THE CONTRIBUTION OF RESEARCH TO INNOVATION IN VOCATIONAL EDUCATION AND TRAINING (VET)

The role of VET Institutes

Preliminary findings of the survey

Working Document, 2.11.2020

Bundesinstitut für Berufsbildung
Robert-Schuman-Platz 3
53175 Bonn
Telefon: 0228/107-1638
E-Mail: grollmann@bibb.de

Mehr Informationen unter:
www.bibb.de

Bundesinstitut für Berufsbildung

Project Team

Research Director and Research Co-ordination

Prof. Dr. Hubert Ertl
Dr. Christina Widera

Section 3.1. International VET Comparison, Research and Monitoring
Lara Buchholz
Dr. Philipp Grollmann
Isabelle Le Mouillour

Table of content

Introduction 4
Two events on VET research in Europe in autumn 2020 4
Context and objectives 5
1. A survey among institutes of VET research and development 6
Selection of organisations 6
The questionnaire 7
2. What is institutionalised VET research? 7
Organisational Types 10
Designated institutions vs. assignment of functions 10
3. Themes, topics and methodologies of VET research 11
Tasks and topics 11
Themes of VET research 13
VET research and development 14
4. Future perspectives 15
The three most important current challenges 15
The most important research topics for the near future 16
Ways of involvement in European and international cooperation in VET 17
Thematic areas to extend existing collaboration with other VET institutes 18
Obstacles to an extension 19
Expectations of the event on 4th November 2020 20
Preliminary Conclusion 21

Tables, figures and boxes

Table 1: Overview of responding institutions 8

Figure 1: 32 institutions from 18 countries 6
Figure 2: Academic background disciplines of employees in research and development 9
Figure 3: Practical experiences of employees in research and development 9
Figure 4: Type of organisation 10
Figure 5: Organizational structure of institutes 11
Figure 6: Tasks in IVET and CVET 11
Figure 7: Involvement with policy and practice 12
Figure 8: Development of curricula and teaching- and learning material 12
Figure 9: Thematic areas that relate to responsibilities within the VET system 13
Figure 10: Areas of VET research 13
Figure 11: Trabsversal topics of VET research 14
Figure 12: Qualitative and quantitative methodologies applied 15

Figure 13: Most important current challenges 16
Figure 14: Most important research topics..... 17
Figure 15: Involvement in international cooperation in Vocational Education..... 18
Figure 16: Thematic areas for extending existing collaboration..... 19
Figure 17: Obstacles to an increased collaboration..... 20
Figure 18: Expectations of the event 21

Box 1: Events for the discussion of survey results 4
Box 2: Criteria for the selection of organizations..... 7

Introduction

This is the first of a series of reports, that the Federal Institute for Vocational Education and Training (BIBB) will produce, in which we present findings from a survey among Vocational Education and Training (VET) Research and Development (R&D) Institutes across Europe and internationally. With this survey we intend to identify common challenges and perspectives for future work and collaboration in research. The survey was carried out among national institutions of VET research.

Two events on VET research in Europe in autumn 2020

This report is prepared as an input for two events that we organize as a contribution to the German Presidency of the Council of the European Union in the second half of 2020, in which we are discussing future perspectives of collaboration in vocational education and training research with other stakeholders and actors in this field.

Box 1: Events for the discussion of survey results

Federal Institute for Vocational Education and Training	EVSW / VETNET European Research Network Vocational Education and Training / Federal Institute for Vocational Education and Training
The contribution of research to innovation in vocational education and training (VET) - The role of institutionalized VET research in Europe. Discussion of initial findings	**VET research in Europe: topics, structures and cooperation**
Online Meeting, 4th November 2020	**Online Workshop during the European Vocational Skills week,** 11th November 2020
Organised by **BIBB**	Organised with **VETNET**, the community of European VET researchers, and in cooperation with the **European Commission DG Employment, Social Affairs and Inclusion**
Around **30 participants,** respondents of the survey and "critical friends"	Around **70 participants** from the community of VET research
During the meeting, preliminary results of the ongoing survey will be discussed with the respondents along three perspectives: a). content and formats of cooperation in VET research, b). challenges and methods of VET research, c). the research, policy and practice triangle.	Inputs will raise issues on VET research. Based on this impetus presentations, it will be discussed how to improve cooperation within the research community and between research and policy.

Context and objectives

A trigger for the survey and the events is the current German's Presidency of the EU Council. However, BIBB as many other institutes has been involved in supporting European co-operation through a range of projects and ongoing activities for a long time. National and European Vocational Education and Training (VET) Policies and practices are increasingly intertwined. Therefore, we are interested in gaining an accurate and systematic picture of institutionalized VET research and development at the European level.

When talking about VET, we apply Cedefop's concept of the term. According to this understanding, Vocational Education and Training (VET) describes education and training which aims to equip learners with knowledge, know-how, skills and/or competences required in particular occupations or more broadly in the labour market including initial programmes at the beginning of careers and continuing education and training during later phases in life.

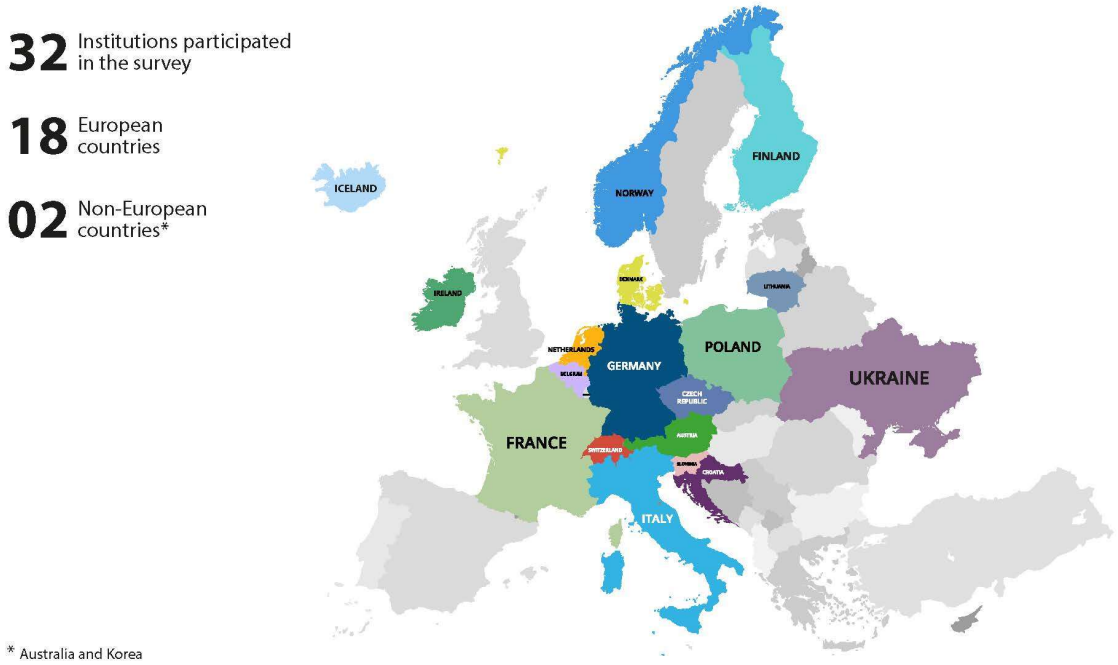
Developments in the field of VET are a major contextual condition for defining the objectives and our analyses of VET research. At a later stage, we intend to map the findings of our survey with developments in other contexts. Developments in the European Policy Agenda and the European programmes of research funding will be as important as general developments in research and their connection to policy and practice. The potential for regular further dialogue will be opened up and adequate mechanisms shall be explored.

Our stocktaking can be the basis for better understanding the contributions that an enhanced cooperation in research could make to a sustainable development of European VET. It will contribute to increasing the visibility of institutionalised VET research in Europe. The survey and the events also aim at identifying future foci of European VET research and the potential of collaboration of research institutes on topics of common interest. Collecting and juxtaposing recent research activities and findings will allow to build on each other's work and develop more co-ordinated future research programmes.

1. A survey among institutes of VET research and development

So far, 32 institutions have actively participated in our survey. The findings that are presented are preliminary, since the survey has not yet fully closed. However, they provide an interesting basis for discussion and already indicate some key issues that are worth looking at.

Figure 1: 32 institutions from 18 countries



Selection of organisations

BIBB holds partnership agreements with around 30 institutes from European countries and beyond and carries out co-operation workshops with many of these partner institutions on a regular basis. Our understanding of institutionalized VET research is based on the roles and tasks of BIBB in the environment of the German VET system and the experience-base from this international co-operation.

At the outset of the survey a list of around 60 organizations was collected of which we assumed that they could potentially fulfil our selection criteria (see Box 1). In the accompanying letter to the survey we asked the recipients to put us in touch with other organisations, which they thought were relevant for our survey (snowballing approach).

