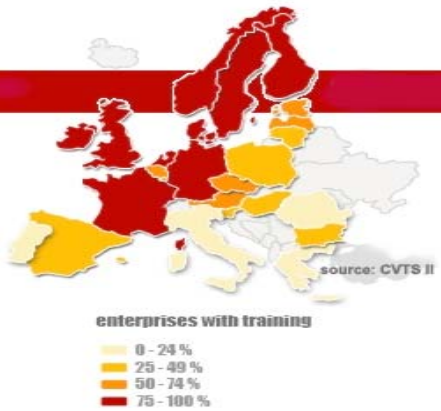
C V T S REVISITED

Continuing Vocational Training in Europe
Benchmarks and Best Practice

Leonardo da Vinci



Phase 2 – Survey Phase

Work Package 10

Günter Hefler

3s research laboratory

Summary of 20 interviews with Austrian enterprises on training policy

30th of June 2006

Content

0 Introduction

The goal of Work Package 10 of the project "CVTS Revisited" is to learn more about the experiences and ideas of those responsible for, in general, "Human Resource Development" (HRD) and, in particular, employees' further education and training.

In accordance with the goals of the work package and of the project, the following groups of questions were addressed:

- How does a company decide on and organise training? Who takes responsibility? Whose knowledge and what specific issues are considered when training decisions are made? Which HRD related competencies are available? Which groups of persons are involved at different steps of the process? How is the training and HRD process influenced not only by the HRD unit itself but by the experiences of other employees?
- What reasons for training are given by enterprises? How are reasons for training systematized by reflecting practitioners? How are different fields of training and other HRD activities described?
- How do practitioners understand the relationship between innovation-related activities and training needs? How do different forms of innovation (e.g. innovation of production facilities or processes, product innovation, organisational innovation) influence a company's training needs? And, in which way, by what process? What kind of innovation influences the work of the HRD management and what does not? How do they link changing work organisations with challenges for HRD activities? Are training needs involved in innovation activity mainly met by training course or by other forms of learning activities (e.g. training on the job)?
- What do practitioners know about public offers to co-finance training activities and other HRD initiatives? What support measures are used and in what way? How does public money find its way into enterprises' training budgets? How do practitioners assess the influence of public co-financing on their training activity?
- How do enterprises account for their HRD activities in general and training in particular? How well do enterprises' accounting systems for training activities fit into concepts used in the Continuing Vocational Training Survey?

The following report presents the results of 20 interviews with experts responsible for HRD –training managers, personnel managers and general managers. The first section deals with the organisation of HRD in enterprises. The second section addresses the reasons for training in enterprises, dealing especially with the influence of innovation activities on training. The third section scrutinize the perception of public initiatives to co-finance training. The fourth section deals with enterprises' systems that account for training. Section 5 provides more analysis for the enterprises of the food and beverage sub-sector and the machinery and electric sub-sector, which are at the core of analysis in the sector analysis of Work Package 9. Together with a summary of enterprises' results, a short general introduction concerning the two sub-sectors is presented. Section 6 sums up the main results and responses to the study's core questions.

This working paper intends to serve several purposes within the ongoing research process. At a basic level, it analyses the interviews and provides descriptive material for further work. In Section 5, statistical context information is provided as an input for the sector analysis in Work Package 9. One main purpose while analysing the content of the interview is to develop arguments, on which further work will be focused during the project's Phase 3 and Phase 4. At the moment, the arguments presented are hypotheses to be studied later. The same is true for the theoretical reflections used in the paper – they are also meant as a preliminary input for further work. In the following sections, arguments of particular interest for further work are put in bold ***italics***. Later, sections of this paper will be developed as individual research papers that develop the findings in the context of existing academic literature.

1 Organisation of Human Resource Development

1.1 Types of Human Resource Development (HRD) organisation

To analyse the continuing vocational training conditions in the 21 firms, a simplified classification of HRD-organisation is used with only two axes.

- First, enterprises are classified according to whether there is a specialized unit for HRD with at least one specialized employee in charge of HRD or whether the HRD functions are handled by the general manager or the personnel manager with his/her assistant/s.
- Second, enterprises are classified with the criteria as to whether *operative*[1] decisions on training are mainly centralized in one single unit, are partially centralized and partially within the responsibility of different departments, or are nearly totally within the responsibility of the individual departments.

Table 2: Types of HRD-organisation – applying the scheme to the 21 enterprises interviewed

	A Centralized	B Mixed	C Decentralized[2]
I Distinct HRD unit with specialised personal	Enterprise1 Enterprise 7 Enterprise 9 Enterprise 20 Enterprise 13	Enterprise 10 Enterprise 11 Enterprise 12 Enterprise 14 Enterprise 17 Enterprise 18	
II HRD functions are handled by non-specialized HRD units	Enterprise 5 Enterprise 8 Enterprise 15 Enterprise 18	Enterprise 4 Enterprise 16 Enterprise 6	Enterprise 2a Enterprise 2b Enterprise 3

Five of the six possible combinations are found among the enterprises interviewed. In total, 11 out of 21 enterprises have a special HRD organisational unit. Nine enterprises make comparatively highly centralized HRD decisions. In nine enterprises, HRD functions are partially centralized and partially delegated to the managers of distinct departments. And, in three enterprises, individual departments are responsible for most decisions on training and HRD activities.

In the following section, examples are given for the five groups; first, for the enterprises with a special HRD unit and second for enterprises without this kind of unit.

In some enterprises, personnel competent in training and HRD are concentrated in a single department. The department may ask managers of business units what needs and preferences exist, but planning and preparation on all types of training are primarily situated in the training department. Special groups (heads of department, top experts) may provide specific expertise, but the HRD staff organises the whole process. Frequently, the HRD unit is also responsible for obeying regulations coming from the parent company (enterprise 7, 9, 20).

In most enterprises with a HRD unit, these units have, on the one hand, clearly defined their own tasks (e.g. running programs for newly hired and high potential employees); but, on the other hand, the units are seen as serving as support to all line managers in their tasks. In all the firms surveyed, HRD experts emphasize that HRD is a core responsibility of each line manager for his/her subordinates.

[1] Among operative decisions, we see the typical topics of HRD management, starting with exploring the demand to assess the outcome. Operative decisions are distinguished from strategic decisions on the principle orientation of HRD-policy and decisions on the lump training budget or the general training plan. These types of strategic decisions are more or less in all cases in the hand of general management or owner representatives.

[2] Crucial for the classification is who identifies the HRD demands and then plans and decides on the measures to be taken. If only administrative support is centralized, this does not influence the classification.

The specialized HRD unit helps line managers to fulfil their HRD responsibility by providing methods (e.g. guidelines for appraisal interviews), advice, and administrative support. Often, the division of labour involves single business units taking responsibility for technical/professional training while the HRD unit bears responsibility for general social and management training. Aside from its own field of work, the HRD units integrate training needs identified in the business units, accompany the process of budgeting and planning, support the realization of the planned training (e.g. by providing a education program), and report on the training activity and its internal and external success.

In firms without a specialized HRD unit, the HRD functions are often covered by the general management or by the personnel director. In some enterprises, the responsible person takes a strong leadership role in all HRD issues. Often, discussion forums inform the responsible person about training needs, but the planning process itself is rather highly integrated in all units.

In some enterprises without HRD units, a division of labour can be observed. While the person responsible for training is mainly active in general training field, the managers of the various business units are responsible for particular technical/professional training.

In a number of enterprises, training responsibility is completely given to the single business units. The person in charge of training has a mainly coordinative function, but has no distinct HRD field of activity. The HRD activities are generally only a small part of his/her work description (e.g. personnel management including HRD).

1.2 Patterns of integration in international firms

Eight of the 21 enterprises are regional branches of international companies or at least loosely integrated into an international company. The degree of HRD-policy autonomy depends on whether the firm was created or taken over by an international company.

If the level of autonomy is low, enterprises have to adjust their HRD-policy not only to the particular national context, but also to the decisions by the international company's central office, which may be influenced by completely other circumstances. Along with the arbitrary policy decisions of the company's international headquarters, economic and cultural factors may influence training policies in the local branch. A short citation can illustrate the issue:

> "In former times, we were much more self-sufficient and more independent, and concerned only whether we were successful or not. But in the meantime - owing to the McDonaldisation of the world - there are ever more regulations. As long as there are only guidelines, it is no problem. But when there are rules, then it becomes difficult [...] It is connected substantially with the stock market. [name of the company] is somewhere linked to the aviation sector in America. That is quite funny: Aviation or armament. And therefore, we are naturally also affected in times, such as when the Twin Towers were destroyed and the aviation industry slowed down. Although we [...] have little to do with all these things. So that [with two divisions] [company name] is somehow connected to aviation and thus the stock exchange reacts accordingly, and thus we suffer also, although we haven't any responsibility." [Enterprise 7 - Machinery and equipment manufacturing]

Table 3: Autonomy level of local branches of international companies/consortiums, main forms of cooperation in training between parent company and local branches

	Branch	Level of autonomy	Forms of cooperation on training within the parent company
Enterprise 3	Food and beverages	Low	Main decisions in all aspects – also on training – comes from the parent company; internal trainers from the parent company provide training;
Enterprise 4	Food and beverages	High	International benchmarking; reporting of key figures on training; opportunity to participate in high potential programs;
Enterprise 5	Machinery and equipment manufacturing	Low	Training budget fixed by a general rule for the parent company (1,5 % of the payroll); technical training and sales training are provided by the parent company (standardized learning material, e-learning offers); central management offers training; training programs concerning new products are provided by the parent company.
Enterprise 7	Machinery and equipment manufacturing	High	Rules on general training topics (ethics, safety standards); training offers in the field of management training; close cooperation with the German branch in the field of technical training;
Enterprise 9	Machinery and equipment manufacturing	High	Training products concerning new products are provided by the parent company
Enterprise 13	Banks and insurance	High	[No detailed information available]
Enterprise 16	Sales	High	International Learning projects (competitions); training offers concerning the products;
Enterprise 17	Sales	High	Training offers concerning the products, high potential programmes;
Enterprise 20	Hotels and restaurants	Low	Binding training standards for groups of professional; international job rotation available; meetings of training managers of all hotels of the chain;

Table 3 provides an overview on the nine companies, which belong to an international parent company or international consortium. Six out of nine enterprises can decide on their HRD policy with a high level of autonomy. Three enterprises have a significantly lower level of autonomy.

Three forms of cooperation were frequently mentioned by interviewees.

First, local branches can use or even have to use training offers provided by the mother company. Normally, training offers are made in the field of management training for high potential employees or in the field of highly specialized technical knowledge on products or procedures only relevant for the company itself. Local branches have to pay for the training offers utilised. Sometimes offers are made at market prices (and are relatively costly then) and sometimes far below market prices as a special service of the company to its branches. In the first case, the mother company runs its training department as a kind of profit centre, in the second case, low-priced training offers should increase participation and decrease total training costs of local branches.

> And then, of course, there are naturally internal company internal trainings, e.g. leadership trainings that are done within the company. These have a mostly internal billing. Like that is exact... these are mostly lump sums, e.g. 500 Euro for participating in a one-week, high-level personnel seminar in Berlin, [...] far below the market price. The company has had a worldwide savings program, where it was said: "Stop, especially within the ranks of high-level personnel, with these money-wasting actions. Then, there was this world-wide initiative that an employee could [attend] once such a guidance seminar - which means ONE seminar, which goes for the complete system, beginning from the craftsman up the entire hierarchy

> to the vice-president, up to the president. And this was translated into all national languages of this world - or nearly all. We belong to the German-language area, but in English it was there in any case. Well, and from this assortment, one could choose. It was then our responsibility whether we have someone, which we want to send there or not." (Enterprise 7)

A second form of cooperation is when local branches have to report statistics on their training performance to the mother company. Sometimes, the accounting figures are produced separately for this purpose in addition to that produced for internal purposes.

A third type of cooperation, in some international enterprises, is when universal quality standards and internal regulations on training exist and have to be observed by the local branches.

1.3 Performing Human Resource Development

1.3.1 Demand analysis and budgeting

Identifying additional skills needed by employees and discerning options for further development of competencies is one of the core tasks within HRD. Without the capacity to identify training needs, all further steps within the HRD cycle are impaired.

Nearly all interviewees said that the assessment of demand for training first begins by identifying training needs for distinct employees. Most enterprises use an appraisal interview to identify training needs and interests in further development of individual competencies. Normally, the appraisal interview takes place between an employee and her/his line manager. Enterprises provide guidelines for both parties (line managers and employees) to support their preparation for the interview. Therefore, identification of skill needs and training options depends on the appraisal interview competencies of both the line manager and the employee.

Developing competencies of line managers – often quite a high proportion of all employees – to identify training needs and to plan for trainings was sometimes mentioned as important tasks. A crucial factor may be the spread of appraisal competencies beyond the HRD unit or personnel management. When line managers have positive experiences with HRD initiatives, they may also strengthen their awareness of training possibilities.

Identifying skill needs and training options not only on the individual level, but also on a strategic level for the whole company become important for the quality of the appraisal interviews itself. All information coming from a more general, more strategic view enriches possibilities within the appraisal interview.

Education programs therefore are often not only the result of a demand analysis, they are also an input, providing hints for what training options may be favourable.

Some enterprises informally analyse more strategic issues of training demands. Often, a group discusses strategic issues and then also decides on the training plan or the proposed training budget.

Some enterprises establish a framework for the demand analysis on the individual basis. Different instruments are used, often simultaneously.

First, enterprises can set up a competence matrix, defining for each type of position what skills at what level are recommended for the employees holding this kind of job. With the appraisal interview, individual skills are than matched against the defined bundle of competencies. Strategic decisions on training goals can be easily integrated in the competence matrix. After the integration in the matrix which is the basis for preparation of yearly appraisal interviews and identification of training needs changes start to influence all the individual competence development process at once.

Second, larger enterprises define curricula for different groups of employees, which are either compulsory or recommended. Here again, individual, skill need identification is backed up by a provided concept of systematic competence development. Many enterprises have defined programs

at least for certain needs (e.g. orientation of newly hired) or certain groups (e.g. high potential employees).

Third, skill needs are often the results of the general management's strategic decisions. The HRD unit has to develop proposals to support the strategic goals. Therefore, relations between the general management and HRD organizers are crucial. The more HRD functions that are integrated into strategic decisions, the easier the HRD activities can support the firm's general priorities. At the same time, an explicit link between actual strategic goals and the proposed training activities makes it more likely that general management accepts proposed training plans and budgets without any serious cuts or changes.

People responsible for HRD activities normally integrate training needs from different sources (e.g. strategic discussions in the group of managers; results of the appraisal interviews). However, departments can often decide on their own HRD budgets for technical/professional skills: their plans have to be integrated in any case, even if the HRD function is rather centralized. The identified training needs are then put together in a comprehensive document. The planned HRD activities are roughly budgeted. Sometimes, informal or formal groups exist who discuss the options, establish priorities, and find a compromise between different interests.

The revised version of the training plan and the necessary budget is presented to the general management or the boards (board of directors, governing body) that approve the enterprise's far-strategic plans . Many persons responsible for training explain that the final decision is normally a more or less formal act. To make it likely that the plan and the budget are accepted, the views of all actors have to be balanced. Additionally, in most enterprises, traditions has been established how much money is spent for training normally.

1.3.2 Organisation of HRD and mix of training instruments

At least five enterprises not only have their own HRD unit but also employ full-time trainers[4]. Internal full-time trainers provide 100-200 training days a year. The reasons for internal trainers are quite varied. Enterprises with rather low-skilled employees (e.g. in retail sales, in tourism) often decide to use internal trainers to reduce the costs of training sessions. However, also important is the fact that internal trainers are completely familiar with an enterprise's culture and economic performance and that employees know and trust their trainers.

> For us it is really important the fact that we really work near [schools]. This also relates to people's confidence. Because we are from the company, we know about what we are talking. We know the needs, desires and requests of the co-workers, and that is the big advantage: we speak as if it were from the soul. There is always a degree of migration between employers and employees. One should take the best from both sides; it should be happiness and contentment. An external coach does not understand the subject so well. In addition, external coaches come with enormous costs." (Enterprise 1)

Knowledge-intensive enterprises with a highly skilled work force often used internal trainers, because the necessary knowledge is not available on the training market. The daily costs of internal trainers may be even higher than for more common seminar products on the free market.

> "[Is cost the decisive factor for the choice between internal and external coaches?] Yes and No. One would have to examine exactly which trainings and which coaches. There are simple trainings in which I do not use an external trainer. That is completely impossible- if the product is not yet there, or with internal things, where a highly specific "know how" is at stake, and also sometimes even I have that knowledge available only in "one-head monopoly", often available with one single trainer. There are naturally trainings, [...] where I say, "there, I can hire an external trainer", if I need internal trainer elsewhere – or, if it comes to training in rhetoric or that sort of things, there it can be cheaper, if an external trainer makes it. [interview 13]

[4] The usual distinction between "external" and "internal" training applied with the context of CVTS causes some difficulties in communication with enterprises. Many experts interviewed call training provided by employed full time trainer or by other employees of the organisation "internal" training, while all other training is called "external", even if it is done in house for a group of own employees only by an external trainer.

The interviewees did not report general problems in finding trainers. Shortages are reported only in case of rather specific needs; e.g. for organising an internal assessment centre (enterprise 19), and for special topics in investment counselling (enterprise 13). Only enterprise 7 noted a general shortage in trainings that combine technical and social skills and takes into account the special interest of mainly technically-trained employees.

> "[the training of the internal technical trainers], is done by myself sometimes, I have attended the train-the-trainer courses several times (within our company but in addition, external trainings). So we have also a fixed program for [internal] trainers that one organizes internally for an annual train-the-trainers seminar. Occasionally, I invite an external trainer, but normally we develop what happens there. A sad surprise to note is that on the training market, one can hardly find worthwhile trainers. You can find as much as you want about leadership, more than you would prefer. Everyone knows it and nobody is interested in it any longer. But training in sales with technical background or to train-the-trainers for a technical background, there are very few offers, there are few who are capable to explain the essential ideas in a few minutes so that one get it and one can work with it. … I am a total enemy of *ex-cathedra* teaching. I am a friend of project work, where the people are confronted with a practical task after a short lecture. A short, stimulating lecture, where they hear the fundamentals, and then they can go into the practice. Task definitions, as they are usually in higher education: "there you have the problem, and now solve it that best you can". And then we look at what has been accomplished That is not only myself, but your supervisor is on board, there are other experts involved, they check up on the whole project ." [Enterprise 7]

When selecting new trainers, HRD experts normally rely on their personal experiences and on recommendations coming from their professional networks. They all report various external training organizations that frequently send promotional material and seek the possibility to present their training programs. So, for the HRD staff, they are burdened with filtering through many external training offers.

