

**Country specific thematic analysis of  
continuing vocational training on the basis of CVTS2  
and modelling of CVT-structures  
(CVTS2 revisited)**

**Phase 2 / Work package 10**

**Report on qualitative interviews with branch experts and  
enterprises in the branches metal and food on enterprise-  
based continuing vocational training (CVT) in Germany**

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## **1. Preliminary remarks**

This report was produced by BIBB in collaboration with bbb (Büro für Berufliche Bildungsplanung in Dortmund, Germany), which assisted as sub-contractor for the making and the analyzing of the interviews. The selecting of enterprises and the first contact with enterprises was made by BIBB. The BIBB interviewed two experts of the food and metal sector in order to attain some general information about the continuing vocational training in the food and metal sector. 3 out of the 15 interviews with enterprises were made by BIBB. The remaining 12 interviews were made by bbb.

The making of the enterprise interviews was difficult because of diverse obstacles. Firstly, it was very difficult to find enterprises willing or being able to answer the questionnaire. Many enterprises did not want to be interviewed. Some enterprises stressed that they are nowadays very often asked to answer to questionnaires and that they are 'tired' of doing that. Some feared that the interview would lead to further questions or any kind of further involvement. One enterprise reported about an interview by a consultancy which led to the unwanted sending of a lot of information about training courses. Many enterprises told us that they were much too busy and they could not spend their precious time for an interview. The fact that different departments of BIBB are making interviews with enterprises on a regular or on a project basis resulted in a certain reluctance of some enterprises to answer to one additional questionnaire. At the same time the results of these other interviews by BIBB could not be used, because of different questions and the legal obligations of this Leonardo project to make 15 interviews.

Approximately 90% of the enterprises asked refused to be interviewed. The finding of interview partners in enterprises was much more difficult and much more time consuming than finding interview partners in training providers. Only with a lot of additional effort (not at all covered by the project budget) was it possible to recruit the acquired number of interview partners.

Most interview partners refused to give information about exact figures concerning the training budget or number of participants ("that's too hot for me", quote from enterprise Yellow). Only in some cases this information was given (e.g. spending in percentage in relation to turnover of the company). Most of the information given by the enterprises was given on a rather general level. We have got the impression that many enterprises were anxious to give any sensitive information to us, although we stressed various times that the data will be made anonymous.

## 2. Selection and description of enterprises

We selected enterprises from the branches metal/electronic and food/tobacco. We tried to find enterprises from different size classes and enterprises from different regions in Germany. We did not find non-training enterprises. The table below gives information about the enterprises:

Branches and enterprises	NACE 30	Size class	Branches and enterprises	NACE 30	Size class
<b>Food/tobacco</b>			<b>Metal/electronic</b>		
Red	02	500+	Black	09	50-99
Green	02	100-249	Gold	10	50-99
Yellow	02	250-499	Sand	09	100-249
Blue	02	500+	Pink	12	500+
Silver	02	100-249	Fawn	12	500+
Brown	02	100-249	Magenta	12	500+
Purple	02	50-99	White	12	100-249
Orange	02	500+	Anthracite	12	50-99
Dark blue	02	100-249	Light Blue	09	100-249

**Table:** Sample of interview partners in the enterprises<sup>1</sup>

### Short description of the enterprises and the interview partners<sup>2</sup>

#### Branch Food/tobacco

**Enterprise Red:** It is a big enterprise with many plants and a wide range of products. The interview partner has been in charge of CVT until recently and has now different tasks to fulfil in the personnel department. The enterprise is undergoing a main organisational change, because of re-structuring processes.

**Enterprise Green:** It is a medium-sized enterprise which produces food for babies. The enterprises has more than one factory, although the factories are rather independent in offering CVT. The interview partner had been working in the training department in the past. Now CVT is part of the personnel department and the interview partners functions as counsellor who gives advice about CVT to the new colleagues. Especially the laboratories of the enterprise are re-organised at the moment.

**Enterprise Yellow:** Also a medium-sized enterprise with different factories in Germany who produce sausages and other meat products. The interview partner is working in the personnel department. The introduction of new machines for the production is one of the major issues right now. The decision structures of the enterprise are rather centralized.

<sup>1</sup> Information about the exact figure of employees was mostly available, but in order to raise the level of anonymity of the enterprises we give only information on size classes (size classes: 10-19, 20-49, 50-99, 100-249, 250-499, 500+).

<sup>2</sup> We can not give too detailed information about the enterprises, because of the protection of anonymity which was very important for all enterprises.

**Enterprise Blue:** It is an international enterprise with various factories in the world and a wide range of products. The interview partner is head of the training department in the central planning and management unit of the enterprise.

**Enterprise Silver:** The enterprise is located in a rather peripheral area of Germany. It has undergone a big change process, because the enterprise has changed from a big “mass bakery” to a “premium bakery”. The interview partner works in the personnel department and deals with CVT issues.

**Enterprise Brown:** The enterprise is located in a rather central area of Germany. It produces also bread and other bakery products. The interview partner is one of the two leading managers of the enterprise and is in charge for CVT.

**Enterprise Purple:** The enterprise is located in a rather peripheral area of Germany and produces fish products. The interview partner works in the personnel department. The amount of CVT is rather limited.

**Enterprise Orange:** It is an international enterprise with various factories in the world and a wide range of products. The interview partner is a shop steward and on various levels involved in the planning of CVT. The introduction of team work at the work place is at the moment one main driving force for CVT in the factory in which the interviewee is working.

**Enterprise Dark blue:** It is a medium-sized bakery in a rather highly populated area of Germany. The interview partner is head of the enterprises and thus simultaneously in charge of the personnel department.

#### **Metal/electronic**

**Enterprise Black:** The enterprise is located in a rather peripheral area of Germany. It produces material (often special alloys) for automatization processes in enterprises. It has been growing a lot in the last years. The interview partner is director of the enterprise. He/she says that the enterprise has been individually benefiting from the economic crisis in Germany, because enterprises rationalized and they are producing the equipment for this rationalization.

**Enterprise Gold:** The enterprise is located in a rather peripheral area of Germany. It produces rather special material for ships and boats. It is a supplier of other enterprises and it co-operates with other small and medium-sized enterprises in a local network concerning CVT issues.