After a pre-test with four institutions with diverse profiles and portfolios, questionnaires were sent out between mid-August and mid-September 2020. A second round based on reminders and some 20 additional contacts that resulted from our snowballing approach is still ongoing. Altogether we have now approached 71 institutes from 35 countries.

Box 2: Criteria for the selection of organizations

Criteria to select and address institutes for our survey were

- the organization is commissioned with tasks in VET research and development either through an institutional basis (e.g. a specific law) or a designated longer-term project-based funding for VET research and development
- the organization is working on a national scale
- research and development activities take place in one or more fields on the continuum between the level of VET systems and governance to the level of teaching, learning and competence development in VET

In the following sections we discuss these criteria based on the answers from our respondents.

The questionnaire

With the questionnaire we gather information about the various tasks and institutional setups, fields of expertise, working methods, and involvement into the strategic discourse on VET on the national, European and international level.

The questionnaire contains open and closed questions. For this initial report we have restricted the analysis mainly to the closed questions in order to get a first overview of the results and to facilitate the discussions during the workshop on 4th November 2020. Especially for the last section of this report we have also evaluated a number of open questions on future topics, challenges and collaboration opportunities in VET research. Qualitative content analysis was used to analyse and cluster answers. Results of the content analysis and all other data will be presented in frequencies in form of bar and pie charts. In some specific cases, the qualitative content of the answers will also be presented in detail.

2. What is institutionalised VET research?

Institutionalized VET research and development looks back at over 50 years of history. It includes a range of activities and provides a rich experience base for innovation and development in VET on the national and European level. Despite several contextual and organizational changes and dynamics, there is also continuity in many countries in terms designating organizational and budgetary resources and personal capacities to the further development of VET.

Across todays' European member states first designated institutions were set up in the 1950ies. The earliest example we found is the predecessor of the Czech NUOV, Národní ústav odborného vzdělávání (integrated into NUV in 2016) in 1953. In the meantime, the Czech National Institute for Education, the Education Counselling Centre and Centre for Continuing Education of Teachers (NÚV) and the National Institute for Further Education (NIDV) were

merged only this year into one budgetary organization, the National Pedagogical Institute of the Czech Republic (facility for further education of pedagogical staff).

In the seventies, several western European countries established institutes at a national level. For instance, in Germany the BBF, the Federal Institute for Vocational Education and Training Research, now BIBB, and the Centre des études et des recherches and sur les qualifications (Céreq) in France were established in 1970. 2 years later the Istituto per lo sviluppo della formazione professionale dei lavoratori, ISFOL was founded, the Italian institute for VET, today (since 2016) part of the Istituto Nazionale per l'Analisi delle Politiche Pubbliche (INAPP). As a result of these developments the European Centre for the Development of Vocational Education and Training (known as Cedefop) followed in 1975. Some countries that have more recently joined the European Union have founded their own institute, such as the Centra RS za poklicno izobraževanje, CPI in Slovenia.

The following table provides an overview of the 32 responding institutions.[1]

Table 1: Overview of responding institutions

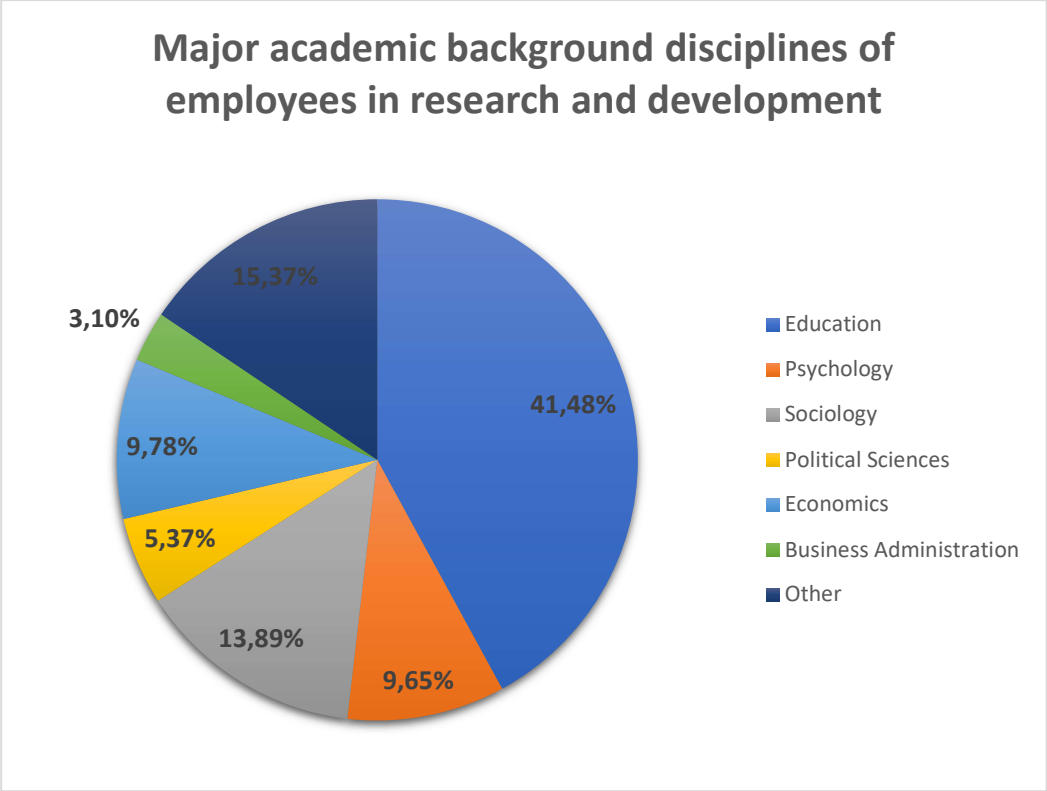
Australia	NCVER
Austria	3s, IBW, ÖiBF
Belgium	Bruxelles Formation, Le Forem
Croatia	AVETAE
Czech Republic	NPICR
Denmark	Aarhus University
Finland	Tartu University, EDUFI, Finnish Institute for Educational Research
France	Cereq
Iceland	University of Iceland
Ireland	SOLAS
Italy	INAPP, INDIRE
Korea	KRIVET
Lithuania	KPMPC
Netherlands	CINOP/ECBO; HAN, UASUtrecht
Norway	OsloMET, NIFU, FAFO
Poland	Lukasiewicz, IBE
Slovenia	CPI
Switzerland	Leading House – GOVPET, Leading House - Economics of Education, SFIVET
Ukraine	NAES

These institutions represent the expertise of **6246 Employees.**[2] With regard to the scientific staff the questionnaire asked for the major disciplines these employees come from. The data

[1] In this overview we have nor included our own questionnaire, nor one questionnaire that we have received only shortly before the editorial deadline for this report. So altogether we have 34 institutions by now.
[2] We have excluded the data from one very large organisation, in which VET research and development is only a supplementary task beside a series of tasks in labour market administration.

provided shows that a majority of research and development staff comes from education or sociology. The second largest groups include psychology and economics.

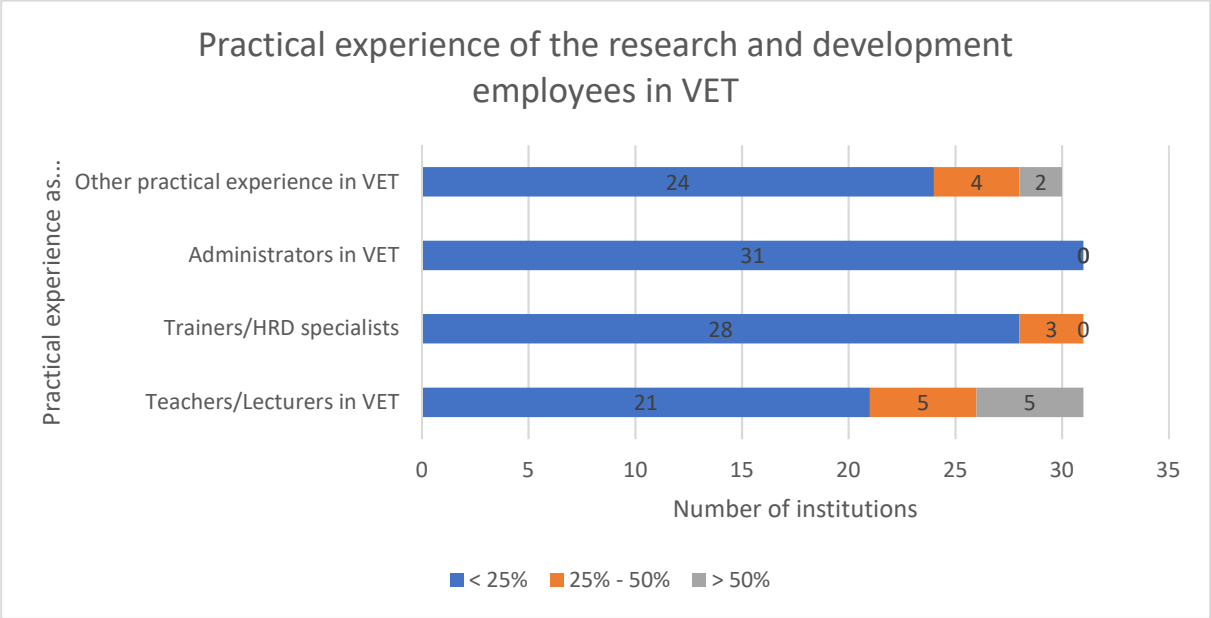
Figure 2: Academic background disciplines of employees in research and development