The existing network of trainers is constantly being developed. To assess training needs, extensive market surveys or call for tenders are unusual and were reported to occur only in cases of rather large and extraordinary training projects (e.g. from enterprise 16). In some enterprises, procedures have been established to select new training providers, which enlarge the pool of possible contributors in training projects (e.g. enterprise 13).

Another point addressed is the high importance, in many cases, of the individual trainer's personality. Close collaboration is developed not to a particular training organization, but to individual trainers, who have been found personally trustworthy.

> "I do not use very often open seminars, because I always want to know, who is doing the training. And if I go a little deeper in the subject and find out, that there are people who have never actually worked in a practical field, than I feel a little disappointed and leave such seminars. I do not want to sit there, if someone is quoting a book. I asked recently a female trainer with two titles, who was still very young, where she has tested all this practically. No, she hadn't tested it so far. I said then: "This certain statement is a ...", and she has replied that I could check it up in the book of this or that expert. Shouldn't I have gone then directly to that expert? I prefer trainers coming from real life, who can tell from their real experiences and their real attempts instead of theoreticians, who are going to tell me and others, how the world works. That can be counterproductive for us. I must know, on which level I work and in what field I actually am." [enterprise 15]

All the enterprises in this survey use different instruments for HRD, not only external and internal training courses. During the interviews, due to time limitation, it was not possible to extensively address the question of other forms of training.

E-learning and blended learning is especially a topic in the larger enterprises. Some enterprises are still burdened with unsatisfactory e-learning efforts and enterprises. Other enterprises have, after early disappointments, developed e-learning and virtual classrooms into a successful tool.

Enterprise 13 has successfully integrated e-learning elements in their standard curricula for all employees. The main advantage is seen in the reduction of time spent in classroom at the central

office and a better distribution of the workload over time. The cost advantages of e-learning are negligible.

> With E-Learning, we use it not only for the cost factor, but also because the degrees with training courses are so goal-directed that a worker sits somewhere for weeks, but we say it's better to become acquainted with one's own enterprise. For example, if he comes to Vienna, he should become acquainted with the people, the group, and for topics that makes sense to work on. And then, there are subjects, where I say, it makes sense that I learn it alone [interview 13]

> [in regards to estimating the portion of e-learning] it's easier in the area of internal service. Internal service, which can be easily monitored, are three weeks presence, and a total learning time whether through self-learning [...] or in the virtual classroom [...] comes out to about one week, thus 40 hours of E-Learning, adds about 25 per cent. In the field service, the e-Learning portion is somewhat smaller, because there we have a very strong sales component inside the social component. I estimate that the portion is there with 15, maximally 20 per cent. [Interview 13]

Enterprise 5 also has an e-learning platform provided worldwide by its parent company. But acceptance is very low among the employees and therefore the platform is of no significance within the local HRD policy.

> We [have] still another training possibility. This is called [name of the company] Virtual Academy, a trainings package offered over our Intranet. One can simply log in and, after a certain time, work through certain material, and in certain sections, there are then questionnaires that provide an evaluation or marks. There are very diverse topics, not only technical or PC-technical (like the whole Office software family), but also an English language course (an improvement course, where one can select the level, if one wants to e.g. train a little more business English). In addition, there are pure personal self-improvement packages. These packages are offered in the headquarters and then (in the case, where a worker enrols) costs a certain level. [...] [The on-line offers] are barely used. We even have a study room, which is completely separated with comfortable armchairs. But the employees have the feeling that they would be controlled or that there would be bad gossip if they separated themselves from the work activities and used this area.

1.3.3 Measurement of HRD results

Measurement of the quality and outcome of training was a topic in nearly all interviews. While at least superficial assessment of the quality of a training arrangement is a widespread practice, it seems difficult to collect information on training outcomes. There seems to be no systematic assessment as to whether or not defined goals are reached.

Feedback questionnaires are frequently used to assess training quality. The limited value of feedback questionnaires was explicitly described and has in one case led to the decision to skip the practice (enterprise 8).

Assessment of training quality – especially of external trainers – seems easier to achieve during the selection process. Assessment centres and sample trainings are used to ensure quality right before the training starts. In the same way, personnel experience and networks of the persons responsible for training help to fix favourable decisions. Thus, the "feedback questionnaire culture" is often only a formalized way to get the information, if all procedures before the training have failed.

> The other way is, we have innumerable unsolicited applications, from enterprises, which want to introduce themselves. We first check their presentation material, and maybe it sounds completely interesting to us. Then, if a reference list is not already included so that I know whom I could call, one asks around to learn for whom they have already worked. And then, if preliminary talks has been satisfying, before an external coach becomes active with us, an audition is arranged, which takes 3-4 hours. Here different participants are included; thus someone from the personnel department can participate, and then one or two employees that could potentially take part in the training. This trainer presents himself briefly and gives short sessions as examples coming from the training program that he offers. And, from this, we see then, if he meets our culture and if we are ready to try the seminar. [enterprise 13]

Interviewed experts regard the measurement of training outcomes as more a field of open questions than profound answers. The evaluation works on different levels: measuring the skills, behaviour and attitudes of the employee in general (identifying further training needs); and, trying to concretely estimate the effects of a single training or development initiative by comparing the situation before and after the training.

Methods used to identify the competencies levels achieved are:

- regular inquiries of the employees attitudes, self assessment (e.g. enterprises 4, enterprise 20);
- control visits (enterprise 20);
- mystery shopping (e.g. enterprise 10);
- quality control statistics (e.g. enterprise 8);
- quantity of maintenance work needed for newly constructed equipment (enterprise 7);
- analysis of customer dissatisfaction (e.g. enterprise 20, enterprise 15);

The levels of formalisation vary widely. While some standardized procedures (mystery shopping, quality control statistics) are used, often the more personal judgement of training coordinators is the basis for further decisions.

> The barometer for me is mainly the customer satisfaction, and the customer for me is also the physician, the nurse, and the home assistance - just like the patient in the shop and in the hospital! We have a very sensitive instrument. Customers have the information, where and how they can reach me. I personally work on all cases of complaints. There is no possibility at all of avoiding my special attention. I measure [the success of our training] by the customer satisfaction. (Enterprise 15)

Even highly formalized procedures are dependent on an experienced judgement. For example, in enterprise 8, the expert states that failure statistics are, of course, an accurate measure of performance, but have to be interpreted with care. Too often external factors would disturb the results of the measurement, even when everything possible is done to avoid any disturbance. For example, components of poor quality coming from external providers, which cannot be detected despite all precautions and quality standards would affect performance. A single unexpected event – a dozen of wrong components in a delivery of several thousand – result in a completely misleading quality report, which has nothing to do with the actual skill level of the workers.

The following examples for indicators measuring the effect of a single training measure or a set of personnel development initiatives were given:

- increase of sales for additional products independent from the main product (measurement for/after training) (enterprise 20);
- decrease of numbers of external technical maintenance work (measurement before/after training) (enterprise 4);
- measurement the increase of language skills (English) using a standardized procedures by an external provider (enterprise 13); and
- examination on the content of the training (information in the field of health products) (enterprise 15).

The measurement of training inputs and outputs is seen as an emerging field, where HRM managers have to prepare themselves to give precise answers in the near future, even when they are not convinced that the results of the measurement process are really useful.

> Currently the fashion is trainings evaluation. That is the emphasis. Trainings evaluation for me is a multi-level process. There is level 1, a statistical evaluation of education/training. This means how many people have spent how many hours in how many courses? But, there is no evaluation of the humans [...] Level 2 looks at seminar success. That is at least that one distributes the feedback questionnaire. How was the course? How was the trainer? How was the lecture? This type of data really doesn't interest anyone. It is only of interest if something striking emerges. Level 3 would then be: "How did the training affect you as a participant?" That is a kind conversion check. Level 4 would then be still more brutal: "How did the training affect the productivity of your department or work area?" Thus, here already very much imagination is demanded, in order to come up with specific numbers and not be lost in words. And naturally the "Return on Investment" perspective would be level 5 – this is the

> approach wired in the brains of the finance department. [...] I could now only give truthful answers for level 1 to 2. A straight education database is being developed (but not SAP, because we do not want that, we don't have it).

Experts underline that measurement makes sense only if it provides input for further improvement of a particular type of training initiatives.

> "I am not able to measure the outcome of each training and it is also not necessary to do so. There are trainings, which I have to do: there is a new system, a new product is placed and I have to inform all employees on it, I have to help them meet the new requirements. Here is the main question: What can I do so that this kind of training is provided as efficient as possible [...]? The other possibility is to say, we introduce a sales training or - we have just seen such a program in Styria to support the placement of the new, previously mentioned product, where we offer extensive training on the topic "How can I find a way to start a discussion with a client?"[...] There, we of course, look at what happens now, how many contacts are there? We go so far to ask the participants to take notes on the number of calls, on the persons called, on the number of appointments, on the number of sales closed. To learn more about the things and – from the finance department's perspective – where are the failures. I am only interested why has it worked out, why hasn't it worked out [...] This are the points, for us, to start with; [general numbers on returns on investment, ROI], as [name of an expert] always try to do, that's not my way, and I even conclude honestly I do not see the point of it." (interview 13)

The experts interviewed were critical of attempts to measure training outcomes. Measurement could become quite costly without providing insights to improving the trainings. External factors may heavily interfere with the results. Measurement itself may influence reality, so that results have to be carefully interpreted in a long time perspective..

> That is an extremely delicate story. Last year, we planned such a project in a regional department where we trained the high-level personnel and the co-workers. It had been a sales topic, we have analysed the sales before the program, during the program---that was not a single measure, but there has been three steps---and then after the program. And we has been able to measure that the number of sales, really in the form of numbers. During the training, the number of sales has ascended, and after training they decreased then again a little bit and finally has settled down on a higher level. We has compared naturally with the total mass of the […] co-workers, not that any marketing action has taken place and sales has ascended therefore, no question, sales has really increased. For me, the question arises, is it the training itself or is it an effect of "I am on stage and in focus of interest now"? And the next question is, if we have it on a higher level, that was also last year, how long I can expect this higher level to be maintained, and what kind of training measure should therefore be followed? Or, can I do whatever comes into my mind and sales goes down? Here I have no answer. But it becomes increasingly an issue. One must justify what one does and why one spent money". (interview 13)

Other experts underline that, within their enterprises, the necessity of training is often not questioned, because it is obvious to the management and the employees as well. So measurement cannot provide completely new insight – whatever the experimental results could be, further HRD is needed.

The field of transfer of the outcomes of training in the practice is comparably seldom addressed as such. This may be partially the results of limited interview time, partially a reflection of the actual situation.

On the one hand, the *assessment* of transferability is checked. A possible transfer to the working situation is seen as a central quality aspect of training. At the same time it is expected that addressing the question of transfer support the transfer itself. Participants have to reflect what is useful and what not and are so provoked again explicitly to make use of content and tools provided by the training. The line manager often gets the role to discuss the outcome with the participants. Another way is to use feedback forms exploring the outcome of training.

> "Three months after each training we do an evaluation to determine whether one can at all use what one has learned. There is also the question of who else should attend the training or if anybody else should make it or not [...] This is done through a written questionnaire that is taken seriously by our people. The form is completed and I do a quality control. We also discuss the content of the trainings with the employees and ask for further information. The goal is that the participant/colleague explicitly

> take his time and maybe reflect a little more actively on the subject. Therefore we make this reflection explicit with such questionnaires." [Enterprise 18]

> "This is done with the supervisors. The high-level personnel are generally expected to speak before each educational measure with their co-workers as to what they are expecting, what they see as the end and purpose of the whole activity. Later on, they are asked to actually support the co-workers in applying what has been learned in the training. It is a mixture of questionnaires, discussions, personal inquiring and it is also the topic during the annual training needs survey, where one says, "Here are the training offer we have now, what is good or is not that good, what should be changed?" [Enterprise 12]

> "In the narrow sense, nothing comes in my mind what we do …something we try is to have after some time a refresher course and to discuss our experiences, what can I use in my work what am I not able to use in my work". [Enterprise 17]

On the other hand, *instruments* to support the transfer the outcome of single training measures are discussed. Tools mentioned are short follow-up trainings (e.g. one day) a couple of weeks after the main training event, on-line conferences, or coaching offers after the training.

Not discussed under the heading "skills transfer", but nevertheless an important aspect of transfer are all cases where trained employees are responsible for transmitting the knowledge to their colleagues. The transmittance of newly acquired skills and competencies to other employees is both an efficient way to reduce external training costs and a tool to ensure a high degree of incorporation of newly acquired skills.

In general, the development of an explicit skills-transfer culture using clearly defined, standardized instruments did not seem to be in the focus of the experts interviewed. It is not clear if this was because of a lack of awareness or the result of general satisfying experiences with transfer of training results to the work place.

1.4 Summary and Conclusions

The following points are of special interest for further research:

- Centralisation and decentralisation of decision-making responsibilities on training policy is not directly linked with the existence or non-existence of a specialized HRD or training unit. In many enterprises, HRD issues are seen as a part of each line manager's responsibilities. The specialized HRD units or functions are only asked to support the activities of executive managers on different levels.
- Another basis distinction is made between further professional education that involves highly specialized know-how for certain professional groups and general training activities that focus on social and management skills (e.g. communication skills, leadership and so on). For the first group, in most enterprises, the ***head of the specialised units are responsible***, because ***only they are expected to have insight enough to decide on highly particular training activities*** in their field. ***When professional training (e.g. technical training) is of great importance for an enterprise, single specialized units could have larger training budgets than the central HRD unit.***
- International integration of companies may also influence the behaviour of single enterprises. ***Enterprises that belong to a consortium or that are local branches of multinational companies do not only interact with national environments but also interact with various international developments*** such as corporate culture or global economic development in their sector. Relatively small enterprises, in terms of the local branch's number of employees, can be fully integrated into a highly developed international HRD culture or can make partial use of offers made by the mother company. The completely different patterns range from highly integrated to almost autonomous.
- Appraisal interviews are very important for identifying training needs and arranging training initiatives. ***In this case, the line manager's and individual employee's ability to successfully identify training needs and training options are crucial for an enterprise's HRD activities.*** When developing creative uses for training, the line managers' and employees' positive experience with training as an instrument to achieve goals are more important than a centralized HRD unit's expertise***. Therefore, a topic of a learning***

organisation should be how to make use of HRD activities. A company's training history---stored in their workforce's positive and negative training experiences---may become an independent variable influencing further training activities.

- ***The range of training is particularly influenced by personnel management's policies.*** General workforce organisation and outlining of employee's career pathways are as important as special training targets. ***Instruments such as competence matrix or systematic career plans for all groups of employees may strikingly improve managers' and employees' creative use of training.*** The reasons for training become more influenced by general business strategies than by single targets.
- ***Individual decisions on HRD initiatives – e.g. to implement a program for high potential employees or to systematise the training of job entrants – may have a serious influence on the training budget.*** Particular programs (e.g. for new entrants) may involve a high amount of training days. Therefore, enterprises, although similar in all other aspects, may have completely different total training expenditures just because of the existence or non-existence of job-entrant orientation programs.
- Enterprises decide to employ internal trainers for at least two completely different reasons. ***First,*** **internal trainers that provide a high number of training days per year are by far the most efficient and cost-effective way to provide a large volume of training hours**. ***Second,*** **independent of the fact that external provision may be more cost-effective, internal trainers are the only way to provide highly-specialized, firm-specific knowledge at the appropriate time and quality needed.**
- When measuring the outcome of training initiatives, HRD-experts **are clearly interested in single projects and not general assessments of the training policy**. Measuring the training results should provide an opportunity to improve training initiatives. Results should clearly indicate what elements within a single training project has been successful and should be perceived therefore and what elements need improvement.
- Training managers are aware of the fact that until now concepts to measure training input and outcome differ too much between enterprises. In general, benchmarking based on general training statistics can probably not be successfully developed.

2 Incentives for Human Resource Development Investments – Effects of Innovation on Training

2.1 Reasons for training and types– an introductory overview

During the interviews, the experts outlined reasons for training along four main axes.

1. They distinguish between technical/professional training and general training/training of social or management skills. Often the distinction is applied within the enterprises, when organising technical training is mainly within the responsibility of the specialized departments while providing social training/management training is a task of HRD department.
2. They distinguish between clearly necessary or *unavoidable* training and training that supports strategic developments. While the former receives little attention, the latter is the focus of the HRD work. Here, decisions can be made to invest more or less, here creativity is asked to provide answers on how reaching enterprises' targets can be support by HRD initiatives.
3. They distinguish processes of individual development supported by general instruments (e.g. appraisal interviews) and HRD programmes, which provide either a basis for the HRD policy of the whole company (e.g. the establishment of a competence matrix) or guarantee a level of skills and competencies for certain groups of employees (e.g. programs for new entrants, programs for high potentials and junior managers, programs for all employees communicating directly with costumers). Once again, the main focus is on the side of the development of general frameworks and systematic tools. Here decisions to invest more or not are to be made and the importance of HRD functions within the company can be assessed whether such general tools or programs exists or not.
4. And, finally, they distinguish between useful training or development measures and HRD initiatives without sufficient positive effects. In the self-perception of people responsible for HRD, it is crucial to avoid any useless initiatives and fight the perception of the outside, training or other HRD instruments, that can be seen more as incentives than as necessary investments worth the effort. To put it in other words, all HRD initiatives have to be necessary in the sense that their absence would cause heavy damage; at least, in the long run. There may be a strategic choice between timing of investment and forms of achieving goals, but the tasks have to be fulfilled anyway.

In the following section, the four distinctions are discussed in more detail.

The distinction between technical/professional training and general training is crucial in many companies. In enterprises with important technology-driven departments or production sites, there are often two completely different worlds of training within one company. Identifying technical training needs and organizing training is then often within the competence of the department's management.

