their VET education to their initial employment position after VET education is of particular importance.

While the survey conducted in the current project yielded valuable results concerning the VET students’ perceptions of their current VET program and their plans and likely pathways for the time after graduation from their current VET program, little is known about their transition to the labor market. However, many stakeholders explicitly mentioned the need to better understand whether and how VET graduates find their way to proper employment positions, whether and to what extent they can make use of the competencies/qualifications obtained throughout their VET program and whether or not they stay in the region for which the schools assume to provide graduates for.

VET schools are increasingly challenged to provide competencies/qualifications that fit the labor market and that enable graduates to find a suitable job. Unfortunately, schools have very limited systematic knowledge concerning their graduates’ transition to the labor market.

Based on this feedback from stakeholders, we propose a tracer survey which has the potential to follow a sample of VET students from VET graduation into the labor market. For this study students should be recruited close to the end of their VET education i.e. in the last year of their program and should complete a base-line questionnaire covering parts of the questions that have been used in this study plus additional questions that came up throughout dissemination activities of the project. At the end of this base-line survey, students should be asked to provide consent to further participation in a longitudinal survey. Researchers would then collect personal contact information and prepare at least two follow-up waves. The first follow-up wave should be administered roughly one year after graduation and a second follow-up study could be administered another one or two years after graduation. This, in fact, would provide extensive information concerning phases of unemployment after VET graduation as well as on various problems during the transition period from VET education into the labor market. Also, the fact that a considerable portion of the VET students engage in a second vocational educational program after VET graduation could be documented by way of the described tracer study. Interestingly, some stakeholders also raised the question to what extent VET graduates actually engage in higher education once they have completed their initial VET education. In some countries VET education provides higher education entrance qualifications, while in others many VET students have obtained higher education entrance qualifications prior to entering VET. Thus, a considerable portion of students might in fact choose not to enter the labor market but to continue education either in the high education or in the VET system instead. Also, regional and in particular international mobility could be documented based on such a tracer study. Since the current survey revealed considerable discrepancies in the extent to which students are willing to move to other European countries in order to obtain a suitable position on the labor market, this might be of particular importance for future studies.

In the current study, in some countries we had to employ paper-and-pencil questionnaires in addition to the proposed online survey methodology. This had to do with the fact that some schools were unable to provide suitable ICT infrastructure for the administration of the survey in a classroom setting. Also, some schools asked for a paper-and-pencil questionnaire in order to be more flexible when it comes to the administration of the survey. Thus, we propose to provide paper-and-pencil as well as web survey methodology for the base-line study. For the follow-up waves, however, it is safe to
assume that most students have access to the internet at home and are capable to complete a web survey using their own ICT infrastructure. Thus, it is safe to assume that the two follow-up waves do not need to be administered using paper-and-pencil questionnaires. However, in order to keep track of the students it is important to not only collect e-mail addresses but also, for example, parent addresses or other postal information that might be suitable in tracing students for the first and second follow-up waves.

If results and findings from the first two follow-up waves are promising, one could then use the contact data to follow-up on these VET students even further, for example, five years after graduation, in order to develop a better understanding of their pathways and their labor market careers.