Given the practical relevance of VET research, the questionnaire also asked about the share of employees with practical experience. It is especially the group of teachers and lecturers that is represented in research development. The data indicates that in five of the 31[3] institutions more than 50% of the research and development staff have practical experience as teachers and lecturers. In addition five institutions employ staff with 25-50% practical experience in this field. Concerning practical experience as Administrators in VET, the data indicates that the institutions' share of research staff, which have practical experience as administrators is less than 25% in all of the 31 institutions.

[3] Only 31 of the 32 institutions answered this question.

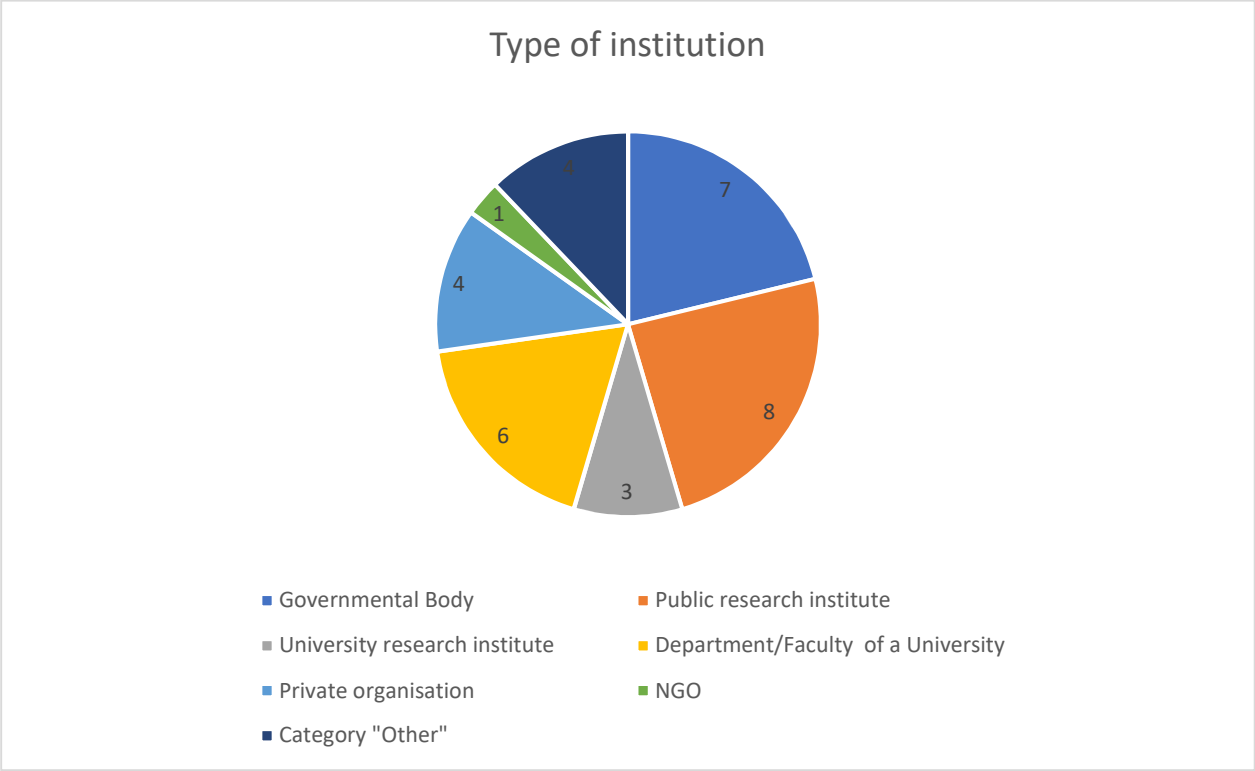
Figure 3: Practical experiences of employees in research and development



Organisational Types

The responding institutes represent a variety of organisational types (cf. Figure 4). Almost to even parts there are designated governmental institutions, public research institutes and organisational units of universities (each group constitutes about one quarter) that have participated in the survey. In some cases respondents ticked multiple answers. The figure also shows that in some cases private organisations are commissioned with research and development tasks in VET.

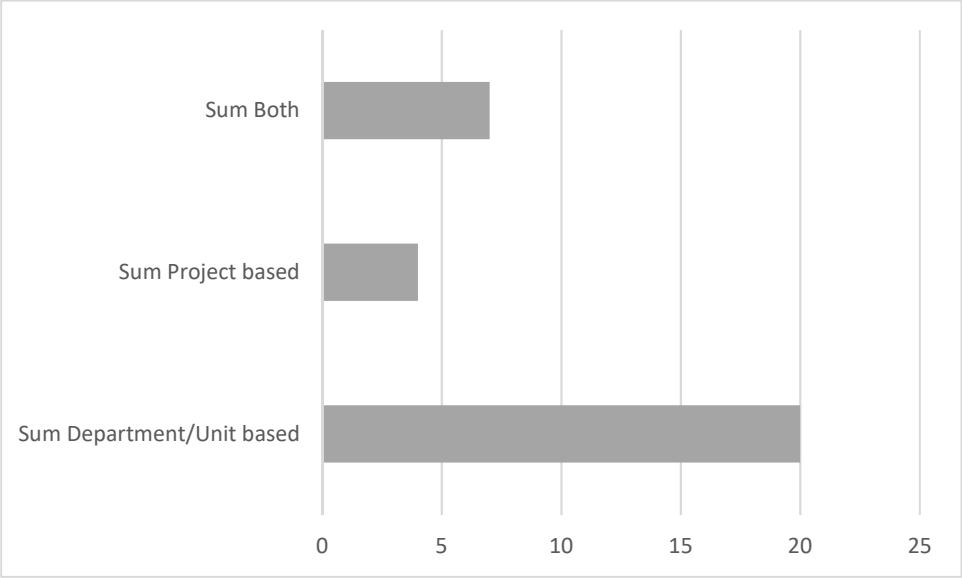
Figure 4: Type of organisation



Designated institutions vs. assignment of functions

Some countries have not established designated institutions but distributed different functions of VET research and development across a range of institutions and organizations of teacher education, economic and social research and public support structures. Often, such functions are assumed on a longer term basis by different institutions, for instance in Denmark with a designated unit for labour market and skills analyses within the ministry of education, institutions of vocational teacher education that are also involved into systemic reform and research of university institutes. This mix of institutional types is also reflected in the forms that organizations apply when carrying their work. Some institutions mainly work in stable departmental structures whereas others are running in project-based organizational set-ups as Figure 5 shows.

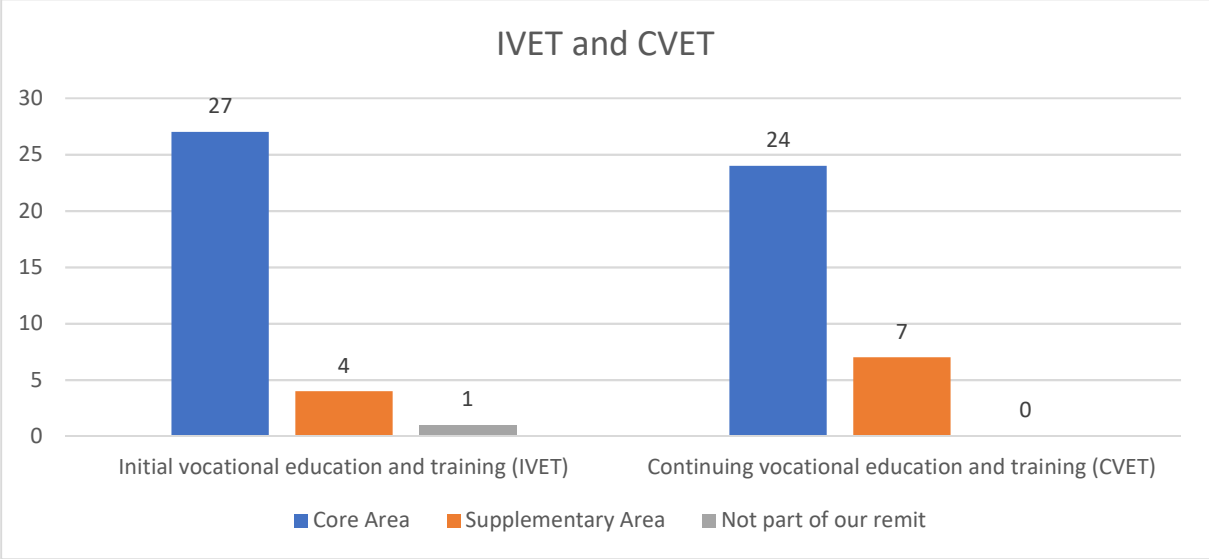
Figure 5: Organizational structure of institutes



3. Themes, topics and methodologies of VET research

Our concept of VET includes initial programmes at the beginning of careers (IVET) and continuing education (CVET). Figure 6 shows in how far Institutes work on IVET and CVET.