**Enterprise Sand:** The enterprise is located in a rather peripheral area of Germany. The interview partner is director of the enterprise, which produces machines for assembly lines of big enterprises. The enterprise has been recently introduced a new form of quality management which caused a lot of training.

**Enterprise Pink:** It is an international enterprise with various factories in Germany. It is specialized in the field of vehicle building. The interview partner is working in the personal department and in charge for the planning of CVT in the different factories. The planning of CVT is rather centralized.

**Enterprise Fawn:** It is a big German enterprise with various factories in Germany. It produces cars. The interview partner is head of the training department and reports a lot about quarrels with other managers of the enterprise who he/she has to convince about the benefits of CVT.

**Enterprise Magenta:** Also a big German enterprise with various factories, who are producing cars. The interview partner is leader of the training department of the enterprise. He introduced some years ago a special training project which involved almost all employees. They were trained to understand the process chain from the order to delivering a car. CVT projects are often connected to the production of new car models which necessitates changes in the production line.

**Enterprise White:** It is a small enterprise with only one factory. It produces material for the building of vehicles and is a supplier for other enterprises. There has been big changes in the age structure of the staff. The interview partner is the manager of the enterprise.

**Enterprise Anthracite:** It is a rather small enterprise which produces different metal elements for cars. The products are used by big car making companies. The interview partner is the director of the enterprises.

**Enterprise Light blue:** It is a medium-sized enterprise which produces different tools. The products are used by a big variety of other enterprises. The interview partner is head of the personnel department.

### **3. Preparation and execution of the interviews**

All enterprises/interview partners were first asked by mail if they were willing to make an interview about CVT. They were informed about the project CVTS2rev (e.g. the link to the homepage was given) and they could find the guiding questions for the interview attached to the mail. It was promised that all enterprise data will be kept anonymous. After this pre-information by mail contact was made by phone in order to discuss the interview in detail and to arrange the date and time of the interview.

All interviews were made by telephone. Short summaries of two to five pages were made of each interview. All data was made anonymous, because of the sensitivity of the topic. The interviews were analysed by using the method content analysis (Früh 1998, Mayring 1997, Merten 1995). All interview partners were considered as experts in the field of CVT and therefore the interviews were considered as expert interviews. The central goal was to explore the explicit and implicit knowledge of these experts in the field of CVT. (c. Meuser/Nagel 1997) Quotes from the interviews were translated from German into English. Special German terms are put additionally in brackets behind the quotes.

### **4. Results of the interviews**

The presentation of results is oriented on the structure of the questionnaire given by the BIBB partners Confapi and Vytautas Magnus University:

- General training policy framework of the company
- Reasons for investment in training
- Public support for training
- Relations with training providers
- Consequences of technological and organizational innovations

The consequences of technological and organizational innovations are discussed in relation to reasons for investment in training, because these innovations are from the point of view of many interview partners the main driving forces for investment in CVT.

Additional to the 18 interviews with experts in enterprises two interviews with experts on the branch level (food and metal) were conducted. These interviews provide general overviews on branch level, while the other interviews provide insights based on individual enterprises.

#### **4.1 Interviews with training experts of the food and metal sector**

According to the expert, the “*food, beverages and tobacco*” sector (food sector) is a sector with an underdeveloped tradition of continuing vocational training. The sector consists of many small enterprises and a few very large (international) enterprises (see Table 1 in the Annex of this paper for details). In recent years many large enterprises merged, e.g. breweries. According to the expert, the sector “*metal and metallic products*” (metal sector) is not a sector with a highly developed tradition in enterprise provided continuing training. Also in this sector there are many small and medium-sized enterprises (see Table 1 in the Annex for details). A specific feature of the metal sector in Germany is the partition in craftsmen establishments (metal craft) and industrial enterprises (metal industry). These respective parts of the metal sector have their own organisation of training (metal craft – master craftsman/skilled worker /apprentice; metal industry – manager/industrial craftsman/skilled worker/apprentice).

The expert describes the *food sector* as consisting of very heterogeneous sub-sectors with a large number of different products (heterogeneous **product range**) and very different **production procedures** (especially large-scale production). Assembly line work is still very usual. In the enterprises mostly unskilled employees are working, but continuing vocational training is focused on the skilled workers and on managers. The expert stereotypes the production methods in the food sector as mass production based on assembly-line work mainly executed by unskilled women. The range of products in the *metal sector* is also very heterogeneous and production processes between metal craft and metal industry are different: metal craft = craft production and metal industry = machine-based production). Individual continuing vocational training, especially the master training as culmination of trade training in the so-called German Dual System is very important, in particular in the metal craft.

According to the expert, the enterprises in the *food sector* are using mostly external continuing vocational training courses. This is partly due to the size structure of the sector (mainly small enterprises). The external continuing vocational training courses are usually short (one-day courses). This is contrasting the expert’s view of the metal sector: The **provision of continuing vocational training** in the metal industry is concentrated on internal training courses, because skilled workers have to be trained on new machines. In the metal craft external continuing vocational training courses are more important - especially in the field of administration and business. The expert notes that the „other“ forms of continuing vocational training – apart from the

training of new employees (induction) - are only important in the innovative enterprises of the metal industry.

In the *food sector*, important **providers of continuing vocational training** are private training providers, the chambers of industry and commerce and the chambers of crafts/trades. On the national level the employers' organisations are not supporting efforts to initiate training networks between training providers and enterprises. An exception, however, is the social partner project NEW.S in North Rhine Westphalia. According to the expert this project is important, because a significant share of the enterprises in the food sector are situated in North Rhine Westphalia. The project aims at supporting the continuing vocational training in the food sector. In the *metal sector* especially private training providers and also technical colleges are important providers of external technical training courses. The chambers of crafts/trades are significant providers of training courses in business and administration for the metal craft. The expert is not aware of any networks consisting of enterprises in the metal craft/metal industry and training providers.