HRD departments may inform themselves on training planned, but do not interfere with the decision process. If departments are provided with their own training budget, then they can organize their training needs nearly completely independent form the HRD function as such. The fact that training needs arise with technological innovation projects are often not recorded (compare 4.4 Training costs within innovation projects) and calculated within the budgeting process for training, seems to be at least partly a result of the division of labour between the general HRD function and the specialized departments. Training cultures in enterprises, therefore, are dependent on the expertise of all specialized units of the organization.

The department managers' knowledge of how goals can be achieved by using highly specialized types of training and training providers is therefore crucial. The quality of cooperation between departments and training providers, especially their cooperation with facility providers and the development departments of mother companies, may influence seriously the efficiency of skill attainment. To decide of technological/professional training therefore implies a high degree of specialized skills, experience and awareness.

People responsible for HRD underline that in all question of professional training, they are not experts and have to rely on the departments developing the ability to decide on training. Given the importance of technological training and the high training fees in many technological training fields, a major part of competence development therefore take place outside the HRD's direct influence. Therefore, HRD may offer support and service or help department managers to improve their competencies and establish a kind of locally contextualised professionalism.

The experts interviewed sometimes explicitly but often implicitly distinguished between unavoidable training and training to support strategic goals.

Unavoidable training needs are partly linked to the level of individual employees who lack certain essential competencies (e.g. language skills, IT skills, knowledge of safety regulations) or certain business processes (e.g. introduction of new products). Unavoidable development needs means also unavoidable costs – optimising the distribution of skills and knowledge needed is therefore a strategic field of HRD. When the goal is defined more or less precisely (e.g. all employees are informed on new regulations on hygiene), costs for reaching these goals become the centre of interest. Here, to modify instruments HRD often enables important savings, e.g. using blended learning methods or work integrated learning patterns.

Partly, specialized departments (e.g. the development department, the sales department) are responsible for ensuring that everyone receives necessary training in time. Supported by the HRD structures, these departments organise the training process. In the case of large multinational enterprises, permanent structures are established to guarantee, for world wide net of local sites, the timely and often simultaneous transmission of knowledge, skills and competencies.

Distinguished form unavoidable training, HRD initiatives can support the reach actual strategic goals of a company. Training initiatives are then often integrated in a set of measures that should in total makes it possible to reach the defined goal. HRD initiatives are planned in that sense as projects with a limited duration. Depending on the strategic goals supported, the strategic HRD projects have completely different features. The training and development projects can support quite narrow defined goals (e.g. establishing 500 new customer relations in a region within 12 month – enterprise 4), goals of high urgency (e.g. communication of the complete change of a enterprise policy as a reaction the external market pressure to all employees – enterprise 10) or with a long term perspective (e.g. making Eastern Europe into the most important strategic market).

Besides supporting the HRD of individual employees, HRD departments develop instruments that give all training initiatives a framework and develop programs for different groups.

Systematic description of skills and competence levels aimed for different groups of employees have been discussed in a smaller number of interviews.

Many enterprises have special programs for groups of employees. The two most widespread types of programs are for new hires and for high potential employees (e.g. future managers).

In a number of enterprises, curricula for different positions exist. Normally, an employee is expected to take at least a certain number of steps within the curriculum. In one case the last step of the internal curriculum is organised in cooperation with a higher education institution and leads to a higher education diploma. In other enterprises, employees, when attending post-graduate studies, have the possibility to be acknowledged in at least a part of the internal curriculum (e.g. enterprise 12).

Underlying that only necessary and meaningful training initiatives are acceptable is quite a frequent element in the interviews. HRD managers have to live with a quite common prejudice that many training activities are of no use and are simply an excuse for employees to get some free time and to stay in rather exclusive seminar hotels. Therefore, they often start their reflections on the reasons to train with a clarification, what are *not* the reasons to spend money and what they would not support at all. A similar attitude can be found when discussing the effects of public support. Again, experts interviewed emphasised that no single hour of useless training is arranged just because public subsidies are granted.

2.2 Relationship between innovation processes and HRD, especially training

The complex relationships between the wide field of innovation processes and their consequences for HRD and training can only be alluded to in a one-hour interview that must also deal with many other topics. Nevertheless the interviews provide material to picture the scene.

Table 6 – Scheme for describing the link between innovations and training -

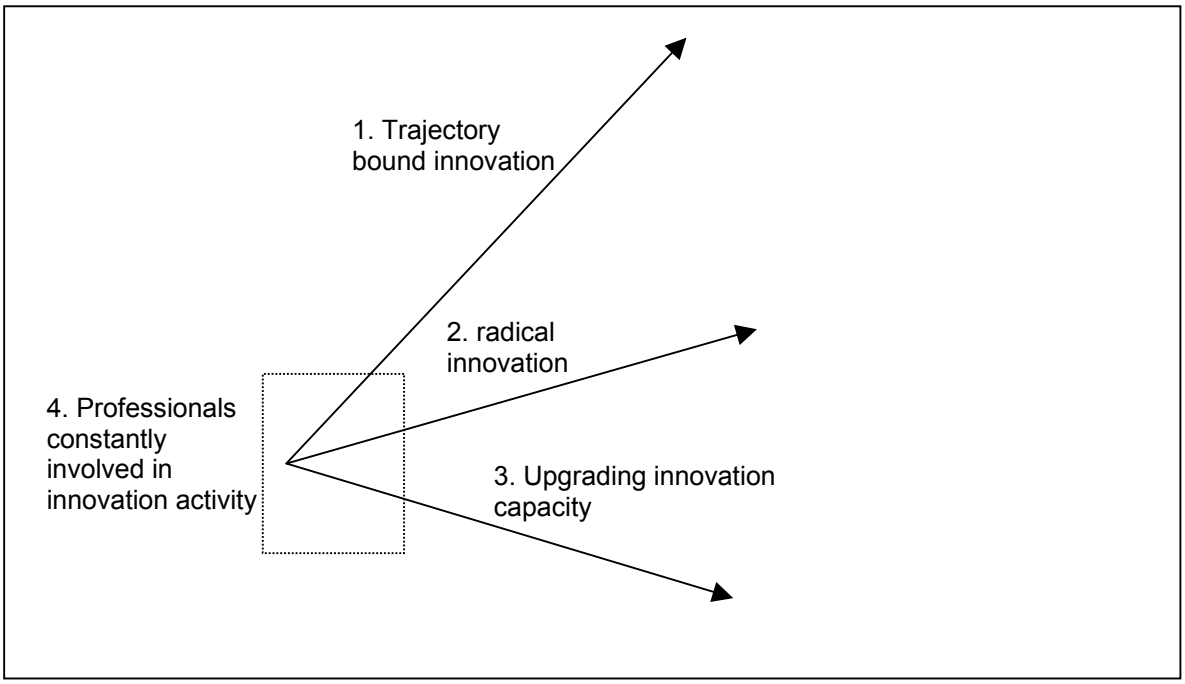


Table 6 provide a scheme for main relationships between HRD and particular trainings and different aspects of innovation processes in enterprises. Training needs and training can be linked in the following ways.

1. ***Trajectory bound innovations[5]:*** in a high percentage of the enterprises innovation has taken place following technological or organisational trajectories. The work process before and after the innovation is rather similar, rather the same qualifications and skills are applied. Typical examples are the replacement of a production machine by a more powerful machine, the change between software tools for the same work or the integration of related tasks to the work description of an organisational unit. All trajectory bound innovations imply a certain amount of learning needs. Employees have to invest time and often need support for managing the change. Innovation processes therefore are linked with costs for learning and the support of learning activities. Normally, employees are well prepared to manage the change. Dealing with trajectory bound innovation is part of the normal working life for the majority of professionals.
2. ***Radical innovation***: given a limited time frame, only a part of enterprises experience radical innovations. Here completely new working processes are required. The new working processes demand new qualification and new skills. Examples are the application of fundamental new production technologies, the complete reorganisation of a business unit (e.g. skipping former forms of division of work and making each employee responsible in the same way for a customer-related process), introducing a product in the sales program with completely new and complex features. Employees need to decide explicitly to accept the innovation, which definitely change their actual working life. At least, employees have to include a new set knowledge and skills in their job description. They need support to manage the shift to a new working situation with new, often more demanding tasks. To attain new

[5] compare for the classification of innovation in the tradition of Giovanni Dosi.

qualification and new skills normally takes a longer time period (several month and longer). Radical innovation therefore often implies high investments in training and HRD development. Normally, decisions on radical innovation are both risky and crucial for further competitiveness. These decisions are made by central management which normally also takes into account additional training needs, when finally deciding to introduce a radical innovation project.

3. ***Upgrading innovation capacity***: enterprises with frequent innovation process---where part of daily business includes at least trajectory bound innovations---are dependent on the general capacity of their employees to learn quickly and to adapt their practices to new situations. Training then becomes a permanent input to the innovation capacity. Regular investments diminish training costs for a single innovation process. General investments in human capital guarantees that radical innovation can be successfully adopted and competitiveness can be secured when enterprises in a field collectively adopt newly arrived technical inventions or organisation principles.
4. ***Professionals constantly involved in innovation***: in each company, an innovation function is established, in very small companies often within the general management or a small groups of experienced professionals, in larger enterprises in the group of department managers and often in particular departments. In order to stay informed on what is possible at a given moment, persons responsible for the innovation function need access to newly developed knowledge and to external experience. To make decisions on innovation, they need an overview and often particular training in fields where investments are foreseen. In particular, development departments are often responsible for both preparation and management of innovation processes, at least in their more technical aspects. For people responsible for innovation, normally a broad spectrum of training and development options of different kinds are needed. Partially, learning is seen as part of the normal activity within development departments and costs for training or other forms of development (fees for scientific congresses, information supply) is not linked to a training budget, but incorporated into the development department's cost centre.

For each enterprise, one can describe the importance of the four links between innovation and training (which means also to describe how important innovations process are for a given enterprises). Just to give a raw picture of the relationship between innovation and the enterprises surveyed, available information is used to assess the importance of the four factors.

Experts interviewed gave a spontaneous interpretation of how innovation and training is interlinked in their experience.

The majority of interview partners described recent trajectory bound innovation, in the field of new products, new technical equipment or new organisation settings. Partial training needs arising within the innovation projects are not seen in the core of HRD. Not including training costs within innovation projects – as described in 4.4 – seems therefore partly in line with a more rigorous definition of training.

In three cases, the organisation has recently had major changes and this resulted in revised structures for training activities. In one other case, the economic activity of production site completely changed (the production was closed down, some employees restarted as a sales branch of the parent company).

In two interviews, technical or product innovations are described which qualify as radical innovations. In one case, the basis for speaking of radical innovations is, on the one hand, a radical change in technologies and, on the other hand, the enlargement of the assortment of fairly complex products. In another case, the interviewee described a product using a new technology.

In a number of interviews, HRD investments are linked with the general goal of assuring innovation capacity and the capacity to adjust quickly to changing requirements. A preference for a highly qualified workforce is thereby often accompanied by a high investment in training. Especially, the establishment of internal competence matrix and a standardisation of skill requirements also seem linked with the goal to optimise innovation capacity.

Training need of people responsible for innovation is seldom discussed within the interviews. Further research could ask directly how new knowledge and skills are gained from outside the enterprise and how HRD is involved in this process. It is also possible that a division of work can be found here again and that especially the F&E department organise their learning processes quite autonomously and beyond normal procedures of HRD.

2.3 Summary and Conclusions

To sum up the main points:

- experts uses the distinctions
  - ***technical/professional training versus general/social or management skills training***
  - ***necessary/unavoidable training versus training subject to strategic decisions***
  - ***training responding to the needs of individual employees/work places versus training connected with HRD's more general instruments/approaches***
  - ***useful training*** (to be intensified) ***and useless training*** (to be avoided completely)
- Even if most training is necessary or unavoidable training, the HRD departments are primarily interested in training's strategic elements that can be designed creatively. For necessary or unavoidable training, it is most important to provide high-quality training at the requested time as cost-effectively as possible. For strategic training, the focus is on how to best achieve the strategic goal while respecting budget constraints.
- When investigating a connection between innovation and training, distinctions must be made about the ***fields of innovation*** (product innovation, technological innovations in the production process, or organisational innovation), and **the type of innovation** (trajectory-bound or radical innovation). While trajectory-bound innovation is frequent and, for some sectors, is part of the daily business, radical innovations are both seldom and demanding. Training for radical innovations may present HRD with almost insolvable challenges.

Upgrading the innovative capacity of the general work force and **supporting the innovative capacity of units directly involved in research and development is** another issue related to innovation and training.

3 Practical Use of Public Support to Foster Training

3.1 Introduction

In Austria, at the moment, there are three levels of public support for training in enterprises.

1. On the national level: a corporate profit tax deduction or (in the case of missing profits in a year a premium is granted for an enterprise's training expenses. At the moment, this is the only measure to support training that comes directly from the federal budget.
2. On the national level, but with regional adjustment: the European Social Funds (ESF) program has three main measures, co-financed by European Union and national budgets. The three measures are organized at the *Bundesländer* (provinces) level. Therefore, each of Austria's nine *Bundesländer* has different regulations.
3. On the regional level – *Bundesländer* (provinces): provinces finance smaller programs out of their own budgets independent from EU-subsidies.

Table 8 provides an overview on the existing instruments, which are all relatively new and have been established after the reference year of the last CVTS survey.

All offers financed from the European Social Fund are subject to budgetary restrictions. If the regional budgets are completely allocated, no further application can be made. Early in 2005, the most important program supporting company training – refinancing 50 percent of the training costs for persons older than 45 and for all female employees – was financed within the ESF program but had run out of money in both *Bundesländer* examined (Vienna, Lower Austria). Therefore, the loss of an important public grant was a topic in many interviews.

The implementation of the profit tax deduction, first in 2000 and its reform in 2002, was part of broader initiatives ("*Konjunkturförderungsprogramm*") to reduce the business tax burden in order to support economic growth. Increasing business investment in training was only a positive side effect, but not crucial for the political decision to give tax deduction. The strategy was a lower income tax rate for business would encourage more investment in Austrian enterprises.

Little is known about the actual amount of the tax deduction at the moment[6]. A 3s study estimates the three tax deduction offers at least 30 Million Euro for 2005[7], three time as much as the ESF annual budget for all measures to foster training in enterprises[8].

Although fostering more training was not the original idea of the tax deduction, the measure has been presented as a major tool to support company training and life-long learning in Austria. European documents and OECD reports prominently mention the implementation of the tax deduction scheme as a good practice model. Little is known about how enterprises actually work with the tax deduction. Therefore, the following sections examine this question in more detail.

[6] Tax statistics are published five years after the year if reference, because enterprises can make their tax declaration within a period of several years.
[7] Estimations are difficult. In 2002, the *Wirtschaftsforschungsinstitut* estimates the volume of the Bildungsfreibetrag on € 22 Mio. a year. In 2000, all enterprises having to pay corporate income tax, have profited of a tax deduction of in total € 17,2 Mio, in 2001 (statistics published early in 2006), the tax deduction has decreased to in total € 13,9 Mio. In both cases, the tax deduction has been 9 % (from 2002 onwards, it is 20 %).
[8] For 2000-2006, € 86 Mio are foreseen for different forms to foster HRD in enterprises (including counselling measures).

Table 8 Overview on existing instruments to foster HRD-investment in enterprises (Austria; Vienna and Lower Austria) 2005

			Start	End	Volume a year (in Euro approx.)	Short description
National	*Bildungsfreibetrag* (profit tax deduction for external training costs)		2000 (2002)	Open	No data available jet (estimate: min. € 30 Mio)	Profit tax deduction – 20 % of the external training costs reduces the basis for profit taxes, which leads to a real co-financing effect between approx. 4,4 % and 12,5 % depending on the tax class
	Bildungsprämie (subsidy for external training costs as replacement of tax deductions)		2002	Open		As an alternative of the profit tax deduction, a subsidy for external training costs can be received (6 % of the costs)[9]
	Interner Bildungsfreibetrag (profit tax deduction for internal training offers)		2003	Open		Profit tax deduction for internal training costs up to a maximum of € 2000 per day of training - co-financing effect between approx. 4,4 % and 12,5 % depending on the tax class of the amount eligible[10]
National with regional adjustment (ESF-cofinanced)	Cost support for employees older than 45 and for all women		2003-	2006 (Vienna, Lower Austria: 2/2005)		External Training costs for employees older than 45 and all women are co-financed up to 50 % (up to a maximum total per enterprise)
	"*Qualifizierungsverbünde*"		2003	2006		Training costs and costs of cooperation are co-financed up to 50 % (up to € 40,000 per enterprise)
	Qualifizierungsberatung		2003	2006		Enterprises can get professional counselling for developing HRD policies free of charge
Regional	**Vienna**	Co-financing scheme for Soft Skills training for Small and Medium enterprises				Training in soft skills are co-financed up to a maximum of 50 % (€ 5000 per enterprises) for SME
		Innovationsassistenz	2005			Training needed in the course of an innovation project is co-financed – the personnel costs of a newly employed assistant for the innovation project are co-financed
	Lower Austria	Cooperation for KMU (including support for training)				Cooperation in the field of training between KMU and between KMU and research institutions are co-financed up to 50 %

[9] In can be freely chosen between premium and profit tax deduction. For most large enterprises for example, who have to pay corporate income tax (till 2004: 34 %; starting with 2005: 25 %), the premium will be in any case the better option.

[10] For the *interne Bildungsfreibetrag*, it is not possible to ask for the Bildungsprämie at the moment. CP. Reiterer (2005) in Markowitsch/Strobl (2005)

3.2 Familiarity with and use of measures to foster CVT

Nearly all persons interviewed knew something about public support of CVT – the level of expertise heavily depends on the actual use of measures and division of labour within the enterprise.

Table 23 provides an overview on the knowledge concerning public offers to foster CVT in enterprises.

Only three offers play often a role in the enterprises reviewed, first, the European Social Fund Grant, second, the possibility of "*Qualifizierungsverbünde*" (a proposal that businesses form a network to cooperate on joint trainings[11]), and, third, the *Bildungsfreibetrag* (profit tax deduction).

The ESF subsidy for male employees older than 45 and for all female employees was well known among the experts interviewed. This measure was mentioned by 16 out of 20 persons in charge of training and 15 say that their company made use of the offer. Many interviewees mentioned the early 2005 termination of the measure in the Vienna and Lower Austria provinces. In general, the ESF subsidy has been seen as rather generous, so that little surprise was expressed at the fact that limited budgets came to an end rather quickly

Fourteen interview partners have at least heard of the possibility to found a "*Qualifizierungsverbund*" but none of the enterprises has taken part within the last years. Only two enterprises are explicitly interested in participating (enterprise 2a, enterprise 18).