Figure 6: Tasks in IVET and CVET

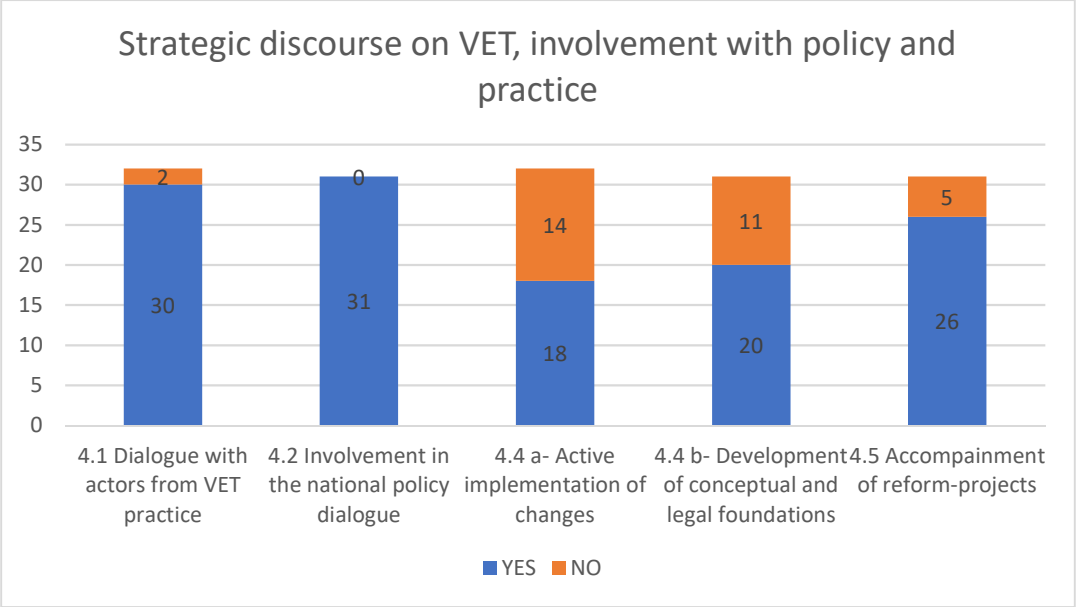


Tasks and topics

The institutes carry out various tasks, ranging from the analysis of the development and impact of occupational training policy at the system level to the identification of contents and the development of the curricular foundations of vocational education and training. It is important to note that every institute has a different range of tasks and their work is based on different legal and administrative foundations. However, there is also a significant overlap in terms of the remit of institutes' tasks and responsibilities.

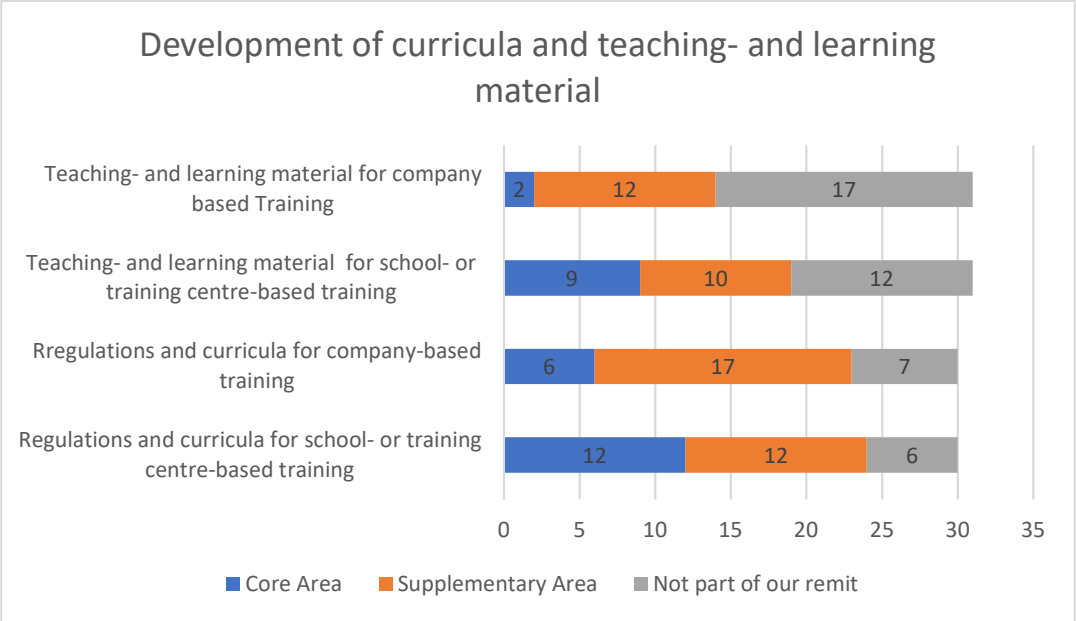
Figure 3 shows in how far the organizations actively contribute to changes in the VET system. Whilst the dialogue with policy is very common among the institutes, a dialogue with practice is somewhat less common. Typically the institutes are also carrying out work that accompanies reform projects. More active contributions are less prevalent.

Figure 7: Involvement with policy and practice



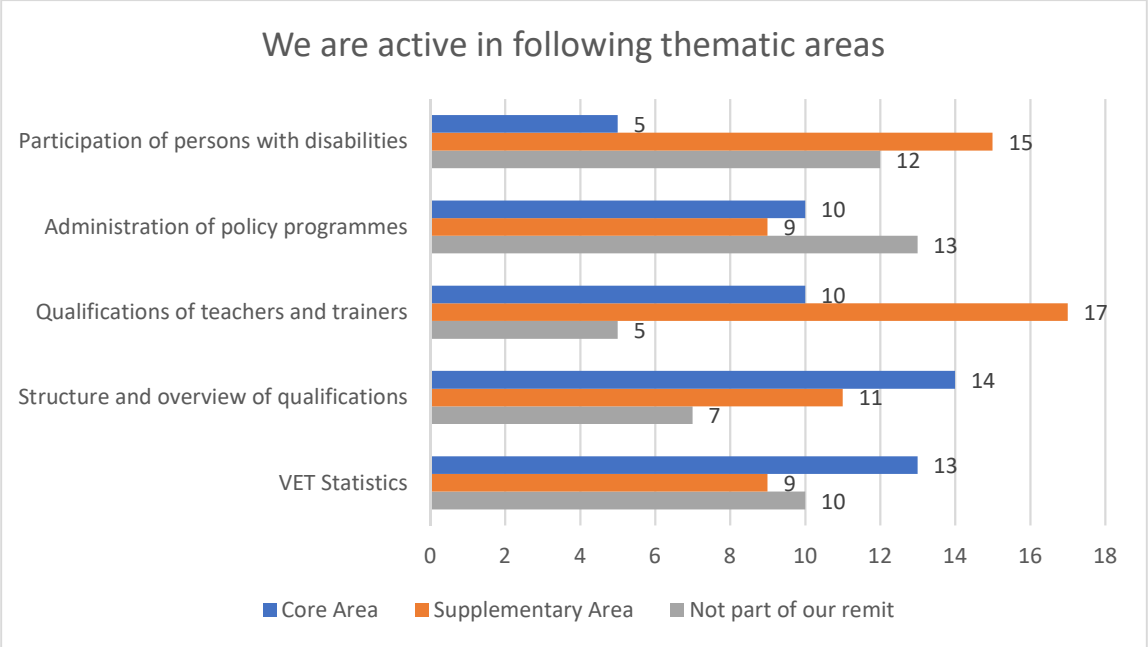
Institutes are also involved in tasks with practical relevance as the following figure shows. There is a slight dominance of regulatory tasks as opposed to the direct production of teaching and learning materials as well as a dominance of school-based functions over company based functions.