According to the expert, in the food sector the most important **field of continuing vocational training** is health care/hygiene. Training courses in the field of marketing and logistics are gaining importance. In large enterprises especially language courses are currently of importance, as there are many takeovers by foreign enterprises. The expert notes that in recent years new directives of the European Union also trigger the need for continuing vocational training in enterprises (e.g. necessity of tracing products). For the *metal sector* the expert reports a tense relation between production and administration; in particular in the metal industry training in business and administration is not given adequate attention. The "other" forms of continuing vocational training - especially in the metal craft - are not offered on a regular basis. Self-learning and e-learning are only of relevance in training in business and administration. In the metal craft especially "learning by doing" under the guidance of the craftsman master is usual.

The *food sector* consists mainly of small enterprises. In these enterprises **continuing vocational training participation** is not very frequent. The NEW.S project in North Rhine Westphalia - as mentioned before - is an example of initiatives aiming at increasing the provision of and participation in continuing vocational training in small and medium-sized enterprises. In the *metal sector, too*, the continuing vocational training participation in the small and medium-sized enterprises is clearly lower than in the large enterprises. This is especially the case in the craft metal. In recent years the social partners of the metal sector concluded collective agreements including regulations of continuing vocational training (training arrangements) in some regions. According to these collective agreements, the sector-specific continuing vocational training is supported by a training fund and is organized by a common training agency. The training fund and the training agency have been established jointly by the employers association and the trade union in Baden-Württemberg. An important instrument of continuing vocational training in the enterprises of the metal sector is the so-called structured interview with the employees. These interviews are stipulated



in the collective agreements. These training arrangements in the collective agreements seem to be important stimuli in promoting continuing vocational training in the enterprises. According to the expert, both the employers and the employees (especially the workers council) become more and more aware of the necessity of training arrangements based on collective agreements. It is the trade union's intention in the ongoing negotiations of 2006 to include training arrangements in the collective agreement in the metal sector in all regions of Germany.

The expert points out that the production processes in most enterprises in the *food sector* are determined by large-scale production and assembly-line work, and **technological innovations** are mostly process innovations. However, the fordistic production processes have been increasingly automatised and rationalized in recent years, especially in large enterprises. Another development, which triggers continuing vocational training - again especially in large enterprises - are fundamental changes in product marketing and logistics. In small enterprises, however, work organisation is hardly changed. According to the expert, the different segments of the *metal sector* in Germany also have distinct forms of production processes: In the metal craft one-off single-part production prevails, and in the metal industry a combination of one-off production and industrial mass production. In the metal sector technological innovations are mainly induced by product innovations, and only recently process innovations are gaining importance. Especially the directives of the European Union regarding the "continuous tracing" of products (incorporation of chips in products) induces **technological changes** and therefore also an **increase of training demands** of the enterprises in the *food sector*. The expert notes that these changes, however, cannot be characterised as product innovations, these are rather changes in the logistics. The situation in the *metal sector* is different. The work organisation in the metal craft is still quite traditional – one-off production by skilled workers under the guidance of the craftsman master. In the expert's view no essential changes are to be expected, and hence no fundamental changes in the continuing vocational training in the metal craft will be induced by technological changes. Regarding the metal industry the expert expects enterprises with industrial mass production to be increasingly confronted with technological innovations (especially rationalisations) induced by a growing competition on the world market (globalisation). This will in the future also induce more continuing vocational training. The expert assesses the training arrangements in collective agreements as a means of increasing continuing vocational training in the German metal sector.

## 4.2 Interviews with experts of the enterprises

### 4.2.1 General training policy framework of the company

#### a) Organization of CVT in the enterprises

The responsibility for CVT in the enterprises depends a lot on the size of the enterprise. CVT is in bigger enterprises mostly the task of specialists in the personnel department or training department, while in smaller enterprises the general management or even the director of the enterprise are directly in charge. Big enterprises differ a lot in their decision structures concerning the *level of centralization and decentralization*:

- “In the different enterprise units, the different sites have each a person in charge for promoting CVT. This person can work independently within the framework of the general training concept of the enterprise.” (Yellow, S: 16-18)
- “Nowadays we have decentralized budgets. Every factory has its own budget and they can recruit and make training on their own. We from the central department have accepted to give up the illusion, to know about everything what is going on. I don’t know exactly how much training our enterprise offers its employees.” (Fawn, S: 97-102)
- “Each site makes that for themselves, although I have the function of a counselor. I am doing that for a long time and I have a lot of good contacts. I know a lot of people. I have been doing that exclusively in our enterprise in the past. I have been working in the training department. Now that is part of the personnel department.” (Green, S: 40-46)
- “The CVT is steered by the central, which is not located at our site. We don’t have any planning department.” (Orange, S: 15-16)

While two enterprises (Yellow and Fawn) describe rather decentralized structures, enterprise Orange sketches a very centralized planning which is done from the central of the company. The interviewee in enterprise Green mentions the disbandment of the training department and the integration of its tasks within the personnel department. A specialized training department existed only in one enterprise of our sample, while *mostly the personnel department was in charge of CVT*.

*Structured interviews (Mitarbeitergespräche)*<sup>3</sup> are used by almost all big enterprises for the planning of CVT:

- “We have installed a regular assessment scheme. I can see out of the structured interviews what are the needs.” (Green, S: 36-38)
- “The leaders of the departments tell us their needs. They make structured interviews and then they call us up.” (Silver, S: 35-36)

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<sup>3</sup> “Structured interviews are a regular (typically annual) communication between an enterprise management and its persons employed. An individual and a superior discuss the past work experiences of the person employed. Often both sides agree on goals for the future and evaluate the past goal achievement of the person employed. Problems and difficulties at the work place are analysed and possibilities for improvement of the working conditions are sought. The collaboration between the superior and the person employed is also discussed. The main aims of these interviews are the guidance of the person careers, the screening of individual employment situations, possible training needs and suitable training offers.” (Definition of structured interviews in the European Union Manual for CVTS3, p. 42)

- "The training plan is mostly made between employees and the head of the department." (White, S: 19)
- "A central element is the structured interview, which is made regularly. In this talk it is fixed what are the existing training needs. It is a permanent process. The employee had here the chance to bring in his/her ideas." (Blue, S: 38-40)

The structured interviews are used for planning CVT. The employees have the chance to express their training needs in the interview with their superiors. This helps the persons in charge for CVT sometimes to plan it according the needs at the workplace.