Reasons for not participation in a "*Qualifizierungsverbund*" were discussed rather frequently. Three points are raised.

1) Preparation and administration is time consuming. People responsible for training found it difficult to spend much time on a new task.
2) It is hard to find potential partner companies with similar interests that are not competitors.
3) Planning a training program with partner enterprises means a reduction of flexibility.

> I was one time at a presentation on the *Qualifizierungsverbünde*. We discussed it within the department, but we came to the conclusion that we are too small for such an endeavour [...] I remember that they told us that there are two other enterprises from the pharmaceutical industry, which are also interested but interest was rather [vague] and as I have mentioned before, we have had a very large budget and so it appeared to us as too much effort "[enterprise 17]

> „*Qualifizierungsverbünde*? Yes, but I found them not a really convincing idea! […] We have already discussed a number of similar approaches but then, one is bound to the final agreement and the organisation is complicated and so the results are not worth the effort. I haven't found a single *Qualifizierungsverbund* that really impressed me so that I say: "Hurrah, I am going to take part without any reservation". Often training providers are the primary contractors of the *Qualifizierungsverbünde*, hoping for new customers. But as I said, I am not prepared to be obliged to order my trainings there but I want to decide on my training freely and I want to order it right there where I expect the best return on my investment" [enterprise 6]

In particular, larger enterprises see more disadvantages than advantages. At the same time, persons interviewed express their view that if a training project is of high priority, the enterprise itself has the capacity to bear the costs independently from the public support offer.

The interviewees see the "*Bildungsfreibetrag*" (respectively the "*Bildungsprämie*") in a completely other way than the more direct subsidies for training expenses. While most of the interview partners regard familiarity with public support programs for training as part of their job, the majority of HRD managers refuse responsibility for understanding the tax deduction possibility. As in all tax matters, the "*Bildungsfreibetrag*" is seen mainly as a point of the accounting department or an external tax consultancy.

[11] Own translation.

Ten of the twenty persons interviewed have said, that tax questions are not part of their obligations or they have not heard about the *Bildungsfreibetrag*, ten persons have known about the offer. But the latter also emphasize, that all taxation questions are not their business. Only one training manager mentioned that she includes, as far as possible, information on the tax deduction in the reports of the training department, even though she is not responsible for the tax deduction. She could not report any further influence of the tax deduction on her department's work.

Among the persons interviewed, few persons knew about the possibility since 2003, to also receive the tax deduction for internal training, if internal training provisions meets certain criteria[12]. Only seven have said that they have heard of this new possibility. Only two mentioned that they have been involved in activities to meet the requirements for making internal training costs eligible to the "*Bildungsfreibetrag*".

> "Here [with the costs of internal seminars] we closely collaborate with the accounting department, because the internal training costs are calculated by the accounting department and the figures are prepared for taking advantage of the "*Interne Bildungsfreibetrag*". There we supply only the data, such as how many employees have taken part, how many training days were utilized, and how many internal trainers have participated." (Enterprise 11)

3.3 Proposed changes in the offer of grants and support

Asking for necessary changes in public policies to support training in enterprises, the following points were raised by the interview persons.

Public support is described as mainly oriented towards companies with high percentage of "external" training costs for fees of open seminars or daily rates of external trainers used for internal training. When company-employed trainers primarily provide training, public co-financing is rather limited (actually, only the "*Bildungsprämie*" is available). Therefore, the idea was suggested to also support the personnel costs for regularly employed training staff and not only costs for external trainers.

When public subsidies lead to more training, it is crucial that training departments can count on continued availability of grants. If public support is dependent from factors, not predictable for the enterprises, training departments are often not allowed to enlarge their budgets. Money refunded for training activities in the past which was not foreseen beforehand, is often not re-invested for training again. Therefore predictability of public co-funding for training is an important point when effects of grants on training performance should be assessed. Unexpected stops of public support measures or complex criteria, which training costs are eligible for co-funding and which not, therefore limit the possible of support mechanisms.

Filling out grant application forms (e.g. within the ESF program) is rather time consuming. Interview partners primarily sought a reduction in the administrative burden for applying for co-financing. The Partly the efforts to receive grants are regarded as too high. Here, larger companies sometimes have advantages, because they can manage to systemize application procedures. A secretary in the training department often develops expertise how to apply and manage the application for the simultaneous training of several dozen employees.

Providing training support on a regional basis resulted in a range of problems for the training management. First, when enterprises have different branches within Austria and training is managed centrally, than it is necessary to gain an overview about the different regulations in the different *Bundesländer*. Second, in the case of *Qualifizierungsverbünde*, the main problem is that cooperation across borders of the *Bundesländer* is not possible due to the regional focus of the grants.

When asked for new visions of public support for company training, most of the persons responsible for training had no quick answer. They seemed to have rather low expectations of receiving further support. On the one hand, the question about further wishes toward public support mechanism

[12] Until now, little is published on practical issues, e.g. in which cases internal training costs are exactly accepted for the „*interne Bildungsfreibetrag*" by the responsible fiscal authorities.

resulted in several comments that their company is strong enough to pay for important training projects out of their own pocket. On the other hand, some interviewees started to reflect on the question and found it quite interesting to look for new fields of public-private cooperation for training.

Innovative projects on the basis of a public-private cooperation are mentioned in the apprenticeship system. Enterprise 15 has just installed a new academy for apprentices in the Austrian province of Burgenland, financed partly by public funds. The training manager of Enterprise 20 commented on the necessity to improve the quality of apprenticeships and has pointed out the interest to develop an internal apprentice academy, if public support could be found.

3.4 Assessment of the impact of public support

Interview partners' assessment of the influence of public support in training is discussed in nearly all interviews. The following questions are thereby in the focus:

1. If any public support is received, how is the additional money processed within the company? Who is entitled to make use of the means and do the means lead to an increased budget for training activities? How is the influence of received public means assessed?
2. How is the possible influence of public co-financing company training assessed? How evaluate the interview partners in general the idea to support enterprises' training activities?

3.4.1 Processing public subsidies for training and assessment of effects

Fifteen persons whose enterprise have received public funds out of the ESF budget have described how money reimbursed for completed trainings are re-used for further training activities.

The ESF funds has been mainly used to co-finance external training for individual employees. The public funds are redistributed either to the general training budget or, more often, to the training budget of the enterprise unit for which the newly-trained employee worked. Enterprise units then have the possibility to use the funds for additional training.

A general problem, when refunding takes place a long time after the training, is that all activities are already planned on an existing budget. Then, public co-funding at least partially decreases enterprise investments. In some cases, ESF funds go to the general company budget and are not re-invested for training purposes.

A completely different picture is drawn for the "*Bildungsfreibetrag*". The experts unanimously explained that tax savings from the "*Bildungsfreibetrag*" do not find a way back to the training budget.

Only one person stated that the training department has informed itself and others, how much of the training costs is refunded by the way of the tax relief.

> "We use both, both the *Bildungsfreibetrag* in its original form, for all seminars, and then when it became possible the "*Interner Freibetrag*". That was a very good cooperation with our director of the bookkeeping, who has provided us with all the information about the necessary documentation requirements. There we have a very good co-operation, accounting, on the one hand, bookkeeping, on the other hand. And it means for us of course that we have to provide much of documentation [...] The *Bildungsfreibetrag* did not enlarge our training budget, but it become however transparent by the fact that we point it out during our "training breakfast". The high-level personnel know about it, because it is also an incentive to say that it makes sense for most diverse reasons to organize each training with our assistance [the training department]. [I have] given me consciously the goal to make the effects of *Bildungsfreibetrag* transparent. Although I haven't previously seen the *Bildungsfreibetrag* as part of my work, I have thought, ' that is a large sum ', and everyone should know it, and the high-level personnel should know that it is a part of our achievement, which we provide for them, that we prepare these data in such a way that the enterprise can profit from the *Bildungsfreibetrag*." (Enterprise 11)

All interview partners has shared the point, that they cannot see any effect of the *Bildungsfreibetrag* on their work and their budgetary possibilities[13].

> „[Influence of the *Bidlungsfreibetrag*?] Not on my operational business. That means it has nothing to do with my budget." [Enterprise 13]

> "[Influence of the *Bildungsfreibetrag*?] I do not believe in such influence, because training has been an important topic at all time or to be more precise since 2000. This also includes using our existing general possibilities for training. And so, I have not be able to see any change in the last three years." [Enterprise 9]

> "For our operational training organisation, the *Bildungsfreibetrag* has had no influence at all. We know that we can make use of it and we are involved in preparing the budget so we stay informed on this topic. That is nice and we are glad to make use of it, but we do not see any change, so that we are granted a higher training budget then before." [Enterprise 18]

> "[Influence of the *Bildungsfreibetrag*?] None, and it is not reflected in our training budget at all." [Enterprise 5]

[13] Of course it is still possible that the Bildungsfreibetrag have some indirect influence on the training policies of enterprises. It might influence the general management or boards of owners to put less pressure on training budgets being presented to them for acceptance. The main intention of the Bildungsfreibetrag was to diminish the tax rates of enterprises and to steer more economic activity.

3.4.2 General assessment of public support for company training

When speaking of their own company, most of the interview partners underlined a high degree of independence between public co-financing of training and their company's training policy. They pointed out that needed training will be financed in any case and training not really needed would not be offered even with public co-financing. Sometimes they emphasized that they were not interested in changing their own training plans just to qualify for public co-financing.

> "I personally know of no or almost no subsidies. We do not need this type of support. We tried in former times to use public means - simply to use it and to appear in the statistics. What we do [our internal training] is not eligible for public support, because I cannot document it in the necessary form." (enterprise 5)

Only a minority of interviewees noted that public support would have an important effect on their own training policy by making possible training that, at the moment, is not possible because of financial reasons.

In regards to the ESF subsidies, its main effect are described as increasing the possibilities to finance additional training activities sought by the employees. Also, more training activities in the field of social skills are mentioned.

> "I have liked this goal 3 offer pretty much, because one can use this [co-financing scheme] on specific individuals and this is rather important. Yes, [additional training courses has been possible receiving the grant], thus above all we have offered really expensive programs such as MBAs and other things like that, which we would not have offered so broadly without public support" (enterprise 17)

Representatives of larger enterprises underline that things may be different for small and medium enterprises (SMEs) that cannot bear the costs of training and have limited possibilities to take advantages of economies of scales.

3.5 Summary and conclusions

A summary of the findings include:

- The majority of enterprises have a basic overview of co-financing measures. Experts generally know of the most important support that is offered. At the same time, experts say they have no overview of program details. Another problem for enterprises with units in more than one *Bundesland* (province) is that they must stay informed about the different co-financing schemes' regulations at the *Bundesländer* (provincial) level. In general, experts say that it is difficult to stay informed of all relevant offers and their criteria.
- The use of public initiatives to foster company training depends on:
  - the level of administrative work involved, and
  - early, clear funding information as training activities are planned; i.e. will the co-financing actually be granted when enterprises meet the stated requirements
- ***The question as to whether co-financing may lead to more training depends partially on the mechanism of co-financing. An increase in training occurs only when the enterprises' procedures allow public co-financing to directly increase budgets available for training coordinators.*** For the enterprises in this study, European Social Funds support seemed to partially increase training. The additional profit-tax deduction for training costs did not seem to affect the amount of training provided.

4 Accounting Systems for Training in Enterprises

4.1 Introduction

Within the interviews, quite a lot of time is spent on the question, how enterprises account for their training investments. How are hours of training reported? What costs are calculated? The interviewer has to explain the special interest of the research project to match the perspective of enterprises with the concepts used within the European Training statistics. The interviewees are sometimes surprised at the number of questions dealing with---in their view---a topic of rather minor importance.

As far as possible, all interview partners were asked the following questions:

1. How are training costs reported within the enterprise? As far as possible, the cost categories used in the CVTS questionnaire are checked:
    a. fees for external training institutes and external trainers used in internal training;
    b. travel costs and daily allowances of the employees taking part in training;
    c. personnel costs for internal trainers and---if existing---the employees of the HRD department itself;
    d. personnel costs, the hours spent by employees who provide training internally;
    e. costs for internal training infrastructure; and
    f. personnel costs for the hours in training by the participating employees.
2. How are hours of training recorded? Are hours of training for on-the-job training or other forms of training (e.g. quality circle, attendance to fairs etc.) recorded?
3. How are training costs calculated which are connected directly with major investments (e.g. buying a new production machinery, implementing a new IT-tool)

Additionally, persons interviewed are asked if special IT-instruments are used to organise and control training.

Accounting systems are designed according to the needs of single enterprises. Only figures that are used within their own reporting and management system are carefully calculated. Therefore it is also of interest what indicators on training are reported within the enterprise. Persons interviewed are asked what figures are used to report on training internally and if the figures actually used as an instrument for steering and assessing the training policy of the enterprise.

4.2 IT-infrastructure to organize and control training performance

Only a minority of enterprises use special IT-programmes for the accounting of their training investments. Enterprises use partially self-developed or adopted accounting tools, some enterprises (enterprise 13, 11, 19) have adopted the HRD module of SAP. Many enterprises have developed a way to use Excel spreadsheets for all accounting purposes.

Normally, the organisation of training itself is the most time-consuming part. Therefore support by IT-programmes is more needed for the administration of training than for accounting for costs.

Even interview partner in enterprises with rather powerful IT-infrastructure, using data warehouse technologies for all business processes, underline that only a rather limited number of figures on training are really calculated. Confronted with the requests of the CVTS questionnaire, they point out that it may be possible to calculate all figures requested by the questionnaire, but they cannot assure data quality, because data requests are not used internally and so no experiences exist, however realistic results would be.

4.3 Budgeting and accounting of training costs

The majority of enterprises examined set a training budget for their HRD unit. What enterprises usually calculate as training costs is rather different from training costs ideally collected by the CVT survey (compare).

- All enterprises calculate direct expenses for training fees and remuneration of external trainers (as well as all charges of the trainers, e.g. travel and hotel costs).
- Only a smaller part of the enterprises see travel expenses and daily allowances of their employees as part of the training costs covered by the training budget. Often these kinds of costs are calculated within the cost centre of the department delegating an employee to attend training. In some of the enterprises, it would be difficult to divide between travel costs in general and travel costs that are linked to training activity.
- Only one enterprise regards the costs of full time trainers and the employees of a HRD department as part of the training budget.
- No single enterprise calculates personnel costs for training provided by internal experts who share their knowledge in internal trainings. A small number of large enterprises uses imputed costs for internal trainers or take notes on the number of hours provided by internal trainers, but only for matters of transparency. The fictional costs are not used for calculating the training budget or calculating indicators on training (e.g. training investments per employee).
- Costs for internal training facilities (e.g. rents for seminar rooms) are normally not seen part of the training costs. Only a minority of enterprises take this kind of costs into account. One enterprise that hires out its training rooms on a regular basis, also uses the daily rent when calculating training costs.
- No enterprise includes actual personnel costs for employees taking part in training in its calculation of training costs.

The interview partners stress several times that it might be problematic to enlarge the concept of training cost. Otherwise, training investment can be easily over-estimated. Costs are identified where no possibility to reduce costs exists. For internal planning procedures, taking the training fees seems sufficient in any case.

When discussing training costs, interview partners commented that they are quite happy that training performance is not evaluated with a focus on statistics. Internal assessment of training policy should be linked to quality of the training's outcome of training and discussed in a qualitative perspective. So for internal, training activity reports, the focus is on what has been accomplished and for what reasons---not on the quantitative information.

Improving the internal database is sometimes seen as a precautionary measure. At the moment of the interview, no training department or training expenditure had been subject to internal criticism. But some of the interviewees explained their interest in preparing themselves in case they have to defend their work in internal procedures.

Some of the interview partners reflected on the shortcoming of merely using quantitative training data for establishing benchmarks. Not only the question of including or not including types of costs are discussed. Depending on the general training policy of a company, applying the same cost concept can lead to completely different pictures. Developing economically favourable settings of how to meet the training need of a company, may lead to a rather more efficient use of training spending. A thousand euro spent on training can have a completely different outcome in different settings.

If specialized departments primarily organise training and HRD activities, then it may be the case that training regularly takes place outside the normal pathways of training organisation. Departments often have budgets for reaching certain goals or accomplishing certain projects. If the department management finds it necessary to include training activity in their project activity (e.g. gaining a certain number of new customers), than they may organize training completely independent from normal routines. It may even be the case, that this kind of project-driven training activity – as reported for training activity alongside training activities – is not at all reported in the training accounting system. If

training activities are not debited against the planned training budget, than there is a certain possibility, that they are not counted within the training statistics at all[14].

Only one interviewee mentioned previous experience with calculating costs for lost working time for personnel participating in trainings. When employee training results directly in increased labour costs, than the training sessions' length can become a matter of internal negotiations.

> „[V]or einigen Jahren war es noch so, dass, wenn ich mit einem Schulungskonzept gekommen bin, ein Vierteljahr gebraucht habe, bis das durchgegangen ist [name of old owner]. Das war mühsam und furchtbar. Da wurde ganz genau berechnet, was diese Kraft kostet, wenn sie einen halben Tag oder einen ganzen Tag fehlt. [...] Das die Person nicht abgeht, das geht bei uns gar nicht. Das ist undenkbar, weil wir auch sehr kleine Filialen haben. In einem Großhandel fällt es nicht auf, wenn eine Person fehlt. Bei uns fehlt diese Person, und das ist natürlich dann gravierend." (Enterprise 1)

> "Some years ago it was still like that, that, if I came with a training concept, it has had taken a quarter of a year, until the concept was accepted finally. [name OF old more owner]. That was laborious and terrible. It was computed completely exactly, what this employee costs, if she is missing a half-day or a whole day [...] That an employee is not missed if not working is completely impossible in our case. That is inconceivable, because we have also very small branches. In a wholesale it may be of no importance, if a person is missing. With us this person is missing, and that is naturally then a serious matter." (Enterprise 1)

4.4 Training costs within innovation projects

Many enterprises deal differently with the training costs within innovation projects as compared with general training costs. Some firms have routine procedures on how to deal with these innovation costs, some decide on a case-by-case basis.