Figure 8: Development of curricula and teaching- and learning material



Looking at some core functions of VET system development, the structure and overview of qualifications and VET statistics are a major area for around half of the institutes.

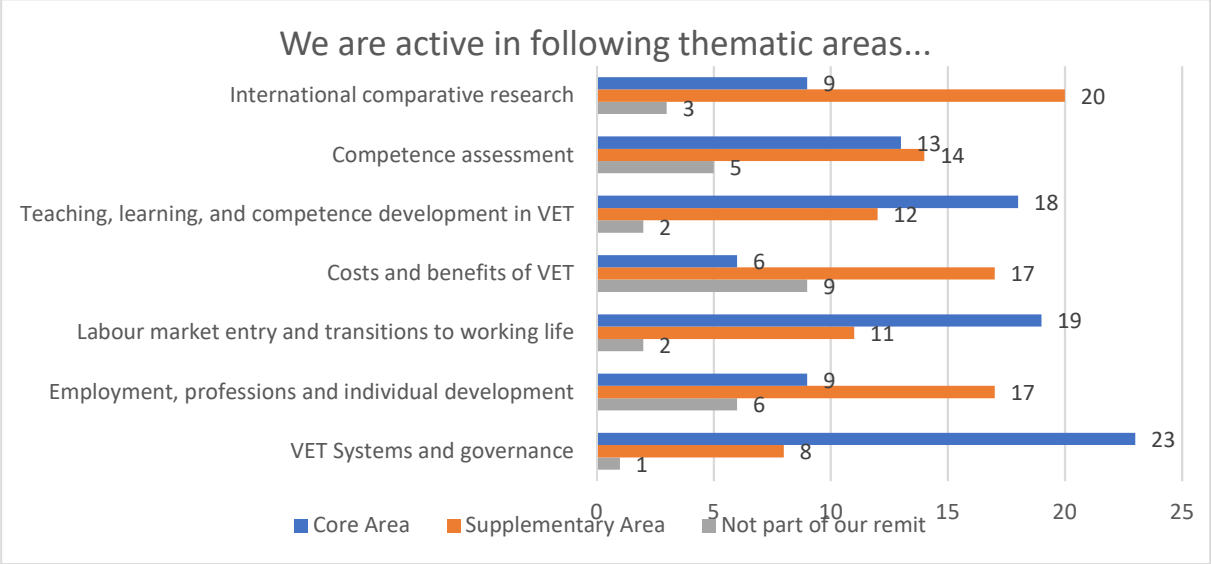
Figure 9: Thematic areas that relate to responsibilities within the VET system



Themes of VET research

Whilst the figures above mainly showed responsibilities in relation to systemic functions of VET research, the survey also asked about different levels and themes of VET. We largely followed the abovementioned concept of Cedefop.

Figure 10: Areas of VET research

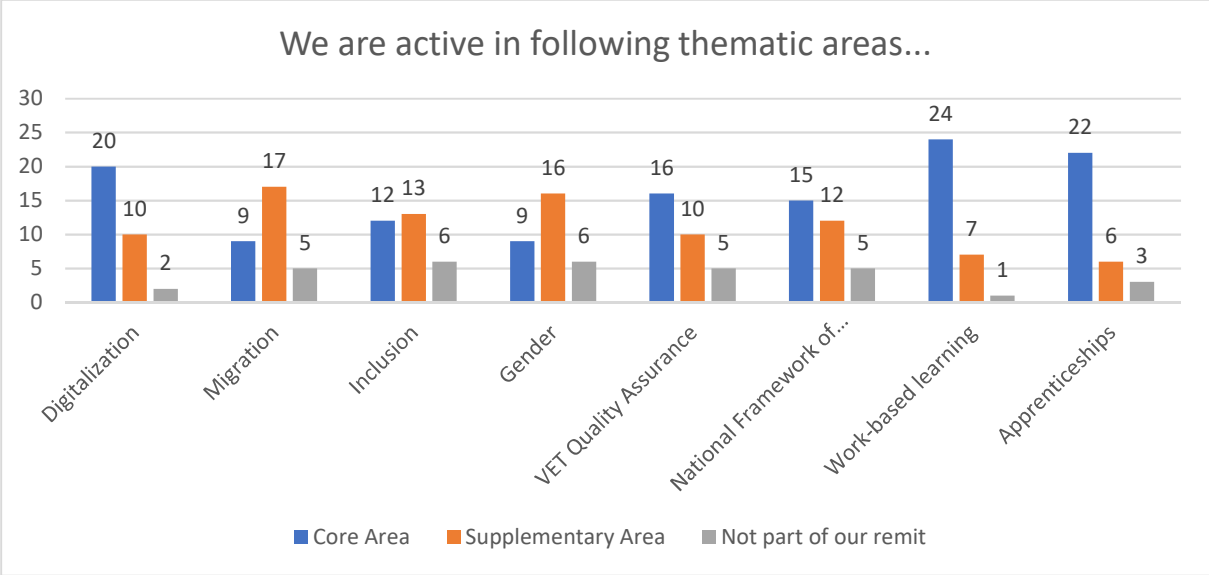


Through a systemic lens the focus of research and development activities can range from the level of VET systems and governance to the level of teaching, learning and competence development in VET. It can include topics such as labour market entries and transitions to working life and individual careers, development and design of employment, professions and

occupations or curricula and qualifications, but also specific issues such as the costs and benefits of VET or methods of competence assessment (cf. Figure 10).

Complementing this systematic approach, the survey also looked at the significance of transversal topics. Figure 10 shows that work-based learning and apprenticeships represent a strong focus.

