1 Influence of research and development initiatives, actions and/or programmes on VET/HRD policies (including recent reforms/innovations).

1.1 Policies and R&D initiatives

Some important initiatives in Austrian education and training policy, which are related to research and development in varying degrees are the following:
- policies to improve quality and efficient use of resources in the overall education and training system
- policies to support the inclusion of young people who do not find an apprenticeship training
- policies to assess the supply and demand match on the labour market, and to anticipate the demand for qualifications and competences
- the reform of teacher education for compulsory schools
- the development of the Fachhochschule sector in higher education

Policies to improve quality and efficient use of resources in the overall education and training system

A first policy strand which is only loosely related to VET are additional national research efforts to use the PISA study for quality improvement (http://www.pisa-austria.at/). Because of the structure of the system the assessment takes place when the youth cohort studies already in the VET system. Related to the PISA study efforts are made to establish a system of competence standards in compulsory education.

A second policy strand is the development of an overall and coherent framework for quality development and quality assurance in the VET school sector (Qualität in der Berufsbildung – QIBB; as an example: http://net.tgm.ac.at/content/veranstaltungen/QSYS-INFOS_TGM.pdf). Foresight studies about the development of participation in upper secondary education have been conducted as an information source for the planning of resources (http://www.trainingvillage.gr/etv/Projects_Networks/Ero/pb_view.asp?theID=246).

Policies to support the inclusion of young people who do not find an apprenticeship training

Since the late 1990s a system of measures has been established to provide alternative options for young people who cannot find a place for an apprenticeship in an accredited training enterprise. Those measures haven been evaluated by research (http://www.lrsocialresearch.at/download.php?fileid=165).

Policies to assess the supply and demand match on the labour market, and to anticipate the demand for qualifications and competences

A major initiative from the AMS is the establishment of a very differentiated system providing information about the opportunities on the labour market (Qualifikations-Barometer: http://www.ams.or.at/neu/1216_458.htm) This system has been developed, and is regularly updated by research efforts (analysis of economic and employment data, analysis of job advertisements, etc.).
A basic research project has been conducted to analyse the Austrian anticipation practice (http://www.trainingvillage.gr/etv/Projects_Networks/Ero/prj_view.asp?theID=306), and several follow-ups are under way to improve the system (to improve classifications, to make better use of statistical data, etc.)

More specific policies which have been supported by research are the reform of teacher education for compulsory schools (http://www.trainingvillage.gr/etv/Projects_Networks/ERO/prj_view.asp?theID=400), and the development planning of the Fachhochschule sector in higher education (http://www.trainingvillage.gr/etv/Projects_Networks/Ero/pb_view.asp?theID=207).

1.2 VET/HRD policy areas and innovations influenced by EU R&D programmes.

The following policy areas have been developed in cooperation with EU programmes
- policies to develop lifelong learning have been included in the Austrian ESF programme (http://www.esf.at/html-englisch/start.html; http://www.esf.at/downloads/publikationen/Ziel3_Programmplanung.pdf).
- policies for the development and spread of IT in education and training (http://www.efit.at/english/titel.asp?Titel=Interim_Assessment)
- the policies for quality assurance and quality development are related to the Lisbon follow-up and to the Copenhagen process (http://www.trainingvillage.gr/etv/Projects_Networks/Ero/prj_view.asp?theID=416).
Overview and brief commentary on current VET/HRD research activities and projects.

The main observations made in the earlier research reports are reinforced by the analysis of bibliographical data from 2004. First, VET research is a small proportion of overall educational R&D, on the contrary to the high weight of VET in the education and training system. Second, the topics under research are scattered and unstable, without clear patterns. Third, the documentary practice is still rather incomplete (e.g., in the bibliography of educational research only about one out of four of the members of the AMS Research Network is represented).