Another more informal way of identifying training needs is described by this interview:

- "Long-term relationships with different people are important. I talk to managers of departments, of factories or training departments. There we look for the needs and the offers. If we don't have suitable offers we look for solutions. It is a thing of relationship. You have to be able to talk to different people and to understand their needs. And then you have to search jointly for solutions which are reasonable. The prices are important, but you have also to be certain to find a good trainer." (Fawn, S: 98-109)

The planning of CVT is here described as mainly a *matter of personal relationships*. The need assessment takes place by going to different peoples and asking them. The training manager is in charge of getting in contact with different people in a communicative way. It is a rather informal way of need identification which is described here, but it seems to involve a lot of people and opinions.

*Written training plans* exist in most of the bigger enterprises, while small enterprises are only rarely using this instrument. Two enterprises (White, Orange) report about annual training programmes, to which all employees have free access, while enterprise anthracite states that blue collar workers do not have access to the training programme, because of the fact that the programme is only available via intranet to which these workers have no access. One interviewee has a special and rather unique view on written training plans:

- "In former times we have had a real training programme. But we have totally turned away from the character of a folk high school. We are now need oriented and less enshrined by free choice. We are now deciding what has to be learned and who is learning it. In the past everybody had the free choice. That's no more modern from our point of view." (Green, S: 44-48)

The interviewee describes a turning away from open choice of the employee to a rather centralized planning by the personnel department. Free choice is considered as a handicap for planning effectively. Despite this impressive quote most of the medium-sized or bigger enterprise still have some kind of written training programme. One enterprise even stresses the advantages of open courses in contrast to enterprise Green:

- "We have a training programme with approximately 20 courses per year. A rather exotic offer is a dancing course. People from different departments can take part in this free course. Its goal is the promotion of the communication of employees from different departments. If that goal is achieved, the course

pays off a lot even if it hasn't to do anything with our work directly. To communicate with people from different departments is very important.” (White, preliminary talk beforehand the interview)

Open courses are here considered as a means for *enhancing the co-operative culture within the enterprises*. A good social culture and an intensive communication between people from different departments are considered as important for the success of the company.

The final decisions about CVT are mostly made by superiors and the personnel department. The enterprise **Green** reports that the structured interviews are even part of a regular assessment scheme of employees performance in the enterprise. Some enterprises stressed that the decisions on CVT are strongly influenced by the *personal views of superiors on CVT*:

- “It is a very massive field of problems, but it is a traditional field of problems. There are still managers who don't see, how important training for the employees is. Especially in economical difficult situations, an anti-cyclical approach would be suitable. But in many areas employees are neglected. There are still managers who don't see that. It is unbelievable. You have to be very clever in order to achieve something for the employees.” (Blue, S: 42-46)
- “It is important that firstly the management is convinced that CVT is important for the enterprise. When this commitment exists and is lived actively, the employees come forward with their ideas and needs. Even employees which haven't been involved yet by their superiors come forward then. It is decisive that that the philosophy is transmitted by the superiors.” (White, S: 114-119)

Later on we will return to the *important role of the management* when talking about the role of public support for enterprise-based CVT, but it can be already summarized that especially the medium-level of management is seen as a crucial position for the promotion of CVT in enterprises. The interviewees stressed that these people have to be convinced that CVT is important, otherwise they will inhibit the promotion of CVT.

*The planning of CVT is in small enterprises mostly done directly by the director:*

- „We make a training plan once per year. Although it is just one page or two pages, you can find all measures there. I (the director) and one of my employees are making this plan.” (Gold, S: 43-45)
- “Our leading team decides. For our leading team: My business partner and I!” (Brown, S: 23-24)

Different roles and functions are here concentrated within one or two persons (the director). CVT is here considered as task of the director, because there does not exist a specialized structure because of the rather small sizes of these companies. Smaller enterprises are thus often interested in the *establishment of networks with other enterprises in organizing CVT*. Three interview partners (Gold, Sand, Brown) reported briefly about such networks in which state agencies, different providers and different enterprises are involved.

A rather special form of identifying training needs can be found in enterprise Silver:

- „Another way are our test costumers. We are sending out test costumers to our shops. They have checking lists with them, which were developed by us. When they notice that something is not optimal, we look, if we have to qualify our employees or if it has individual reasons.” (Silver, S: 36-39)

It is a ***control of the products produced which leads to the identification of training needs.***

Overall, the organization of CVT is apparently strongly influenced by the size of enterprises. Different decision and planning structures became clearly visible, although this does not necessarily mean that the bigger enterprises are generally more professional in planning CVT than the smaller ones. The results of the interviews did not indicate that CVT in small enterprises is generally worse than in big enterprises. The way of organization is mostly just very different, while directors of small enterprises who consider CVT as being important stimulate the provision of CVT very well.

#### **b) Money spent on CVT**

The interviewees were very ***reluctant to give figures on their spending.*** Many enterprises could not or did not want to give any figures even after the interviewer insisted to get at least a rough estimate. The range of reactions was:

- “I will not give any information on that.” (Yellow, S. 81-82)
- “Certainly a lot of money.” (Silver, S: 58)
- “The figure lies in the range of 8 digits.” (Blue, S. 90)
- “Approximately 5% of the spending on wages.” (Black, S: 53)

Many enterprises used a rather cryptical way in order to provide information. Overall, this data on the spending can not be used for any further analysis. Nonetheless, it became very clear that all enterprises are ***only counting direct costs*** (e.g. fees, travel costs), while personnel absence costs are counted in none of the enterprise of our sample:

- „We only collect the costs for external trainers. Invested time, personnel absence costs and travel costs are not separately collected.” (White, S: 81-82)
- „We collect costs for seminars and travel costs, but not personnel absence costs. Just the pure costs are collected.” (Blue, S: 81)

Even the travel costs are sometimes not collected. It seems to be the case that most enterprises do not invest much time in the collection of costs for CVT. Given the low level of openness of the interviewees to talk about costs for CVT, it is also possible that the enterprises have information on that, but do not want to talk about it. ***Thus the information provided by the interviews about the spending of enterprises on CVT is a rather weak and should not be used for any further analysis.***

Some interview partners describe ***the financial situation of CVT in the enterprises as being very difficult.***

- “When our situation is good, continuing training is considered as an investment. When our situation is bad, continuing training is considered as a cost factor.” (Fawn, S: 75-76)