Figure 11: Trabsversal topics of VET research



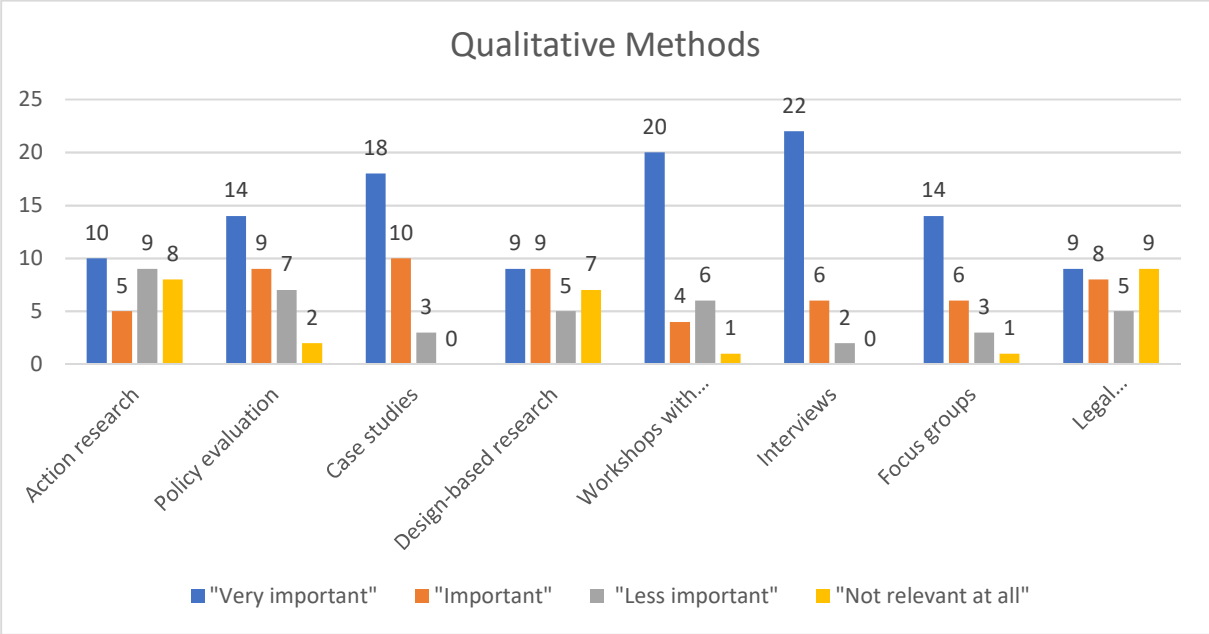
VET research and development

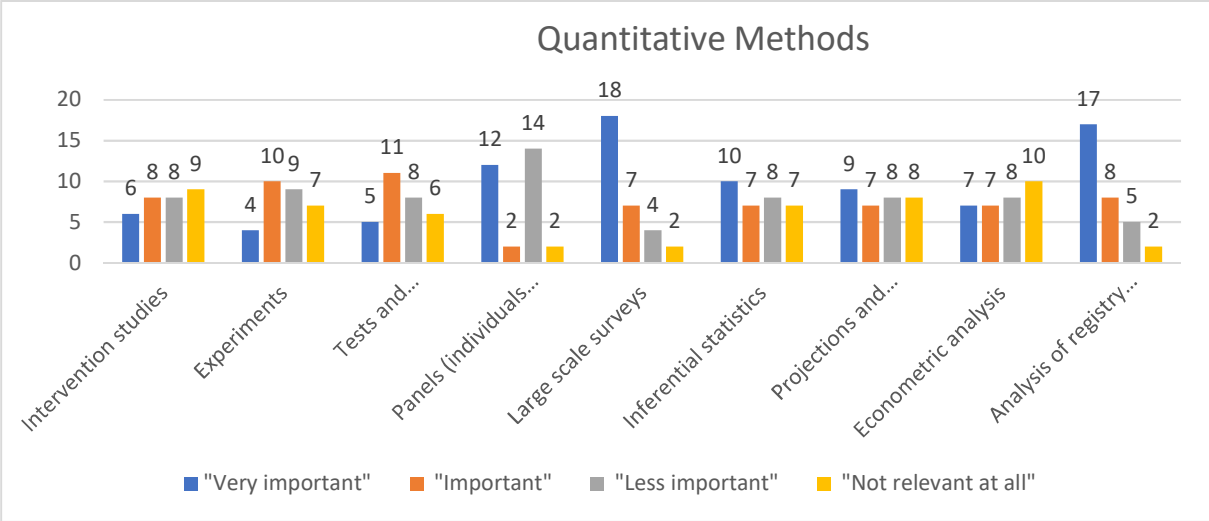
Given the manifold tasks and functions that are covered by the VET institutes or by longer-term projects, an inclusive understanding for VET research and development was applied.

In very simple terms, “research” comprises work that aims at developing new knowledge, whereas “development” focuses on the application of new knowledge in VET practice and policy. Clearly, the two terms are not always fully distinctive and the overlaps between these two areas might be of particular interest. The institutes' working methods vary from quantitative and qualitative research through the development of instruments, programs and qualifications to implementation and training of multipliers as we could see in the first section.

A question that might further inform our understanding in this regard was about the methods and methodologies that institutes apply in their work.

Figure 12: Qualitative and quantitative methodologies applied





4. Future perspectives

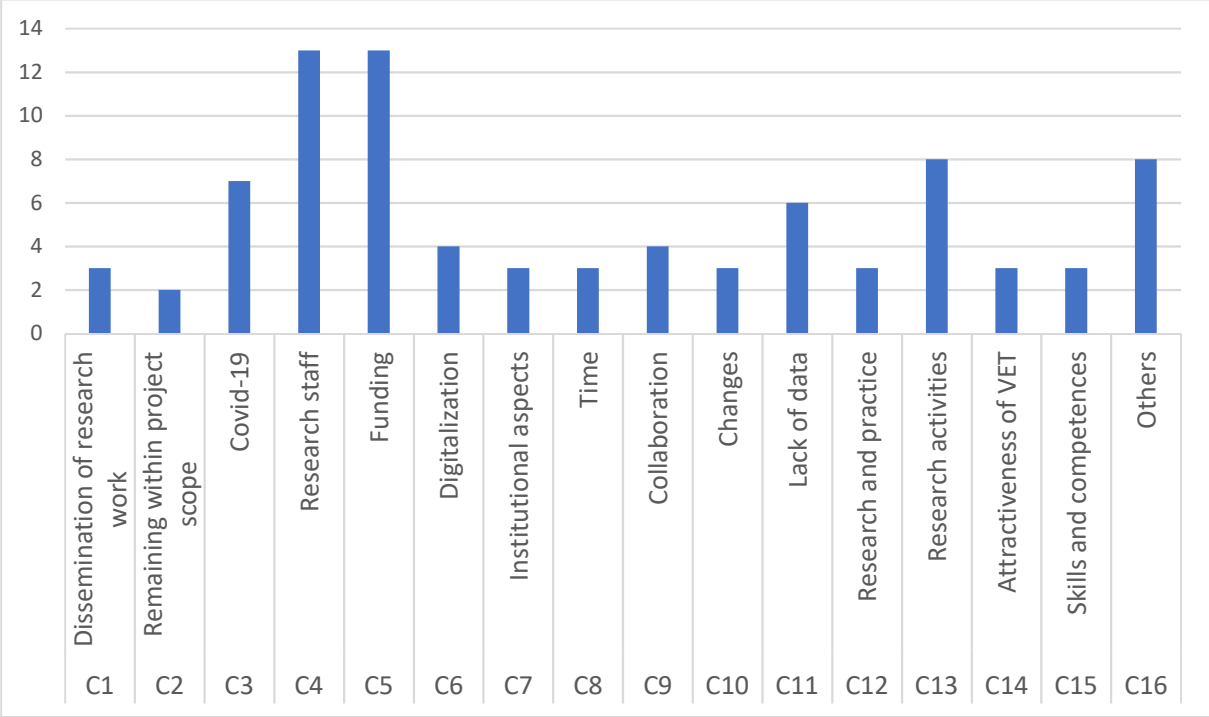
In the next subchapters, the future perspectives of the 32 institutions will be presented. First, the institutes were asked to name the most important current challenges they have to cope with. Moreover, institutions were asked for their future research topics. In the third subchapter the involvement in European and international cooperation in Vocational Education will be described as well as room and obstacles for extending the collaboration with other VET institutions. Institutions were also asked to express what they expect from the event and which thematic areas should be discussed in the conference.

The three most important current challenges

In the first question, the institutions were asked to name the most important challenges they have to cope with in their current situation. In total 16 categories were formulated to cover almost all answers. The high number of categories shows, that the major challenges differ

significantly between the institutions. The categories “Missing VET staff” and “Funding” were both mentioned 13 times. This means that these two aspects seem to be highly relevant for 13 of the 32 institutions regarding the current challenges. “Research staff” covers staff in form of experts, researchers or project managers. Especially recruitment and the development of new VET staff seems to be problematic for a big part of the institutions. “Funding”, the other major current challenge, refers to a lack of funding inhibits research work and projects.

Figure 13: Most important current challenges

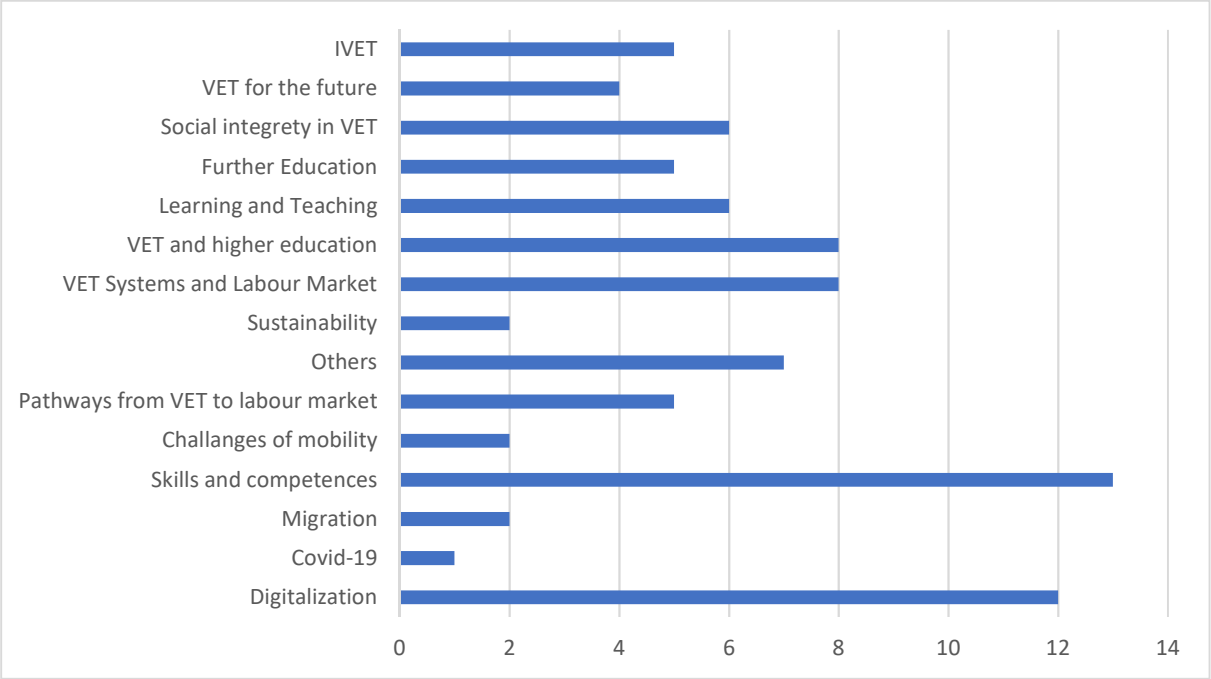


The category “Research activities” is the second most frequented. It covers all answers that deal with research activities of the institutions. For example, enlarging and prioritizing of research or broadening the perspectives on VET research. Seven institutions mentioned challenges due to the “Covid-19 pandemic”. They link the pandemic to unpredictable challenges coming up, such as field studies, conferences, funding, economic impacts and employment. As will be seen in the next section, “Digitalization” seems not to be a major challenge but more an important research topic for the near future.