Two sources can be used for the analysis of VET research, the 2003-2004 documentation of educational research,1 and the publications report 2004 by the national Refer correspondents.2 - The documentation of educational research covers 2003 and 2004, and is not strictly comparable with the one years’ documentations before. It does not specify VET research separately. An update of the analysis from the research reports 2002 and 2003 based on keywords can identify some basic structures. The representation of the 38 research institutions in the AMS research network3 in the documentation has increased from 6 in 2001 to 10 (26%) in 2003/04. It seems that the share of VET research has increased. The earlier results from 2001/02 about the instability and scattered pattern of topics are reinforced by the new data. Only a small set of topics is continuously under research with differing weight:
- Information technology
- Occupational demand
- New technology
- Occupational integration
- Occupational guidance
- Education and training policy

Strongly rising topics related to VET research are different aspects of IT and issues of teacher education. Costs of training, higher education graduates, and economics of education have moved down on the agenda. In overall educational research the different aspects of quality development and quality assurance have risen to the top (including evaluation, efficiency, follow-up, etc.)
- The 2004 publications report includes almost 200 items (about double compared to 2003). From the documentation we can estimate a maximum of 500 projects during the two years’ period if each project had only one descriptor, or about 250 – 300 if projects had on average 2 or 1.5 descriptors. So the orders of magnitude are more or less in line between the two sources.

Figure 1: Distribution of descriptors in Austrian sources (Bifodoc 2003/04, publication reports 2003, 2004)

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Figure 1 compares the distribution of descriptors 2003/04\(^4\) and of publications 2003 and 2004 broken down by the ERO descriptors. The comparison shows some communalities and some different patterns by sources, as well as by years in the same source. Communalities can be found in areas with less incidence: Politics/society/population, administration/finance, human resource development, curriculum/learning/competence & skills development, student/trainee/adult learner. Research in the category certification/qualification/guidance/career/occupation is most frequently counted in the education research documentation (with guidance as most important topic). In the publication report the category economy/labour market/social partners is most strongly represented, with a decreasing incidence from 2003 to 2004.

In the ERO paper base 25 papers are provided totally with the country descriptor Austria, 15 of them by Austrian authors or institutions (60%). Only 5 are dated 2004. In the ERO project base 51 projects are totally provided with the country descriptor Austria, 24 of them were operational in 2004 (12 ending, 8 ongoing, 5 starting; one planned within one year). In the majority of projects Austria is partner, with coordinators in Poland (4), Spain (3), Germany (2), and Finland, France, Hungary, Italy, Portugal, U.K. (1 each). The projects and papers in the ERO base have different focus concerning research areas: projects are more often in the areas curriculum/learning/competence & skill development and human resource development, papers are more often in the areas of administration/finance, educational institution/enterprise, and general/academic education.

Overall, the Austrian research products and projects are not very well represented in the ERO base.

Figure 2 a: ERO Project base, descriptor Austria (status Sept 2005)

| Total number of projects, beginning in 2002 | 51 |
| Operational in 2004 | 24 |
| 2004 Austrian coordinator | 5 |
| 2004 Austrian project | 4 |
| 2004 Austrian partners | 15 |
| 2004 Research projects | 5 |
| 2004 Development projects | 19 |

Figure 2 b: Items in ERO paper base 2004

| ERO descriptors | Schmid Kurt, Forecast of post-initial education in Austria 2,7 |
| Stampfl Christine / Dommayer Helmut, Healthcare, social work and nursing professions - Trends in training and occupations in Austria 3,4,7,10 |
| Lassnigg Lorenz / Markowitsch Jörg, Models of Anticipation of Qualifications and Quality Assurance in the Austrian Vocational Education System 7, |
| Institut für Bildungsforschung der Wirtschaft, Forecast of initial education in Austria 2,6 |
| Schmid Kurt, Further Training for Teachers: an international comparison 6,7,12 |

Figure 2 c: ERO Projects 2004, Austrian coordinator or national project

<table>
<thead>
<tr>
<th>Austrian coordinator</th>
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<tbody>
<tr>
<td>Wieser R, Rôle Models and virtual mentoring for and from handicapped people (2004-2005) 10</td>
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<td>Messerer K, Practice-oriented methods of teaching and learning in higher education (2003-2004) 7,9</td>
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<td>Reichl F, ICETEL - Improving Continuing Education and Training through E-Learning (2002-2004) 1</td>
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<td>Schmid K, Tax Treatment - Comparing tax expenditure and tax treatment of post initial learning activities in Austria, Finland and The Netherlands (2004-2004) 7</td>
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<td>Markowitsch J, AMS Skill Barometer (2002-2004) 10</td>
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<tr>
<td>Steiner M, Schools in Cooperation (2002-2004) 5</td>
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</table>

\(\text{4 As information technology and teacher education might concern general education also, those figures were adjusted to the overall share of VET among descriptors (20%).}\)
Major institutions involved in research.