- “We spent between 0.4% in economically bad times and 0.9% in economically good times of our annual turnover on training.” (White, S. 78-79)
- “We of the training department are under permanent pressure. The head of the production and the head of the controlling ask you: What is the benefit of it? How many cars do we produce more because of that? "You have to stand up for it, that it is not the job of the ‘teckies of the world’. But than you have to prove that you can deliver something of value. With the pure figures I can’t justify any training measure!" (Magenta, S: 99-105)
- “The amount of time spent is reduced. For every training concept with which I come forward, I have to discuss if it could be also possible with less time spent on it. They ask for quality with a little amount of time spent. That will be even more dominant in future. The reason are the costs. Little number of employees for a lot of tasks. No chance to compensate adequately personnel absence.” (Blue, S: 11-14)

These interview partners describe the situation of CVT in the enterprise as a situation which characterized by mayor constraints. The resources on time and money are decreasing in many enterprises and CVT is often considered as one area in which costs can be rather easily cut. The *spending of many enterprises seems to be pro-cyclical*, which means that in economically bad times less money is spent on CVT in absolute and even in relative figures. The people in charge for CVT in big enterprises have to justify their spending for CVT. *Rationalization and automatization* has reduced the number of employees a lot and thus personnel absence for CVT can not be compensated. Thus enterprises are interested in very short trainings in order to avoid any problems at the work place. Some enterprises (e.g. Brown) report that external CVT takes place solely in the free time of employees, while the enterprises pays only for the fees and travel costs.

### c) Employees participating in CVT

No non-training enterprise was willing to participate in an interview. The *participation rates of employees given in the interviewed enterprises range from 10 to almost 100%*, although some interviewees stressed the difficulty to measure participation for example for on-the-job-training:

- „Almost every employee takes part when including the changed way of producing goods. On-the-job-training takes place all the time in the work place. The management level is also well-off. There we make a training every two or three years.” (Blue, S: 97-99)

Other enterprises (e.g. enterprise White) stress the fact that the participation rates are different for the production, distribution and development. Some enterprises (e.g. Sand) mentioned that their *amount of training (volume of training hours and number of participants) oscillates a lot*. When having had a big offer in the business with China, they made a lot of training in English for accomplishing the task. Normally the participation rate is much lower.

## 4.2 Reasons for investment in training

### a) Technological changes

The dominating reason mentioned for offering CVT was *technological change*:

- „The most frequent motive is the acquisition of new machines. Then we have to make trainings by the producers of the machines concerning usage and maintenance. In the production of engines you have to be up to the newest standard of the development.” (Gold, S: 18-20)
- „In the area of making bread you have to deal with very complex machines and new equipment. There are always innovations. We can't introduce new machines in every factory. Thus people are trained in the factories who receive new machines first. Then they go back into their factories and train people there.” (Orange, S: 45-50)
- „Technical topics are in the center of our attention.“ (Sand, S: 11-12)
- „We need continuing training, because of the growth of our enterprise and because of the need to keep up with the technological development.” (Black, S: 15-17)
- “The technological standard tell us, what has to be done.” (Blue, S: 14)

Mostly technological changes in the workplace had been mentioned in the first place when asked about the reasons to training. The high level of automatization in both branches (food and metal) makes it necessary to train the employees adequately for using the machines. Many enterprises are dependent on seminars with the producers of the machines in order to train their employees. Enterprise Orange makes use of the experiences with new machines in selected enterprises when introducing the same machines in other enterprises. Many enterprises referred to this reason as the main reason to train, although further reasons were of course also mentioned.

### b) Organizational changes

Changes in the organization of work were also very often mentioned:

- „At the moment it is important to make seminars in order to initiate change processes. We have and we want to change something in the laboratories. Therefore we need a real change process, which has to be externally initiated.” (Green, S. 8-10)
- „We have a training programme, which essentially includes the introduction of team work for a long time now. We use the method *team talks* in which employees from different department or factories tell other employees about their experiences with team work. You can say, that team work is the main goal of further and continuing training in our enterprise. The goal is the improvement of procedures within the company.” (Orange, S: 22-27)
- “We have changed our strategy within the market. We are no more a classic big bakery, but rather a premium bakery. Then you need more training in order to have well-qualified people which can produce quality. We have to improve ourselves continuously all the time. That's our new enterprise culture.” (Silver, S: 15-18)
- „We have introduced a totally new PPS-system (*production planning and steering system, BK*) in the last three years. It starts from costumers wishes to

making bills and accounting. All people had to be trained for this new system.” (Sand, S: 25-26)

These enterprises have had **major organizational changes, which stimulated a certain need for training**. The changes are on different levels, but the main goal is to raise the quality level within the production. Especially enterprises in the food branch seem to move towards quality in order to survive in a market with a high level of competition. Perhaps the German enterprises are thus trying to compete with enterprises from other countries which can produce mass products at much lesser costs.

### c) Legal regulations

The legal regulations for the workplace are another important reason for offering training:

- „Some things are told us by the law: Safety at the workplace, protection against accidents, regulations concerning hygiene. They are mostly taught directly at the workplace.” (Blue, S: 20-22)
- “Concerning hygiene were are very determined by the legal regulations. We do that seminars regularly and within the company.” (Green, S: 26-27)
- „Further training takes place when new machines, new procedures or new safety and hygiene regulations are introduced.” (Yellow, S. 23-24)

Enterprises are here forced by law. **Especially the food branch mentions legal regulations as one major driving force for offering CVT**. In the branch metal safety training are also mentioned as important regulation, but the importance of regulations seems to be much bigger in the food branch, which is well understandable. Especially the regulations concerning hygiene are very important. Already the interviews in WP 8 with providers of CVT stressed the importance of legal regulations. Enterprises support this argument of the providers.

### d) Demographic changes

Some enterprises report about demographic changes of the work force which result in a need for training:

- “A deep change was the generation change, which we have mastered now.” (White, S: 28)
- „We have had a lot of changes on the level of management. The age structure is no much different.” (Silver, S: 26-27)

These enterprises have been confronted with whole cohorts of employees which left the enterprise because of retirement. The replacement of these employees was difficult to master, because a high number of people left and it seemed to be possible that the knowledge of these people could be lost for the enterprises. Thus a high number of **people had to be inserted which caused a lot of investment in training**. Unfortunately, the enterprises gave no information if special measures were taken in order to promote the knowledge transfer from retiring colleagues to the new colleagues.