The most important research topics for the near future

As mentioned above, 12 of 32 institutions see the topic “Digitalization” as one of the most important research topics for the near future. The category “Digitalization” includes aspects such as impact of digitalization, digital changes, the digital transformation and the digitalisation of work and education. “Skills and competences” is the second most mentioned category with 13 mentions. It includes skills and competences that are accompanied by digitalization, as well as key competences, social skills and upskilling. Even though the institutions have a strong interest in “Skills and competences” as an important research topic, this aspect is not mentioned as a current challenge Figure 14.

Figure 14: Most important research topics



Regarding the category "Covid-19" it is the other way round. Although Covid-19 is as an important current challenge, the institutions do not seem to recognise "Covid-19" as an important research topic as such.

In conclusion, just because something is mentioned as a current challenge, it does not mean it is also relevant as an important research topic and other way around. Other important research topics for the future are "VET and higher education", "VET systems and labour market", "Social integrity in VET" and "Learning and teaching". In summary, the answers of question number two are very heterogeneous. After analysing current challenges and research topics, the next three subchapters deal with the collaboration between the different VET institutions in Europe.

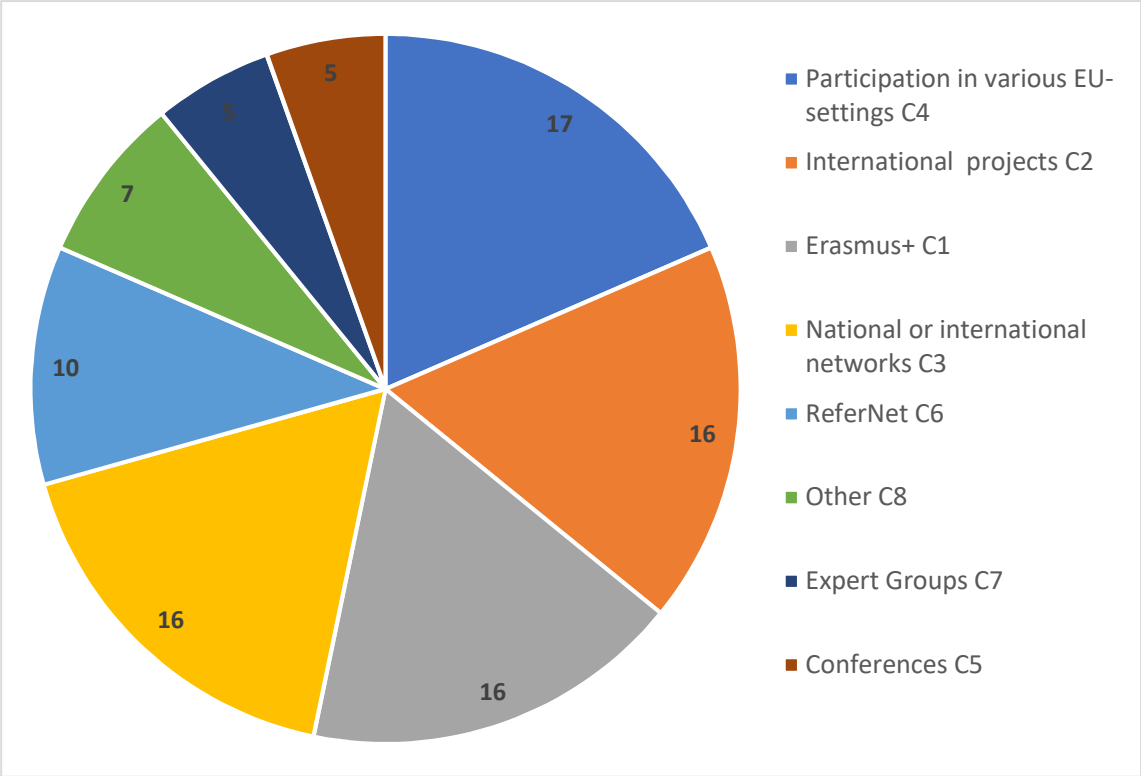
Ways of involvement in European and international cooperation in VET

The first question concerning the collaboration deals with the ways of involvement in European and international cooperation in VET. The answers of the institutions can be summarized into eight categories. Four of these categories have almost the same frequency. The other four categories are mentioned more than five times at least. In contrast to the answers in the questions in the two preceding sections the institutions' way of involvement seems to be more homogeneous.

The category "Participation in various EU-settings" was mentioned 17 times and therefore is the category with the highest number of frequencies. "Participation in various EU-settings"

was defined as participation, building up networks or being member of various EU-settings or institutions such as EVBB, EERA, EPALE and so on. More than half of the institutions seem to be part of some kind of European co-operation. The following categories are “International Projects”, “Erasmus+” and “National or International networks”. All of them were mentioned with a frequency of 16. Although “Erasmus+” could also be seen a programme in which different institutions work together on an international project base. Moreover, the category “International projects” can be defined as the development of joint studies with international colleagues on a project base. On top of the joint projects concerning “Erasmus+”, the institutions mentioned the implementation of the Erasmus+ programme in their own national context as well as Erasmus+ strategic partnerships.

Figure 15: Involvement in international cooperation in Vocational Education



The category “National or international networks” covers all answers that includes the aspect of being part of a network, as well as partnerships and cooperation’s between VET institutions. Being member of Cedefop’s “ReferNet” was mentioned 10 times. The two categories with the lowest number are, being part of an “Expert Group” and participation on “Conferences”.

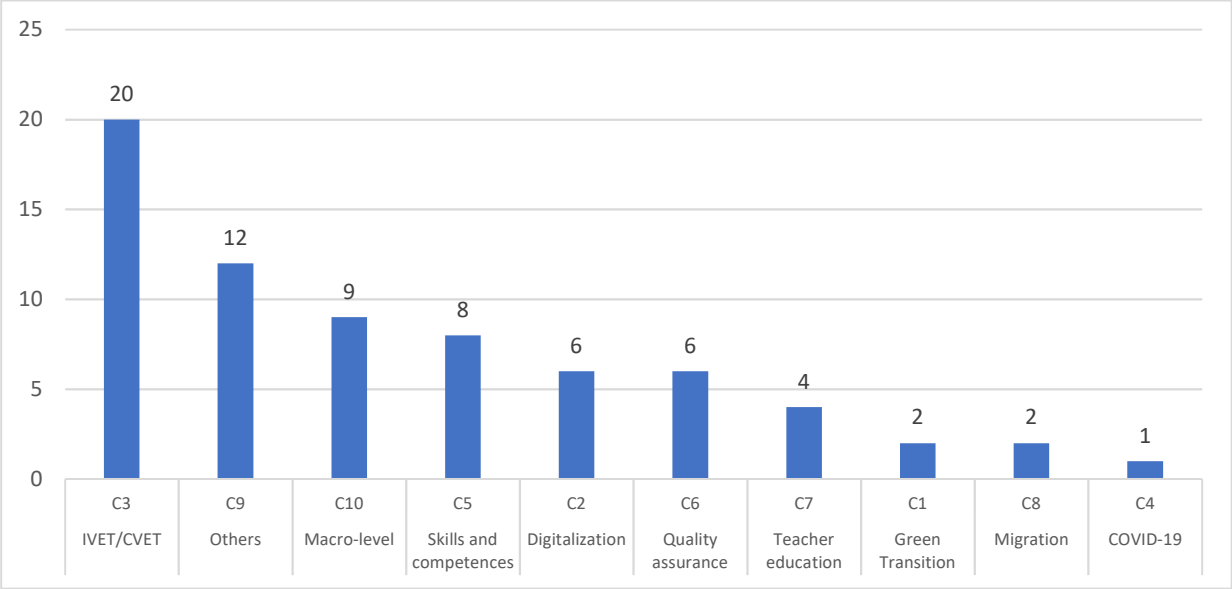
Thematic areas to extend existing collaboration with other VET institutes

In which thematic fields do institutions see room for an extension of their collaboration with other VET institutions? Institutions could especially benefit of collaboration, if they share the same thematic areas that are important for them.

In total 10 different categories, describe thematic areas for extending collaboration. The most important thematic area contains the topics “IVET/CVET”. This category was mentioned 20

times. It includes all topics concerning initial and continuing VET as well as issues that concern lifelong learning and individual learning pathways and processes. The categories “Skills and competences” and “Digitalization” were again mentioned several times. So some of the most important research topics also seem to be candidates for extending existing collaboration.