About 75 Institutions fulfil at least one of the five descriptors for the selection of VET research institutions, which should represent contributions to VET research and visibility at the national and European level: member of abf-Austria core group, member of the AMS research network, representation in at least one of the three research documentations, member of the adult education research network, representation in VET-INST database.

- abf-Austria has been built by 5 research institutes as partners of the REFER-net as a core group of VET research in Austria
- the AMS research network provides a platform for labour market and VET research

The following table summarizes the 29 research institutions which carry at least two of the five descriptors. The majority (15) are private or semi-public research institutes, six are university institutes or affiliated to universities, and six are teacher education institutions. The VET-INST data base does not include several research institutions.

Figure 3: Major institutions involved in VET research

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<th>abf</th>
<th>ams</th>
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<th>v-inst</th>
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Legend:
abf = member of abf-Austria; Internet: [http://www.abf-austria.at/] (22.9.2005)
am = member of AMS research network; Internet: [http://www.ams.or.at/neu/1212_1805.htm] (22.9.2005)
eb = member of the Adult education research network
V-inst = represented in the VET-INST database, simple search Austria; Internet [http://www.trainingvillage.gr/etv/Information_resources/Library/Vetinstit/simple.asp]
4 **Funding frameworks and support structures.**

Austrian VET research is mainly done by non-university institutions, which often focus on applied research and development. A strong base in the university system does not exist so far. The main financial sources are invested from the labour market authorities, and therefore there is no clear separation between VET research, research about occupational development and labour market research. Main players are the research branch of the public employment service (AMS), and the administration of the VET system based in the Federal Ministry of Education, Science and Culture. The AMS has set up a research branch, and is hosting a research network. The ministry supports abf-Austria, and has set up a series of edited books about “Innovation in VET” (http://www.studienverlag.at/index.php3).

The main funding resources are provided via commissioned research projects, and by European sources. Funding institutions are the AMS (public employment service), the Federal Ministry for Education, finance, and Culture and the Federal Ministry for Economics and Labour, and the institutions of social partnership.

The LEONARDO DA VINCI Nationalagentur (http://www.leonardodavinci.at/) provides a support structure for the participation in European projects.

The amount of resources is not known because of the scattered structure of financing mechanisms.

5 **Professional research associations and networks.**

The key associations to facilitate the collaboration are abf-Austria and the AMS research network. Those initiatives are rather new, and under development. Recently some steps have been taken to develop a network for adult education research.

- **abf-Austria** (http://www.abf-austria.at/) provides the contributions to the REFER-net, and holds contact to a wider community of institutions related to VET research. A yearly national meeting is organised, and a yearly national conference is under planning. The first conference should take place in 2006.

- The **AMS research network** (http://www.ams.or.at/neu/1212_1805.htm) organises workshops to specific topics, and provides a web page for information about projects and events.

- The **network for adult education research** aims at the development of a common research agenda, which should contribute to the development and implementation of an Austrian lifelong learning strategy.

6 **Brief review of the current R&D activities and indications of issues/themes to be addressed.**

The activities in Austrian VET research are strongly related to policy development. The activities are broad and diverse, and they are conducted by many institutions. Overview and coordination could be improved. An important step would be to improve the documentation of what is done. Incentives for the players to make their activities more visible by reporting them to the ERO base can be done by abf-Austria (e.g., via the dissemination of the current report). Another step could be to make VET research more visible in the education research documentation (e.g., by better reporting and by using the ERO descriptors for VET projects).