#### e) Solution for recruitment problems

Especially enterprises in rather rural or peripheral areas stressed the need to train, because the local/regional labor market does not provide sufficiently qualified people:

- “You don’t find a lot of qualified employees in our region. And in *Name of big city* we have a main competitor. There our employees like to go. Especially the people who like to jump from job to job. We make contract with some of our employees that they have to pay us back the costs for training when they go there in order to prevent their leaving. We satisfy mostly our need for competencies by training our employees.” (Gold, S: 30-34)
- “We meet our training needs by continuing training of our employees and not by employing new people.” (Sand, S: 28-29)

There seems to be presently no general lack of qualified workers in Germany. It is rather a special problem in rural or peripheral regions. The mobility of workers even increases the problem and enterprises are *taking measures in order to prevent the move of trained employees to other enterprises*. Some enterprises are making special arrangements with their employees. If an employee leaves the enterprises after receiving a training, he or she has to pay back money which was spent by the enterprise for the training. Thus enterprises try to avoid or to minimize the risk of poaching.

#### 4.3 Public support for training

Many enterprises were *very reluctant concerning public support of training*, although some enterprises made *use of public financing schemes*:

- “We don’t receive public support. We are only taking part in exchange projects financed by the Federal Ministry of Education.” (White, S: 111-112)
- “We profit from the *ÜBS* (public financed training centers for networks of enterprises). That’s the reason that we take part there. It is financed by money of the European Social Fund” (Silver, S: 84-85)
- “We don’t use public finances. Some years ago we have had the chance to finance trainings of REFA by money of the European Regional Fund. That used one or two employees. But perhaps the investment for applying is much greater than the benefit.” (Sand, S: 82-84)
- „The factory was established during the *Wende* (time after the fall of the communist regime in East Germany). There we received public support by the Inno-Regio-project.” (Gold, S: 89-90)

It is rather contradictory that even enterprises who received public support in the past say that they do not receive any money. Perhaps support by special projects is by the enterprises not considered as permanent support. The feedback by other enterprises was sometimes quite rigorous and *stressing the independence of enterprises*:

- “I would prefer that the policy would start to work in a direction in which enterprises could concentrate themselves on core tasks. We have too much bureaucracy, too much regulations and handicaps. The enterprises know best, what’s in their interest.” (Yellow, S: 87-91)

- "I can't imagine how public support could look alike. It is important that firstly the management is convinced that CVT is important for the enterprise. When this conviction exists and is lived actively, the employees come forward with their ideas and needs. Even employees which haven't been involved yet by their superiors come forward then. It is decisive that that the philosophy is transmitted by the superiors." (White, S: 114-119)
- "We don't get support. I'm also against it, that public regulations play a role. You lose your free space of action. That's from my point of view not in the interest of enterprise. Promotion of human resources development and continuing training in enterprises, there the state should keep off his hands!" (Green, S: 97-99)
- "I wouldn't know it, if I didn't read it in the newspaper. The reform of the Betriebsverfassungsgesetz (*German law labour relations at the workplace, BK*) has had no influence on our work. I wouldn't notice it. That is an academic discussion, which is made here." (Magenta, S: 66-70)

The feedback ranges from a lack of imagination, how public support could look alike (enterprise White), a stressing of the freedom for enterprises (enterprise Green) and even the demand that the state should reduce his influences (enterprise Yellow). ***The dominating opinion expressed explicitly was that enterprises should be left alone and not regulated by any kind of public or state involvement in CVT*** despite the examples above of benefits from public projects and funds. Almost no enterprise made a proposal in which way public authorities could support training activities of companies. There was only one exception:

- "We talk a lot about education. We talk a lot about the resource employee. But something must really happen! Most of the things taking place are just on the surface. Lip service! The people in charge must recognize that it is important. You have to talk about it with leading managers. It is not practical. What will happen with older employees? The real action is missing. You have to go to the elite business schools. You have to change universities. People are not trained how to deal with the resources of a human. Taylorism should be out of date, but when I talk to managers, I ask myself, what's their idea of man with which they walk through the world. They have profited from their education, but they don't see the value of education for others. You have to go to the decision-makers! No general campaigns, but rather focused information for the important people! You have to work out what are the benefits of education. How to quantify it? These topics have to be rationalized and you have to go out with it and promote it offensively." (Blue, S: 111-122)

The interview partner of enterprise Blue stressed the need of an ***increased engagement in direction of the decision-makers***. He/she is against general campaigns for promoting the benefits of CVT, but rather in favour of a focused promotion in the business schools and universities in which the leading managers are educated. These people seem to lack a sufficient understanding of the value of CVT and the promotion of the individual development of employees from his/her point of view.

An ***increased engagement of science*** is wanted by this interview partner:

- “The universities have to take the role of scouts, they should document the development in the field. They should tell us what are the new trends. But often enterprise-provided CVT is neglected and considered of having only a low value. But it is education and it is expensive education. Universities should go inside the enterprises and ask critical questions when projects start.” (Magenta, S: 177-182)

This interview partner is in favour of trend research and he seeks for academic support for the conceptualising and implementation of innovative projects in enterprises. *He/she is in favour of applied research in the field of enterprise-based training.*

#### 4.4 Relations with training providers

##### a) Selecting providers

*All enterprises reported about co-operations with external training providers.*

Typical approaches in selecting suitable are:

- „The training market is difficult. It is non-transparent. It is difficult to find somebody new. You have your own network. People, who you know and with which you have made good experiences. Additionally, you have a network with colleagues, which work in personnel departments. You exchange your experiences with providers. Sometimes you also use the internet or data bases. We even make sometimes assessments in which we let them come to us. We look for the references of the providers by other companies. But the most important thing are good experiences and the exchange with colleagues.” (Blue, S: 63-68)
- „I have material in my folders. I know trainers and organizations for many years. I receive material from providers and in the case I find something which raises my attention I seek the personal conversation. After that, and when I’m still interested, we look further.” (Green, S: 54-58)
- „In general, we are up to date by talking with colleagues.“ (Black, S. 48)

The experts report often about *rather big problems in selecting suitable providers*. Partly because of a certain lack of transparency of the training market, the *recommendations of others are important*. Although some enterprises make tenders, assessments or wait for the offers sent by providers, most people in charge refer to informal information given by colleagues from other enterprises or they trust in the value of experiences already made. Enterprises seem mostly prefer to stick to a provider as long the experiences are acceptable. Perhaps enterprises tend firstly to avoid the risk of collaborating with a new provider.