Often a differentiation is made between:

- technological innovation projects (e.g. new production machine; implementing the software, SAP),
- innovation of organisational structures of the enterprise (e.g. restructuring the internal accounting system causing new responsibilities for all employees), and
- new products.

In the case of clear technological driven innovation projects, training costs are often not seen as part of the training budget but as part of the innovation costs. Training expenditures are in these cases often not reported to the training department and it is likely that they do not appear in any record on training.

> "In my experience, [training costs arising with IT-projects] are planned rather in the context of the project. A few such examples come to mind: where the bill has finally landed on our desk, but only by this bill we knew, there has something happened, and those had this system migration and these has visited these training courses. Those costs are booked with the project, which means, that they are missing in any statistics on training expenditure. Those costs run with this project with and to the largest part, whatever projects run, which includes training courses, we know nothing about." (Enterprise 11)

When additional training (e.g. for new employees) is needed after the first implementation of a new technology, than it is seen quite often as training. But there are also enterprises that see the further training as part of the maintenance costs and not part of the training expenditure.

Training costs connected to major organisational changes are also often not included in the normal training budget, but as part of the project costs. Once again, it is not guaranteed that this kind of training costs find their way in the records on training at all.

A different situation is pictured for new products. Here training departments are more often involved in organizing training activity to make sure that all employees who need the knowledge are informed in time.

[14] Cf. Also information given by training suppliers, that specialized departments have often non directed budget, they may spent on training if they think, that training will be the right tool to reach a defined goal (cf. Report on training providers).

4.5 Time spent on training

Within the CVTS questionnaire, enterprises are asked to provide statistics on hours spent on training. To make it simpler for the enterprises surveyed, it is also possible to report days of training.

Actually, reporting days in training is by far the most usual practice in enterprises. All enterprises interviewed work mainly with a training day as the unit to measure training time. The smallest quantity reported is thereby half a day of training. No matter how long a training session exactly lasts, it is calculated in days or half-days of absence from the normal job routine. In general, the number of days is adjusted to the number of days needed for a course (a seminar, a workshop, etc.).

Even in enterprises where the employees report working hours in detail and a line “hours for further education” exists in the time sheet, time spent on training is normally calculated in full or half days of training.

Time to learn and inform oneself is often reported among “other hours” and is seen as regular part of the working process. This is also often the case where enterprises use self-learning strategies (e-learning, blended learning). If learning time is measured than, not the actual time consumed but the time originally foreseen for working through a certain quantity of working material is regarded as training time (but also not recorded).

> "[We measure] the real training course days. Other things, I cannot measure. I could force only each employee to take notes if he puts himself in the Friday afternoon and study our manual for new entrances, which he has got from us. That would be the only possibility. But, from our perspective, there is no need to record [the hours]. It is important that he study the manual." (Enterprise 9)

> „Die Selbststudienteile sind veranschlagt. Wenn ich sage, das ist ein Kurs, den du in zwei Stunden bewältigt hast, und der dann sechs Std. sitzt, weiß ich das nicht. Aber es gibt dafür eine Annahme, dass ein Teilnehmer das vorgesehenerweise in zwei Stunden geschafft haben müsste. Damit rechne ich. Wenn er selbst 14 Tage braucht, bis er es endlich kapiert hat, dann kann ich ihm auch nicht helfen.“ (Enterprise 7)

4.6 Accounting for HRD activities beyond training courses

While at least the number of participants, training days and costs for fees are collected regularly for training courses, enterprises do not normally collect information on other forms of training and human resource development.

Even statistics on participation in HRD activities---such as job rotation programs, visiting programs, and quality circles---are not collected and reported systematically.

In a number of enterprises, instruments beyond training courses have an important role within a companies’ HRD approach. Not collecting quantitative data on participation and hours spent is a topic for the HRD-departments, but to review if and how employees have used the learning materials.

Here, the crucial issues are motivation of employees and quality improvements of the offered learning tools. This is particular true if standards for self-learning and on the job training are defined internally or by the parent company. HRD managers then have to report on the extent to which employees have fulfilled the planned steps.

4.7 Statistics on training reported within the enterprises

Quantitative training indicators seem to play a minor role in shaping internal training policy. Many enterprises normally do not report any quantitative figures. Other enterprises report only the following very common indicators:

- training days per employee;
- training costs per employee;
- training costs as a percentage of the payroll;
- training costs as a percentage of the turnover;
- percentage of participants; and
- days of training for technical/professional skills and for social skills.

In some larger companies, quantitatively measured training performance is part of the internal training department's marketing activity. Their internal presentations for different target groups of the enterprise report the quantitative development of training investments over time. Indicators of the training department's own activities are also important (e.g. days of training provided by internal trainers). For internal marketing, a detailed and colourful descriptions of what has happened and what can be regarded as the outcome of the HRD activities is much more important than providing statistics.

Training statistics are selectively reported in annual reports, especially in listed companies. A quick glance at a number of annual reports in Austria has shown that reporting training statistics still does not seem very common. Most of the listed companies participating in this study do not report training statistics[15].

Multinational companies often have internal regulations for what training statistics should be reported. According to the sparse information provided on this topic, only rather elementary indicators are reported. It also seems that in many cases statistical reports are not from the training department, but from the accounting department using information found in the general accounting system.

A number of interview partners emphasised that a lack of interest in quantitative information must not be regarded as a disadvantage. As long as the goals, instruments and main philosophies of HRD policy can be communicated within the enterprises, quantitative information is of minor importance and not the basis of an assessment of HRD-work. An increased interest in statistics instead of a qualitative description of what actually goes on can sometimes indicate a crisis and declining confidence in HRD activities.

4.8 Summary and conclusions

Quantitative measurement of training performance and calculating statistics is not the responsibility of the persons responsible for training.

There is little confidence that figures are favourable tools for communicating what should be regarded as crucial in the ongoing HRD activities. Instead of reporting training statistics, providing qualitative insight on what has been accomplished seems more important.

For internal and external communication, training statistics are collected and reported. Therefore, the main strategy seems to be keeping things as simple as possible. Reported costs remain as close as possible to statistics from the financial accounting system – imputed costs are used very exceptionally.

The enterprise's approaches to reporting on training activities do not fit the CVTS questionnaires. Only information on training fees can be found regularly in the accounting system of the enterprises. Information on participants' travel costs is available only in some enterprises. Information on personnel costs for internal trainers, on costs for training infrastructure, and on loss-labour costs for employees in training activities are normally not available.

The close relationship between innovations and training days and training costs may be missing in the records. In particular, the companies' training records often do not include training costs within innovation projects in organisational change and the field of production technology or IT-infrastructure.

[15] Figures are found for example in the yearly report of enterprise 14.

5 Studying the sub-sector level: The case of machinery/electrical equipment and foods and beverages

5.1 Machinery and electrical and optical equipment

5.1.1 General development of the machinery and electronic sub-sector

In 1999, CVT was provided by 76 percent of enterprises (with more than 10 employees) in the NACE – Class dk-dl "Manufacture of machinery and equipment, manufacture of electrical and optical equipment". Thirty-three percent of all employees participated in training courses. In the manufacturing sector, sub-sector has third highest training level. At the same time, there are very high differences between very active and nearly inactive enterprises. The best five percent of the enterprises have training expenditures five times greater than the average enterprises (Median)[16].

The machinery and electronic sub-sector has the second-highest number of employees within the production sector in Austria. This sub-sector employs 20 percent of all employees in Austria's industries. Only the sector "production of metals and metallic products" employs more people (2003: 22 percent[17]) Four percent of Austria's total working population is employed in this traditional "old industry" sector.

In 2003, 4,406 enterprises were included in the annual structural business statistics[18]. Micro-enterprises predominate. The number of enterprises with 250 and more employees is rather small (123; compare Table 12). Less than 20 enterprises have more than 1000 employees (in 1995: 17).

Figures in Table 12 do not fully report the intensity of ongoing changes within this sub-sector. While the total number of enterprises is increasing (between 1995 and 2003, an increase of 36 percent), there are major changes between the different areas of this rather large sub-sector. An especially large number of enterprises in consumer electronics and rather basic electronic equipment (e.g. the production of cables, lights and so on) have disappeared. Not only single enterprises have closed down, but also multinational enterprises have shut down Austrian production sites and transferred production to countries with lower than average wages.

However, in the last decade, there has been a large increase of small and medium enterprises in more specialized fields.. For example, the number of enterprises specialized in the production of medical, precision and optical instruments has increased from 940 to 1350 between 1995 and 2003. Multinational enterprises have also increased their engagement in Austria (e.g. Infineon, Zumtobel). In general, the sub-sector undergoes continuing change: many enterprises with new products arrive and rather traditional enterprises either disappear or undergo a complete restructuring with new products and/or production facilities moved abroad. When closing all Austrian production sites, traditional enterprises change their sector; in Austria, only general management, sales and marketing remain, so that they become classified as gross sales enterprises.

This sector's highly active research and development activities can be seen in the 22 percent increase of research and development employees between 1995-2003. The increased research and development activities corresponds with changes in product type and the field's increasing percentage of high-tech enterprises.

Income and productivity is high in this sub-sector. Changes in the average labour costs per hour also reflect changes in work force composition.

[16] All data based on CVTS II. Compare for details Markowitsch/Hefler 2003.
[17] Data in this paragraph: Statistik Austria, Mikrozensus (=Labour Force Survey) 2003.
[18] *Leistungs- und Strukturerhebung*; We use the data transformed and published by Eurostat, New Cronos. Date of data collection: 28.6.2006.

Approximately 160,000 persons were active in this sub-sector in 2003. The sub-sector is highly male-dominated. In 2003, 74 percent of the sub-sector's work force (self-employed persons, employees and unemployed) are male.

The qualification structure (see Table 13) is dominated by persons holding a vocational diploma received in the Austrian dual system (vocational education partially directly in the workplace and partially in vocational schools). While the number of employees holding a university degrees is comparatively low, degree holders of Austrian technical VET colleges (five-year education, classified as Isced 4a) play an important role in nearly all parts of the branch group, working in all field of engineering including research and development.

In recent years, there has been a moderate loss of jobs in the sub-sector. The total number of workforce has decreased by five percent (-11,900) between 1998 and 2003. The number of unemployed has reached 7,100 (labour force concept, yearly average) or 4.5 percent in 2003. More important than the change in the total number of jobs, is the major shift in types of qualification demanded (see **Fehler! Verweisquelle konnte nicht gefunden werden.**). Not only the number of unskilled worker is on a steep decrease, also the number of skilled workers trained in the apprenticeship-system is going down. Only the group of highly qualified (ISECED 5a+) is gaining employment opportunities.

A high proportion of the sub-sector's enterprises produce investment goods. The ups and downs of the general economic cycles therefore heavily influence production and turnovers. General economic slowdowns heavily affect production in this sub-sector (see Table 15). While machinery can rely on a growing demand in the long run, Austrian electrical and optical equipment industries face divided growth paths. The decline of some areas of the sub-sector (especially consumer electronics and telecommunication facilities) heavily outweigh the growing areas (e.g. medical, precision and optical instruments).

5.1.2 HRD within the enterprises' general strategies

The five enterprises that took part in the survey represent different positions within the sub-sector and show a broad variety of reactions to on-going processes. In the following, we discuss for each enterprise, special aspects of personnel and HRD policy in connection with the enterprise's unique situation. We also include a discussion on the connection between innovation and training activities.

Enterprise 6 is traditional, more than 100 years old production plant, highly specialized in producing machines for the food industry. The company is still owned by the founder's family. In Austria, the company employs more than 900 persons, but there are also production plants in North and South America and in Asia, which produce some of products offered on local markets.

Qualification structure is dominated by those with an apprenticeship degree or graduates of a Vocational Education and Training (VET) technical college. The company trains the majority of its skilled workers through the dual system, most of their apprentices become employees. Investing in initial vocational training (IVT) is clearly seen as a strategy to avoid higher advanced education investments. The company also has long-established relations with a local VET college, so that qualification bottlenecks can be avoided.

Staff turnover is described as very low. Life-time employment is seen as a rule and high loyalty is expected. Given the highly specialized production, it is nearly impossible to find appropriately experienced workers on the open labour market. Hiring new employees is normally connected with fairly high training costs. During recessions (e.g. 2003), the company normally tries to hold the vast majority of its employees in order to avoid high training costs during future growth.

Research and development is done in Austria. Production is not seen as high-tech, even when the technology level steadily increases. The enterprise's main asset is tacit knowledge accumulated over many decades. Innovative activity is concentrated on product innovation and offering new variations from their production facilities.

The general personnel management unit oversees HRD activities. The enterprise's different units make training decisions. Training is concentrated mainly in technical fields. The personnel manager tries to encourage social competencies training, but there is only a slow increase of this type of training.

Training needs not covered by on-the-job training mainly emerge when new production equipment is installed or new technologies are used. Then, a large number of employees must be trained with the expectation that they will share later their knowledge and competencies. Sometimes technical requirements are so high that all persons working with the machines must be individually trained. Manufacturers of the production equipment are therefore the most important training partners.

Enterprise 8, also a traditional family enterprise, produces electrical material for the construction sector. Products are definitively not high-tech, but part of the most traditional production of electric industries. The business has gone through a long crisis because of declining prices for its main products and sharply intensified competition in its core markets. To avoid shutting down their enterprise, a completely new business strategy had to be developed. The enterprise has consequently withdrawn from mass production. Today, it specializes in customised products, granting quick delivery and 100 percent quality. Former major competitors have become important clients and asking for additional services to meet their customers' needs. This has lead to a total change of client structure, formerly dominated by end users in the construction sector and now dominated by large enterprises in their own sub-sector.

The personnel management is responsible for HRD. The main HR strategy is on-the-job training of employees with certificates. Employee turnover is relatively high and has increased in the past few years. The wage-level is relatively low in comparison with most blue-collar work. The prime goal is to meet the standards for extremely high quality and provide quick response to customer needs. This leads to daily changes in the production process (a production run may consist of only several hundred items of the same specification and not several thousand as in previous days.). The enterprise has implemented a "Total Quality Management" philosophy. As much as possible, all employees should become familiar with the entire production process, so that they understand how their work influences the outcome. Consequently, employees change their workplaces regularly (at least within certain groups) in an irregular, several-month cycle. This job rotation encourages not only quality-improvements but also increased flexibility within an assignment. Only a few work-stations require a highly-specialized tacit knowledge and long-time training. The training strategy therefore concentrates on training on the job.

Further education is used to reach particular goals for the small group of employees responsible for engineering, innovation and management. External courses are typical. The main goal is to gain new knowledge and competencies for the company. Training is seen as an investment within a short-term strategy to meet particular goals. A personnel manager cited the example of their company's goal of improving the effectiveness of printing technologies. The enterprise decided to dispatch employees to a relatively expensive training offered only in Switzerland. Training is mainly concentrated on technical skills and bringing new innovative impulses in the daily work of a comparatively small crew of highly skilled employees.

Enterprises 5, 7 and 9 are all Austrian branches of multinational companies engaged mainly in sales and service of their mother companies' products. All three enterprises are engaged in high-tech production of investment goods. On the one hand, a major task is the management of product know-how, driven by the mother companies' continuously shortened product-innovation cycles. On the other hand, a major task is management of customer relations in sales and service .

Enterprise 5 is a comparatively small unit of a leading player in the automation industry. Most employees are highly qualified, turnover is very low, the level of average earnings is high.

The general personnel management unit oversees HRD. The mother company's rules and regulations fix training policy to a comparatively high extent. The training budget is a fixed 1.5 percent of the payroll. Product innovation training is provided, at the same time, in a standardized form for all local units of the worldwide company. Training on sales and customer relation management is only provided in a standardized form. Training materials (e.g. videos) are developed centrally for the whole company. The regular training offers for defined groups of employees (sales, service) is supplemented by a strictly individualist approach within a management by objectives approach. For each employee, goals are defined in yearly appraisal interviews and parts of the employee's income depends on

success or failure in reaching this goals. Employees can ask for further training to support the fulfilment of their short or long-term targets. They are expected to identify promising training offers and must negotiate with the company on financial support for the training. Even rather expensive training offers (e.g. MBAs) are, in principle, available if the investment can be justified successfully.

As in many other comparable enterprises, the effects of product innovation on training activities are transmitted in a highly standardized procedure. The training coordinator's main goal is to provide necessary knowledge and competencies as efficiently as possible to all concerned employees. New products are accompanied by appropriate training. Training activities related to new procedures (e.g. new SAP modules) are seen as part of the investment (maintenance costs) and not particularly as training.

Enterprise 7 is a local branch of a leading producer of durable investment goods. Installation of the product at the customers' workplace plays a major role along with sales and service. The HRD is organized as a special department that provides training for all local units throughout Austria. Training is partly regulated by regulations and rules within the company. For special subjects (corporate philosophy, security standards), highly standardized training programs are compulsory. In other training activity, autonomy is fairly high.

A main challenge of training policy is spreading technological know-how. When a new product is introduced, a huge technical document of several thousand pages must be condensed for classroom training. Tacit knowledge developed when the product is first acquired by a customer, must be passed on within the workplace. Technical training needs therefore shape the design that combines training courses and on-the-job training, building up work teams consisting of workers, who are partially familiar with the new product and who learn to handle the new product for the first time. A major challenge is the products' 30 to 50 year lifespan, which is longer than an average worker's career. Practical knowledge of older products must be passed carefully from one generation to another. Therefore, a main topic is not only training about new products, but training younger employees about long-time established products.

Providing social skills for the different groups of employees is another major challenge for the enterprise. In the field of sales training, no external offer has been found sufficient for the highly particular task of selling to their market. The company trains their sales teams internally and makes use of their internal knowledge base. External trainers are included in order gain new impulses. Case-study approaches that include learning about recently failed acquisition projects have been very fruitful. Another topic is the changing role of supervisors that are becoming more and more team leaders with a clear need for social and managerial competencies. Although, ten years ago, technical excellence had been the basis of successful work, today social competencies are at least of equal importance. Solving conflicts and motivating and guiding team members has become a more time consuming task than a job's technical requirements. Encouraging and supporting highly-skilled technicians to assume the new supervisory responsibilities has also become a major point of internal training activity.

Enterprise 9 is a large Austrian branch of a leading multinational company. The work force is highly qualified and average wages are high. Human Resource Development is organized by a specialized department and coordinates fully with the personnel and strategic management units. As in Enterprise 5 and 7, the training unit's core task is spreading know-how on the new annual products. The mother company defines the trainings' primary requirements and contents.