More continuity and follow-up, and more basic research would be another improvement. Cooperation of the players could bring more communication and more strength of research. The establishment of a yearly VET research conference, and more inclusion in European and international activities could be steps in that direction. To give VET research more resources in the university system would be another strategy for more sustainability. A more systematic and transparent programming and funding of VET research would be feasible. In certain areas more cooperation between the funding institutions might be feasible, e.g., in the area of anticipation of futures skill needs, or in the area of development of lifelong learning. There are particularly two areas where more research should be done:

- The first is economics of education. Too little is known about internal and external efficiency of education and training.

- The second area where more research should be done is adult and continuing education. The attempts to establish a research network, and to identify an agenda among the researchers might be a first step. To include research in the lifelong learning strategy could be another step.
References to VET/HRD research resources.

Publications:


Internet sources (22.9.2005):

Arbeitsgemeinschaft Berufsbildungsforschung Austria (abf-Austria) http://www.abf-austria.at/ (22.9.2005)

AMS-Forschungsnetzwerk (AMS research network) http://www.ams.or.at/neu/1212_1805.htm (22.9.2005)


7 VET/HRD contact people.

Lassnigg, Lorenz, E-mail: lassnigg@ihs.ac.at  
Institution: equi - Employment-Qualification-Innovation, Institut für Höhere Studien (IHS)  
Position: Senior researcher, head of research unit, Personal web site: http://www.equi.at/  
Areas of research:  
Vocational education and training (initial / continuing)  
Curriculum / learning / competence and skill development  
Teacher / trainer / professional

Markowitsch, Jörg, E-mail: markowitsch@3s.co.at  
Institution: 3s Unternehmensberatung GmbH  
Position: Managing Director, Personal web site: http://www.3s.co.at/  
Areas of research:  
Politics / society / population  
Economy / labour market / social partners  
Administration / finance of education and training  
General / academic education  
Vocational education and training (initial / continuing)  
Curriculum / learning / competence and skill development  
Certification / qualification / guidance / career / occupation

Mayr, Thomas, E-mail: mayr@ibw.at  
Institution: Institut für Bildungsforschung der Wirtschaft (IBW)  
Position: Director, Personal web site: http://www.ibw.at/  
Areas of research:  
Economy, labour market, social partners  
Vocational education and training (initial/continuing)  
Administration / finance of education and training

Paier, Dietmar, E-mail: dietmar.paier@zbw.at  
Institution: Zentrum für Bildung und Wirtschaft, Forschungs- und Beratungsges GmbH  
Position: Manager, Personal web site: http://www.zbw.at  
Areas of research:  
Information Technology  
Economy / labour market / social partners  
Educational Institution / enterprise  
Vocational education and training (initial / continuing)  
Human resources development

Schlögl Peter E-mail: peter.schloegl@oeibf.at  
Institution: Österreichisches Institut für Berufsbildungsforschung  
Position: Managing Director, Personal web site: http://www.oeibf.at  
Areas of research:  
Politics / society / population  
Economy / labour market / social partners  
Administration / finance of education and training  
Vocational education and training (initial / continuing)  
Certification / qualification / guidance / career / occupation
Abstract.

First, some policies have been identified, which are related to educational R&D to some degree: policies to improve quality and efficient use of resources; policies to support the inclusion of young people; policies to assess the supply and demand match on the labour market, and to anticipate the demand for qualifications and competences; the reform of teacher education for compulsory schools; the development of the Fachhochschule sector in higher education.

Second, Austrian and European sources were analysed, in order to identify activities and institutions in VET research. As VET research is not institutionalised as a research area so far, the borders to other research areas (labour market research and more general educational research) are not clear. Steps have been taken to improve coordination of research, funding is mainly provided in a scattered way for individual projects, there are only very few topics under research during longer periods of time, and there is no overview about financial means. abf-Austria has been founded as a core group of institutions in VET research. The documentation of activities in VET research can be improved, and funding should be made more coordinated and sustainable.

Third, some ideas for improvement are given (e.g., the provide better overview and to make activities more visible), and two areas are identified where more research should be done: economics of education, and research about adult and continuing education.