Overall, the selection of providers seems to be done in a rather informal way based on personal experience, while formalized procedures for selecting and seeking a suitable provider seem to be only occasionally used. The value of informal talks and contacts should generally not be underestimated in this respect.

### **b) Co-operating with providers**

The enterprises tend to *avoid the risk of changing a provider* as long as the results are positive. Making good experiences and avoiding bad experiences is very important for the enterprises:

- “We have once made not very good experience with offers by the chamber of commerce. Since that we don’t use offers from this provider anymore.” (Yellow, S: 48-50)
- “In the past we co-operated a lot with *name of provider*, but that did not work out.” (White, S: 58)
- “We have made good experiences with our trainers and coaches.” (Silver, S: 49-50)
- “The provider got in touch with us together with another provider. A friend of mine from another enterprise told me that they have made good experiences with one of them. Thus we decided for that provider.” (Orange, S: 37-39)

*Making good experiences with providers is very important.* After bad experiences trainers can be dropped, while enterprises seem to stick to providers as long as they make good experiences. No enterprise reports about a regular and systematic monitoring of the training market. More systematic ways of finding providers like making personal assessment or searches by the internet and data bases seem to play only a minor role. Personal contacts are very crucial.

### **c) Special situation in rural or peripheral areas**

Enterprises in rural or peripheral areas report about problems in finding suitable providers:

- “We are in the country side, there it is not easy to find a suitable provider. In addition, we are active in a specialized field, which doesn’t make it easier. It is not easy. We have some providers here, but often we have to travel.” (Black, S: 42-45)
- “There your have a good public connection, short distances. Just 40 minutes by train. Thus you don’t have to start your travel the evening before. We have conservative employees who are down to earth, which want to be at home at the evening.” (White, S: 62-64)

These enterprises in rather rural areas of Germany stressed that they are very *dependent on the regional training market and on local networks*, while enterprises in big cities or area with a high population density report about a lot of opportunities in selecting providers. Long travel times can be a major obstacle for the provision of CVT. Especially small enterprises report about problems here. In some enterprises are the employees are reluctant to spend a big amount of time for traveling. The people in charge for CVT are thus trying to find providers close by the factory site.

## **5. Summary**

The differences between the two selected branches were astonishingly small in most interviews with enterprises, although the experts on branch level highlighted some essential differences. In both branches automation seems to play a central role. The need for training in relation to technological changes is rather big. The high importance of hygiene in the food sector constitutes a major difference between the two branches metal and food.

The size of enterprises is important for the way that CVT is organized. Big enterprises sometimes have special training departments and much more often personnel departments, which deal especially with CVT. Big enterprises differ a lot concerning the degree of centralization or decentralization. Some of the interview partners reported about an independent planning by each factory while others stressed the role of central planning for all factories. In small enterprises CVT is often planned by the director and one or two employees who work directly for the director. The personal belief of managers in the importance of CVT seems to be crucial. Managers of big enterprises are not generally convinced of the importance of CVT. Interview partners in big enterprises reported sometimes about strong barriers by some parts of the management while some directors in small enterprises were rather committed to CVT and provide a lot of CVT. The way of organising and providing CVT seems to be very different between size classes, while the conviction of the importance of CVT differs more within and less between size classes.

Regionality plays also an important role. Especially in rural or peripheral areas the possibilities for offering CVT are handicapped by the limited regional resources. Networks of state agencies, enterprises and providers seem to be a solution for these special regional situations. These networks are not well known on the national level, because of their predominantly local or regional focus. Even experts on the branch level seem not to be well informed about these networks.

Structured interviews are used in many enterprises for planning CVT. In these talks between superiors and employees training needs are often defined. Written training plans are also often used in big enterprises, although some enterprises are reluctant to give employees a rather free choice in selecting their CVT. They prefer central and hierarchical planning.

Overall, many interview partners stress the importance of personal relationships. This holds true for the co-operation with providers, but also for the co-operation between different departments. Some interview partners reported about problems with the management. They stressed the high importance of a management that supports the provision of CVT. Otherwise no measures can be effectively taken to promote CVT. There seems to be a certain tendency of enterprises to stick to a provider as long as the experiences are acceptable. Enterprises like to avoid the risk of changing providers. The fees for training seem to be less important as long as the results are reasonable.

The reasons to train are mainly technological and organizational change. Interview partners rather rarely mention the enhancements of a corporate identity or a good atmosphere. In the food sector legal regulations concerning hygiene are also an important driving force of CVT at the workplace. In the metal sector regulations concerning safety at the workplace are also important, but less significant than the hygiene regulations in the food sector. Changes in the age structure of the staff (simultaneous retirement of cohorts of employees leading to the insertion of a generation of new employees in the enterprises) trigger the need for CVT. Although only two enterprises reported about this, it is likely that this will be increasingly important in Germany when looking at the general age structure of the German labour force. Especially enterprises in rural and peripheral areas report already about problems to recruit qualified people. Thus they prefer to train their own employees in order to satisfy their needs for competencies. At the same time they are in fear of a certain “poaching” by competitors after qualifying their employees. Special contracts shall reduce risks there.

Information about the spending on CVT and the participation rates were given by many enterprises on a rather vague or general basis. Thus the information is rather weak and should not be used for further analysis.

Public initiatives are seen by many enterprises with a certain degree of reluctance or even of resistance. Some enterprises stressed that enterprises know best what and how to do. The state should stay out here. At the same time many interview partners reported about their own involvement in projects or temporary financial schemes from which they reported benefits for the enterprises. It seems to be the case that many German enterprises are interested in a temporary public involvement without any permanent obligations or have a reflex against any public involvement in CVT. Only 2 out of our 18 interview partners expressed own ideas about promoting the provision of CVT. They were in favour of an increased engagement in direction to decision-makers and the universities/business schools.