Furthermore, the Austrian branch has autonomously developed a matrix of competencies that defines, for each occupational group, a multi-step program from basic skills to top-level competencies. Promotion is linked to understanding the content defined by each step. Successfully passing one step in the development matrix leads to an internal certificate. Training offers for the different steps are provided in an internal training catalogue. Training needs and a training plan for each employee is defined during the yearly appraisal interview. On an enterprise-wide level, a group of experts annually assess the appropriateness of the existing competence development program and defines new elements in relation to strategic management's newly defined goals. All of the enterprise's units are represented in the expert group to insure awareness of recent development in particular fields. New training possibilities are proposed for even the highest of the pre-defined competence levels. This combination of a top-down approach (development of the matrix, defining new goals in accordance with strategic management decisions) and a bottom-up approach (training needs and plans are defined within the yearly appraisal interview) overcome problems of mere top-down or bottom-up

approaches. The general programs are fine-tuned according to individual needs and available capacities. Individual decisions on undergoing training are made on the basis of a structured offer in line with the enterprise's needs.

5.1.3 Summary and Conclusions

Enterprises in the sub-sector machinery and electronic are rather different as were the enterprises surveyed. The HRD policy strongly depends on the general personnel policy (high turnover versus low turnover), qualification structure (low, medium highly qualified workforce) and level of technological driven development. To sum up, the following, more general issues can be emphasised:

- The more traditional firms in this sub-sector, seldom have a systematic HRD policy. The HRD activities are seen as a minor part of general personnel management. Training needs are identified mainly in the enterprises' specialized units. The personnel office frequently only supports training organisation and maintains basic records. Even large enterprises, when they follow rather traditional management concepts, may have no differentiated HRD function. Systematic HRD in smaller enterprise units is often shaped by their relationship to enterprise cultures of multinational companies.
- HRD policy is still widely dominated by the concept of technical professions. Qualified labour is linked to different levels of a basic technical formation. Further training is seen mainly as necessary to maintain an up-to-date level of technical training. Training responds to the ongoing process of technological development. This sub-sector has deeply rooted divisions between technical training (often referred to as "hard facts" training) and social or managerial skill training (referred to as "soft skills" training). Changes in the professional roles of technically-trained employees only gradually influence the perception of training. Technical training is seen also as a domain of specific experts, not a HRD activity. Given the importance of technological training, the HRD involvement is in danger of remaining marginalized. Systematized HRD policies, as shown by Enterprise 9, that aim to use an interlinked system to meet all professional development requirements and personnel management are rather exceptional – but this is true not only for this technical oriented sub-sector.
- The linkage between training needs and innovation is clearly demonstrated with process innovation. Applying new production facilities leads to training needs. Depending on the complexity of "incorporated innovation", involved training needs can be meet mainly by on-the-job training or require a higher amount of training days. Often training that accompanies newly acquired production facilities is not seen as training investment, but as unavoidable part of the investment project.
- Enterprises with rather complex products and rather short product innovation circles clearly need to establish a training system that teaches all necessary skills and competencies. Responding to new products' training needs becomes a "daily business" and widely predictable for the HRD unit. The internal training organisation attempts to optimise quality and efficiency of training on new products. In multinational companies, central units for the worldwide network often provide training material and strategies. Time and budgets for this kind of training activity are foreseen by the HRD, so that – in a certain way – product innovation does not lead to extraordinary training activity but becomes the most routinised element of the HRD function.

5.2 Foods and Beverages

5.2.1 General development of the branch foods and beverages

In 1999, only 64 percent of the enterprises (with 10 and more employees) of the food and beverage sub-sector provided training. Only 25 percent of the work force was included in training courses within a year. Together with textiles, the sub-sector had the less intense training activity of all parts of the manufacturing sector and even of all sectors. Differences between very active enterprises and average training enterprises are fairly high: the most active five percent spent three times as much as an average enterprise (Median).

The traditional food and beverage sub-sector employs 11 percent of the industrial sector's work force and is – speaking of employees – the third largest branch within the manufacturing sector. Two percent of the Austrian work force is engaged in this sub-sector.

In 2003, 4,384 enterprises worked primarily within this sub-sector. The number of enterprises and the share of the sub-sector's economic activity is constantly declining. Between 1995 and 2003, the number of active enterprises has decreased by seven percent. The trend is the same for all size of enterprises. The sub-sector is highly dominated by small and medium enterprises (see Table 16). In 1999, only seven enterprises had more than 1000 employees. Only a quarter of the branches' workforce is employed by companies with more than 250 employees.

Research and development activities are very low and the decline in the number of larger companies has also caused a further decline of employees engaged in research and development activities (see Table 17). Average income per hours worked is rather low.

In 2003, the Labour Force Survey counted 83,000 economic active persons in the branch group – two percent less then five years earlier. Females make up only 31 percent of the total workforce but 41 percent of all workers classified as unskilled. The qualification structure is still dominated by a comparatively high proportion of unskilled workers (27 percent) and of employees (49 percent) holding only an apprenticeship certificate. As in many other manufacturing sub-sectors, the number of non-qualified or medium qualified employee is decreasing while the number of highly-qualified employees is increasing. In general, the qualification structure reflects a traditional division between a rather large production unit employing many non or low-qualified employees and a small group of highly-qualified experts (e.g. food engineering, marketing, general management).

Investments in more complex and productive machinery in the food and beverage sub-sector have already reduced the number of unskilled workers and have increased the workers with medium or high-qualification needs. This process is still underway and has led to strong concentrations in some sub-sectors. Large companies (e.g. in beverage industries) buy smaller producers, often for their trademark, which can be a major asset in specific markets. The local producers remain virtually independent enterprises, while parts of the production process (e.g. logistics, package supply) are centralized.

Because they producing for the most traditional consumer market, the food industry is not threatened with a high dependence on business cycles. At the same time, domestic market are not growing; thus, market shares can be only gained from competitors. Since Austria joined the European Union, food and beverage industries has seen remarkable structural changes. Many legal regulations that limited competition are now history (e.g. regulation of the milk markets, regulations of bread prices), while the number of regulations on product safety and quality continually increase. A necessary and successful strategy for the few large Austrian food producers has been the search for new international markets. The percentage of exports has increased from 17 percent in 1995 up to 52.9 percent in 2004. International companies from abroad also take advantage of the possibility to place themselves in the Austrian market. Every year, competition becomes more difficult and the market is divided between very successful players and many companies fighting to survive.

5.2.2 HRD within general strategies of enterprises interviewed

The five enterprises covered in the interview survey represent different economic paths within the very competitive Austrian and European food and beverage market. All five can be also taken as an example for the rather low investments in training and the sub-sector's low degree of institutionalisation. Four enterprises surveyed belong to the beverage sector, one company to the food sector.

Enterprise 3 has been an independent and small producer of alcoholic drinks. The company was bought out by a large German producer but has continued its production, using the new trademark. After opening a large new production facility in Germany, late in 2004, the decision was made to close down production in Vienna. The number of employees was sharply reduced. Employees were offered a social support plan and the opportunity to change their work from production to logistics. During 2005, the Viennese branch has become a new logistic centre.

Until 2004, the personnel office organized training in a very simple way. Based on former experiences, a training costs lump sum was reserved (e.g. in 2004, € 200 for each employee). Training activities are set and when a particular need was articulated by employees or when such needs are the results of external regulations (e.g. different standards of the food industry and their up-dates). The management decides spontaneously on the proposed training activity.

Enterprise 1 is a large-scale enterprise in the Austrian industrial food production sub-sector, even though many employees are not in the production but in the sales system. The traditional enterprise with more than a 100 year history has gone through difficult years in the last decade. In 1997, the enterprise was taken over by a German enterprise. In 2003, the enterprise became independent again and was forced to undergo another restructuring process that included a reduction in production personnel. Within a decade, a number of formerly small producers has developed into a rather large enterprise that owns a network of sales stations.

At the time of the interview, the restructuring phase has paused, but not all structures are redefined. Training activities for the enterprise's production are still on hold. Information has been only provided for the enterprise's extensive systems of shops. In its core market, the enterprise faces a complete change in competition.

For the mostly female employees of the shop system (more than 1000), training was provided by two fulltime trainers. The training division is supported part-time by two administrative employees. Nearly all training activities are provided internally. The two training managers organize four different areas: the management of apprentices, the basic training for new entrants (a major activity given the high employee turnover), the regular employee training, and the training about newly-installed technologies in the shops.

In regards to CVT, all employees are asked at least once a year to participate in a training that normally lasts a half-day. The training is devoted to topic of high importance in daily work life (e.g. sanitation regulations, customer relationship etc.). When new legal regulations appear or new technical equipment is introduced, additional training days for all employees are offered. Team leaders and employees with broader tasks are trained at least four times a year.

Training is understood as the continuing "skill development" of the work force. The training organisation is rather elementary. The small unit is fully financed and additional budgets are not foreseen for the sales network. The trainers discuss their plans with and report directly to the new general manager. Important topics are fixed and training modules are provided for the majority of all employees. Beside a very high number of training days offered by the two trainers, the main challenge lies in the organisation of timetables. Trained employees must be normally replaced at their workplace, so that additional personnel costs are seen as a major part of the training investment, even if not covered in any kind of training or accounting system.

Enterprise 2a is a traditional producer of alcoholic drinks with more than 150 years of business experience. Now it is part of a large beverage industry conglomerate. The enterprise functions also as a headquarters for the conglomerate functions (e.g. personnel management, training management) that are centrally covered for a number of enterprises. At the moment, both enterprises are very successful. Enterprise 2a has faced several economic crises since the early 1980is, which has been solved by a combination of new production technologies, new organisational structures, new types of products and a serious reduction of employees. Apart from the reduction of workforce due to an increasingly efficient production process during the last two decades, both enterprises offer high job security and low turnovers in their core staff.

In both corporate cultures, training decisions are completely decentralized. Heads of enterprise units negotiate training budget during their unit's general budget negotiations. They decide independently on expenditures from the allocated budget. There are no general rules on training budgets or controls. No centralized information on ongoing training activities is planned. Units managers are expected to invest training money in such a way that the goals can be reached. In Enterprise 2b, a common workshop culture exists, where members of all units work together on open questions at least once a year. In Enterprise 2a, common internal seminars on certain topics were recently introduced for unit managers. In order to strengthen the training activities, a general personnel manager (our interview partner) has adopted with experience as a training manager by one of Austria's leading firms with outstanding training investments.

Enterprise 4 is a traditional and successful producer of non-alcoholic beverages. Recently, the company has been bought by a multinational beverage trust. The enterprises have more than 150 employees, employee turnover is low. With around 600 Euro training expenditure per employees (training fees only), the enterprise clearly invests more than the sub-unit's average training budget.

The personal management is also responsible for HRD. Even if no formal HRD management system exists, strategies applied in HRD are highly developed. Two main features should be pointed out. First, over the years, a close interrelation between strategic goals and identification of training needs has been developed. For each unit and each employee, yearly goals are set. Training is seen as one of many tools to support employees in reaching their goals. During the appraisal interviews, when discussing how goals should be met, favourable training activities are identified. Originally, no general budget was fixed, all training seen as worthwhile has been financed.

Second, a competence matrix has been developed that describes each employee's competencies with a multidimensional approach that, in general, holds things simple. Competencies are assessed using the Austrian school notes system (1=very good; 5=not sufficient). Beside training activities directly linked to goals (e.g. a number of new customers; a reduction of external service costs), other training activities are directed toward the improvement of competencies on a personal base. (e.g. managing an improvement of the general competencies from 2.4 to 2.2 within a year). The competence matrix is the result of a critical assessment of the general approach described previously. Linking training to actual enterprise may lead to a too narrow perspective. Many more general competencies, which may be fruitful for the company in the long run, are in danger of becoming marginalized. In general, training activities is below the preferred level when chosen mainly with regard to the actual enterprise goals. The competence matrix is seen therefore as a tool to improve long-term competence development of the employees and to generally enlarge planned training activities.

5.2.3 Summary and Conclusions

Despite the differences between the enterprises studied, some more general remarks can be made.

Traditional enterprises in the food and enterprise sector often have no systematized HRD. Training is seen as an instrument to reach goals or meets external requirements. The unit directors are often responsible for identifying and deciding on training needs. Newer enterprises have developed a more systematic approach to HRD.

- Further "off-the-job" training is seen as necessary only for a rather small percentage of highly qualified staff that are the core of the work force. The low training intensity also reflects the qualification structure of the entire workforce. For many employees, on-the-job training is seen as sufficient to adjust existing competencies to new situations. External training is, in any case, an exception.
- Systematic approaches to HRD are more likely in highly productive working environments with a high level of automation. Here, even unskilled workers are more involved in processes that ensure high productivity. Any interruption of production and distribution results in high costs.

6 General Summary and Conclusions

The following section provides a summary of the main conclusions and possible hypotheses for the ongoing studies:

Training organisation in enterprises:

- An enterprise's training activities are closely related to the range of requirements and goals of the enterprise's personnel management and HRD initiatives. As activities to be planned and to be coordinated increase, it is more likely to find special HRD units or persons explicitly designated for all HRD related issues. The data indicates that the range of HRD activities is positively correlated to the size of the enterprise as are the existence and size of specialized HRD units. On the other hand, the interviews revealed that HRD could be affected by factors that are independent of the enterprise's size. Affiliation with a multinational corporation may result in even rather small enterprises having an HRD unit. A large old "traditional" company with many "traditional" professions may not have an HRD unit despite having more than 1000 workers. Also, large enterprises with a small highly-qualified core work force and a high number of employees with a rather low qualification level may not have an HRD unit.
- Processes relevant for HRD are not always concentrated in the HRD unit. Even if there is a special HRD organisational unit, ongoing processes may depend on the HRD-related competence of different groups of employees (e.g. all employees with management functions in charge of appraisal interviews, managers of specialized units in charge of a specific HRD budget, project managers involved in innovation activities that depend on HRD).

Enterprises must develop, as learning organisations, the ability to creatively use HRD measures that can support different enterprises processes and that can achieve specific targets. The organisational ability to reach goals by training or other HRD measures must be developed over time. Enterprises with a long established culture of many HRD activities know how to effectively and efficiently use instruments for different issues. To state this observation as a hypothesis: "The more employees experience worthwhile HRD activities the more likely they will continuously implement HRD activities" (e.g. managers support training plans with appraisal interviews when they personally have experienced the positive results of HRD activities). The level of training activity is therefore dependent on an enterprise's historical experience and institutional knowledge is an independent variable. This includes the hypothesis that there is path dependency: enterprises with low HRD investments and therefore little specific organisational experience are likely remain at that level, while enterprises with many HRD activities will gain additional organisation competencies which will lead to increased HRD activity.

Reasons for training in enterprises

- The enterprises' total engagement in training/HRD reflects how close their training activities are linked with different core processes. Practitioners differentiated between training necessary for general business processes and training explicitly arranged for a certain goal. They also made a distinction between highly specialized "professional" training for certain business activities (technical productions, sales …) and training organised for more general reasons (e.g. for internal development of executives, for diffusion of business strategies among all employees). The latter differentiation is often associated with a division of competencies between the single specialized units and the HRD department.
- Differences in training expenditures are likely to be connected with strategic HRD decisions and an enterprise's general personnel strategies and particular business strategies. Constantly high training activities results from other strategic policies in personnel management, e.g. a career scheme providing employees with clear opportunities to advance. Career schemes normally mention training as a tool to support employees in reaching the targets set in their career plans. Other strategies may involve a competence matrix that makes it possible to systematically develop competencies independent of previously fixed goals.
- Differences in training expenditures may also be linked to an organisation's efficiency. Even though a training activity may share the same goal, enterprises may meet this need at very different costs. Low expenditures for certain HRD activities do not necessarily indicate a lack

of support. Because the training is important and occurs regularly, enterprises may have found very cost-efficient ways to provide the training.

Interrelation between innovation and training in enterprises:

- There is no general pattern on how innovation activity and training are linked. A main factor is the type of innovation.
    - Product innovation: Employees normally need training to become familiar with new products. Enterprises that conduct regular product innovation circles also need to keep their employees up to date. For these unavoidable activities, many enterprises develop routines to make knowledge transfer as effective and efficient as possible. From within the enterprise, this training activity is often not regarded as only training. Training activities related to product innovation are not recorded as training but seen as a normal part of the employees' activities.
    - Production process innovation – technological: Of course, technological innovations lead to additional training needs. Once again, training is seen as unavoidable, the goal is to limit the costs by most efficiently supplying all employees with the necessary know-how or the required competencies. Often, training costs involved in technologically-driven innovations are not seen as training costs but as part of the project budget for the general innovation. Particular cases are radical innovations that use a completely unfamiliar technology that requires employees to have completely new qualifications, skills and competencies.
    - Process innovation – organisational: Organisational innovation differ widely in scope and range from small changes to complete reorganisation of the work processes and the responsibilities of involved employees. While small reorganisation projects may involve training, they do not differ much from technologically-driven innovation. The big difference is when the basic work place requirements are fundamentally changed. Large HRD projects or even a completely new HRD system become necessary when the new profiles (qualification and competencies) required after a workplace re-organisation differ greatly from previous profiles or from profiles offered by job seekers on the labour market. Large changes can thereby be a reaction to a single event (e.g. the application of a quality management system implying new work organisations and responsibilities). In many cases, projects react to enterprises' changing environments and try to make up for changes that have implicitly occurred.
- Because training resulting from adopting innovations is sometimes not regarded as training and therefore also not covered by the training accounting system, statistical analysis seeking a connection between innovation activities and training expenditures may fail due to accounting procedures (and not due to the absence of a relationship itself).

Enterprises' reactions towards public co-financing schemes supporting training

- Co-financing schemes for training in enterprises can only lead to more training if:
    - enterprises' training capacity (e.g. employee motivation) is not completely exhausted;
    - at least some potentially-promising training activities are not financed due to budget restrictions;
    - administrative requirements (including staying informed on new offers to support CVT) are not too demanding;
    - enterprises can rely, in advance, on receiving public funds; and
    - ways can be found to increase budgets for the persons in charge of training decisions (HRD-department, specialized units and so on).
- The experts interviewed are mostly in favour of public co-financing schemes, but at the same time insisted on the independence of their enterprises' training policy from external support . They expect small and medium enterprises (SMEs) to enjoy the positive benefits of public schemes.