Figure 16: Thematic areas for extending existing collaboration

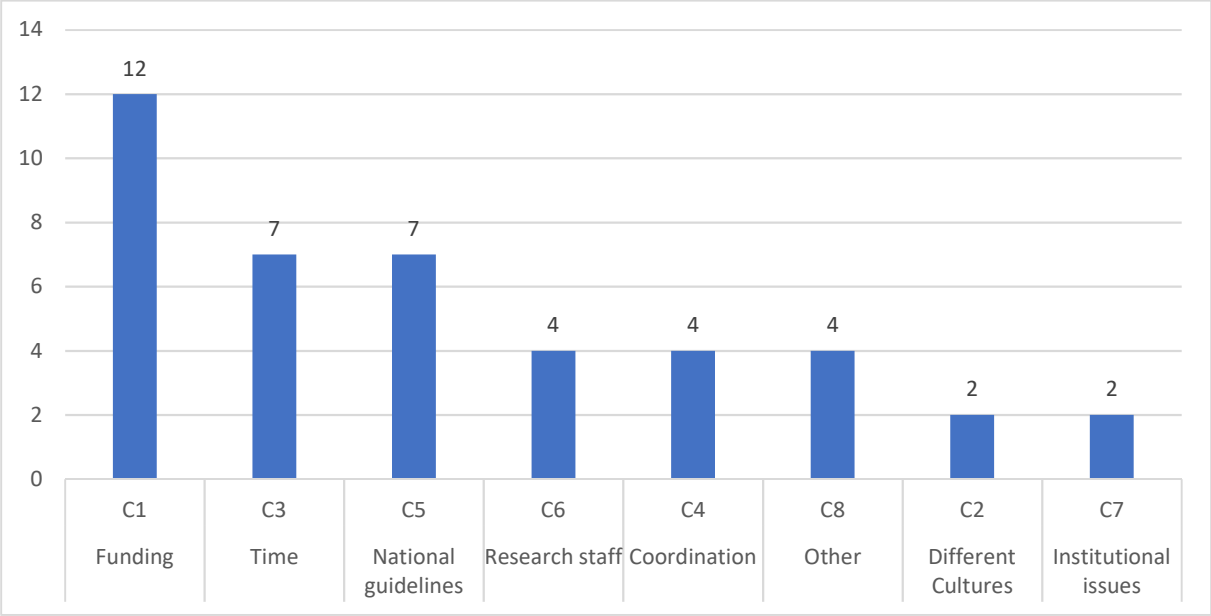


Topics related to the system setup including social policies, the labour market or other economic issues concerning VET are summarized in the category “Macro-level”. This category was mentioned 9 times. The category “Other” is mentioned 12 times. It includes topics that are just mentioned once. In this case it consists of topics like monitoring, Inclusion, reforms and so on. The less interesting fields of extending existing collaboration concern the topics “Green transition”, “Migration” and “Covid-19”.

Obstacles to an extension of collaboration

In this section obstacles to an increased collaboration are shown. Most of the institutions see the aspect “Funding” of common projects as an obstacle to an extension. This category was mentioned 12 times. Most institutions see limited financial support for international cooperation and projects and a low budget for joint projects as an obstacle to more collaboration.

Figure 17: Obstacles to an increased collaboration



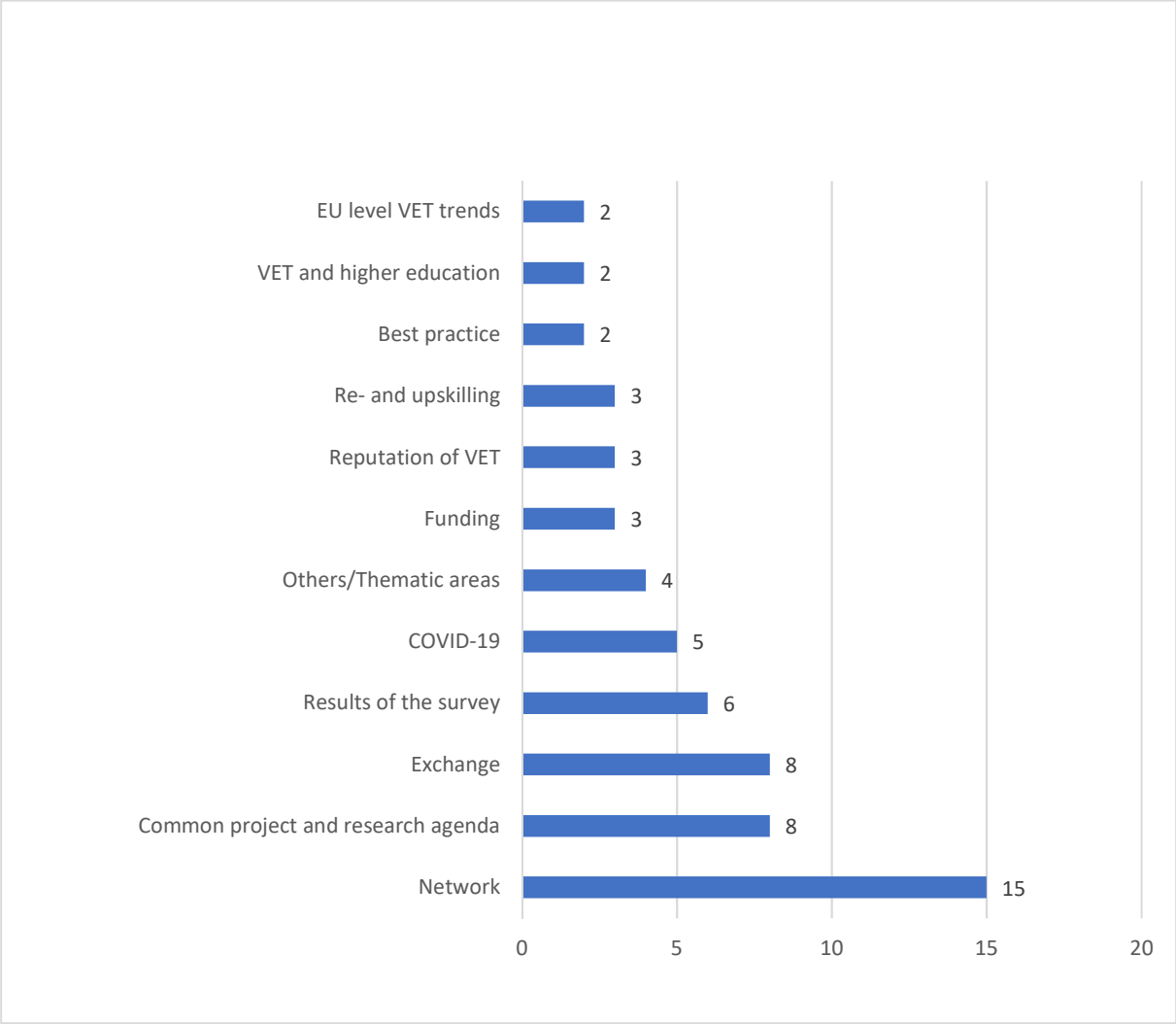
Another important obstacle is mentioned by the category "Time": resources in terms of time and a rise of the workload in research inhibit the collaboration between the institutions. This category was mentioned 7 times. In addition, "National guidelines" was mentioned 7 times. Some institutions described, that the political administration and changes in law can be an obstacle to an extension. A limited number of "Research staff" seems also do be an obstacle to an extension and is related to the lack of time mentioned above.

Expectations of the event on 4th November 2020

The answers of the last question in the questionnaire give an overview of what the different participants expect from the event, maybe as well as what they expect from future events.

The category "Network" was mentioned 15 times. Institutions are interested in building up a network with the aim to build up new partnerships. The event can be a first step towards building up new partnerships and networks. The institutions are also interested in setting up joint research projects mentioned in the category "Common projects and research agenda". This category is mentioned 8 times. Moreover, they expect to have the opportunity to exchange ideas, findings and future activities with other VET institutions. These aspects are mentioned in category "Exchange". Moreover, they want to get an overview about the results of the survey. Again, "Covid-19" seems to be an important topic for the different VET institutions to talk. Although the funding of joint projects seems to be a main obstacle, just a few institutions mentioned it in the thematic expectations of the event.

Figure 18: Expectations of the event



5. Preliminary Conclusion

The starting point of BIBB's endeavour to stimulate discussion and collaboration between institutionalised VET research in Europe is the conviction that this type of research fulfils an important role in the research landscape. It contributes a long-term, systemic policy-relevant perspective of future development of VET that other forms and types of research cannot provide. The findings of our survey indicate how diverse the sector of institutionalised research across countries is but also highlights how increased collaboration across countries could help in tackling the challenges of vocational systems are facing and to strengthen the contribution of the sector to the future development of VET in Europe.