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**Annex:** Overview about the structure and continuing vocational training in the branches food / beverages / tobacco, transport equipment and metals/metallic products in Germany

Table 1: Share of enterprises broken down by size classes 2003 (%)

NACE	Number of enterprises	Share of enterprises with ... (%)				
		1-9 employees	10-19 employees	20-49 employees	50-249 employees	250 and more employees
Food, beverages, tobacco (Nace 2)	35.412	86,3		6,5	5,9	1,4
Transport equipment (Nace 8)	3.505	48,4	14,8	10,6	16,8	9,4
Metals, metallic products (Nace 6)	42.099	60,3	23,0	8,4	6,9	1,4
Section D (Manufacturing)	201.389	60,2	21,3	8,4	8,0	2,1

Source: Eurostat, Annual enterprise statistics broken down by size classes

Table 2: Share of persons employed broken down by size classes 2003 (%)

NACE	Number of persons employed	Share of persons employed in enterprises with ... (%)				
		1-9 employees	10-19 employees	20-49 employees	50-249 employees	250 and more employees
Food, beverages, tobacco (Nace 2)	867.221	30,0		8,7	25,3	36,0
Transport equipment (Nace 8)	1.002.747	0,7	0,7	1,2	6,5	90,9
Metals, metallic products (Nace 6)	1.052.017	9,3	12,5	11,0	27,9	39,4
Section D (Manufacturing)	7.293.159	6,7	8,2	7,6	23,4	54,1

Source: Eurostat, Annual enterprise statistics broken down by size classes

Table 3: Training enterprises 1999 (%)

NACE	Training enterprises	Enterprises providing CVT courses	Enterprises providing external CVT courses	Enterprises providing internal CVT courses
Food, beverages, tobacco (Nace 2)	63	53	85	65
Transport equipment (Nace 8)	88	76	92	79
Metals, metallic products (Nace 6)	74	63	94	54
Section D (Manufacturing)	73	64	93	62
Total (all branches)	75	67	91	59

Source: Eurostat, CVTS2

Table 4: Enterprises with other forms 1999 (%)

NACE	Enterprises with other forms	Percentage of enterprises provided any other form of training by form of training				
		Continued training in worksituation	Job rotation, exchanges or secondments	Learning / quality circles	Self-learning	Continued training at conferences, workshops, lectures and seminars
Food, beverages, tobacco (Nace 2)	62	71	9	13	14	81
Transport equipment (Nace 8)	83	88	13	40	28	87
Metals, metallic products (Nace 6)	73	80	1	19	18	78
Section D (Manufacturing)	70	80	8	23	19	82
Total (all branches)	72	75	6	16	19	85

Source: Eurostat, CVTS2

Table 5: Participants in CVT 1999 (%)

NACE	Participants in CVT courses as a percentage of employees in all enterprises			Participants in CVT courses as a percentage of employees in enterprises providing CVT courses		
	Total	Male	Female	Total	Male	Female
Food, beverages, tobacco (Nace 2)	28	30	25	37	38	36
Transport equipment (Nace 8)	39	39	38	40	40	39
Metals, metallic products (Nace 6)	30	30	32	35	35	38
Section D (Manufacturing)	30	31	26	34	35	32
Total (all branches)	32	34	29	36	38	33

Source: Eurostat, CVTS2

Table 6: Hours in CVT courses 1999

NACE	Hours in CVT courses per employee (all enterprises)			Hours in CVT courses per participant		
	Total	Male	Female	Total	Male	Female
Food, beverages, tobacco (Nace 2)	4	4	4	14	14	15
Transport equipment (Nace 8)	22	22	20	55	56	54
Metals, metallic products (Nace 6)	7	7	8	22	22	24
Section D (Manufacturing)	9	9	8	29	29	29
Total (all branches)	9	10	7	27	28	25

Source: Eurostat, CVTS2



Table 7: Costs of CVT courses 1999 (in PPS)<sup>4</sup>

NACE	Cost of CVT courses per participant			Cost of CVT courses per employee (all enterprises)			Cost of CVT courses per training hour		
	Total costs	Direct costs	Labour costs of participants	Total costs	Direct costs	Labour costs of participants	Total costs	Direct costs	Labour costs of participants
Food, beverages, tobacco (Nace 2)	586	361	227	163	100	63	41	25	16
Transport equipment (Nace 8)	2.412	974	1.497	938	379	582	44	18	27
Metals, metallic products (Nace 6)	1.191	645	555	362	196	169	53	29	25
Section D (Manufacturing)	1.601	898	710	479	269	212	55	31	24
Total (all branches)	1.593	906	694	506	288	220	59	33	25

Source: Eurostat, CVTS2

Table 8: Hours in external CVT courses as a percentage of the total hours in external CVT courses by training provider 1999

NACE	Private training organisations	Chambers of commerce, sector bodies, ...	Equipment suppliers	Parent/ associate companies	Public schools and colleges	Specialised training institutions	Unions	Universities	Other training provider
Food, beverages, tobacco (Nace 2)	41	24	11	5	5	4	3	2	5
Transport equipment (Nace 8)	60	8	11	4	1	4	3	1	8
Metals, metallic products (Nace 6)	29	24	13	4	2	7	4	3	13
Section D (Manufacturing)	42	19	14	4	3	5	3	1	9
Total (all branches)	36	21	16	4	3	4	2	1	12

Source: Eurostat, CVTS2

<sup>4</sup> PPS (purchasing-power standards): Costs are indicated in PPS to allow for price differences between the individual countries. The PPS conversion factors indicate how many national currency units the same quantity of goods and services would cost in the individual countries.

Table 9: Training policy in enterprises – measures 1999 (% of all enterprises)

NACE	Enterprises having a training plan	Enterprises having a training budget	Enterprises having a training centre	Enterprises with a joint agreement between employer and employees or their representatives	Enterprises evaluating the effect of CVT
Food, beverages, tobacco (Nace 2)	15	10	4	5	40
Transport equipment (Nace 8)	42	36	9	11	66
Metals, metallic products (Nace 6)	22	15	3	10	52
Section D (Manufacturing)	24	18	4	6	46
Total (all branches)	22	17	4	7	44

Source: Eurostat, CVTS2