Internal accounting of CVT activities and costs

- Enterprises' internal accounting practices are not in line with concepts applied in CVTS. Most enterprises needed to make a special effort to find the data asked for in the CVTS questionnaire. Often, no information could be gathered on certain topics raised by the questionnaire.
- Internal reporting procedures use only simple, basic indicators.

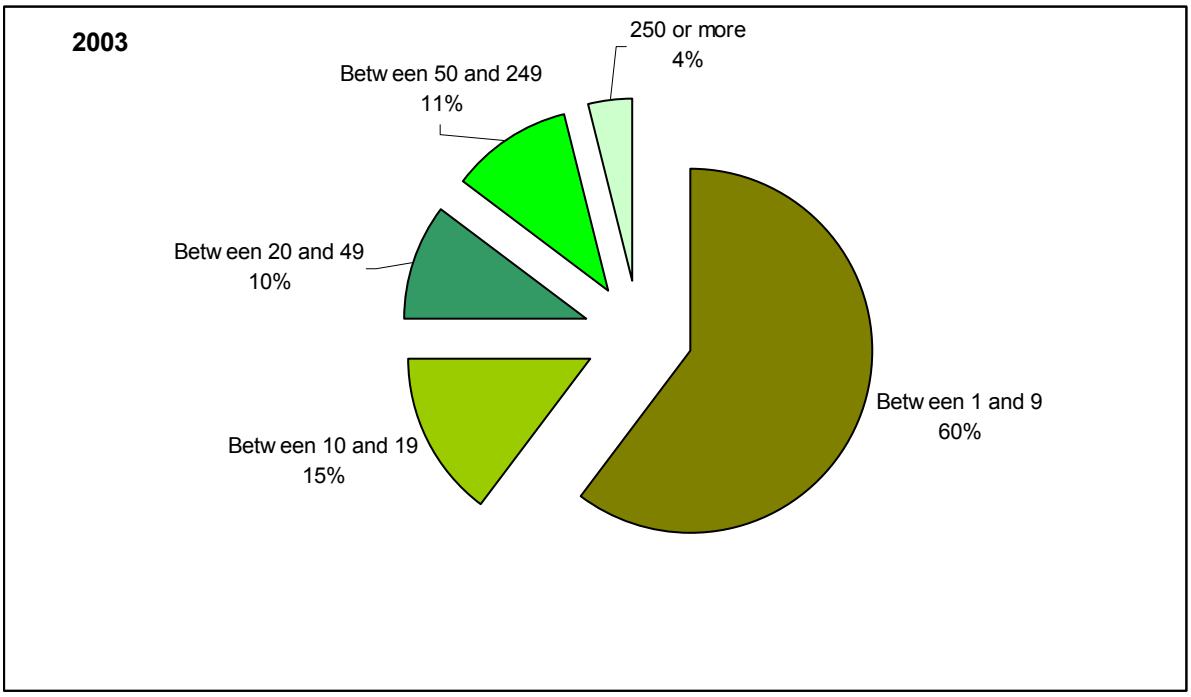
- Enterprises do not measure training or HRD activity in general but measure separate initiatives. The goal is to receive more information which can be used for further improvements.
- For internal marketing activities, HRD units regard it as much more useful to transmit what has been achieved in qualitative ways (e.g. examples) than in graphs and numbers.
- HRD experts work at improving their quantitative information but mostly as a precaution to meet future internal critique. Not being asked to report extensively on numbers is seen as a sign of trust. For maintaining this trust, numbers concerning the whole range of HRD activities are not a significant tool.
- Working with imputed costs is not seen as important. Many experts prefer to use a very narrow concept and record only costs directly linked to a certain training activity (direct cost approach). Imputed costs may lead to an overestimation of potential saving in training and therefore are frequently avoided.

7 Annex

7.1 Background information to sub-sectors “Machinery and Electric facilities” and “Foods and Beverages”

7.1.1 Machinery and Electric facilities

Table 11: Austria - NACE – Class dk-dl breakdown enterprises/size classes (persons employed)

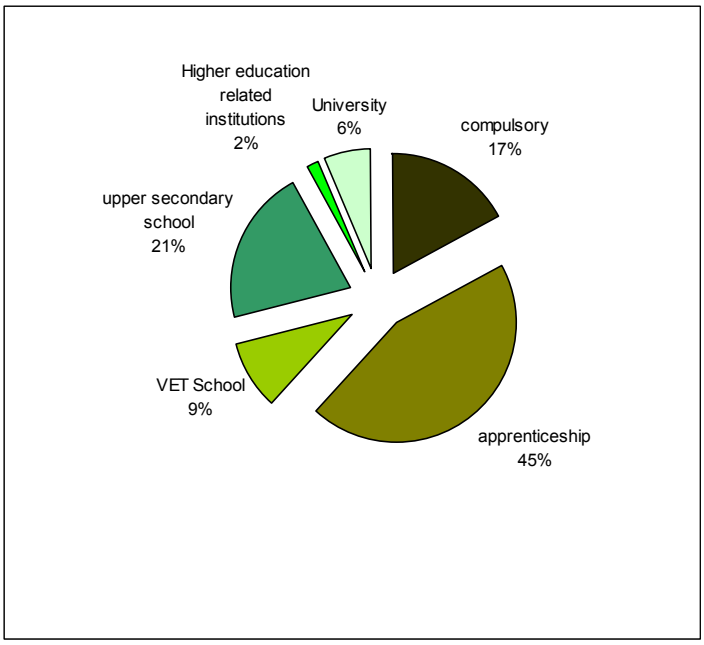


Source: Eurostat – New Cronos – Data taken 26.06.2006; own calculations

Table 12: NACE DK_DL Data from the structural business statistics (Eurostat) for 1995 and 2003

Number of enterprises	Between 1 and 9	Between 10 and 19	Between 20 and 49	Between 50 and 249	250 or more	total
1995	1956	480	334	350	124	3244
percentage of all enterprises	60%	15%	10%	11%	4%	100%
2003	2986	549	378	370	123	4406
percentage of all enterprises	68%	12%	9%	8%	3%	100%
development 1995-2003	53%	14%	13%	6%	-1%	36%
number of persons employed (including self employed; full time equivalents)	**Between 1 and 9**	**Between 10 and 19**	**Between 20 and 49**	**Between 50 and 249**	**250 or more**	**total**
1995	7218	6450	10204	39628	87759	151259
percentage of persons employed all enterprises	5%	4%	7%	26%	58%	100%
2003	9666	7384	11716	42451	79976	151193
percentage of employed all enterprises	6%	5%	8%	28%	53%	100%
development 1995-2003	34%	14%	15%	7%	-9%	0%
R&D personnel	**Between 1 and 9**	**Between 10 and 19**	**Between 20 and 49**	**Between 50 and 249**	**250 or more**	**total**
1995	48	90	204	904	7308	8554
2003	10	51	316	1870	8194	10441
development 1995-2003	-79%	-43%	55%	107%	12%	22%
working costs per hour	**Between 1 and 9**	**Between 10 and 19**	**Between 20 and 49**	**Between 50 and 249**	**250 or more**	**total**
1995	€ 15,1	€ 17,4	€ 19,3	€ 21,9	€ 26,6	€ 24,0
2003	€ 18,0	€ 19,5	€ 21,8	€ 25,7	€ 30,8	€ 27,5
development 1995-2003	19%	12%	13%	17%	16%	14%

Table 13: Austria - NACE – Class dk-dl – qualification structure (2003)

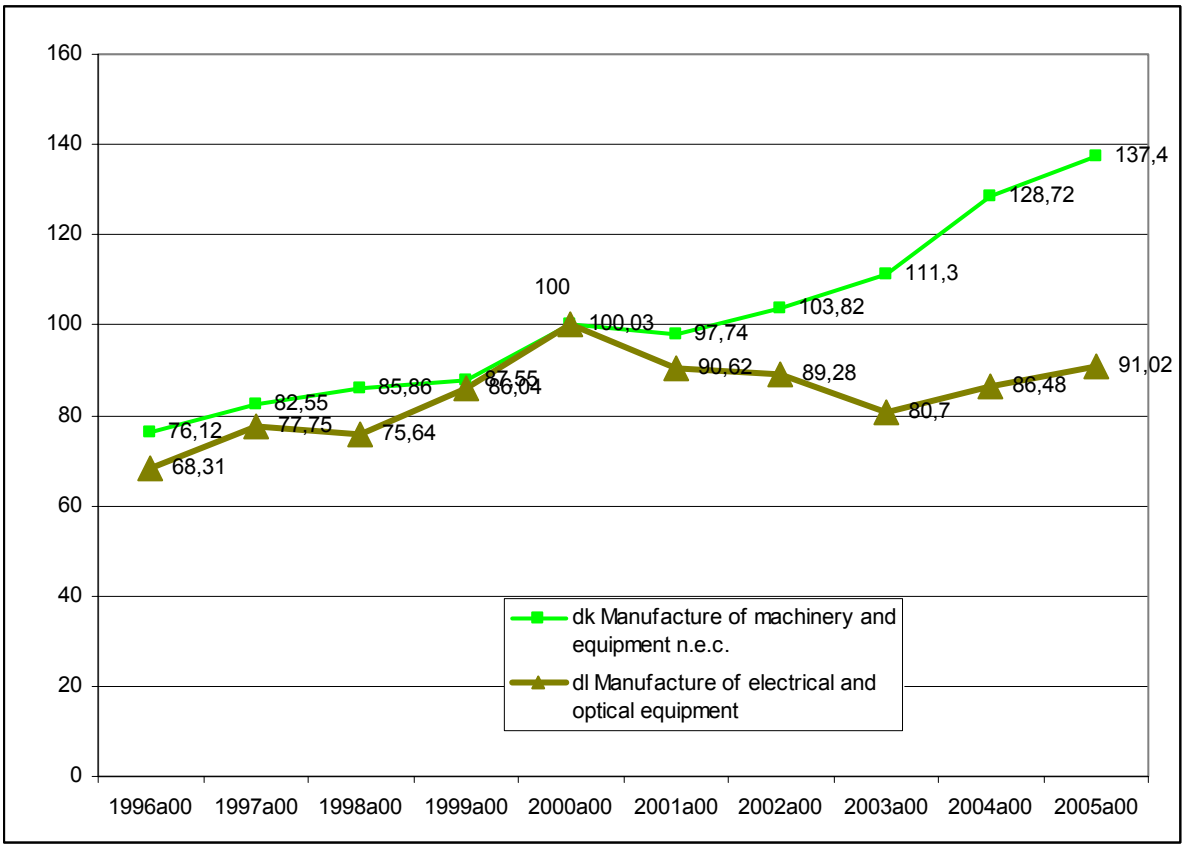


Source: Statistik Austria

Table 14: Austria - NACE – Class dk-dl – Changes in qualification structure (1998-2003)

	Compulsory	apprenticeship	VET School	upper secondary school	Higher education related institutions	University
Development 98-03 men - total	-2600	-6200	-1900	-700	800	800
Development 98-03 men - percentage	-15%	-10%	-19%	-3%	53%	10%
Development 98-03 women - total	-6000	1200	1900	900	400	-500
Development 98-03 women - percentage	-33%	9%	42%	16%	133%	-29%
Development 98-03 total - total	-8600	-5000	0	200	1200	300
Development 98-03 total - percentage	-24%	-7%	0%	1%	67%	3%

Table 15: Austria - NACE – Class dk-dl – Index of newly attained orders 1996-2005



7.1.2 Foods and Beverages

Table 16: Austria - NACE – Class da-de foods, beverages, tobacco

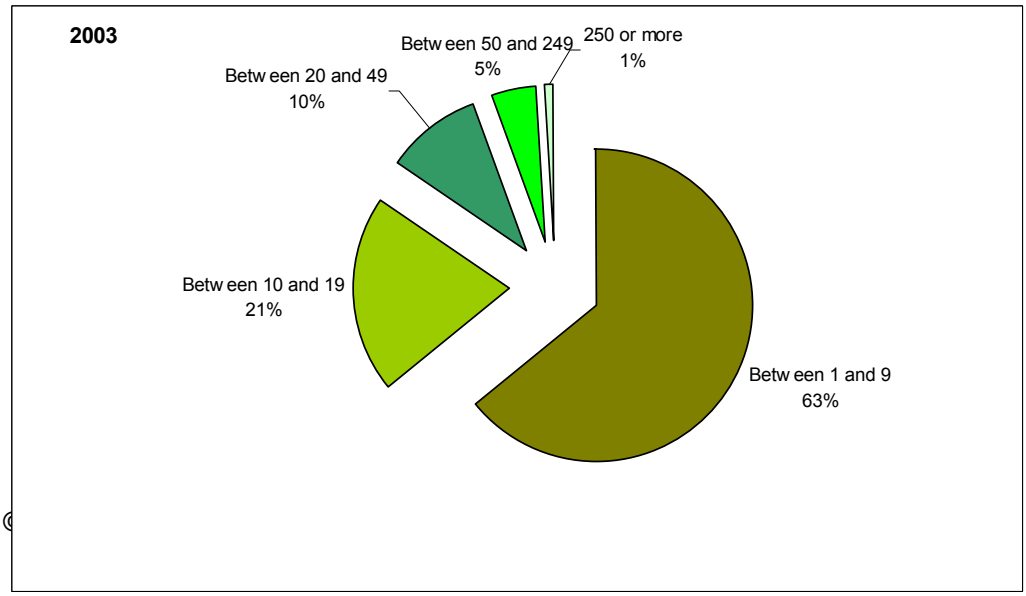


Table 17: NACE Class da-de foods, beverages, tobacco - Data from the structural business statistics (Eurostat) for 1995 and 2003

Number of enterprises	Between 1 and 9	Between 10 and 19	Between 20 and 49	Between 50 and 249	250 or more	total
1995	3053	980	450	214	40	4737
percentage of all enterprises	64%	21%	9%	5%	1%	100%
2003	2801	907	432	209	35	4384
percentage of all enterprises	64%	21%	10%	5%	1%	
development 1995-2003	-8%	-7%	-4%	-2%	-13%	-7%
number of employed (including non-employees)	Between 1 and 9	Between 10 and 19	Between 20 and 49	Between 50 and 249	250 or more	total
1995	14113	12996	13569	23316	23607	87601
percentage of employed all enterprises	16%	15%	15%	27%	27%	100%
2003	12449	11989	13017	22427	18537	78419
percentage of employed all enterprises	16%	15%	17%	29%	24%	100%
development 1995-2003	-12%	-8%	-4%	-4%	-21%	-10%
F&E personnel	Between 1 and 9	Between 10 and 19	Between 20 and 49	Between 50 and 249	250 or more	total
1995	3	5	6	147	157	318
2003	1	12	8	106	112	239
development 1995-2003	-67%	140%	33%	-28%	-29%	-25%
working costs per hour	Between 1 and 9	Between 10 and 19	Between 20 and 49	Between 50 and 249	250 or more	total
1995	12,2	12,6	14,5	18,7	25,4	18,2
2003	13,5	14,2	15,75	19,9	26,9	19,4
development 1995-2003	11%	12%	8%	7%	6%	6%

Table 18: Austria – NACE – Class da-de – food, beverage, tobacco

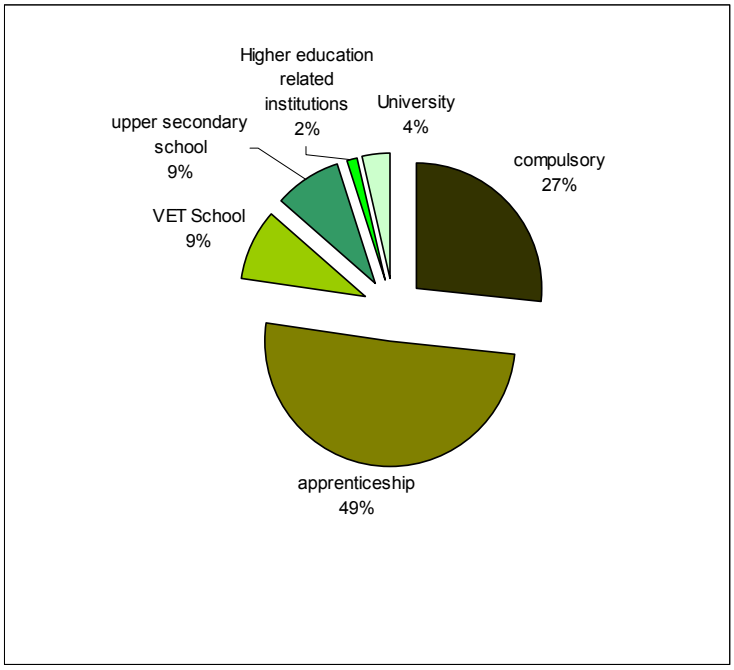
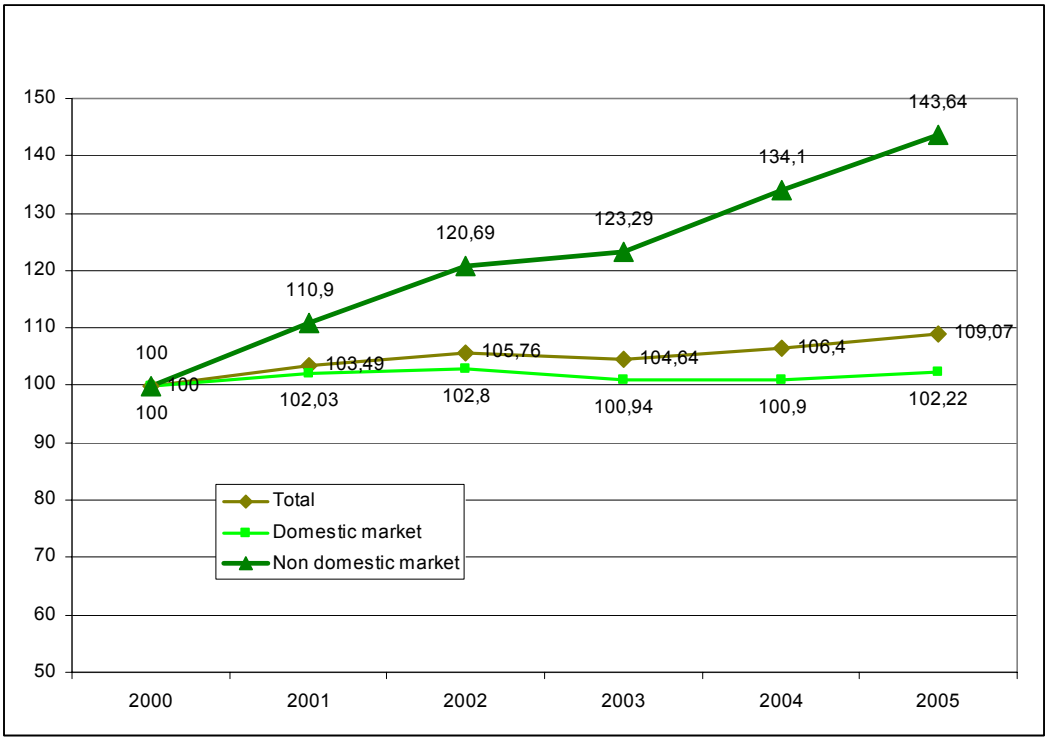


Table 19: Austria - NACE – Class da-de – food, beverage, tobacco – Changes in qualification structure (1998-2003)

	Compulsory	apprenticeship	VET School	upper secondary school	Higher education related institutions	University
Development 98-03 men - total	-100	-4900	600	900	700	900
Development 98-03 men - percentage	-1%	-13%	18%	35%	140%	150%
Development 98-03 women - total	-700	-1900	900	900	100	1200
Development 98-03 women - percentage	-7%	-19%	31%	32%		400%
Development 98-03 total - total	-800	-6800	1500	1800	800	2100
Development 98-03 total - percentage	-3%	-14%	24%	33%	160%	140%

Table 20: Austria - NACE – Class da-de – food, beverage, tobacco – index of annual turn over – domestic market/non domestic market



7.2 Overviews on 21 Enterprise Cases

Between November 2005 and February 2006, 20 interviews were conducted about the continuing vocational training activities in 21 enterprises. One researcher of the project's core team conducted all the interviews.

Eighteen interviews were recorded and completely transcribed. Two interviews were summarized immediately after the interview (once because of a technical recording problem, once because the person interviewed refused to accept recording). In total, the *text corpus* analysed consists of approximately 123,000 words.

Enterprises were selected within the Vienna and the region surrounding Vienna (the Lower Austria province). The interviews focused on enterprises in three sectors: as agreed within the partnership, food and beverages (five companies), machines and equipment manufacturing (five companies), and, additionally, banks and insurance (four companies).

The original plan to also include factories in the textile sector had to be revised. All attempts to find enterprises available for an interview in textile manufacturing failed. In two cases, firms that belonged to the textile industry, according to the database used for selecting industries in the survey,[19] have either stopped production within the last three years or already stopped decades ago.

Four enterprises focus on retail sales (two in pharmaceuticals, one in orthopaedics and other healthcare products, one in textiles). Two enterprises belong to the information technology (IT) sector.

In general, nearly all enterprises surveyed include more then one type of activity, especially since sales are often quite important to enterprises in the production sector (e.g. enterprise 1, enterprise 5).

[19] Database of the Austrian Chamber of Commerce (www.wko.at).

In enterprise 3, production had been stopped just a few months before the interview and activities were changing from manufacturing to a local distributor of the parent company.

In regards to the number of employees, most firms were medium and large enterprises (four enterprises with 250-499, four enterprises with 500-999, and five enterprises with more than 1000 employees). Only two very small firms have been covered (one enterprise with 10-19 and one enterprise with 20-49 employees). Six enterprises are smaller medium sized companies (50-249), but they are local branches of international companies. The weak representation of small enterprises was a result of self-selection: small enterprise employees responsible for training frequently were not willing to take part in the survey.

Table 21: Enterprises participating in the qualitative survey

Enterprise	Branch	Code	Size class	Region	Subsidiary company	Provided Training indicators
1	**Manufactures food products**	da	+1000	Vienna	No	[no figures available]
2a	**Manufactures food products**	da	250-499	Vienna	No	[no figures available]
2b	**Manufactures food products**	da	50-249	Lower Austria	No	[no figures available]
3	**Manufactures food products**	da	20-49	Vienna	Yes	[no figures available]
4	**Manufactures food products**	da	50-249	Vienna	Yes	Approx. € 600,- per employee (fees and travel costs only)
5	**Manufactures machinery and equipment**	***dk_dl***	50-249	Vienna	Yes	1.5 % of the pay role (fees and travel costs only)
6	**Manufactures machinery and equipment**	***dk_dl***	500-999	Lower Austria	No	Frame budget (not used completely – 1 % of the pay role, training fees only)
7	**Manufactures machinery and equipment**	***dk_dl***	500-999	Vienna	Yes	[no figures available]
8	**Manufactures machinery and equipment**	***dk_dl***	50-249	Vienna	No	[no figures available]
9	**Manufactures machinery and equipment**	***dk_dl***	500-999	Vienna	Yes	[no figures available]
10	**Retail trade,**	***g52***	+1000	Lower Austria	No	[no figures available]
11	Banks and insurance	***j65_j66***	+ 1000	Vienna	No	3 % of the pay role (fees only)
12	Banks and insurance	***j65_j66***	+ 1000	Vienna	No	(2004) 4,5 days of training for each employee
13	Banks and insurance	***j65_j66***	+ 1000	Vienna	Yes	7400 participations; 12.400 training days, Training budget 6 Mio €
14	Banks and insurance	***j65_j66***	250-499	Vienna	No	[2003] € 687.715 (fees and travel costs, excluding public support) € 1840,- per employee
15	**Retail trade,**	***g52***	250-499	Vienna	No	2005: training costs 1,3 % of the turn over; Training days 13 per employee; participation rate: 100 %
16	**Retail trade,**	***g52***	50-249	Vienna	Yes	[no figures available]
17	**Retail trade,**	***g52***	50-249	Vienna	Yes	[no figures available]
18	Other Service	K_O	10-19	Vienna	No	[no figures available]
19	Other Service	K_O	500-999	Vienna	No	(2004) 65 % participation rate, 5 training day for each employee, budget: 2,8 % of the pay role (fees and travel costs only);
20	Hotels and restaurants		250-499	Vienna	Yes	Frame budget – 1 % of the turn over

Table: Importance of internal personnel for training

	Importance of internal training by internal trainers/Figures on number of full time trainers and information of training days provided by this trainers
Enterprise 1	Very important – for sales, the only form of training provided regularly/two full time; more than 200 training days each
Enterprise 2a	No internal full-time trainers
Enterprise 2b	No internal full-time trainers
Enterprise 3	(periodically: internal trainer from the parent company –) in general: no importance/ No internal full-time trainers
Enterprise 4	No internal full-time trainers
Enterprise 5	No internal full-time trainers
Enterprise 6	No internal full-time trainers
Enterprise 7	Important/Leading internal specialists for technical fields are trained as trainers and provide major parts of technical training
Enterprise 8	No internal full-time trainers
Enterprise 9	[no information]
Enterprise 10	Four trainers, approx. 150 training days each
Enterprise 11	[no information available]
Enterprise 12	[no information available]
Enterprise 13	Top management – external; all other groups approx 20 % external and 80 % by internal trainers/ 33 full time trainers (approx 100-120 day of training each)
Enterprise 14	[no information available]
Enterprise 15	Important/no full time trainers but important role of experts
Enterprise 16	No internal full-time trainers
Enterprise 17	[no information available]
Enterprise 18	No internal full-time trainers
Enterprise 19	Important/eight members of the HRD unit, partly involved in training
Enterprise 20	Important/two full time trainers

Table 22 Estimates on importance of innovation (own estimates based on interview and background material)

	Continuing process of trajectory bound innovation	Recent radical innovation(s) happen(s)	Strong orientation on permanent upgrading innovation capacity	Own development department/strong focus on innovation (at least by reception of innovation activity of the parent company)
Enterprise 1	No	Yes	no	No
Enterprise 2a	Yes	no	no	Yes
Enterprise 2b	Yes	no	no	Yes
Enterprise 3	No	[complete change of activity]	no	No
Enterprise 4	Yes	no	no	Yes
Enterprise 5	Yes	[]	Yes	Yes
Enterprise 6	Yes	No	no	Yes
Enterprise 7	Yes	Yes	Yes	Yes
Enterprise 8	Yes	No	no	Yes
Enterprise 9	Yes	[]	Yes	Yes
Enterprise 10	No	Yes	no	No
Enterprise 11	Yes	No	Yes	Yes
Enterprise 12	Yes	No	Yes	Yes
Enterprise 13	Yes	No	Yes	Yes
Enterprise 14	Yes	No	Yes	[]
Enterprise 15	Yes	Yes	Yes	Yes
Enterprise 16	Yes	[]	Yes	Yes
Enterprise 17	Yes	Yes	Yes	Yes
Enterprise 18	Yes	no	Yes	Yes
Enterprise 19	Yes	[]	Yes	Yes
Enterprise 20	no	no	Yes	No

Table 23: Usage of public offers to co-finance training or HRD initiatives

Enterprise	Branch N.R.= Not responsible	code	Size class	region	ESF – Goal 2		"Qualifizierungs-verbünde"		Other Regional offers (Vienna, Lower Austria9		*Bildungsfreibetrag*/Prämie extern		*Bildungsfreibetrag*/ intern	
1	**Manufactures food products**		+1000	Vienna	no	no	no	No	no	no	no	no	no	no
2a	**Manufactures food products**		250-499	Vienna	Yes	Yes	Yes	No	No	no	N.R.	N.R.	N.R.	N.R.
2b	**Manufactures food products**		50-249	Lower Austria	yes	yes	yes	No	no	No	N.R.	N.R.	N.R.	N.R.
3	**Manufactures food products**		20-49	Vienna	No	No	No	No	No	No	N.R.	N.R.	N.R.	N.R.
4	**Manufactures food products**		50-249	Vienna	yes	yes	yes	No	no		N.R.	Unknown	N.R.	N.R.
5	**Manufactures machinery and equipment**		50-249	Vienna	No	No	No	No	No	No	Ja	Ja	Ja	Ja
6	**Manufactures machinery and equipment**		500-999	Lower Austria	Yes	Yes	Yes	No	Yes	No	Ja	Ja	Nein	Nein
7	**Manufactures machinery and equipment**		500-999	Vienna	yes	yes	no	No	-	-	no	no	no	No
8	**Manufactures machinery and equipment**		50-249	Vienna	yes	yes	yes	no	yes	yes	yes	yes	no	No
9	**Manufactures machinery and equipment**		500-999	Vienna	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	No info
10	**Retail trade,**		+1000	Lower Austria	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
11	Banks and insurance		+ 1000	Vienna	yes	yes	yes	No	no	no	yes	yes	yes	yes
12	Banks and insurance		+ 1000	Vienna	yes	yes	yes	No	no	no	N.R.	N.R.	N.R.	N.R.
13	Banks and insurance		+ 1000	Vienna	yes	yes	yes	No	No	No	yes	yes	yes	yes
14	Banks and insurance		250-499	Vienna	yes	yes	yes	No	no	no	N.R.	N.R.	N.R.	N.R.
15	**Retail trade,**		250-499	Vienna	yes	No	yes	No	-	No	No	No	No	No
16	**Retail trade,**		50-249	Vienna	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	No
17	**Retail trade,**		50-249	Vienna	Yes	Yes	Yes	No	No	No	N.R.	N.R.	No	No
18	Other Service		10-19	Vienna	Yes	No	Yes	No	Yes	Yes	Yes	Yes	No	No
19	Other Service		500-999	Vienna	Yes	Yes	Yes	No	no	no	yes	yes	yes	yes
20	Hotels and restaurants		250-499	Vienna	Yes	Yes	No	No	Yes	Yes	Yes	N.R.	Yes	N.R.

Table 24: Costs covered by enterprises' concept of training budget

	The following direct costs are regarded as part of the HRD budget						Indirect costs	Training costs in the case of technical innovation projects
	External fees, fees for external trainers	Travel, hotels, allowance (participants)	Costs of the HRD Department	Costs of internal full time trainers	Cost of employees partially involved in training	Costs for Training Infrastructure		
Enterprise 1	[no info]	[no info]	[no info]	[no info]	[no info]	[no info]	[no info]	[no info]
Enterprise 2a	Yes	No	No	No	No	No	No	No general rule
Enterprise 2b	Yes	No	No	No	No	No	No	No general rule
Enterprise 3	Yes	No	No	No	No	No	No	[no info]
Enterprise 4	Yes	Yes	No	No	No	No	No	No
Enterprise 5	Yes	Yes	No	No	No	No	No	No
Enterprise 6	Yes	No (→dep)	No	No	No	No	No	Changes with the project
Enterprise 7	Yes	No	No	No	No	No	No	[no info]
Enterprise 8	Yes	No	No	No	No	No	No	Yes
Enterprise 9	Yes	No (→dep)	No	No	No (but days provided are recorded)	Yes	No	Yes (integrated in the normal training process)
Enterprise 10	Yes	Yes	No	No	No	No	No	[no info]
Enterprise 11	Yes	No	No	No	No (but imputed costs are recorded)	No	No	No
Enterprise 12	Yes	Yes	No	No	No	No	No	No
Enterprise 13	Yes	No	Yes	Yes	No (but imputed costs are recorded)	Yes	No	[no information available}
Enterprise 14	Yes	Yes	No	No	No	No	No	No general rule
Enterprise 15	Yes	Yes	No	No	No	[€ 200,- per training day for the training room]	No	[no information available}
Enterprise 16	Yes	Yes	No	No	No	No	No	No general rule
Enterprise 17	Yes	No	no	no	no	no	No	No
Enterprise 18	[no info]	[no info]	[no info]	[no info]	[no info]	[no info]	[no info]	[no info]
Enterprise 19	Yes	No	no	no	no	no		[no info]
Enterprise 20	Yes	No	No	No	No	No	No	[no information available}

(→dep) costs are not seen as part of the planned training budget but calculated within the general (travel)budget of a single department

7.3 References

*Bassanini, Andrea P., Alison L. Booth, Giorgio Brunello, Maria De Paola und Edwin Leuven, (*June 2005): Workplace training in Europe. Discussion paper series / Forschungsinstitut zur Zukunft der Arbeit

BMBWK (2005) *Education and Training 2010*. Austrian Interim Report on the Progress Achieved in the Implementation of the EU Work Programme. Available at: http://www.bmbwk.gv.at/medienpool/12627/abb2010_zwben.pdf

BMWA (2004) *Europäischer Sozialfonds Ziel-3-Österreich 2000-2006*. Jahresbericht 2003. Available at: http://www.esf.at/downloads/publikationen/z3_jahresbericht_2003.pdf [Accessed 15th May 2006]

Dosi, Giovanni (2000): Innovation, organization and economic dynamics. – selected essays. Cheltenham, Glos. [u.a.] Elgar, 2000

Eurostat (2005a) *Lebenslanges Lernen in Europa*. Statistik kurz gefasst. Bevölkerung und soziale Bedingungen. 8. Available at: http://epp.eurostat.cec.eu.int/cache/ITY_OFFPUB/KS-NK-05-008/DE/KS-NK-05-008-DE.PDF

Fankhauser, Konrad (2005): Handbuch der betrieblichen Weiterbildung. Ein Leitfaden für PersonalistInnen und TrainerInnen. Wien: WUV

Kailer, Norbert (Hg.) (2001): Betriebliche Kompetenzentwicklung – Praxiskonzepte und empirische Analysen. Wien: Linde Verlag

Lenz, Werner (2003) *Lebenslanges Lernen in der Wissensgesellschaft – Voraussetzungen und Rahmenbedingungen.* Österreichischer Länderbericht zum OECD / CERI – Seminar. Available at: www.zse.asn-ktn.ac.at/oecdceri/2003/Lnderber.pdf

Lenz, Werner (2005) *Porträt Weiterbildung Österreich*. Bielefeld. W. Bertelsmann Verlag.

Markowitsch, Jörg; Hefler, Günter (2003): Ergebnisse und Analyen der 2. Europäischen Erhebung zur betrieblichen Weiterbildun (CVTS II). Materialien zur Erwachsenenbildung 1/2003, hg. vom Bundesministerium für Bildung, Wissenschaft und Kultur.

Markowitsch, Jörg; Hefler, Günter (2005a): Betriebliche Weiterbildung in Österreich und Europa, in: Markowitsch/Strobl (Hg.) (2005), S. 49-70

Markowitsch, Jörg; Hefler, Günter (2005b): Der Markt betrieblicher Weiterbildung 2004-2006 – Flauten, Brisen, Ströme, in: Markowitsch/Strobl (Hg.) (2005), S. 49-70

Markowitsch, Jörg; Strobl, Peter (Hg.) (2005): Betriebliche Weiterbildung in Österreich – Konzepte, Anbieter, Trends. Wien: 3s

Markowitsch Jörg, Hefler Günter (2006): (K)ein Markt viele Märkte? – Zur Marktsituation und Professionalisierung der Weiterbildung in Österreich. In: *AMS report*. Wien. Verlag Hofstätter. (Forthcoming)

Markowitsch, Jörg; Benda-Kahri, Silvia and Hefler, Günter (2006): National Report Austria – LLL 2010 Sub-Project 1 [General Description of LLL-policies in Austria]

OECD (2003) *Adult Learning in Austria.* Country Background Report of the OECD Thematic Review on Adult Learning. Available at: http://www.oecd.org/dataoecd/51/19/25603759.pdf

Statistik Austria (2003): Betriebliche Weiterbildung 1999, Wien. (=CVTS 1999)
Online unter:
ftp://www.statistik.at/pub/neuerscheinungen/bildung_web.pdf

Statistik Austria (2004a) *Lebenslanges Lernen.* Ergebnisse des Mikrozensus Juni 2003. Wien

Schneeberger, Arthur, Kastenhuber, Bernd (1998/²1999): Weiterbildung der Erwerbsbevölkerung in Österreich. 2. Wien: ibw.

Statistik Austria (2004). Lebenslanges Lernen – Ergebnisse des Mikrozenus Juni 2003. Wien (=LLL 2003)
Online unter: ftp://www.statistik.at/pub/neuerscheinungen/lernen_web.pdf

Stieger, Leopold; Stieger, Clemens (2001): Personalentwicklung in Bewegung: Trends aus der Sicht österreichischer PraktikerInnen, in: Kailer (Hg). (2001), S. 79-98

Page: 7
[HO1] I do not understand this phrase.